

Appendix B Biological Resources Technical Report



Sand Compatibility and Opportunistic Use Program

Biological Resources Assessment

prepared for

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Executive Summary

This document provides the findings of a Biological Resources Assessment prepared by Rincon Consultants, Inc. (Rincon) for the Sand Compatibility and Opportunistic Use Program (SCOUP or project). Beach nourishment programs that leverage opportunistically available sand sources, such as those generated from upland land development projects, harbor maintenance dredging projects, and flood control maintenance operations, have been implemented successfully in Southern California for more than 20 years. The project includes opportunities for the use of sand to nourish beaches owned and operated by the Los Angeles County Department of Beaches and Harbors. The project beaches were specifically chosen to avoid direct placement on sensitive habitats including offshore rocky reefs, coastal lagoons, kelp beds, and eelgrass meadows to minimize potential environmental impacts. Restrictions on placement locations, timing and quantities have been designed to avoid or limit impacts to sensitive habitat and avoidance and minimization measures (BIO-1 through BIO-7) are recommended to further reduce potential impacts to biological resources.

This report documents existing conditions near the five project sites (Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Manhattan Beach, and Redondo Beach) and provides an assessment of potential impacts to sensitive biological resources based upon proposed project activities.

Rincon assessed the potential for 163 special-status species (83 plant species and 80 wildlife species) to occur within the five project sites and a 100-foot buffer, referred to as the study area. The beach spectaclepod (*Dithyrea maritima*), a State Threatened plant species, has a low potential to occur within the Will Rogers State Beach and Zuma Beach study area. Beach coreopsis (*Coreopsis maritima*, California Rare Plant Rank [CRPR] 2B.2) and red sand verbena (*Abronia maritima*, CRPR 4.2) were present at Manhattan Beach during the field reconnaissance survey. These species were planted as part of a restoration site at Manhattan Beach.

The following special-status wildlife species have potential to occur in the study area:

- Globose dune beetle (*Coelus globosus*) (G1G2/S1S2) – Will Rogers State Beach and Manhattan Beach
- El Segundo blue butterfly (*Euphilotes battoides allyni*) (Federally Endangered [FE]) – Dockweiler State Beach, Redondo Beach, Manhattan Beach
- California grunion (*Leuresthes tenuis*) (Managed Fishery) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, and Manhattan Beach
- Green sea turtle (*Chelonia mydas*) (Federally Threatened [FT]) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach and Manhattan Beach
- Western snowy plover (*Charadrius nivosus nivosus*) (FT/Species of Special Concern) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach and Manhattan Beach
- California brown pelican (*Pelecanus occidentalis*) (Federally and State Delisted) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach
- California least tern (*Sterna antillarum browni*) (FE/State Endangered) – Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach
- Gray whale (*Eschrichtius robustus*) (FE/Marine Mammal Protection Act [MMPA]) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach
- Harbor seal (*Phoca vitulina*) (MMPA) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach

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- Common bottlenose dolphin (*Tursiops truncatus*) (MMPA) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach
- California sea lion (*Zalophus californianus*) (MMPA) – Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Redondo Beach, Manhattan Beach

In addition to special-status plant and wildlife species, nesting birds, sensitive plant communities, designated critical habitat, jurisdictional waters and wetlands, wildlife movement, locally designated environmentally sensitive habitat areas (ESHA), and other protected resources, such as Essential Fish Habitat (EFH), Habitat Areas of Particular Concern, Marine Protected Areas, Areas of Biological Significance were evaluated.

The sensitive habitats present at each study area are provided below:

- **Zuma Beach:** Designated critical habitat for western snowy plover, EFH
- **Will Rogers State Beach:** Proposed critical habitat for green sea turtle, ESHA, EFH, rocky reef Habitat Area of Particular Concern
- **Dockweiler State Beach:** Proposed critical habitat for green sea turtle, designated critical habitat for western snowy plover, ESHA
- **Manhattan Beach:** Proposed critical habitat for green sea turtle, ESHA
- **Redondo Beach:** Proposed critical habitat for green sea turtle

As a result of implementation of the project, special-status species (including marine mammals and nesting birds) within the project site could be impacted by the loss of/injury to individuals, disturbance of breeding activities, disturbance to habitat, and/or construction noise and other human disturbances. These impacts could be potentially significant but can be reduced to less than significant through implementation of recommended avoidance and minimization measures.

Jurisdictional waters within the study area include the Pacific Ocean and several ephemeral drainages. Potential impacts to the Pacific Ocean could include changes to water quality or the introduction of sediment and/or pollutants. These impacts can be reduced to less than significant through implementation of recommended avoidance and minimization measures.

Potential impacts to other sensitive resources or regulated sensitive habitat include changes to water quality, loss of/injury to individuals, disturbance to habitat, and/or construction noise, and other human disturbances. These impacts could be potentially significant but can be reduced to less than significant through implementation of recommended avoidance and minimization measures.

Project implementation would not interfere with the provisions of any applicable adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) to provide the County of Los Angeles (County), Department of Beaches and Harbors (Department) with an assessment of potential impacts to biological resources associated with the Sand Compatibility and Opportunistic Use Program (SCOUP or project). This report presents information on existing conditions and biological resources, including jurisdictional waters, and locally protected resources. The biological evaluation herein includes the results of a background literature review and field reconnaissance survey conducted by Rincon.

1.1 Project Background

The Department recently completed a *Los Angeles Department of Beaches and Harbors Coastal Resiliency Study* (Moffatt & Nichol 2023) to determine which beaches were most in need of nourishment, followed by a detailed evaluation of the screened beaches for compatibility with the SCOUP. Beach nourishment programs that leverage opportunistically available sand sources, such as those generated from upland land development projects, harbor maintenance dredging projects, and flood control maintenance operations, have been implemented successfully in Southern California for more than 20 years. In 2006, the California Coastal Sediment Management Workgroup formally developed a SCOUP as part of their Coastal Sediment Management Master Plan. The purpose of the SCOUP is to streamline environmental compliance and regulatory approval of relatively small beach nourishment projects (typically up to 150,000 cubic yards per year) using opportunistically available sand sources.

To determine which beaches were most in need of nourishment, a detailed evaluation of the screened sites for compatibility with the SCOUP plan was conducted and presented in a *Sand Compatibility and Opportunistic Use Program for Los Angeles County Beaches – Planning Study and Framework Report* (Coastal Frontiers Corporation 2023). A decision matrix was developed using 12 criteria, weighted based on their relative importance, which reflect both the potential benefits of SCOUP activities and the possibility of adverse effects. The 10 most vulnerable sites from the study were scored and the top five sites were selected for inclusion in this project.

1.2 Project Description

Three placement strategies are included in the SCOUP. Each strategy is outlined in the *Final Sand Compatibility and Opportunistic Use Program Plan* (Moffatt & Nichol 2006) adopted by the California Coastal Sediment Management Workgroup as part of their Coastal Sediment Management Master Plan. The strategies include:

- Beach Berm – source material placed as an extension of the existing berm.
- Mean High Tide Line – source material placed in a mound near the Mean High Tide Line.
- Nearshore – source material placed in the nearshore waters landward of the depth of closure.

The beach berm method will be the primary method used and is recommended for high-quality source material with a fines content (percentage of material passing the #200 sieve) less than or

equal to 15 percent. Mean High Tide Line and Nearshore placements will be used when the fines content of the source material is between 15 and 25 percent.

Regardless of the method used to transport the material to the beach, it is expected that the heavy equipment will be used for each SCOUP project such as a dozer(s), loader(s), scraper(s), and sweeper. It is possible, but not guaranteed, that Tier 3 or Tier 4 engines will be used. Approximately 10 construction personnel are expected to be on site, resulting in 10 round-trip commutes per day. Parking will be provided in the lots adjacent to the beach. Construction activities will be conducted during daylight hours on weekdays, unless an acute need arises. Given the opportunistic nature of SCOUP, the method used to deliver source material to the receiver site will be determined based on the constraints specific to each project. Potential delivery methods include those traditionally used for beach nourishment: trucking for inland sediment sources, and vessels for offshore sediment sources. Given that offshore sediment sources is a less common transportation methods, detailed analyses are not provided herein. These will be developed prior to the specific project for which vessel-based transportation will be used.

Ideally, placement will occur in the fall and winter months to avoid disturbing beach users during the peak season (Memorial Day to Labor Day). However, placement during the peak season may occur in those cases where an acute need and suitable source are identified. Material from inland sources, such as development projects or flood control maintenance, can be delivered via truck and spread along the beach using traditional earthmoving equipment (e.g., dozers, loaders, scrapers). Ingress and egress points have been identified at each SCOUP project site.

In the discussion that follows, the “Representative Fill Area for Single Event” identifies the typical footprint for a single SCOUP project, while the “Maximum Fill Area for Multiple Events” denotes the area within which multiple SCOUP projects may be implemented over the course of the program. This larger area is included to provide flexibility in the individual placement locations such that SCOUP projects can be implemented where they are needed most. A full project description is included in Appendix E.

1.3 Project Location

The project is located in unincorporated Los Angeles County at five beaches owned and operated by the Department (Figure 1). The project is on the Los Angeles County coast, which extends for approximately 74 miles from the Ventura County/Los Angeles County line at the west end to the mouth of the San Gabriel River and Orange County to the southeast. The coastline is divided into four regions, and the project occurs within the Malibu Region and Santa Monica Bay Region. The Malibu Region is backed by the Santa Monica Mountains, and the beaches in the region are generally narrow sandy beaches or limited to pocket beaches flanked by rocky headlands or groin jetties. The Santa Monica Bay Region beaches generally face north-south and consists of relatively wide beaches that are a direct result of artificial nourishment and construction of numerous groins and breakwaters that were mostly built between the 1930s and 1960s.

The project beaches, from west to east then north to south include Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Manhattan Beach, and Redondo Beach. For the purposes of this report, all five beaches are collectively the project area. However, if conditions do not exist at all five beaches, then they may be described independently. The study area includes the project area, plus a 100-foot buffer (Figure 2a through Figure 2e). Potential truck access points and a sand stockpile location is shown for each beach. Each beach location is described further below.

Zuma Beach

Zuma beach is located within the United States Geological Survey (USGS) *Point Dume, California*, 7.5-minute topographic quadrangle, and the Public Land Survey System depicts the beach within Township 2S, Range 19W, San Bernardino Meridian (USGS 2024). Zuma Beach is located at 30000 Pacific Coast Highway in Malibu. Zuma Beach is located within the Malibu Region and is approximately 10 miles east of the Ventura County/Los Angeles County line, 19 miles west of Santa Monica and approximately 24 miles northwest of Los Angeles International Airport (Figure 2a).

The Representative Fill Area for Single Event area has been designed to support up to 150,000 cubic yards of material, increasing the beach elevation to +12 feet Mean Lower Low Water (MLLW). The placement of material is expected to cover approximately 2,000 feet shore parallel and 150 feet shore perpendicular (Figure 2a).

Will Rogers State Beach

Will Rogers State Beach is located within the USGS *Topanga, California*, 7.5-minute topographic quadrangle, and the Public Land Survey System depicts the beach within Township 2S, Range 16W, San Bernardino Meridian (USGS 2024). Will Rogers State Beach is located at 17000 Pacific Coast Highway in the Pacific Palisades neighborhood of Los Angeles County. Will Rogers State Beach is located within the Santa Monica Bay Region and is approximately 25 miles east of the Ventura County/Los Angeles County line, 2 miles north of Santa Monica, and approximately 8 miles north of Los Angeles International Airport (Figure 2b).

The Representative Fill Area for Single Event area has been designed to support up to 150,000 cubic yards of material, increasing the beach elevation to +12 feet MLLW. The placement of material is expected to cover approximately 2,800 feet shore parallel and 100 feet shore perpendicular (Figure 2b). The placement area would be split into three areas due to the existing groin field that separates the beach.

Dockweiler State Beach

Dockweiler State Beach is located within the USGS *Venice, California*, 7.5-minute topographic quadrangle, and the Public Land Survey System depicts the beach within Township 2S and Township 3S, Range 15W, San Bernardino Meridian (USGS 2024). Dockweiler State Beach is located at 12000 Vista Del Mar in the Playa del Rey neighborhood of Los Angeles County. Dockweiler State Beach is located within the Santa Monica Bay Region and is approximately 38 miles east of the Ventura County/Los Angeles County line, 6 miles south of Santa Monica, and approximately 0.5 mile west of Los Angeles International Airport (Figure 2c).

The Representative Fill Area for Single Event area has been designed to support up to 150,000 cubic yards of material, increasing the beach elevation to +12 feet MLLW. The placement of material is expected to cover approximately 2,400 feet shore parallel and 150 feet shore perpendicular (Figure 2c).

Manhattan Beach

Manhattan beach is located within the USGS *Venice, California*, 7.5-minute topographic quadrangle, and the Public Land Survey System depicts the beach within Township 3S, Range 15W, San Bernardino Meridian (USGS 2024). The project site is located at 2 Manhattan Beach Boulevard in Manhattan Beach in southwestern Los Angeles County. Manhattan Beach is located within the Santa Monica Bay Region and is approximately 42 miles southeast of the Ventura County/Los Angeles

County line, 10 miles southeast of Santa Monica, and approximately 3 miles south of Los Angeles International Airport (Figure 2d).

The Representative Fill Area for Single Event area has been designed to support up to 150,000 cubic yards of material, increasing the beach elevation to +18 feet MLLW. The placement of material is expected to cover approximately 2,000 feet shore parallel and 180 feet shore perpendicular (Figure 2d).

Redondo Beach

Redondo beach is located within the USGS *Redondo Beach, California*, 7.5-minute topographic quadrangle, and the Public Land Survey System depicts the beach within Township 4S, Range 14W, San Bernardino Meridian (USGS 2024). Redondo Beach is located along Coral Way in Redondo Beach in southwestern Los Angeles County. Redondo Beach is located within the Santa Monica Bay Region and approximately 47 miles southeast of the Ventura County/Los Angeles County line, 13 miles southeast of Santa Monica, and approximately 7 miles south of Los Angeles International Airport (Figure 2e).

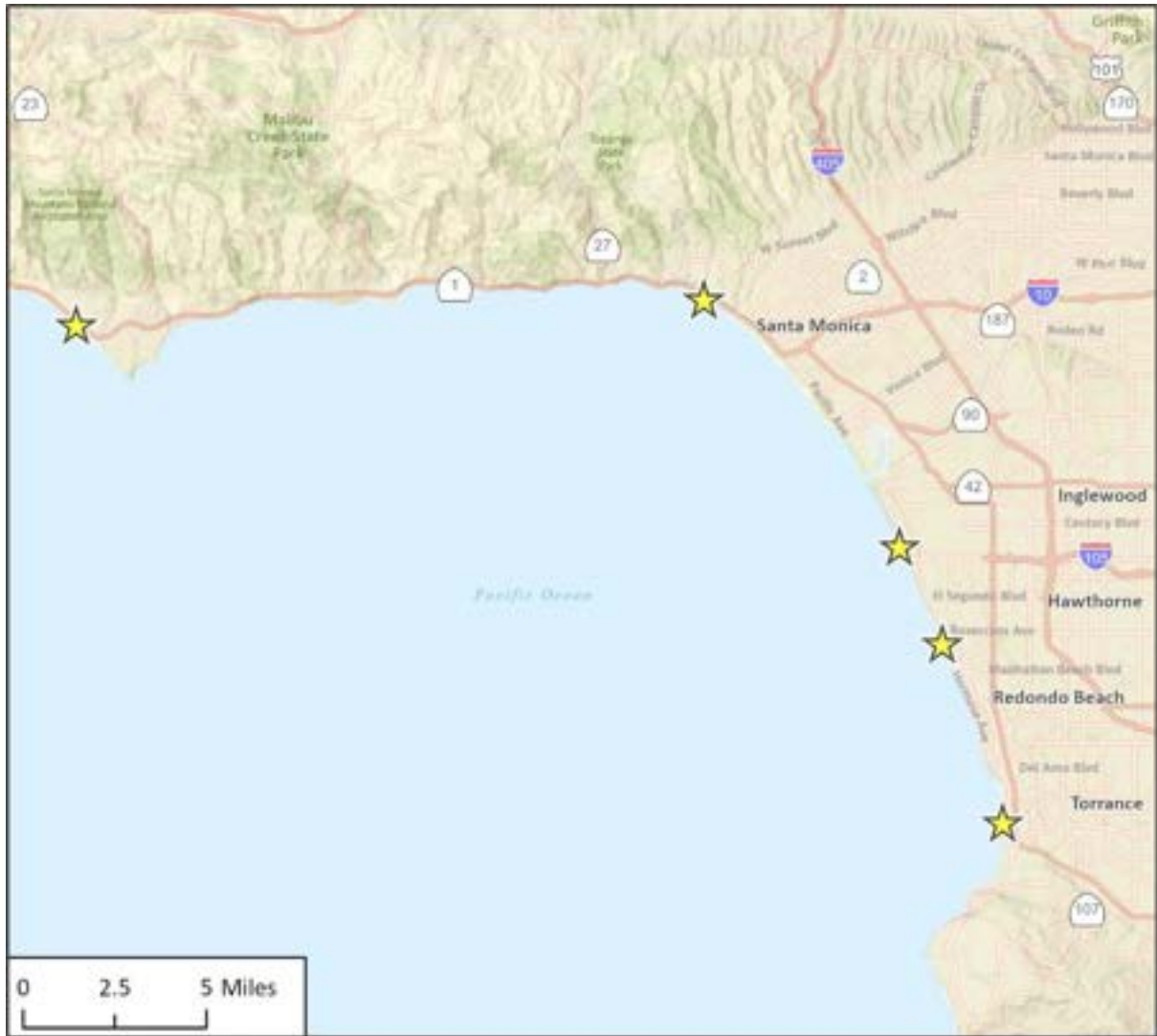
The Representative Fill Area for Single Event area has been designed to support up to 150,000 cubic yards of material, increasing the beach elevation to +15 feet MLLW. The placement of material is expected to cover approximately 1,700 feet shore parallel and 150 feet shore perpendicular (Figure 2e).

A summary of the key parameters for each site is provided in Table 1.

Table 1. Key Parameters for SCoup Receiver Sites

Receiver Site	Native Median Grain Size		Single Event		Multiple Events	
	Min (mm)	Max (mm)	Length (ft)	Area (acres)	Length (ft)	Area (acres)
Zuma Beach	0.12	0.53	2,000	13	7,200	91
Will Rogers State Beach	0.07	0.56	2,800	16	8,900	115
Dockweiler State Beach	0.10	0.37	2,400	16	5,400	150
Manhattan Beach	0.13	0.38	2,000	16	5,600	85
Redondo Beach	0.13	1.08	1,700	10	8,500	80

Figure 1 Regional Location



★ Project Location

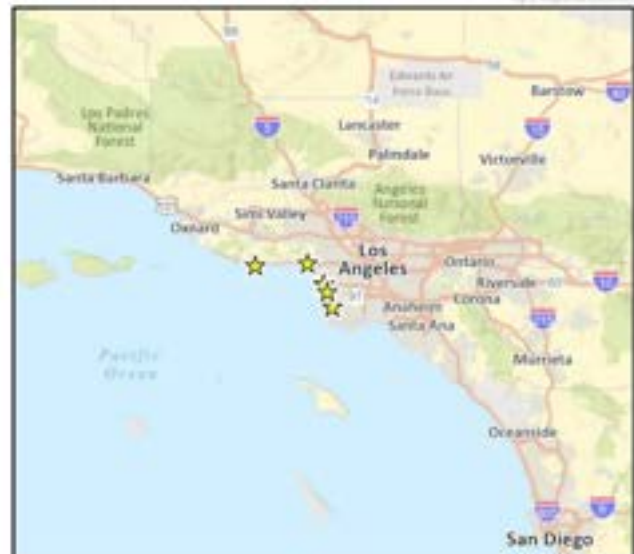


Figure 2a Zuma Beach Project Area and Study Area



Figure 2b Will Rogers State Beach Project Area and Study Area



Figure 2c Dockweiler State Beach Project Area and Study Area



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Fig. 2 Dockweiler Project Site

Figure 2d Manhattan Beach Project Area and Study Area



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Fig. 2d Manhattan Project Area

Figure 2e Redondo Beach Project Area and Study Area



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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, regionally protected resources (e.g., from countywide habitat conservation plans [HCP] and natural community conservation plans [NCCP]), locally designated environmentally sensitive habitat areas (ESHA), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the County; Will Rogers State Beach and Dockweiler State Beach are jointly managed by the California Department of Parks and Recreation [State Parks], and areas below the Mean High Tide Line (HTL) are regulated by the California Coastal Commission [CCC]).

2.1.1 Definition of Special-Status Species

For the purposes of this report, special-status species include those:

- Listed as threatened or endangered under the federal Endangered Species Act (ESA), including species that are under review that may be included if there is a reasonable expectation of listing within the life of the project
- Listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Listed as rare under the California Native Plant Protection Act
- Designated as Fully Protected, Species of Special Concern (SSC), or Watch List by the California Department of Fish and Wildlife (CDFW)
- Designated as a species of concern by the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS)
- Marine Mammal Protection Act (MMPA)
- Designated as locally important by the local agency and/or otherwise protected through local ordinance or policy

In addition, special-status species are ranked globally (G) and subnationally (S) 1 through 3 based on NatureServe's (2010) methodologies as follows:

- **G1 or S1** - Critically imperiled globally or statewide
- **G2 or S2** - Imperiled globally or statewide
- **G3 or S3** - Vulnerable to extirpation or extinction globally or statewide

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1A, 1B, 2A and 2B, per the following definitions:

- **Rank 1A** = Presumed extirpated in California and rare or extinct elsewhere
- **Rank 1B** = Rare, threatened, or endangered in California and elsewhere

- **Rank 2A** = Presumed extirpated in California but common elsewhere
- **Rank 2B** = Rare, threatened or endangered in California, but common elsewhere

CRPR 3 and 4 plant species are typically not considered for analysis under the California Environmental Quality Act (CEQA); however, the study area is within a State Park property (Dockweiler State Beach and Will Rogers State Beach), and CRPR 3 and 4 plant species were considered in this analysis.

2.1.2 Environmental Statutes

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

- CEQA
- ESA and CESA
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- California Fish and Game Code (CFGC)
- Porter-Cologne Water Quality Control Act
- Natural Communities Conservation Planning Act
- MMPA
- Rivers and Harbors Act of 1899
- Magnuson-Stevens Fishery Conservation and Management Act
- Pacific Coast Groundfish Fishery Management Plan
- Coastal Pelagic Fishery Management Plan
- National Invasive Species Act
- Marine Invasive Species Act
- County of Los Angeles General Plan
- California Coastal Act

2.1.3 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 state or federally protected wetlands (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

Rincon staff reviewed a variety of literature to obtain baseline information about the study area. The literature review included information from standard biological reference materials and regionally applicable regulatory guiding documents including (but not limited to) the following:

- Regional Oceanic Modeling System (Southern California Coastal Ocean Observing System 2016)
- California Ocean Plan (State Water Resources Control Board [SWRCB] 2019)
- Los Angeles Regional Water Quality Control Board Basin Plan (Los Angeles RWQCB 2019)
- Los Angeles Department of Beaches and Harbors Coastal Resiliency Study (Moffatt & Nichol 2023)
- Sand Compatibility and Opportunistic Use Program for Los Angeles County Beaches – Planning Study and Framework Report (Coastal Frontiers Corporation 2023)
- Los Angeles County Public Beach Sea-Level Rise Vulnerability Assessment (Noble Consultants 2016)
- California Regional Assessment National Shoreline Management Study (United States Army Corps of Engineers [USACE] 2018)

Other sources of information about the study area included aerial photographs, topographic maps, bathymetric charts, geologic maps, climatic data, and project plans. Rincon also conducted queries of several relevant scientific databases, which provide information about occurrences of sensitive biological resources: the CDFW Biogeographic Information and Observation System (CDFW 2024a) and California Natural Diversity Data Base (CNDDDB) (CDFW 2024b); the United States Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2024a); USFWS Information, Planning, and Conservation System Query (USFWS 2024b); and species managed by NOAA (NOAA 2024c). In addition, the USFWS National Wetlands Inventory (NWI) (USFWS 2024c), the National Hydrography Dataset (NHD) (USGS 2024), the United States Department of Agriculture (USDA) National Cooperative Web Soil Survey (USDA 2024a), Natural Resource Conservation Service (NRCS) List of Hydric Soils (USDA 2024b), and Essential Fish Habitat and Critical Habitat Mapper (NOAA 2024a, 2024b, 2024d) were reviewed.

In addition to the literature review and databases mentioned above, Rincon reviewed state and federal marine protected areas (MPA), which have been established to protect ecosystems and/or sustain fisheries production, as well as specific species regulated through the goals, objectives, policies, and mandates of the Marine Life Management Act.

Rincon compiled the results of the literature review and database queries into a preliminary list of special-status species with potential to occur within the study area, which was then reviewed by Rincon's regional biological experts for accuracy and completeness. The list of special-status

biological resources evaluated as part of the BRA was determined based on documented occurrences in a nine-quadrangle search area surrounding each beach, in some cases it was a seven-quadrangle search due to overlapping with the Pacific Ocean. In total, 16 quadrangles were searched. Additional results from the reconnaissance-level field survey and species known to occur in the region based on the expert opinions of local biologists were incorporated into the evaluation.

2.3 Reconnaissance-Level Field Survey

Rincon Senior Biologist Jaime Grunden and Senior Marine Scientist Derek Lerma conducted a reconnaissance-level survey (survey) of Zuma Beach, Dockweiler State Beach, Will Rogers State Beach, and Redondo Beach on April 24, 2024. Rincon Biologist Amber Reichert conducted a survey of the Manhattan Beach study area on July 17, 2024. The survey was conducted to document existing conditions within the study area, including marine and terrestrial habitats, and to evaluate the suitability of these habitats for special-status marine and terrestrial species.

Mrs. Grunden and Mr. Lerma conducted a pedestrian survey of the study area from 0800 to 1430 on April 24, 2024. The low tides of the day were -0.3 feet at 0436 and 1.5 feet at 1549, and high tides were 3.6 feet at 1048 and 5.4 feet at 2006 (NOAA Tide Station ID: 9410777, El Segundo-Santa Monica Bay). Weather conditions during the survey were overcast to partly cloudy with air temperature ranging from 57 degrees Fahrenheit (°F) to 71 °F, 1 to 16 mile per hour northwest winds, and approximately 75 to 100 percent cloud cover. The biologists surveyed meandering transects throughout accessible terrestrial and intertidal portions of the study area to document existing conditions, habitats, and potential nesting habitat for passerine and raptor species.

Ms. Reichert conducted a pedestrian survey of Manhattan Beach from 0800 to 1225 on July 17, 2024. The low tides of the day were 0.25 feet at 0158 and 2.79 feet at 1212, and high tides were 3.21 feet at 0848 and 5.74 feet at 1854 (NOAA Tide Station ID: 9410777, El Segundo-Santa Monica Bay). Weather conditions during the survey were partly cloudy with air temperature ranging from 71 °F to 75 °F, 1 to 6 miles per hour northwest winds, and approximately 30 to 50 percent cloud cover. The biologist surveyed meandering transects throughout accessible terrestrial and intertidal portions of the study area to document existing conditions, habitats, and potential nesting habitat for passerine and raptor species.

Photographs were taken to document existing conditions, vegetation communities, species sign, or other notable biological resource observations. The vegetation community characterizations for this analysis were based on the classification systems presented in *A Manual of California Vegetation, Second Edition* (MVC2; Sawyer et al. 2009). Representative site photographs are included in Appendix B. Identifiable marine and terrestrial plant, algae, and wildlife species observed were documented. A complete list of plant, algae, and wildlife species observed during the survey is included as Appendix C.

3 Existing Conditions

The study area occurs in the most populated area in California, and the coastline stretches over 11 cities and has a dynamic physical environment that has been significantly altered by urbanization. The weather in the study area is typical of a Mediterranean climate. Summers are warm and dry while the winter is cool and often wet. Most of the annual precipitation and corresponding stormwater runoff occurs from only a few large storm events (Beighley et al. 2004). Although rainfall is highly seasonal and varies significantly from year to year, the USDA NRCS reports mean annual precipitation as approximately 12 inches, with an average maximum temperature of 71.8 °F and average minimum temperature of 56.4 °F (USDA 2024b).

The study area at each beach consists of sandy beaches and subtidal beaches with more beach exposed at low tide and more submerged at high tide. The sandy beach is a dynamic area for the interaction of marine and terrestrial ecosystems. Sandy beaches support high densities of detritus, infauna, and macroinvertebrates that supply food and habitat for both marine and terrestrial organisms. The study area beaches are actively groomed which can reduce the habitat and food for wildlife. However, the infaunal species are known to recolonize after disturbance events (Wooldridge et al. 2016). In general, the highest species richness and diversity is observed in low intertidal zone where disturbance is less frequent. Sandy beaches are typically dominated by the Pacific sand crab (*Emerita analoga*), sand hopper (*Megalorchestia* sp.), and polychaete worm (*Scolelepis bullibranchia*).

Three main types of waves occur along the Southern California coast: North Pacific swell, southern swell, and seas generated locally. The North Pacific swell events are the most significant source of extreme waves in the region. Swells from winter storms in the southern hemisphere reach California during the months of May through October. These swells approach from the southwest, south, and southeast, but are partially blocked by the Channel Islands. Changes to the physical components of the nearshore habitat are seasonally altered by sand movement that follows typical longshore transport spatial and temporal patterns within the Santa Monica littoral cell. Typically, the beach widens during the summer and fall and narrows during the winter and spring.

3.1 Zuma Beach

Physical and Oceanographic Characteristics

Zuma Beach is located at the eastern end of the Malibu Region and is generally a wider beach and one of the few persistent sand beaches that has a permanent dry back beach environment. The beach faces southwest and is directly west of Point Dume, a large headland that juts out into the Pacific Ocean and forms the northern end of the Santa Monica Bay. Zuma Beach receives an intensive amount of public use on the sandy beach. Elevations in the study area range from 0 to 20 feet above mean sea level, and the topography of the study area is primarily flat. The land use surrounding the study area is mostly residential.

Watershed and Drainages

The Zuma Beach study area is located in the Zuma Canyon-Frontal Pacific Ocean watershed within Hydraulic Unit Code (HUC 12-180701040203), which drains directly into the Pacific Ocean (USGS 2024). The south face of the Santa Monica Mountains drains to the Pacific Ocean through a number

of small simple watersheds draining a few hundred to a few thousand acres. The streams and coastal bluffs contribute sand sources into that Santa Monica littoral cell, which extends from Mugu Canyon in Ventura County to Palos Verdes Peninsula in Los Angeles County.

Five ephemeral drainages, which originate in the residential areas, direct stormwater under the Pacific Coast Highway and terminate at a culvert outlet in the study area. No ponded or flowing water was observed during the time of the reconnaissance survey (USGS 2024). The NHD water drainage network is shown in Figure 3a.

Soils

One soil type occurs at the Zuma Beach study area: Abaft - Beaches Association, 0 to 5 percent slopes—150 (Figure 4a). This soil is formed from eolian sands derived from sandstone and occurs on dunes at elevations of 0 to 90 feet. This soil type is somewhat excessively drained and does not pond or flood. The runoff class is very low and the available water supply is low (about 4.8 inches) (USDA 2024a). Abaft - Beaches Association, 0 to 5 percent slopes is not listed on the NRCS List of Hydric Soils (USDA 2024b).

Vegetation Communities and Land Cover Types

The study area at Zuma Beach is unvegetated and consists of a wide sandy beach backed by a parking lot and the Pacific Coast Highway. The study area extends into the subtidal portion of the Pacific Ocean. The area surrounding the beach is generally developed, disturbed or landscaped. These areas consist of parking lots, beach and lifeguard facilities, and the Pacific Coast Highway. A few Mexican fan palm trees (*Washingtonia robusta*) are present as landscape trees in the parking lots. The land cover types are depicted in Figure 3a.

3.2 Will Rogers State Beach

Physical and Oceanographic Characteristics

Will Rogers State Beach is located in the northern portion of the Santa Monica Bay Region and consists of a sandy beach with sand retention groin fields. The beach faces south and is at the foothills of the Santa Monica Mountains. Will Rogers State Beach is a popular surf spot and has many facilities including volleyball courts, gymnastic equipment, restrooms, a playground, and a bike path. Elevations in the study area range from 0 to 50 feet above mean sea level, and the topography of the study area gently slopes from the sandy beach to an elevated bike path and parking lot. The land use surrounding the study area is mostly residential with a State Park lifeguard tower and paved access paths.

Watershed and Drainages

The Will Rogers State Beach study area is located in the Santa Monica Beach-Frontal Santa Monica Bay watershed within Hydraulic Unit Code (HUC 12-180701040403), which drains directly into the Santa Monica Bay/Pacific Ocean. The NHD identifies three ephemeral drainages originating in the hills above the study area which direct stormwater flows through canyons and residential areas under the Pacific Coast Highway and terminate at two outlets within the study area (USGS 2024). The NHD water drainage network is shown in Figure 3b.

Soils

One soil type occurs at the Will Rogers State Beach study area: Ahaft - Beaches Complex, 0 to 5 percent slopes—1150 (Figure 4b). This soil type is formed from alluvium and/or eolian sands and occurs on dunes at elevations of 0 to 20 feet. The soil type is excessively drained and does not pond or flood. The runoff class is negligible and the available water supply is low (about 3.6 inches) (USDA 2024a). Ahaft - Beaches Complex, 0 to 5 percent slopes is not listed on the NRCS List of Hydric Soils (USDA 2024b).

Vegetation Communities and Land Cover Types

The study area at Will Rogers State Beach consists of a parking lot adjacent to the Pacific Coast Highway separating a bike trail and small sliver of dunes dominated in ice plant (*Carpobrotus edulis*) before reaching the unvegetated sandy beach and Pacific Ocean. The vegetated dune area most closely resembles ice plant mats (*Mesembryanthemum* spp. – *Carpobrotus* spp. Herbaceous Semi-Natural Alliance) as classified in MCV2 (Sawyer et al. 2009). This community is typically found on bluffs, disturbed land, or sand dunes immediately along the coastline. A few rock groins are present throughout the study area acting as sand retention devices that consists of medium- to large-size boulders with approximately low- to medium-lying relief (less than 10 feet). The hard substrate supports a moderately diverse group of organisms including diatom film, filamentous red algae, and a variety of marine invertebrates. The area surrounding the beach is generally developed, disturbed or landscaped. This area contains parking lots, beach and lifeguard facilities, a bike and pedestrian path and the Pacific Coast Highway. A few Mexican fan palms and landscaped lawns are present surrounding the beach facilities and parking lot. The vegetation communities and land cover types are depicted in Figure 3b.

3.3 Dockweiler State Beach

Physical and Oceanographic Characteristics

Dockweiler State Beach is located in the central portion of the Santa Monica Bay Region and is backed by the Hyperion Sewage Treatment Power Generation Facility. The beach faces west and is frequently nourished from dredging events at Marina del Rey Harbor. The beach is a heavily used recreational vehicle campground facility and popular for recreational activities. Elevations in the study area range from 0 to 20 feet above mean sea level, and the topography of the study area is primarily flat. The land use surrounding the study area is undeveloped and associated with the El Segundo Dunes ESHA to the east, Playa del Rey residential area to the north, the Hyperion Sewage Treatment Power Generation Facility to the south, and Santa Monica Bay/Pacific Ocean to the west.

Watershed and Drainages

The study area is located along the Manhattan Beach-Frontal Santa Monica Bay watershed within Hydraulic Unit Code (HUC 12-180701040500), which drains directly into the Pacific Ocean. One drainage directing stormwater flows along Imperial Highway occurs in the study area. The NHD water drainage network is shown in Figure 3c.

Soils

Two soil types occur at the Dockweiler State Beach study area: Ahaft - Beaches Complex, 0 to 5 percent slopes—1150 and Urban Land-Ahaft, loamy surface complex, 5 to 30 percent slopes,

terraced (Figure 4c). The Urban Land-Abaft, loamy surface complex is formed from discontinuous human-transported material over eolian sands and occurs on dune fields at elevations of 0 to 190 feet. This soil type is somewhat excessively drained and does not pond or flood. The runoff class is low and the available water supply is low (about 4.3 inches) (USDA 2024a). Urban Land-Abaft, loamy surface complex, 5 to 30 percent slopes is not listed on the NRCS List of Hydric Soils (USDA 2024b).

Vegetation Communities and Land Cover Types

The study area at Dockweiler State Beach consists of a parking lot in the eastern boundary and along Vista Del Mar Avenue, there are dunes composed primarily of ice plant mats (*Mesembryanthemum* spp. – *Carpobrotus* spp. Herbaceous Semi-Natural Alliance) adjacent to the unvegetated sandy beach. A paved bike path separates the parking lot from the sandy beach and two rock groins are present in the study area. The rock rip-rap was primarily submerged at the time of the survey but likely supports a variety of algae and invertebrates. The developed, disturbed or landscaped areas consist of the parking lot, bike path and restroom facility. Vegetation communities and land cover types are depicted in Figure 3c.

3.4 Manhattan Beach

Physical and Oceanographic Characteristics

Manhattan Beach is located in the southern portion of the Santa Monica Bay Region in a heavily urbanized area with the Chevron Oil Refinery to the north. The beach faces west and is exposed to south and westerly swells. It is a heavily used recreational beach. Elevations in the study area range from 0 to 20 feet above mean sea level, and the topography of the study area is primarily flat. The land use surrounding the study area is comprised of highly urbanized residential areas.

Watershed and Drainages

The study area is located along the beach, intersects a portion of the Santa Monica Bay/Pacific Ocean, and is located in the Manhattan Beach-Frontal Santa Monica Bay watershed within Hydraulic Unit Code (HUC 12-180701040500), which drains directly into the Pacific Ocean. The NHD identifies four ephemeral drainages channeling stormwater flows from the residential areas west of the study area. The NHD water drainage network is shown in Figure 3d.

Soils

Three soil types occur at Manhattan Beach study area: Abaft - Beaches Complex, 0 to 5 percent slopes—1150, Urban Land industrial, and Urban land-abaft, loamy surface complex, 5 to 30 percent slopes, terraced. These soil types occur at elevations of 0 to 200 feet (Figure 4d), and the runoff class is very low (USDA 2024a). These soils are not listed on the NRCS List of Hydric Soils (USDA 2024b).

Vegetation Communities and Land Cover Types

The study area at Manhattan Beach consists of primarily an unvegetated beach and developed area. However, a portion of the southern study area has been established as a restoration site and contains dune morphology and native vegetation including coastal sand verbena (*Abronia latifolia*), red sand verbena (*Abronia maritima*; CRPR 4.2), seaside heliotrope (*Heliotropium curassavicum* var. *oculatum*), beach coreopsis (*Coreopsis maritima*; CRPR 2B.2), and beach evening primrose

(*Camissoniopsis cheiranthifolia*). This area most closely resembles dune mat (*Ambrosia chamissonis* Herbaceous Alliance) as classified in MCV2 (Sawyer et al. 2009). This is a native vegetation community found in coarse to fine-textured sands along sand dunes of coastal bars, river mouths, and spits along the immediate coastline from 0 to 10 meters in elevation. This vegetation community is ranked G3S3 and is classified as a CDFW sensitive natural community (CDFW 2024a) and ESHA. The developed, disturbed or landscaped areas consist of public roads and residential areas. The vegetation communities and land cover types are depicted in Figure 3d.

3.5 Redondo Beach

Physical and Oceanographic Characteristics

Redondo Beach is located at the southern end of the Santa Monica Bay Region and directly south of King Harbor and the Redondo pier. The beach faces west and during the field reconnaissance survey exhibited signs of erosion and narrowing in the southern portion of the study area. The longshore transport in this area tends to move from south to north, which is non-typical for the region widening the beach at the north end and narrowing at the southern end. Redondo Beach receives an intensive amount of public use on the sandy beach. Elevations in the study area range from 0 to 20 feet above mean sea level, and the topography of the study area is primarily flat. The land use surrounding the study area is mostly commercial and residential.

Watershed and Drainages

The study area is located along the beach and intersects a portion of the Pacific Ocean. The Redondo Beach study area is in the Manhattan Beach-Frontal Santa Monica Bay watershed within Hydraulic Unit Code (HUC 12-180701040500), which drains directly into the Santa Monica Bay/Pacific Ocean. The NHD identifies four ephemeral drainages channeling stormwater flows from the residential areas west of the study area. The NHD water drainage network is shown in Figure 3e.

Soils

Three soil types occur at the Redondo Beach study area: Urban Land-Abaft, loamy surface complex, 5 to 30 percent slopes, terraced—1153, Urban Land, 0 to 2 percent slopes, dredged fill substratum and Abaft-Beaches complex, 0 to 5 percent slopes – 1150 (Figure 4e). Urban Land, dredged fill is formed from material produced by dredge and fill operations over sandy marine sediments and occurs on spits and islands at elevations of 0 to 20 feet. The soil types are somewhat excessively drained and does not pond or flood. The runoff class is low and the available water supply is low (about 4.3 inches) (USDA 2024a). The soil types are not listed on the NRCS List of Hydric Soils (USDA 2024b).

Vegetation Communities and Land Cover Types

The study area at Redondo Beach is unvegetated and consists of a narrow sandy beach backed by an elevated concrete walking path and parking lot. There is a cement structure for property protection, approximately 10 to 15 linear feet of rock used to form a foundation for the sea wall, and small jetties for sand retention. Only ephemeral marine algae, such as sea lettuce (*Ulva intestinalis*), was observed growing on the rock structures. The developed, disturbed or landscaped areas consist of the Redondo Beach Pier, parking areas, public streets and landscaped lawn areas. The land cover types are depicted in Figure 3e.

Figure 3a Zuma Beach Existing Conditions



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Additional data sourced from NOAA Data Access Viewer, 2016; NHD, 2024.

01-11-2025 09:11 AM
Fig. 3a Existing Conditions

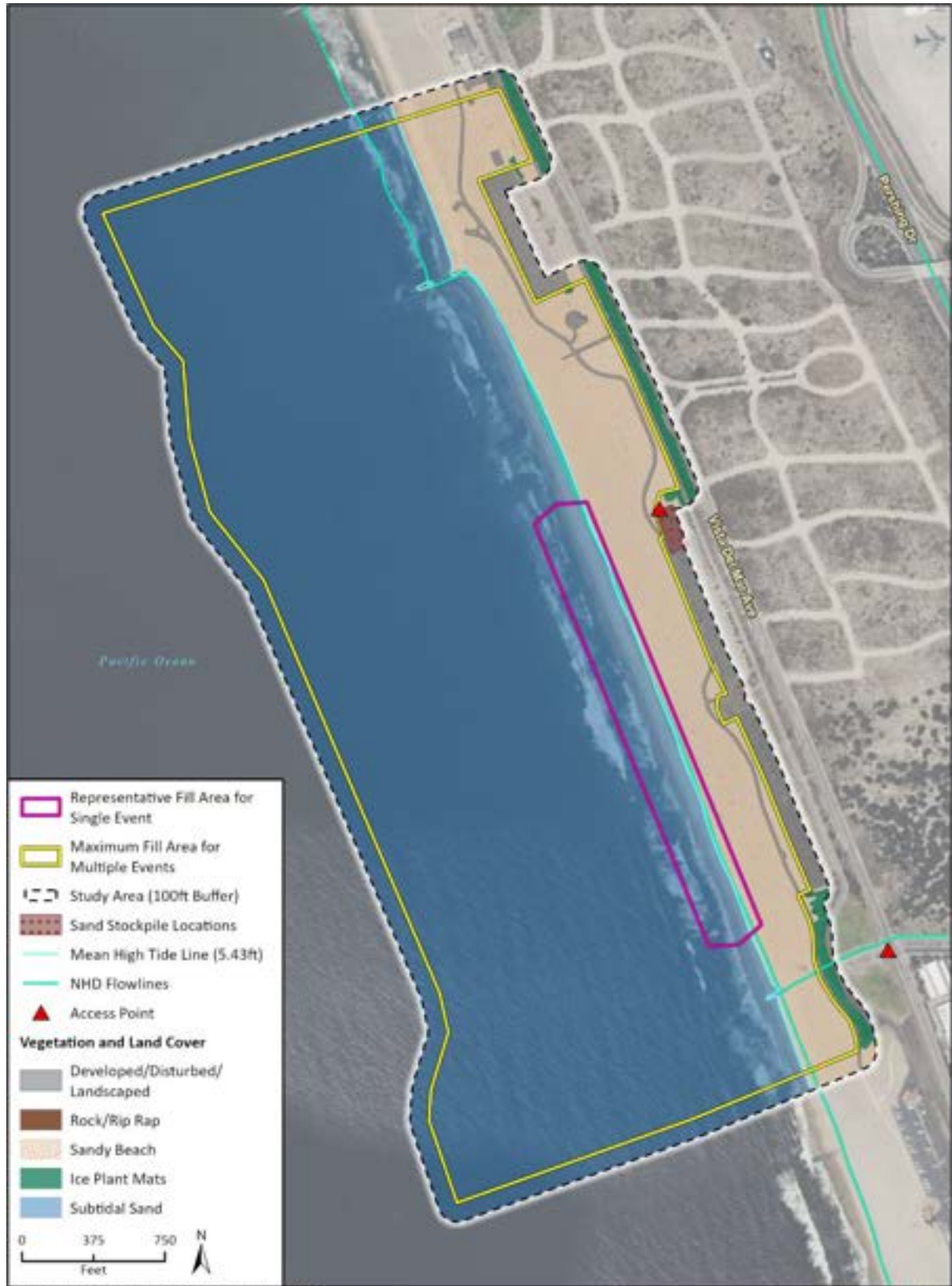
Figure 3b Will Rogers State Beach Existing Conditions



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Additional data sourced from NOAA Data Access Viewer, 2016; NHD, 2024.

24-11000-000-0000
Fig. 3-000-000-0000-0000

Figure 3c Dockweiler State Beach Existing Conditions



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Additional data sourced from NOAA Data Access Viewer, 2026; NHD, 2024.

20-22001 01/1/2024
Fig 3 Dockweiler mg Land 2026

Figure 3d Manhattan Beach Existing Conditions



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Additional data sourced from NOAA Data Access Viewer, 2025; NHD, 2024.

25-13401-011-002
Fig 3 Manhattan - Existing Conditions

Figure 3e Redondo Beach Existing Conditions



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Additional data sourced from NOAA Data Access Viewer, 2025; NHD, 2024.

23-CA001-010-004
Fig. 3. Redondo Beach Existing Conditions

Figure 4a Zuma Beach Soils Map



Figure 4b Will Rogers State Beach Soils Map



Figure 4c Dockweiler State Beach Soils Map



Figure 4d Manhattan Beach Soils Map



Figure 4e Redondo Beach Soils Map



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4 Sensitive Biological Resources

Local, state, and federal agencies regulate special-status species and other sensitive biological resources and may require an assessment of their presence or potential presence to be conducted prior to the approval of proposed development. This section discusses the special-status species and sensitive biological resources observed within the study area and/or evaluated as having the potential to occur in the study area based on the methods described in Section 2. The potential for each special-status species to occur within the study 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), and species would have been identifiable on-site if present (e.g., oak trees).
- **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-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-site.
- **High Potential.** All 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-site.
- **Present.** Species is observed on-site or has been recorded (e.g., CNDDDB, other reports) on-site recently (within the last 5 years).

Special-status species include those listed, proposed for listing, or candidates for listing as threatened, endangered or species of concern by the USFWS or NOAA under the ESA; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the CESA; animals designated as Fully Protected (FP) and Species of Special Concern (SSC) by the CDFW; and species on the Special Animals List. *CEQA Guidelines* Section 15125(a), also directs special emphasis should be placed on resources that are rare or unique to the region. Additionally, species protected under the MMPA and sensitive aquatic communities, such as eelgrass beds (*Zostera* spp.), are also evaluated herein. The results and analysis of the database queries were compiled into a table presented as Appendix D.

4.1 Special-Status Plant Species

There were 83 terrestrial special-status plant species evaluated for their potential to occur within the study area (Appendix D). The beach spectaclepod (*Dithyrea maritima*), a State Threatened (ST) plant species, has a low potential to occur within the study area. Beach coreopsis is a CRPR 2B.2 listed special-status species and red sand verbena is a CRPR 4.2 listed special-status species that were present at Manhattan Beach during the field reconnaissance survey. The Manhattan Beach study area overlaps the Manhattan Beach Dune Restoration Project where these species were planted over a 3-acre restoration site to encourage accretion of sand and increase dune elevation through the use of native plants and seeds, sand fences, and wooden slates (The Bay Foundation

2021). Eleven other special-status plant species with a CRPR have a low potential to occur within the study area. Table 2 lists each of these species and their CRPR.

The remaining special-status plant species are not expected to occur within the study area based on the absence of suitable habitat types and/or soils or the study area being located outside the known range for these species. For the purpose of CEQA analysis, special-status plant species that are not state or federally listed and have a low potential to occur are not addressed further in this report. The evaluation of special-status plant species is included in Appendix D.

Beach Coreopsis

Beach coreopsis is a CRPR 2B.2 listed special-status plant species. This plant species is a fast growing, herbaceous perennial in the Asteraceae family. This species has succulent leaves with bright yellow daisy-like blooms. It can be found in Southern California coastal bluffs. This species was observed during the field reconnaissance survey at Manhattan Beach study area within the Manhattan Beach Dune Restoration Project site.

Beach Spectaclepod

Beach spectaclepod, an ST species, is a rhizomatous, perennial herb that blooms March through May. It is found in sandy soils, usually near shore, in coastal dunes and coastal scrub habitats. It is restricted to coastal Southern California and adjacent Baja California, Mexico. It ranges from 0 to 50 meters in elevation. The species is thought to be extirpated from half of its historic range and is currently known to be present in approximately 20 distributed occurrences. The species' dune habitat faces ongoing threats from foot traffic, invasive non-native plants and development. Beach spectaclepod has a low potential to occur at the coastal dunes present within the Will Rogers State Beach and Zuma Beach study area. However, the substantial volume of foot traffic and off-road vehicle likely precludes the species from occurring. In addition, there has not been a CNDDDB occurrence recorded at Zuma Beach and the closest occurrence at Will Rogers State Beach was recorded in 1884. The other beaches are heavily used by the public and outside the known occurrences of the species.

Red Sand Verbena

Red sand verbena is a CRPR 4.2 listed special-status plant species. This species is a beach-adapted perennial. The plant species is native to the stable sand dunes along coastlines of Southern California, including the Channel Islands, and northern Baja California. This salt-tolerant plant requires saline water that it receives mostly in the form of sea spray and cannot tolerate fresh water or prolonged dry conditions. This sand verbena forms a green mat along the ground, its stems sometimes buried under loose sand. It flowers year-round in bright red to pink or purplish clusters of flowers. The mats are thick and provide shelter for a variety of small beach-dwelling animals. The species' habitat is located in heavily traveled beach areas. This species was present during the field reconnaissance survey at Manhattan Beach study area within the Manhattan Beach Dune Restoration Project site.

Table 2 Special-Status Plant Species with Potential to Occur within the Study Area

Scientific Name	Common Name	Status	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Abronia maritima</i>	red sand verbena	CRPR 4.2	Low Potential	Low Potential	Low Potential	–	Present
<i>Aphanisma blitoides</i>	aphanisma	CRPR 1B.2	–	–	–	Low Potential	–
<i>Calandrinia breweri</i>	Brewer’s calandrinia	CRPR 4.2	–	Low Potential	–	–	–
<i>Chaenactis glabriscula</i> var. <i>orcuttiana</i>	Orcutt’s pincushion	CRPR 1B.1	Low Potential	Low Potential	Low Potential	–	Low Potential
<i>Chenopodium littoreum</i>	coastal goosefoot	CRPR 1B.2	Low Potential	Low Potential	Low Potential	–	–
<i>Coreopsis maritima</i>	beach coreopsis	CRPR 2B.A	-	–	–	–	Present
<i>Dithyrea maritima</i>	beach spectaclepod	ST/CRPR 1B.1	Low Potential	Low Potential	–	–	–
<i>Erysimum insulare</i>	island wallflower	CRPR 1B.3	–	Low Potential	–	–	–
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	CRPR 1B.2	–	Low Potential	–	–	–
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	CRPR 4.2	Low Potential	Low Potential	–	–	–
<i>Mucronea californica</i>	California spinyflower	CRPR 4.2	Low Potential	Low Potential	–	–	–
<i>Phacelia ramosissima</i> var. <i>austrolitoralis</i>	south coast branching phacelia	CRPR 3.2	Low Potential	Low Potential	–	–	–
<i>Phacelia stellaris</i>	Brand’s star phacelia	CRPR 1B.1	Low Potential	Low Potential	Low Potential	–	–
<i>Suaeda taxifolia</i>	woolly seablite	CRPR 4.2	Low Potential	Low Potential	–	–	–
ST = State Threatened	CRPR = California Rare Plant Rank 1B = Rare, Threatened, or Endangered in California and elsewhere 2B = Rare, Threatened, or Endangered in California but more common elsewhere 3 = Plants about which more information is needed, a review list 4 = Plants of limited distribution, a watch list						

4.2 Special-Status Wildlife Species

Rincon evaluated 80 terrestrial and marine/anadromous wildlife species for their potential to occur within the study area. Of these, 16 have potential to occur within the study area. Table 3 lists each of these species, their federal and/or state status, and their potential to occur within the study area.

The remaining species evaluated are not expected to occur in the study area or immediate vicinity based on the absence of suitable natural habitats or vegetation communities, and/or because the range of the species does not overlap with the study area. Special-status wildlife species that have a moderate or high potential to occur, or are present on site, are discussed in further detail below. Federally and State-listed species with a low potential to occur on-site are also discussed in further detail. For the purposes of CEQA analysis, special-status wildlife species that are not federally or state-listed and have a low potential to occur are not addressed further in this report. The evaluation of special-status wildlife species is included in Appendix D.

Globose Dune Beetle

Globose dune beetle (*Coelus globosus*) is a G1G2/S1S2 ranked species. The beetle inhabits foredunes and sand hummocks immediately bordering the coast from Bodega Bay to Ensenada, Baja California, as well as all of the Channel Islands except San Clemente Island. The species is usually found within 50 meters of the coast. There is a moderate potential of the species occurring at Will Rogers State Beach and Manhattan Beach because the study area contains stable vegetated dunes and sand hummocks. There are two CNDDDB historical records within 5 miles of Will Rogers State Beach. This species was observed approximately 0.25 mile east of Will Rogers State Beach in 2005. The Manhattan Beach Dune Restoration Project site also provides undisturbed vegetated areas that may support the species.

EL Segundo Blue Butterfly

El Segundo blue butterfly (*Euphilotes allynii*) is a Federally Endangered (FE) species. This species is a small butterfly, usually less than 1 inch across. The dorsal wing coloration is blue, the males are a brighter blue than the females. The ventral side is gray with square-shaped spots and a series of orange spots on the hind wing that appear merged into a single band of color. El Segundo blue butterfly emerges during the summer when the flowers of its host plant, seacliff buckwheat (*Eriogonum parviflorum*), open. The adult life of this species is relatively short, only a few days, during which time they breed and lay eggs. The species is restricted to three locations: the El Segundo sand dunes near the Dockweiler State Beach study area, Ocean Park in Santa Monica and Malaga Cove in Palos Verdes. Recently, beach cities, such as the City of Manhattan Beach, have replaced ice plant near the beaches with coast buckwheat (*Eriogonum latifolium*), to provide this species with more of their natural food source. Due to presence of nearby suitable habitat or recent improvements to ESHA and coastal dune habitat, there is now a low potential for the butterfly species to occur at Dockweiler State Beach, Redondo Beach, and Manhattan Beach.

Table 3 Special-Status Wildlife Species with Potential to Occur within the Study Areas

Scientific Name	Common Name	Status	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
Invertebrates							
<i>Bombus pensylvanicus</i>	American bumble bee	G3G4/S2	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
<i>Coelus globosus</i>	globose dune beetle	G1G2/S1S2	–	Moderate Potential	–	–	Moderate Potential
<i>Euphilotes allyni</i>	El Segundo blue butterfly	FE	–	–	Low Potential	Low Potential	Low Potential
Fish							
<i>Leuresthes tenuis</i>	California grunion	MF	High Potential	High Potential	Present	Present	High Potential
Reptiles							
<i>Anniella stebbinsi</i>	Southern California legless lizard	SSC	–	–	Low Potential	Low Potential	Low Potential
<i>Chelonia mydas</i>	green sea turtle	FT	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
Birds							
<i>Accipiter cooperii</i>	Cooper’s hawk	WL	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
<i>Athene cucularia</i>	burrowing owl	SSC	–	–	Low Potential	–	–
<i>Charadrius nivosus nivosus</i>	western snowy plover	FT/SSC	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
<i>Pelecanus occidentalis californicus</i>	California brown pelican	FD/SD	Present	Present	Present	Present	Present
<i>Sternula antillarum browni</i>	California least tern	FE/SE	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
Marine Mammals							
<i>Eschrichrius robustus</i>	gray whale	FE/MMPA	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential
<i>Mirounga angustirostris</i>	northern elephant seal	FP/MMPA	Low Potential	Low Potential	Low Potential	Low Potential	Low Potential

Scientific Name	Common Name	Status	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Phoca vitulina</i>	harbor seal	MMPA	Moderate Potential	Moderate Potential	Moderate Potential	Moderate Potential	Moderate Potential
<i>Tursiops truncatus</i>	common bottlenose dolphin	MMPA	Present	Present	Present	Present	Present
<i>Zalophus californianus</i>	California sea lion	MMPA	High Potential	High Potential	High Potential	High Potential	High Potential
ST = State Threatened	WL = CDFW Watch List						
FE = Federally Endangered	SSC = CDFW Species of Special Concern						
FT = Federally Threatened	MMPA = Marine Mammal Protection Act						
FP = State Fully Protected	G3/G4 = Vulnerable to extirpation or extinction Globally						
FD/SD = Federally Delisted/State Delisted	S1 = Critically Imperiled Statewide						
MF = Managed Fishery	S2 = Imperiled Statewide						

Green Sea Turtle

The East Pacific distinct population segment (DPS) of green sea turtle (*Chelonia mydas*) is Federally Threatened (FT). Green sea turtles primarily nest in the Hawaiian Islands, United States Pacific Island territories, Puerto Rico, the Virgin Islands, and the east coast of Florida. Adults migrate from foraging areas to nesting beaches and may travel hundreds or thousands of kilometers each way. Green sea turtles are occasionally seen along the California Coast, often in El Niño years when the ocean temperature is higher than normal (NOAA 2024d).

Breeding habitat for sea turtles does not occur within the study area. There is a low potential for the species to transit or forage within offshore portions of the study area.

Western Snowy Plover

Western snowy plover (*Charadrius nivosus nivosus*) is FT and a CDFW SSC. The small shorebird is known to breed above the HTL on coastal beaches in Los Angeles County. The species' breeding season is typically March through September. The species preferred nesting habitat is on the sand in open areas, often near a conspicuous feature, such as a piece of kelp or shell. The species forages on dry sand or in wetter areas recently exposed by the tide (Cornell Lab of Ornithology 2024a).

Western snowy plover has a low potential to occur at the areas all five study areas. The species is known to historically roost and nest at Zuma Beach and Dockweiler State Beach. Zuma Beach and Dockweiler State Beach have historically had the largest roosting and nesting sites in Los Angeles County; however, numbers have steadily declined since 2006 due to human disturbances (Ryan et al. 2016, 2023). In 2020, only one nest was observed at Dockweiler State Beach (Ryan et al. 2023). No western snowy plovers were observed during the reconnaissance survey.

California Brown Pelican

California brown pelican (*Pelecanus occidentalis californicus*) is a State Fully Protected (FP) species that is both Federally and State Delisted. The species lives year-round in estuaries and coastal marine habitats along the California coast, and forages, rests, and roosts on islands, offshore rocks, breakwaters and other humanmade structures, rocky intertidal areas, mudflats, and beaches. The species generally nests and breeds on offshore islands in Southern California. Diet includes mostly small fish that school near the surface of the water. Brown pelicans spot fish from the air and dive head-first from as high as 65 feet over the ocean before plunging into the water and expanding their throat patch to trap fish (Cornell Lab of Ornithology 2024a).

California brown pelicans were observed within the study area during the field survey and are well documented within the five beaches in eBird (Cornell Lab of Ornithology 2024b). The species is not expected to nest within the study area.

California Least Tern

California least tern (*Sterna antillarum browni*) is a Federally Endangered (FE) and State Endangered (SE) shorebird that nests along the California coast from San Francisco to northern Baja California. The species is a colonial breeder on bare or sparsely vegetated, flat substrates, including sandy beaches, alkali flats, and occasionally landfills, agricultural fields, or paved areas. Its diet consists almost entirely of small fish, which are caught by diving in shallow water after hovering briefly. California least terns will feed in almost any aquatic habitat with fish, including oceans, bays, rivers,

marshes, ponds, and reservoirs. The species is a seasonal resident of California from April to September (Cornell Lab of Ornithology 2024a).

California least tern has a low potential to forage in the coastal waters off the study area. The species is not expected to be found nesting along the study area beaches. Three historical CNDDDB occurrences are documented within five miles of the Dockweiler State Beach study area, with the closest being approximately 1.4 miles north of the study area (Occurrence #14). The California least tern nesting record from 1996 (Occurrence #12) documents the historical nesting site at Venice Beach, which includes nesting records since 1898, approximately 1.8 miles north of the Dockweiler Beach study area. The California least tern nesting record from 1978 (Occurrence #13) documents the nesting area along Ballona Creek; however, dredge material placed on-site rendered the area unsuitable for nesting. The California least tern nesting record from 1987 (Occurrence #14) documents then nesting area at the mouth of Ballona Creek, between Marina del Rey and Del Rey bluffs; however, no records of nesting was reported after 1987. No CNDDDB occurrences are documented within 5 miles of the Will Rogers State Beach and Redondo Beach study areas. No observations are recorded in eBird at the Dockweiler State Beach, Will Rogers State Beach, and Redondo Beach study areas (Cornell Lab of Ornithology 2024b). No California least terns were observed during the reconnaissance survey.

California Grunion

California grunion (*Leuresthes tenuis*) are small silvery fish found only along the coast of Southern California and northern Baja California that belongs to the family Atherinidae, commonly known as silversides. The spawning season extends from late February or early March to August or early September, varying slightly in length from year to year. Actual spawning runs are restricted to relatively few hours during this period. Grunion spawn only on three or four nights after the highest tide associated with each full or new moon and then only for a one-to-three-hour period each night following high tide. The life history of grunion while at sea is not well known, but these fish apparently spend most of their life close to shore in water 15 to 40 feet deep. Grunion runs occur on most Southern California beaches but may not occur every night on the same beaches and may be limited to small areas of any one beach. The ends of beaches are often preferred locations.

Grunion do not have a sensitivity ranking on the CDFW Special Animals list (CDFW 2024a) nor are they listed as threatened or endangered; however, they should be evaluated as a managed fish species. Grunion are expected to occur at Dockweiler State Beach and Redondo Beach. Grunion runs were observed in iNaturalist during June 2024 at Dockweiler State Beach and Redondo Beach. There is a high potential for the species to occur at Manhattan Beach, Will Rogers State Beach, and Zuma Beach. The species was not observed during the reconnaissance survey. However, the survey was not conducted during typical spawning times.

Marine Mammals

All marine mammals are protected under the MMPA, which prohibits the “take” of marine mammals, including harassment, hunting, capturing, collecting, or killing in United States waters and by United States citizens on the high seas. Marine mammals with potential to occur in the study area include species of seals and sea lions in the group known as pinnipeds (Allen 2011). Other marine mammal species may frequent offshore of the study areas during yearly migrations or year-round to forage, such as dolphins and whales, but are less likely to be present within the study areas due to shallow waters.

The harbor seal (*Phoca vitulina*) has a moderate potential to occur within the study area and the California sea lion has a high potential to occur within the study area. Both the harbor seal and California sea lion live in temperate coastal habitats along the coast of California. Harbor seals are solitary but are gregarious when hauled out and during the breeding season. Harbor seals prefer to remain relatively close to shore in subtidal and intertidal zones and will haul out when not actively feeding. The California sea lion is common throughout Southern California with aggregations commonly observed in coastal waters or hauled-out on jetties and docks. No harbor seal or California sea lions were observed at the study area during the reconnaissance survey.

The common bottlenose dolphin (*Tursiops truncatus*) is present within the study area. The species is found throughout the world in both offshore and coastal waters. They are vulnerable to many stressors and threats including disease, biotoxin, pollution, habitat alteration, vessel collisions, human feeding of and activities causing harassment, interactions with commercial and recreational fishing, energy exploration and oil spills, and other types of human disturbance (such as underwater noise) (NOAA 2024c). There are coastal populations that migrate into bays, estuaries, and river mouths, as well as offshore populations that inhabit pelagic waters along the continental shelf. Bottlenose dolphins were observed at the Dockweiler State Beach study area during the reconnaissance survey.

The gray whale (*Eschrichtius robustus*) has a low potential to occur within the study area. The western North Pacific DPS gray whale is listed as FE and the eastern North Pacific DPS population was once listed but has successfully recovered and was delisted in 1994 (NOAA 2024c). Gray whales are found mainly in shallow coastal waters in the North Pacific Ocean and most spend the summers feeding in the northern Bering and Chukchi seas. Some gray whales also feed along the Pacific coast from southeast Alaska to Northern California during the summer. Gray whales are primarily bottom feeders that consume a wide range of benthic and epibenthic invertebrates by sucking in sediment from the sea floor and filtering it through coarse baleen plates. In the fall, gray whales migrate from their summer feeding grounds, heading south along the coast of North America to spend the winter in their wintering and calving areas off the coast of Baja California, Mexico. Calves are born during migration or in the shallow lagoons and bays of Mexico from early January to mid-February. From mid-February to May, gray whales can be seen migrating northward along the west coast of California (NOAA 2024c). No gray whales were observed in the study area during the reconnaissance survey.

Northern elephant seal (*Mirounga angustirostris*) is an FP species and is also protected by the MMPA. Northern elephant seals breed in the Channel Islands and along the central coast of California and give birth from December to March. Individuals may occur on land to breed, rest, and/or molt, typically on sandy or rocky areas along the coastline. The majority of their life is spent in the water, diving and foraging for food (NOAA 2024d). This species has a low potential to occur in the study area. If the species unexpectedly occurs on the shoreline of the project area, it is likely because the individual is sick or injured.

Nesting Birds

The study area contains habitat that can support nesting and foraging birds and raptors protected under the CFGC Section 3503 and the MBTA (16 United States Code Sections 703–712). Nesting habitat could include the ground, trees, shrubs, other vegetation, and human-made structures around adjacent residential properties.

4.3 Sensitive Natural Communities and Designated Critical Habitat

Sensitive Natural 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. Vegetation rarity ranking is based on a rank calculator developed by NatureServe. According to the CDFW Vegetation Program, alliances with state ranks of S1S3, as well as certain additional associations specifically noted as sensitive in the list, are considered to be imperiled, and thus, potentially of special concern. One sensitive plant community occurs within the Manhattan Beach study area: dune mat. This sensitive vegetation community is associated with the Manhattan Beach Dune Restoration Project site.

Designated Critical Habitat

The Zuma Beach study area is mapped within designated critical habitat for the western snowy plover (Figure 5a). The Dockweiler State Beach study area is between two mapped designated critical habitat areas for the species, within approximately 50 feet of critical habitat to the south and 350 feet of critical habitat to the north (Figure 5c). The Will Rogers State Beach study area is approximately 0.12 mile north of mapped critical habitat for the species. The Redondo Beach study area is approximately 1.1 miles south of mapped critical habitat for the species. The primary constituent elements essential to the species including the following (NOAA 2012):

- Sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, artificial salt ponds and adjoining levees, and dredge spoil sites, with:
 - (1) Areas that are below heavily vegetated areas or developed areas and above the daily high tides;
 - (2) Shoreline habitat areas for feeding, with no or very sparse vegetation, that are between the annual low tide or low-water flow and annual high tide or highwater flow, subject to inundation but not constantly under water, that support small invertebrates, such as crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods, which are essential food sources;
 - (3) Surf- or water-deposited organic debris, such as seaweed (including kelp and eelgrass) or driftwood located on open substrates that supports and attracts small invertebrates described in primary constituent element 2 for food, and provides cover or shelter from predators and weather, and assists in avoidance of detection (crypsis) for nests, chicks, and incubating adults; and
 - (4) Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators, which provide relatively undisturbed areas for individual and population growth and for normal behavior.

Figure 5a Zuma Beach Sensitive Resources



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Additional data sourced from NOAA, USFWS, CDFW, 2024.

20240101 001 000
Fig 4 Zuma Habitat

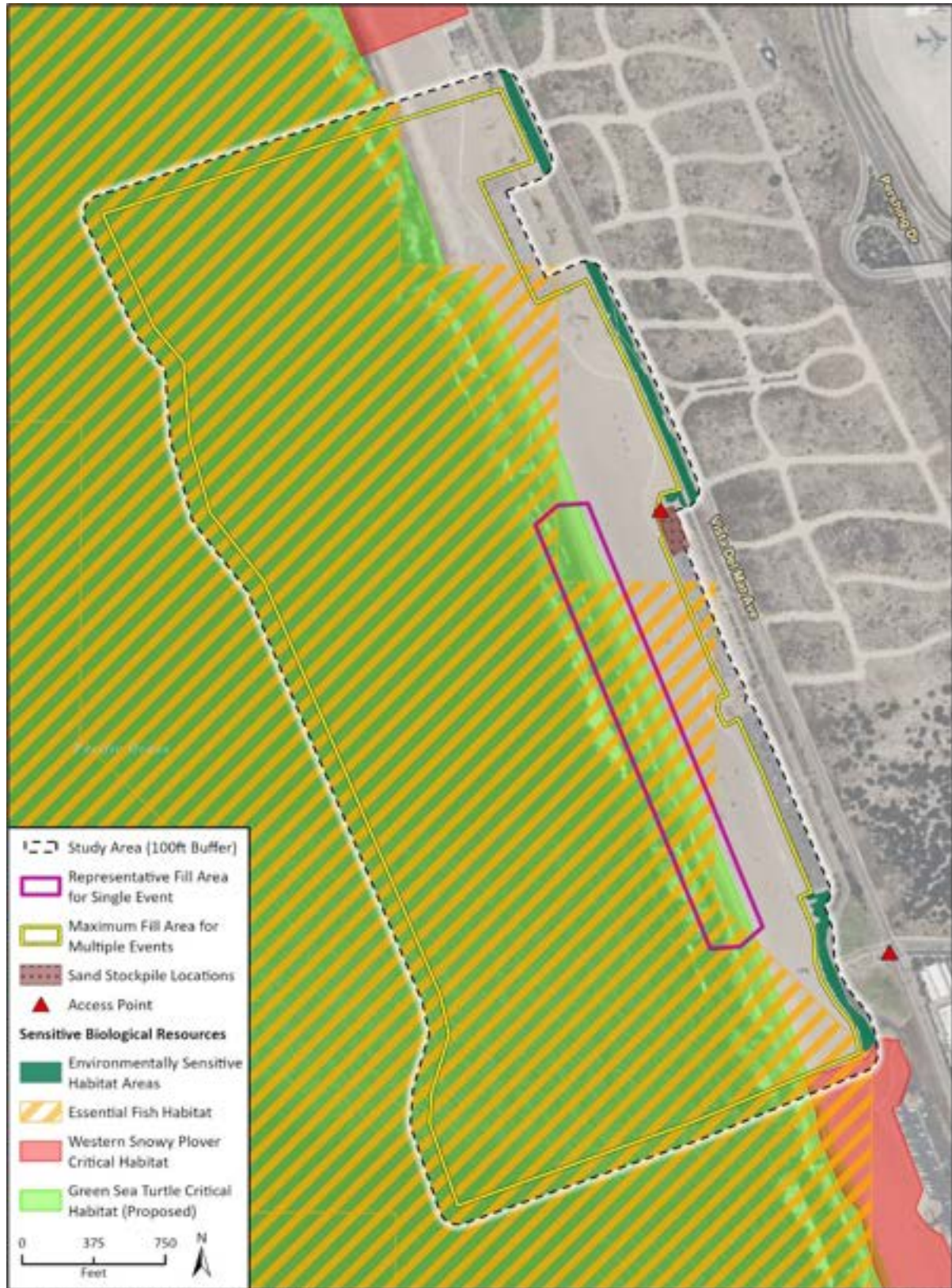
Figure 5b Will Rogers State Beach Sensitive Resources



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Additional data sourced from NOAA, USFWS, 2024.

24-00000-000-0000
Fig. 5 Will Rogers Beach

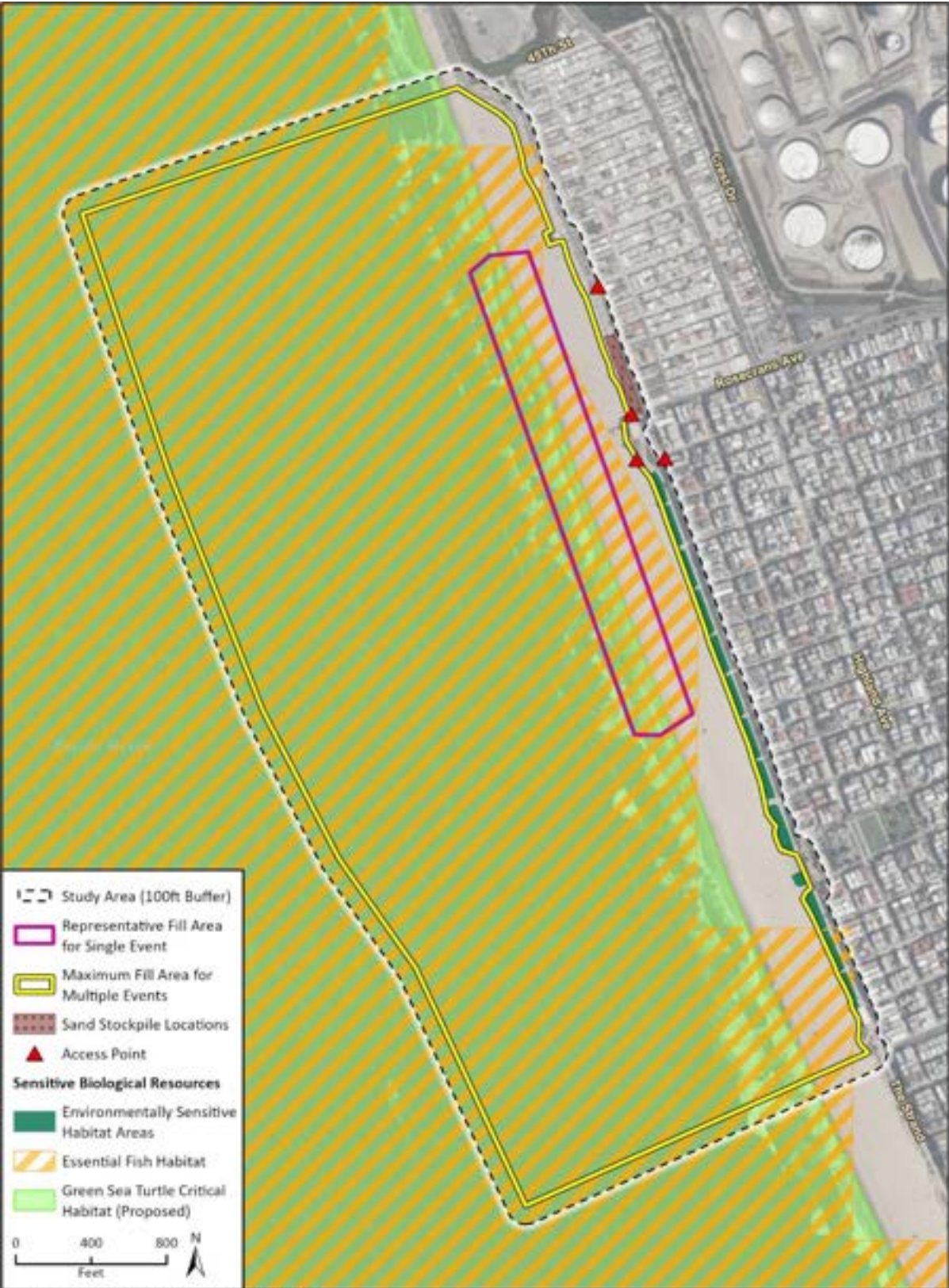
Figure 5c Dockweiler State Beach Sensitive Resources



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Additional data sourced from USFWS 2024.

01-2025-01 001 000
Fig 4 Dockweiler 04/2024

Figure 5d Manhattan Beach Sensitive Resources



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Fig. 5d Manhattan Sensitive Resources

Figure 5e Redondo Beach Sensitive Resources



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Additional data sourced from NOAA, USFWS, 2024.

23-10011-001-004
Fig. 5 Redondo Beach

On July 19, 2023, NMFS issued a *Proposed Rule to Designate Marine Critical Habitat for Six Distinct Population Segments of Green Sea Turtles*. The proposed Marine Critical Habitat of East Pacific Distinct Population Segment of green sea turtle is located from San Onofre to Santa Monica Bay and overlaps the Will Rogers State Beach, Dockweiler State Beach, Manhattan Beach, and Redondo Beach study areas (Figure 5b through Figure 5e). Under the ESA, critical habitat designations are finalized concurrent with completion of the final listing rule. For the purpose of this report, we have assumed the Final Rule will include the study area from the HTL to a 20-meter depth offshore. This area is considered an essential foraging/resting area for the green sea turtle.

4.4 Jurisdictional Waters and Wetlands

The USACE asserts jurisdiction under Section 404 of the CWA over non-wetland (e.g., streams, lakes, oceans) and wetland (e.g., marshes, estuaries) waters of the United States that typically exhibit a hydrologic surface connection to traditionally navigable waters. The limits of jurisdiction extend to the ordinary high-water mark for non-tidal waters or HTL for tidal waters, and to the edge of those wetlands abutting or, in some cases, adjacent to non-wetland waters of the United States that exhibit all three criteria defining federal wetlands: hydric soils, hydrophytic vegetation, and wetland hydrology. The RWQCB has jurisdiction over waters of the United States under Section 401 of the CWA. The RWQCB may also assert jurisdiction over waters of the State, typically considered “isolated,” under the Porter-Cologne Water Quality Control Act. The CDFW has regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream, or lake under Section 1600 et seq. of the CFGC. Therefore, perennial, intermittent, and ephemeral streams and associated riparian vegetation also fall under the jurisdiction of the CDFW. The CCC has a one-parameter definition of wetlands, which states that wetlands must have only one or more of the following three attributes: (1) at least periodically the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and/or (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year. The CCC also regulates activities occurring below the HTL and categorized as coastal waters.

Pacific Ocean – Santa Monica Bay

The study area includes the Santa Monica Bay/Pacific Ocean, a Traditional Navigable Water. The jurisdictional limit was determined based on the HTL and the presence of physical markings, such as lines of vegetation and kelp (wrack) and other debris, that indicated the average of recent high tides but did not include storm surges. The Santa Monica Bay/Pacific Ocean regulated by the CCC and is also protected under Section 10 of the Rivers and Harbors Act of 1899, as well as the plans and policies set forth in the Los Angeles RWQCB Water Quality Control Plan (Basin Plan) and SWRCB Ocean Plan. The study areas do not contain waters subject to the jurisdiction of CFGC Section 1600. Tidally influenced areas are not subject to Section 1600. In addition, the sandy beach and developed areas do not support riparian vegetation, nor native aquatic dependent species, and have no natural habitat connection that would provide migration of native aquatic species into study areas.

Ephemeral Drainages

Several ephemeral drainages occur in the study area that channelize stormwater from developed areas and terminate in the study area along or directly adjacent to the sandy beach. The drainages are intended to prevent flooding and are culverted under existing public roads before entering the ocean. In the natural environment, rainfall runoff would directly enter the ocean but the channelized and culverted drainages collect and re-direct runoff into stormwater. All the drainages

terminate at the beach in a pipe/culvert form at the back beach near the low water level. At the time of the survey, the drainage at Will Rogers State Beach originating at Potrero Canyon had ponded water at the culvert outlet. No other culverts in the study area had ponded or flowing water.

4.5 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between areas of suitable habitat that allow for physical and genetic exchange between otherwise isolated wildlife 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 wildlife periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young wildlife. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project, commissioned by the California Department of Transportation and CDFW, identifies “Natural Landscape Blocks” which support native biodiversity and the “Essential Connectivity Areas” which link them (Spencer et al. 2010).

The study area is not located within an Essential Connectivity Area or Natural Landscape Block. The closest Essential Connectivity Area is located approximately four miles east of the Zuma Beach study area in Santa Monica Mountains. The other study areas, Dockweiler State Beach, Redondo Beach, Manhattan Beach, and Will Rogers State Beach, do not have an Essential Connectivity Area located within 5 miles of the study area. Terrestrial wildlife movement is limited within the study area due to its proximity to developed areas, the presence of parking lots and roadways. Disturbance-tolerant species, such as California ground squirrel, racoon, and coyote, are most likely to use these local wildlife corridors.

Essential Fish Habitat

Marine portions of the study area provide wildlife movement opportunities for resident, nearshore, and pelagic species. Resident marine species may move between microhabitats within the study area, while nearshore and pelagic marine species may use the area for feeding or rest. The study area is within an Essential Fish Habitat (EFH) for two Fishery Management Plans (FMP): Pacific Fishery Management Council’s Groundfish Management Plan and the Pacific Fishery Management Council’s Coastal Pelagic Species Fishery Management Plan (NOAA 2024a). The study area contains habitat suitable for marine fish species regulated through the goals, objectives, policies, and mandates of the Marine Life Management Act (MLMA) and the Magnuson-Stevens Fishery Management and Conservation Act. The species regulated by the plans with a low to moderate potential to occur within the study area include:

- Pacific sanddab (*Citharichthys sordidus*); lingcod (*Ophiodon elongatus*); leopard shark (*Triakis semifasciata*): Groundfish Management Plan regulated
- Pacific sardine (*Sardinops sagax*); northern anchovy (*Engraulis mordax*); Pacific mackerel (*Scomber japonicas*); krill species (*Thysanoessa spinifera*, *Euphausia pacifica*, and other krill species), and jack mackerel (*Trachurus symmetricus*): Coastal Pelagic Species Fishery Management Plan regulated

These species warrant a discussion due to the EFH designation and to ensure long-term resource conservation and sustainability of each fishery. EFH is defined as those waters and substrate

necessary to fish for spawning. Substrate includes the sediment, hard bottom, structures underlying the waters and the associated biological communities.

According to NOAA, there is a rocky reef outside the study area offshore of Will Rogers State Beach that is classified as a Habitat Area of Particular Concern (HAPC) (Figure 5b). Rocky reef HAPC is hard substrate (bedrock, boulders, cobble, gravel, etc.). The extent of rocky substrate is an approximation and typically assessed at finer scales, through direct observation, which may make it possible to further distinguish between hard and soft substrate to define the extent of the HAPC.

Dockweiler State Beach borders the Marina Del Rey Harbor, and the estuaries present within the harbor are classified as a HAPC. Redondo Beach is a known giant sea bass (*Stereolepis gigas*) nursery site; the nursery site is located between Redondo Pier and Kings Harbor (Couffer 2022).

4.6 Resources Protected by Local Policies and Ordinances

In partnership with coastal cities and counties, the CCC plans and regulates the use of land and water in the coastal zone. The Coastal Act requires that local governments develop Local Coastal Programs (LCP) to carry out policies of the California Coastal Act at the local level. The California Coastal Act includes specific policies that address issues such as shoreline public access and recreation and terrestrial and marine habitat protection, visual resources.

The City of Malibu LCP, which applies to Zuma Beach study area, includes policies that protect ESHA from disruption and only resource dependent uses may be permitted within ESHA. The ESHA Designation includes riparian areas, streams, native woodlands, native grasslands/savannas, chaparral, coastal sage scrub, dunes, bluffs, and wetlands, unless there is site-specific evidence that establishes that a habitat area is not especially valuable because of its special nature or role in the ecosystem. In addition, all Areas of Special Biological Significance (ASBS) and MPAs, are considered ESHA and are accorded all protection provided for ESHA in the LCP.

The City of Manhattan Beach LCP outlines policies to protect public access, recreation, and sensitive coastal resources. Specifically:

Policy IV.D.1: Avoid impacts to beach dune habitat when designing and siting recreation areas, and direct public access to use well-defined footpaths and the Strand rather than over dune habitat areas through symbolic/protective fencing, signage, and similar methods.

The Manhattan Beach Dune Restoration Project site contains sensitive plant species and exhibits dune morphology that is considered ESHA (Figure 5d).

The City of Redondo Beach LCP Land Use Policy 17 includes the protection of ESHA against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. No ESHA is present in the Redondo Beach study area.

Dockweiler State Beach and Will Rogers State Beach are located in unincorporated Los Angeles County and therefore subject to the CCC coastal permit procedures. The California Coastal Act defines ESHA as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.” Unique plant habitats, rare and endangered plant and animal habitats, wetlands, coastal streams, rocky points, sea cliffs, intertidal areas, and kelp

beds are typically considered ESHA. The ice plant mats in Dockweiler State Beach and Will Rogers State Beach are associated with indicators of dune habitat that constitute ESHA. The CCC has taken a conservative approach to protecting dunes given their extreme rarity (coastal dunes are only found along the thin margin between the ocean and land and many have been destroyed by development) and because where they persist, they tend to be degraded and/or invaded by non-native invasive species. Therefore, dune areas dominated by non-native invasive species, and small areas of dune habitat, all constitute dune ESHA (Figure 5b and Figure 5c).

Marine Protected Areas

The Marine Life Protection Act of 1999 directs the state to redesign California’s system of MPAs to function as a network in order to: increase coherence and effectiveness in protecting the State’s marine life and habitats, marine ecosystems, and marine natural heritage, as well as to improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance. Zuma Beach is located within the Point Dume State Marine Conservation Area (Point Dume SMCA) (Figure 5a). The Point Dume SMCA extends 4 miles along the coast and is adjacent to the Point Dume State Marine Reserve that extends around Point Dume.

Areas of Special Biological Significance

The SWRCB created ASBS to help maintain natural water quality within some of the most pristine and biologically diverse sections of California’s coast. No pollutants are allowed to be discharged within these protected areas. Malibu is home to the largest ASBS, No. 24, which was designated by the State in 1974. ASBS No. 24 stretches 24 miles along the coast from Latigo Point beyond the county line to Laguna Point near Point Mugu, covering about half the Malibu coast. The Zuma Beach study area is located within this ASBS.

California Public Resources Code

The State Parks system is governed by the California Public Resources Code which includes policies to protect sensitive habitats and water quality, fish, and wildlife resources. The State Parks were established to maintain the quality of life in California.

A full description of all applicable policies are listed in Appendix A Regulatory Setting.

4.7 Adopted or Approved Plans

The proposed project does not occur within any HCP or NCCP.

5 Impact Analysis and Recommended Avoidance and Minimization Measures

This section discusses the potential impacts and effects to special-status species and sensitive biological resources that may occur from implementation of the project and provides recommended avoidance and minimization measures (AMM) that would reduce the impacts. The analysis is based on the *CEQA Guidelines* Appendix G Initial Study Checklist; therefore, Section 5 is organized according to the threshold criteria therein.

A detailed evaluation of the screened sites for compatibility with the SCOUN plan was conducted and presented in a *Sand Compatibility and Opportunistic Use Program for Los Angeles County Beaches – Planning Study and Framework Report* (Coastal Frontiers Corporation 2023). A decision matrix was developed using 12 criteria, based on their relative importance, which reflect both the potential benefits of SCOUN activities and the possibility of adverse effects. Beaches were specifically chosen to avoid direct placement on sensitive habitats including offshore rocky reefs, coastal lagoons, kelp beds, and eelgrass meadows to minimize potential environmental impacts. Restrictions on placement locations, timing and quantities have been designed to avoid or limit impacts to sensitive habitat and the following avoidance and minimization measures (BIO-1 through BIO-7) are recommended to further reduce potential impacts to biological resources.

5.1 Special-Status Species

The 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 Plant Species

Zuma Beach

One ST plant species, beach spectaclepod, has a low potential to occur within the Zuma Beach study area. No other special-status plant species are expected to occur within the study area. The project would avoid all vegetated habitat and would implement at least a 50-foot-wide corridor around vegetated areas during all project activities. Direct impacts to special-status plants are not expected and the implementation of AMMs BIO-1 and BIO-2 would reduce indirect impacts to less than significant.

Will Rogers State Beach

One ST plant species, beach spectaclepod, has a low potential to occur within the Will Rogers State study area. No other special-status plant species are expected to occur within the study area. No other special-status plant species are expected to occur within the study area. The project would avoid all vegetated habitat and would implement at least a 50-foot-wide corridor around vegetated

areas during all project activities. Direct impacts to special-status plants are not expected and the implementation of AMMs BIO-1 and BIO-2 would reduce indirect impacts to less than significant.

Dockweiler State Beach

No special-status plant species are expected to occur within the Dockweiler State Beach study area. The project would avoid all vegetated habitat and would implement at least a 50-foot-wide corridor around vegetated areas during all project activities. Direct impacts to special-status plants are not expected and the implementation of AMMs BIO-1 and BIO-2 would reduce indirect impacts to less than significant.

Manhattan Beach

Beach coreopsis (CRPR 2B.2) and red-sand verbena (CRPR 4.2) are present at the Manhattan Beach study area at the Manhattan Beach Dune Restoration Project site. No other special-status plant species are expected to occur within the study area. The project would avoid all vegetated habitat and would implement at least a 50-foot-wide corridor around vegetated areas during all project activities. Direct impacts to special-status plants are not expected and the implementation of AMMs BIO-1 and BIO-2 would reduce indirect impacts to less than significant.

Redondo Beach

No special-status plant species are expected to occur within the Redondo Beach study area. The project would avoid all vegetated habitat and would implement at least a 50-foot-wide corridor around vegetated areas during all project activities. Direct impacts to special-status plants are not expected and the implementation of AMMs BIO-1 and BIO-2 would reduce indirect impacts to less than significant.

BIO-1 Worker Environmental Awareness Program (WEAP)

Prior to initiation of project activities (including staging and mobilization), all personnel associated with project construction should attend WEAP training and conducted by a qualified biologist, to aid workers in recognizing special-status terrestrial and marine species, native birds, and other biological resources that may occur in the project area. The specifics of this program should include identification and habitats of special-status species with potential to occur at the project area, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work areas. A fact sheet conveying this information may also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees should sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them.

BIO-2 General Best Management Practices

The following Best Management Practices (BMP) should be followed by project personnel to prevent pollution and minimize the introduction of pollutants into coastal waters.

- During construction, heavy equipment should be operated in accordance with standard BMPs. All equipment should be properly maintained such that no leaks of oil, fuel, or residues would take place. Provisions should be in place to remediate any accidental spills. Materials should be

stored and equipment fueled at least 100 feet from water features, as feasible, or equipment should use secondary containment.

- Spill prevention and control measures should be implemented to ensure the proper handling and storage of petroleum products and other construction materials, including a designated fueling and vehicle maintenance area with appropriate protection to prevent any spillage of gasoline or related petroleum products or contact with runoff.
- All food-related trash should be disposed of in closed containers and removed from the project area each day during the construction period. Project personnel should not feed or otherwise attract wildlife to the project area.
- All work should take place during daylight hours. Lighting of the beach and water area should be prohibited.
- Construction work or equipment operations below the MLLW should be minimized to the absolute extent feasible, and, where possible, limited to times when tidal waters have receded from the authorized work area.
- Any spillage of material would be stopped if it can be done safely. The contaminated area should be cleaned, and any contaminated materials properly disposed.
- Adequate spill prevention and response equipment should be maintained on site and readily available to implement to ensure minimal impacts to the aquatic and marine environments.
- A 50-foot-long spill containment boom and absorbent pads should be kept on-site and be deployed if there is a release of fluids into the water.

5.1.2 Special-Status Wildlife Species

Special-status wildlife species were determined to occur within the study area based upon known ranges, habitat preferences, species occurrence records from the CNDDDB, and species occurrence records from other sites near the study area. As discussed in Section 4.2, only species that are present, have a high, moderate potential to occur or federally and/or State-listed species with a low potential to occur in the study area are discussed. Though the five beaches range somewhat geographically, they all occur in similar habitat and occur within or directly adjacent to Santa Monica Bay.

Zuma Beach

Fish

The California grunion spawns on sandy beaches in Southern California. The study area is located primarily within the sandy beach and immediately following high tides from mid-March through August, grunion may come ashore and lay eggs in the sand near the HTL. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the ocean. The project area occurs in the sandy beach and subtidal sand overlapping the HTL and therefore has the potential to impact incubating eggs if project activities occur during their spawning season. Incorporation of AMMs BIO-1 through BIO-3 would reduce indirect and direct impacts to less than significant. The project proposes to add sand to the beach which would benefit spawning habitat for grunion.

Green Sea Turtle

The green sea turtle occurs in Southern California bays, lagoons, and other nearshore waters close to coastal inlets. Individuals would be unlikely in the study area but could forage or transit through the Santa Monica Bay Region in warm water years. The project area mostly occurs in the intertidal zone where sea turtles would not be expected. Incorporation of AMMs BIO-1, BIO-2, and BIO-5 would reduce indirect and direct impacts to less than significant.

Birds

The western snowy plover exhibits strong fidelity to overwintering sites which provide connectivity for dispersal between breeding sites. Breeding western snowy plovers have not been observed in the Zuma Beach study area but may occur overwintering or foraging. The project area may provide important overwintering habitat. However, the project areas are frequently disturbed by public use and the species is likely accustomed to ambient disturbance. If the species was present during project activities, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food; however, these indirect impacts to habitat are anticipated to be temporary and would not affect the long-term quality of overwintering, foraging, or nesting habitat. Implementation of AMMs BIO-1, BIO-2 and BIO-4 would reduce potential impacts to the western snowy plover to less than significant.

The California brown pelican is present in the study area. However, suitable nesting habitat does not exist within the study area or project area. Should the species be present during the project, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to California brown pelican to less than significant.

Marine Mammals

The study area contains habitat that supports resident, foraging and transiting special-status marine mammals, including both pinnipeds and cetaceans protected under the MMPA. The offshore waters of the study area are relatively shallow (less than 40-feet MLLW) reducing the potential for the cetaceans (e.g., gray whale) to occur. The common bottlenose dolphin, the California sea lion and harbor seal have a high/moderate potential to occur. Noise is not expected to cause a disturbance to marine mammals. Increased turbidity may temporarily alter foraging or migration patterns; however, the potential for adverse impacts is relatively low since the impacts to water quality are expected to subside after construction activities are halted.

To minimize disturbance to special-status marine mammals, general guidelines set forth in the MMPA should be implemented. Project activities are not expected to have direct impacts on marine mammals. Indirect impacts to marine mammals could include alteration or disturbance of foraging or haul-out habitat. Implementation of AMMs BIO-1, BIO-2, and BIO-5 would reduce potential impacts to marine mammals to less than significant.

Nesting Birds

To avoid disturbance to nesting and special-status birds, including raptor species protected by the MBTA and CFGC 3503, activities related to the project including, but not limited to, vehicle traffic,

foot traffic, and demobilization, should occur outside of the bird breeding season for migratory birds (February 1 through September 15), if practicable. Should any birds nest on or near the project areas, project activities could directly impact breeding by destroying the nest, or through disruption of normal biological behaviors during construction of the project resulting in nest failure. Indirect impacts could include disturbance of breeding habitat. The loss of a nest or disturbance of nesting habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would help ensure compliance with the MBTA and CFGC Section 3503.

Will Rogers State Beach

Invertebrates

The study area beach is groomed where little or no native plants or vegetation is well established. Generally, these beaches have a low diversity of invertebrates. The study area at Will Rogers State Beach has elements of globose dune beetle habitat (sandy soils and stable vegetated dunes). However, the project would avoid vegetated areas or areas exhibiting dune morphology and implement at least a 50-foot buffer around the area. The project area mostly overlaps areas that are frequently groomed or the nearshore waters where individuals are not expected; therefore, the potential for adverse impacts is relatively low. Benthic organisms found in the sand beach habitat may be temporarily impacted during nourishment events. However, these species are expected to recover quickly based upon their natural history and ability to recolonize areas.

Fish

The California grunion spawns on sandy beaches in Southern California. The study area is located primarily within the sandy beach and immediately following high tides from mid-March through August, grunion may come ashore and lay eggs in the sand near the HTL. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the ocean. The project area occurs in the sandy beach and subtidal sand overlapping the HTL and therefore has the potential to impact incubating eggs if project activities occur during their spawning season. Incorporation of AMMs BIO-1 through BIO-3 would reduce indirect and direct impacts to less than significant. The project proposes to add sand to the beach which would benefit spawning habitat for grunion.

Green Sea Turtle

The green sea turtle occurs in Southern California bays, lagoons, and other nearshore waters close to coastal inlets. Individuals would be unlikely in the study area but could forage or transit through the Santa Monica Bay Region in warm water years. The project area mostly occurs in the intertidal zone where sea turtles would not be expected. Incorporation of AMMs BIO-1, BIO-2, and BIO-5 would reduce indirect and direct impacts to less than significant.

Birds

The western snowy plover exhibits strong fidelity to overwintering which provide connectivity for dispersal between breeding sites. Breeding western snowy plovers have not been observed in the Will Rogers State Beach study area but may occur overwintering or foraging. The beaches within the project area may provide important overwintering habitat. However, the project areas are frequently disturbed by public use and the species is likely accustomed to ambient disturbance. If

the species was present during project activities, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food; however, these indirect impacts to habitat are anticipated to be temporary and would not affect the long-term quality of overwintering, foraging, or nesting habitat. Implementation of AMMs BIO-1, BIO-2 and BIO-4 would reduce potential impacts to the western snowy plover to less than significant.

The California least tern is not known to nest in the study area but could be found in the nearshore waters foraging. Individuals are not expected to occur in the project area. Project activities have the potential to indirectly impact foraging individuals if present during project execution. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Since ample alternative forage areas would be available to these species during construction, no adverse impacts are anticipated and implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to the California least tern to less than significant.

The California brown pelican is present in the study area. However, suitable nesting habitat does not exist within the study area or project area. Should the species be present during the project, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to California brown pelican to less than significant.

Marine Mammals

The study area contains habitat that supports resident, foraging and transiting special-status marine mammals, including both pinnipeds and cetaceans protected under the MMPA. The offshore waters of the study area are relatively shallow (less than 40-foot MLLW) reducing the potential for the cetaceans (e.g., gray whale) to occur. The common bottlenose dolphin, the California sea lion and harbor seal have a high/moderate potential to occur. Noise is not expected to cause a disturbance to marine mammals. Increased turbidity may temporarily alter foraging or migration patterns; however, the potential for adverse impacts is relatively low since the impacts to water quality are expected to subside after construction activities are halted.

To minimize disturbance to special-status marine mammals, general guidelines set forth in the MMPA should be implemented. Project activities are not expected to have direct impacts on marine mammals. Indirect impacts to marine mammals could include alteration or disturbance of foraging or haul-out habitat. Implementation of AMMs BIO-1, BIO-2, and BIO-5 would reduce potential impacts to marine mammals to less than significant.

Nesting Birds

To avoid disturbance to nesting and special-status birds, including raptor species protected by the MBTA and CFGC 3503, activities related to the project including, but not limited to, vehicle traffic, foot traffic, and demobilization, should occur outside of the bird breeding season for migratory birds (February 1 through September 15), if practicable. Should any birds nest on or near the project areas, project activities could directly impact breeding by destroying the nest, or through disruption of normal biological behaviors during construction of the project resulting in nest failure. Indirect impacts could include disturbance of breeding habitat. The loss of a nest or disturbance of nesting

habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would help ensure compliance with the MBTA and CFGC Section 3503.

Dockweiler State Beach

Invertebrates

The El Segundo blue butterfly resides in the El Segundo sand dunes and has been observed foraging in area with their natural food source, coast buckwheat. There is a low potential for the species to occur in the vegetation areas in the study area at Dockweiler State Beach. They are not expected to occur in the project area due to lack of their food source and unvegetated areas.

Fish

The California grunion spawns on sandy beaches in Southern California. The study area is located primarily within the sandy beach and immediately following high tides from mid-March through August, grunion may come ashore and lay eggs in the sand near the HTL. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the ocean. The project area occurs in the sandy beach and subtidal sand overlapping the HTL and therefore has the potential to impact incubating eggs if project activities occur during their spawning season. Incorporation of AMMs BIO-1 through BIO-3 would reduce indirect and direct impacts to less than significant. The project proposes to add sand to the beach which would benefit spawning habitat for grunion.

Green Sea Turtle

The green sea turtle occurs in Southern California bays, lagoons, and other nearshore waters close to coastal inlets. Individuals would be unlikely in the study area but could forage or transit through the Santa Monica Bay Region in warm water years. The project area mostly occurs in the intertidal zone where sea turtles would not be expected. Incorporation of AMMs BIO-1, BIO-2, and BIO-5 would reduce indirect and direct impacts to less than significant.

Birds

The western snowy plover exhibits strong fidelity to overwintering sites which provide connectivity for dispersal between breeding sites. Breeding western snowy plovers have not been observed in the Dockweiler State Beach study area since 2020 but may occur overwintering or foraging at the five beaches. The beaches within the project area may provide important overwintering habitat. However, the project area is frequently disturbed by public use and the species is likely accustomed to ambient disturbance. If the species was present during project activities, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food; however, these indirect impacts to habitat are anticipated to be temporary and would not affect the long-term quality of overwintering, foraging, or nesting habitat. Implementation of AMMs BIO-1, BIO-2 and BIO-4 would reduce potential impacts to the western snowy plover to less than significant.

The California least tern is not known to nest in the study area but could be found in the nearshore waters foraging. Individuals are not expected to occur in the project area. Project activities have the potential to indirectly impact foraging individuals if present during project execution. However, the effects would be localized and temporary and would not extend beyond the normal foraging

distance for the species and should diminish immediately when construction activities are halted. Since ample alternative forage areas would be available to these species during construction, no adverse impacts are anticipated and implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to the California least tern to less than significant.

The California brown pelican is present in the study area. However, suitable nesting habitat does not exist within the study area or project area. Should the species be present during the project, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to California brown pelican to less than significant.

Marine Mammals

The study area contains habitat that supports resident, foraging and transiting special-status marine mammals, including both pinnipeds and cetaceans protected under the MMPA. The offshore waters of the study area are relatively shallow (less than 40-feet MLLW) reducing the potential for the cetaceans (e.g., gray whale) to occur. The common bottlenose dolphin was observed during the field survey and the California sea lion and harbor seal have a high/moderate potential to occur. Noise is not expected to cause a disturbance to marine mammals. Increased turbidity may temporarily alter foraging or migration patterns; however, the potential for adverse impacts is relatively low since the impacts to water quality are expected to subside after construction activities are halted.

To minimize disturbance to special-status marine mammals, general guidelines set forth in the MMPA should be implemented. Project activities are not expected to have direct impacts on marine mammals. Indirect impacts to marine mammals could include alteration or disturbance of foraging or haul-out habitat. Implementation of AMMs BIO-1, BIO-2, and BIO-5 would reduce potential impacts to marine mammals to less than significant.

Nesting Birds

To avoid disturbance to nesting and special-status birds, including raptor species protected by the MBTA and CFGC 3503, activities related to the project including, but not limited to, vehicle traffic, foot traffic, and demobilization, should occur outside of the bird breeding season for migratory birds (February 1 through September 15), if practicable. Should any birds nest on or near the project areas, project activities could directly impact breeding by destroying the nest, or through disruption of normal biological behaviors during construction of the project resulting in nest failure. Indirect impacts could include disturbance of breeding habitat. The loss of a nest or disturbance of nesting habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would help ensure compliance with the MBTA and CFGC Section 3503.

Manhattan Beach

Invertebrates

The study area beach is groomed where little or no native plants or vegetation is well established. Generally, these beaches have a low diversity of invertebrates. The study area at Manhattan Beach has elements of globose dune beetle habitat (sandy soils and stable vegetated dunes). However, the

project would avoid vegetated areas or areas exhibiting dune morphology and implement at least a 50-foot buffer around the area. The project area mostly overlaps areas that are frequently groomed or the nearshore waters where individuals are not expected; therefore, the potential for adverse impacts is relatively low. Benthic organisms found in the sand beach habitat may be temporarily impacted during nourishment events. However, these species are expected to recover quickly based upon their natural history and ability to recolonize areas.

The El Segundo blue butterfly resides in the El Segundo sand dunes and has been observed foraging in area with their natural food source, coast buckwheat. There is a low potential for the species to occur in the vegetation areas in the study area at Manhattan Beach. They are not expected to occur in the project area due to lack of their food source and unvegetated areas.

Fish

The California grunion spawns on sandy beaches in Southern California. The study area is located primarily within the sandy beach and immediately following high tides from mid-March through August, grunion may come ashore and lay eggs in the sand near the HTL. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the ocean. The project area occurs in the sandy beach and subtidal sand overlapping the HTL and therefore has the potential to impact incubating eggs if project activities occur during their spawning season. Incorporation of AMMs BIO-1 through BIO-3 would reduce indirect and direct impacts to less than significant. The project proposes to add sand to the beach which would benefit spawning habitat for grunion.

Green Sea Turtle

The green sea turtle occurs in Southern California bays, lagoons, and other nearshore waters close to coastal inlets. Individuals would be unlikely in the study area but could forage or transit through the Santa Monica Bay Region in warm water years. The project area mostly occurs in the intertidal zone where sea turtles would not be expected. Incorporation of AMMs BIO-1, BIO-2, and BIO-5 would reduce indirect and direct impacts to less than significant.

Birds

The western snowy plover exhibits strong fidelity to overwintering sites which provide connectivity for dispersal between breeding sites. Breeding western snowy plovers have not been observed in the study area but may occur overwintering or foraging. The beaches within the project area may provide important overwintering habitat. However, the project areas are frequently disturbed by public use and the species is likely accustomed to ambient disturbance. If the species was present during project activities, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food; however, these indirect impacts to habitat are anticipated to be temporary and would not affect the long-term quality of overwintering, foraging, or nesting habitat. Implementation of AMMs BIO-1, BIO-2 and BIO-4 would reduce potential impacts to the western snowy plover to less than significant.

The California least tern is not known to nest in the study area but could be found in the nearshore waters foraging. Individuals are not expected to occur in the project area. Project activities have the potential to indirectly impact foraging individuals if present during project execution. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted.

Since ample alternative forage areas would be available to these species during construction, no adverse impacts are anticipated and implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to the California least tern to less than significant.

The California brown pelican is present in the study area. However, suitable nesting habitat does not exist within the study area or project area. Should the species be present during the project, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to California brown pelican to less than significant.

Marine Mammals

The study area contains habitat that supports resident, foraging and transiting special-status marine mammals, including both pinnipeds and cetaceans protected under the MMPA. The offshore waters of the study area are relatively shallow (less than 40-foot MLLW) reducing the potential for the cetaceans (e.g., gray whale) to occur. The common bottlenose dolphin, the California sea lion and harbor seal have a high/moderate potential to occur. Noise is not expected to cause a disturbance to marine mammals. Increased turbidity may temporarily alter foraging or migration patterns; however, the potential for adverse impacts is relatively low since the impacts to water quality are expected to subside after construction activities are halted.

To minimize disturbance to special-status marine mammals, general guidelines set forth in the MMPA should be implemented. Project activities are not expected to have direct impacts on marine mammals. Indirect impacts to marine mammals could include alteration or disturbance of foraging or haul-out habitat. Implementation of AMMs BIO-1, BIO-2, and BIO-5 would reduce potential impacts to marine mammals to less than significant.

Nesting Birds

To avoid disturbance to nesting and special-status birds, including raptor species protected by the MBTA and CFGC 3503, activities related to the project including, but not limited to, vehicle traffic, foot traffic, and demobilization, should occur outside of the bird breeding season for migratory birds (February 1 through September 15), if practicable. Should any birds nest on or near the project areas, project activities could directly impact breeding by destroying the nest, or through disruption of normal biological behaviors during construction of the project resulting in nest failure. Indirect impacts could include disturbance of breeding habitat. The loss of a nest or disturbance of nesting habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would help ensure compliance with the MBTA and CFGC Section 3503

Redondo Beach

Invertebrates

The El Segundo blue butterfly resides in the El Segundo sand dunes and has been observed foraging in area with their natural food source, coast buckwheat. There is a low potential for the species to occur in the vegetation areas in the study area at Redondo Beach. They are not expected to occur in the project area due to lack of their food source and unvegetated areas.

Fish

The California grunion spawns on sandy beaches in Southern California. The study area is located primarily within the sandy beach and immediately following high tides from mid-March through August, grunion may come ashore and lay eggs in the sand near the HTL. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the ocean. The project area occurs in the sandy beach and subtidal sand overlapping the HTL and therefore has the potential to impact incubating eggs if project activities occur during their spawning season. Incorporation of AMMs BIO-1 through BIO-3 would reduce indirect and direct impacts to less than significant. The project proposes to add sand to the beach which would benefit spawning habitat for grunion.

Green Sea Turtle

The green sea turtle occurs in Southern California bays, lagoons, and other nearshore waters close to coastal inlets. Individuals would be unlikely in the study area but could forage or transit through the Santa Monica Bay Region in warm water years. The project area mostly occurs in the intertidal zone where sea turtles would not be expected. Incorporation of AMMs BIO-1, BIO-2, and BIO-5 would reduce indirect and direct impacts to less than significant.

Birds

The western snowy plover exhibits strong fidelity to overwintering sites which provide connectivity for dispersal between breeding sites. Breeding western snowy plovers have not been observed in the study area but may occur overwintering or foraging. The beaches within the project area may provide important overwintering habitat. However, the project areas are frequently disturbed by public use and the species is likely accustomed to ambient disturbance. If the species was present during project activities, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food; however, these indirect impacts to habitat are anticipated to be temporary and would not affect the long-term quality of overwintering, foraging, or nesting habitat. Implementation of AMMs BIO-1, BIO-2 and BIO-4 would reduce potential impacts to the western snowy plover to less than significant.

The California least tern is not known to nest in the study area but could be found in the nearshore waters foraging. Individuals are not expected to occur in the project area. Project activities have the potential to indirectly impact foraging individuals if present during project execution. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Since ample alternative forage areas would be available to these species during construction, no adverse impacts are anticipated and implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to the California least tern to less than significant.

The California brown pelican is present in the study area. However, suitable nesting habitat does not exist within the study area or project area. Should the species be present during the project, potential direct impacts could include mortality or injury of individuals. Potential indirect impacts to the species may include increased noise and displacement of food. However, the effects would be localized and temporary and would not extend beyond the normal foraging distance for the species and should diminish immediately when construction activities are halted. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would reduce potential impacts to California brown pelican to less than significant.

Marine Mammals

The study area contains habitat that supports resident, foraging and transiting special-status marine mammals, including both pinnipeds and cetaceans protected under the MMPA. The offshore waters of the study area are relatively shallow (less than 40-feet MLLW) reducing the potential for the cetaceans (e.g., gray whale) to occur. The common bottlenose dolphin, the California sea lion and harbor seal have a high/moderate potential to occur. Noise is not expected to cause a disturbance to marine mammals. Increased turbidity may temporarily alter foraging or migration patterns; however, the potential for adverse impacts is relatively low since the impacts to water quality are expected to subside after construction activities are halted.

To minimize disturbance to special-status marine mammals, general guidelines set forth in the MMPA should be implemented. Project activities are not expected to have direct impacts on marine mammals. Indirect impacts to marine mammals could include alteration or disturbance of foraging or haul-out habitat. Implementation of AMMs BIO-1, BIO-2, and BIO-5 would reduce potential impacts to marine mammals to less than significant.

Nesting Birds

To avoid disturbance to nesting and special-status birds, including raptor species protected by the MBTA and CFGC 3503, activities related to the project including, but not limited to, vehicle traffic, foot traffic, and demobilization, should occur outside of the bird breeding season for migratory birds (February 1 through September 15), if practicable. Should any birds nest on or near the project areas, project activities could directly impact breeding by destroying the nest, or through disruption of normal biological behaviors during construction of the project resulting in nest failure. Indirect impacts could include disturbance of breeding habitat. The loss of a nest or disturbance of nesting habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Implementation of AMMs BIO-1, BIO-2, and BIO-4 would help ensure compliance with the MBTA and CFGC Section 3503.

BIO-3 Grunion Surveys

The project would not place material or conduct any work on the beach below the HTL during the seasonally predicted run period and egg incubation period of March 14 through August 31. If project activities must occur during an expected grunion run, a grunion survey should be conducted in accordance with the expected grunion runs provided by CDFW. Project activities should proceed in areas only where no grunion spawning was observed.

BIO-4 Western Snowy Plover and Nesting Bird Monitoring

To avoid disturbance of nesting and special-status birds, including western snowy plover and California least tern, protected by the ESA, CESA, MBTA, and CFGC 3503, activities related to the project including should occur outside of the bird breeding season for protected birds (generally February 1 through September 15), as feasible.

If project activities must occur during the breeding season, then full-time monitoring should be conducted during all beach nourishment activities. At all times, a qualified monitor should walk ahead of vehicle(s) and equipment to assure that western snowy plover and California least tern are out of harm's way before the vehicle(s) or equipment can proceed. If birds do not move out of vehicle traffic path, the monitor should attempt to guide vehicle(s) on an alternate path to avoid

grounding birds and walk ahead of vehicle(s) to ensure the path is cleared while maintaining a minimum 150-foot buffer.

If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside the site) should be determined and demarcated by the biologist with bright orange fencing, flagging, or other means to mark the boundary. All project personnel should be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No project activities should occur inside this buffer until the avian biologist has confirmed breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer should occur only at the discretion of the qualified biologist.

BIO-5 Marine Mammal and Sea Turtle Avoidance

All project personnel should adhere to the guidelines set forth in the MMPA. If a stranded or hauled out marine mammal or sea turtle is observed, all project equipment and personnel should remain at least 100 yards (300 feet) away from whales and 50 yards (150 feet) from dolphins, porpoises, seals and sea lions. Equipment and foot traffic should remain at least 150 feet from hauled-out seals and sea lions that could occur on the rocky jetties within the project area. The Marine Mammal Care Center should be notified if the animal appears sick or injured. Work should cease within the buffer area until the animal has been allowed to leave on its own.

5.2 Sensitive Natural Communities and Designated Critical Habitat

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

- 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.*

Zuma Beach

Sensitive Natural Communities

No sensitive vegetation communities occur within the study area.

Designated Critical Habitat

Western snowy plover critical habitat is designated at Zuma Beach Project activities are not expected to permanently impact or adversely modify critical habitat. Temporary impacts to these areas could include changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, temporary removal of foraging habitat, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-4 through BIO-7 would reduce potential impacts to critical habitat.

Will Rogers State Beach

Sensitive Natural Communities

No sensitive vegetation communities occur within the study area.

Designated Critical Habitat

The Will Rogers State Beach study area is located within proposed critical habitat for green sea turtle. Project activities are not expected to permanently impact or adversely modify critical habitat. Temporary impacts to these areas could include changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, temporary removal of foraging habitat, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-4 through BIO-7 would reduce potential impacts to critical habitat.

Dockweiler State Beach

Sensitive Natural Communities

No sensitive vegetation communities occur within the study area.

Designated Critical Habitat

Western snowy plover critical habitat is located within the study area Dockweiler State Beach but does not overlap the project area. The Dockweiler State Beach study area is located within proposed critical habitat for green sea turtle. The project activities would avoid the critical habitats located within the study area. Project activities are not expected to permanently impact or adversely modify critical habitat. Temporary impacts to these areas could include changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, temporary removal of foraging habitat, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-4 through BIO-7 would reduce potential impacts to critical habitat.

Manhattan Beach

Sensitive Natural Communities

One sensitive vegetation community, dune mat, which is considered ESHA, occurs within the Manhattan Beach study area. The proposed project would not result in the direct removal of sensitive vegetation. Potential indirect impacts could include dust deposition on plant leaves which may adversely affect plant productivity. Implementation of AMMs BIO-1, BIO-2, through BIO-7 would reduce potential impacts to sensitive natural communities to less than significant.

Designated Critical Habitat

The Manhattan Beach study area is located within proposed critical habitat for green sea turtle. Project activities are not expected to permanently impact or adversely modify critical habitat. Temporary impacts to these areas could include changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, temporary removal of foraging habitat, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-4 through BIO-7 would reduce potential impacts to critical habitat.

Redondo Beach

Sensitive Natural Communities

No sensitive vegetation communities occur within the study area.

Designated Critical Habitat

The Redondo Beach study area is located within proposed critical habitat for green sea turtle. Project activities are not expected to permanently impact or adversely modify critical habitat. Temporary impacts to these areas could include changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, temporary removal of foraging habitat, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-4 through BIO-7 would reduce potential impacts to critical habitat.

BIO-6 ESHA Avoidance

During the project, ESHA should be clearly delineated in the field to prevent direct impacts outside the designated project boundary. All sensitive species and sensitive species' habitats, including ESHA, located within 100 feet of project activities should be delineated with specific sensitive species labeling (e.g., signage stating, "No Entry – Environmentally Sensitive Habitat" attached to temporary fencing). Since the project is temporary, orange snow fencing would be sufficient for the duration of the project. Areas that are separated by existing chain-link fencing, signage should be secured to the existing fencing.

BIO-7 Water Quality Monitoring

A Water Quality Monitoring Plan should be prepared to avoid and minimize potential adverse effects to water quality (e.g., increased turbidity, altered pH, decreased dissolved oxygen levels). The plan should establish water quality thresholds consistent with the SWRCB Ocean Plan and include measures for water quality monitoring up current and down current of the project area. During project activities, if water quality thresholds established in the Ocean Plan are exceeded, a water quality monitor should inform the project manager and be granted the authority to temporarily halt project activities until monitoring indicates the constituent measurements are within the Ocean Plan thresholds.

5.3 Jurisdictional Waters and Wetlands

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

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

The Pacific Ocean occurs in the study area and project activities are regulated by the USACE, RWQCB/SWRQB, and the CCC. Temporary direct impacts to waters of the United States/State/Coastal Waters would occur during project activities. Potential impacts include altered turbidity, salinity, pH, light transmittance, total suspended solids, and other constituents during beach placement operations. Each sand source will be tested and analyzed and only material with a fines content of less than or equal to 15 percent, and 50,000 cy for material with a fines content between 15 and 25 percent will be placed. This is consistent with other regional SCoup projects. Potential indirect impacts from project activities could occur if sediment or pollutants were allowed to enter the Pacific Ocean through stormwater runoff. Implementation of AMMs BIO-1, BIO-2, and BIO-7 would reduce potential impacts to jurisdictional waters and wetlands to less than significant. Additionally, adherence to resource agency permit special conditions would further reduce potential impacts.

Several ephemeral drainage culvert outlets occur within the study area. No culverts occur in the project area, and the project will not result in a diversion, diking, or filling of the culverts and will not alter the existing flow of stormwater. Implementation of AMMs BIO-1, BIO-2, and BIO-7 would reduce potential indirect impacts to the drainage features.

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.*

Zuma Beach

The study area is not located within an Essential Connectivity Area or Natural Landscape Block (Spencer et al. 2010). Marine portions of the study area provide wildlife corridors for resident and migratory fish, marine mammals, and some fish species; pinnipeds and may use beaches as a refuge site. Multiple groundfish species protected by the Pacific Coast Groundfish FMP have potential to occur within the study area. Multiple pelagic fish species protected by the Coastal Pelagic Species Management Plan have potential to occur within the study area. The study area occurs within designated EFH for the groundfish and coastal pelagic species.

Project activities may temporarily alter EFH or interfere with the movement of fish or wildlife species and could temporarily impede the use of wildlife nursery sites. Project activities are not expected to have significant impacts on these habitats, populations or the fisheries that depend on them because of the temporary nature of project activities. The offshore portion of the project area is composed of sand substrate and exposed to high surf and runoff which can temporarily alter water quality and movement. The project may cause similar temporary impacts including changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-3, and BIO-7 would reduce potential impacts to wildlife movement and EFH to less than significant.

Will Rogers State Beach

The study area is not located within an Essential Connectivity Area or Natural Landscape Block (Spencer et al. 2010). Marine portions of the study area provide wildlife corridors for resident and migratory fish, marine mammals, and some fish species; pinnipeds and may use beaches as a refuge site. Multiple groundfish species protected by the Pacific Coast Groundfish FMP have potential to occur within the study area. Multiple pelagic fish species protected by the Coastal Pelagic Species Management Plan have potential to occur within the study area. The study area occurs within designated EFH for the groundfish and coastal pelagic species. As described in Section 4.5 portions of the study area is mapped as HAPC. The HAPC mapping is an approximation of its extent, and direct observation would further distinguishing hard verse soft substrate. Additional datasets were reviewed to further identify potential rocky substrate. The Predicted Nearshore Benthic Substrates of California (CDFW 2023) identifies small individual rocky outcrops that occur outside the depth of closure where project-derived sediment is expected to transport. Therefore, direct impacts are not expected to alter rocky reef HAPC.

Project activities may temporarily alter EFH or interfere with the movement of fish or wildlife species and could temporarily impede the use of wildlife nursery sites. Project activities are not expected to have significant impacts on these habitats, populations or the fisheries that depend on them because of the temporary nature of project activities. The offshore portion of the project area is composed of sand substrate and exposed to high surf and runoff which can temporarily alter water quality and movement. The project may cause similar temporary impacts including changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-3, and BIO-7 would reduce potential impacts to wildlife movement, EFH and HAPC to less than significant.

Dockweiler State Beach

The study area is not located within an Essential Connectivity Area or Natural Landscape Block (Spencer et al. 2010). Marine portions of the study area provide wildlife corridors for resident and migratory fish, marine mammals, and some fish species; pinnipeds and may use beaches as a refuge site. Multiple groundfish species protected by the Pacific Coast Groundfish FMP have potential to occur within the study area. Multiple pelagic fish species protected by the Coastal Pelagic Species Management Plan have potential to occur within the study area. The study area occurs within designated EFH for the groundfish and coastal pelagic species. The Marina Del Rey harbor that borders Dockweiler State Beach study area is an HAPC. Project-derived sediment is not expected to transport into Marina Del Rey harbor. Therefore, direct and indirect impacts are not expected to alter estuary HAPC.

Project activities may temporarily alter EFH or interfere with the movement of fish or wildlife species and could temporarily impede the use of wildlife nursery sites. Project activities are not expected to have significant impacts on these habitats, populations or the fisheries that depend on them because of the temporary nature of project activities. The offshore portion of the project area is composed of sand substrate and exposed to high surf and runoff which can temporarily alter water quality and movement. The project may cause similar temporary impacts including changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-3, and BIO-7 would reduce potential impacts to wildlife movement and EFH to less than significant.

Manhattan Beach

The study area is not located within an Essential Connectivity Area or Natural Landscape Block (Spencer et al. 2010). Marine portions of the study area provide wildlife corridors for resident and migratory fish, marine mammals, and some fish species; pinnipeds and may use beaches as a refuge site. Multiple groundfish species protected by the Pacific Coast Groundfish FMP have potential to occur within the study area. Multiple pelagic fish species protected by the Coastal Pelagic Species Management Plan have potential to occur within the study area. The study area occurs within designated EFH for the groundfish and coastal pelagic species.

Project activities may temporarily alter EFH or interfere with the movement of fish or wildlife species and could temporarily impede the use of wildlife nursery sites. Project activities are not expected to have significant impacts on these habitats, populations or the fisheries that depend on them because of the temporary nature of project activities. The offshore portion of the project area is composed of sand substrate and exposed to high surf and runoff which can temporarily alter water quality and movement. The project may cause similar temporary impacts including changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, and other increased human

activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-3, and BIO-7 would reduce potential impacts to wildlife movement and EFH to less than significant.

Redondo Beach

The study area is not located within an Essential Connectivity Area or Natural Landscape Block (Spencer et al. 2010). Marine portions of the study area provide wildlife corridors for resident and migratory fish, marine mammals, and some fish species; pinnipeds and may use beaches as a refuge site. Multiple groundfish species protected by the Pacific Coast Groundfish FMP have potential to occur within the study area. Multiple pelagic fish species protected by the Coastal Pelagic Species Management Plan have potential to occur within the study area. The study area occurs within designated EFH for the groundfish and coastal pelagic species.

Project activities may temporarily alter EFH or interfere with the movement of fish or wildlife species and could temporarily impede the use of wildlife nursery sites. Project activities are not expected to have significant impacts on these habitats, populations or the fisheries that depend on them because of the temporary nature of project activities. The offshore portion of the project area is composed of sand substrate and exposed to high surf and runoff which can temporarily alter water quality and movement. The project may cause similar temporary impacts including changes to water quality (e.g., turbidity, pH, dissolved oxygen), increased noise, and other increased human activity during construction. Implementation of AMMs BIO-1, BIO-2, BIO-3, and BIO-7 would reduce potential impacts to wildlife movement and EFH to less than significant.

5.5 Resources Protected by 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.*

Zuma Beach

The California Coastal Act and City of Malibu LCP include policies to protect sensitive habitats and coastal resources. Direct impacts to ESHA would be avoided. Potential indirect impacts may occur related to heavy equipment use on the beach and increased noise. Implementation of AMMs BIO-1 through BIO-7 would ensure that project activities do not adversely impact any sensitive habitats, or coastal resources and that the project is not in conflict with any local policies or ordinances.

Marine Protected Areas

The Zuma Beach study area occurs within an SMCA. Take pursuant to beach nourishment and other sediment management activities is allowed inside the conservation area pursuant to any required federal, state and local permits, or as otherwise authorized by the CDFW (California Code of Regulations Title 14, Section 632). Indirect impacts may occur related to increased turbidity and burial of benthic infauna. Implementation of AMMs BIO-1 through BIO-3 and BIO-7 would ensure that project activities do not adversely impact habitat within the SMCA.

Areas of Special Biological Significance

The Zuma Beach study area occurs within an ASBS #24. The project would not result in direct impacts such as wastewater and pollutant discharges. However, indirect impacts due to increased turbidity or a change in other water quality standards may occur. Implementation of AMMs BIO-1, BIO-2 and BIO-7 would ensure that project activities do not adversely impact water quality within the ASBS.

Will Rogers State Beach

The California Coastal Act includes policies to protect sensitive habitats and coastal resources. Direct impacts to ESHA would be avoided. Potential indirect impacts may occur related to heavy equipment use on the beach and increased noise. Implementation of AMMs BIO-1 through BIO-7 would ensure that project activities do not adversely impact any sensitive habitats, or coastal resources and that the project is not in conflict with any local policies or ordinances.

California Public Resources Code

The California Public Resources Code includes policies to protect sensitive habitats and water quality, fish, and wildlife resources. The Will Rogers State Beach project area is managed by State Parks. The project is not expected to interfere with the general provisions listed in the California Public Resources Code. However, indirect impacts may occur due to heavy equipment use on the beach, which would temporarily reduce public use and may inadvertently cause litter or pollutants. Implementation of AMMs BIO-1 through BIO-7 would ensure that potential conflicts would be less than significant.

Dockweiler State Beach

The California Coastal Act includes policies to protect sensitive habitats and coastal resources. Direct impacts to ESHA would be avoided. Potential indirect impacts may occur related to heavy equipment use on the beach and increased noise. Implementation of AMMs BIO-1 through BIO-7 would ensure that project activities do not adversely impact any sensitive habitats, or coastal resources and that the project is not in conflict with any local policies or ordinances.

California Public Resources Code

The California Public Resources Code includes policies to protect sensitive habitats and water quality, fish, and wildlife resources. The Will Rogers State Beach project area is managed by State Parks. The project is not expected to interfere with the general provisions listed in the California Public Resources Code. However, indirect impacts may occur due to heavy equipment use on the beach, which would temporarily reduce public use and may inadvertently cause litter or pollutants. Implementation of AMMs BIO-1 through BIO-7 would ensure that potential conflicts would be less than significant.

Manhattan Beach

The California Coastal Act and the City of Manhattan Beach LCP include policies to protect sensitive habitats and coastal resources. Direct impacts to ESHA would be avoided. Potential indirect impacts may occur related to heavy equipment use on the beach and increased noise. Implementation of AMMs BIO-1 through BIO-7 would ensure that project activities do not adversely impact any

sensitive habitats, or coastal resources and that the project is not in conflict with any local policies or ordinances.

Redondo Beach

The California Coastal Act and City of Redondo Beach LCP include policies to protect sensitive habitats and coastal resources. Direct impacts to ESHA would be avoided. Potential indirect impacts may occur related to heavy equipment use on the beach and increased noise. Implementation of AMMs BIO-1 through BIO-7 would ensure that project activities do not adversely impact any sensitive habitats, or coastal resources and that the project is not in conflict with any local policies or ordinances.

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.*

The proposed project does not occur within any HCP or NCCP areas. Therefore, no conflicts with HCPs or NCCPs would occur.

6 Limitations, Assumptions, and Use Reliance

This BRA 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. Surveys following agency protocols for any specific species potentially occurring in the Project Area were not conducted. Reconnaissance-level biological surveys for certain taxa may 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 the specified historical and literature sources (Section 2.2) and the field reconnaissance survey. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW 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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Appendix A

Regulatory Setting

Regulatory Setting

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 sites include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- National Marine Fisheries Service (marine animals and anadromous fishes)
- Los Angeles Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- California Coastal Commission (California Coastal Act)

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the Clean Water Act (CWA) authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years, the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies' longstanding definition of "waters of the United States," which dates from 1986, remains in effect albeit with supplemental guidance interpreting applicable court decisions as described below.

Waters of the U.S.

In summary, USACE and USEPA regulations define "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;

Sand Compatibility and Opportunistic Use Program

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217.)

Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty

percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE maintains the National Wetland Plant List (USACE 2018) in coordination with the US EPA, the USFWS, and the USDA NRCS. The list separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the National Wetland Plant List is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court Decision

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies' current regulations through the September 2023 Conforming Rule.

The Court decided:

- “Adjacent wetlands” are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that “temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells.” The agencies addressed this element by defining the term “adjacent” to mean “having a continuous surface connection” in the Conforming Rule.
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. The Court determined that the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.
- Although jurisdiction over tributaries was not addressed by the Court, the decision stated that “...the [Clean Water Act’s] use of “waters” encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes.” The Conforming Rule makes clear that only relatively permanent tributaries qualify as “waters of the United States.”

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an

applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a “reasonable period of time” for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB’s *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act’s requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA’s *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

- (i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
- (ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
- (iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. Generally, the USFWS implements the ESA for terrestrial and freshwater species, while the NMFS implements the ESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered animal species, or a threatened or endangered plant species if occurring on federal land, 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 the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out 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 the

ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

“Disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

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 and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA's protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

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, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the Fully Protected species.

Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. 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. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code section 1602 states that it is unlawful for any person to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake” without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term “stream” for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
 - References “river,” “stream,” and “lake”
 - References “natural flow”
 - References “bed,” “bank,” and “channel”
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987)), which interpreted Section 1602’s use of “stream” to be as defined in common law. The Court indicated that a “stream” is commonly understood to:
 - Have a source and a terminus
 - Have banks and a channel
 - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
 - Represent the depression between the banks worn by the regular and usual flow of the water
 - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
 - Include the land that is covered by the water in its ordinary low stage
 - Include lands below the OHWM
- **CDFW regulations** defining “stream” for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
 - Flows at least periodically or intermittently
 - Flows through a bed or channel having banks
 - Supports fish or aquatic life
 - Can be dry for a period of time

Sand Compatibility and Opportunistic Use Program

- Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, including *A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
 - A stream may flow perennially or episodically
 - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
 - Width of a stream course can reasonably be identified by physical or biological indicators
 - A stream may have one or more channels (single thread vs. compound form)
 - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
 - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
 - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
 - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighed based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (FCMA), as amended (16 U.S.C. 1801 et seq.) established:

- A fishery conservation zone between the territorial seas of the United States and 200 nautical miles offshore;
- An exclusive U.S. fishery management authority over fish within the fishery conservation zone (excluding highly migratory species);
- Regulations for foreign fishing within the fishery conservation zone through international fishery agreements, permits, and import prohibitions; and
- National standards for fishery conservation and management and eight regional fishery management councils to apply those national standards in fishery management plans.

Congress enacted the 1996 amendments to the Act, known as the Sustainable Fisheries Act (SFA) (P.L. 104-297), to address the substantially reduced fish stocks that declined as a result of direct and indirect habitat loss. The SFA requires that BOEM and other agencies consult with the National

Oceanic and Atmospheric Administration’s National Marine Fisheries Service concerning actions that may adversely impact Essential Fish Habitat (EFH).

In 2007, President Bush signed the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. It mandates the use of annual catch limits and accountability measures to end overfishing, provides for fishery management by a limited access program, and calls for increased international cooperation.

Pacific Groundfish Fishery Management Plan

The Pacific Coast Groundfish FMP provides protection for 83 groundfish species throughout the Pacific Coast of the United States. Because groundfish species are widely dispersed during certain life stages, EFH for groundfish species is correspondingly large (Pacific Fishery Management Council). Designated EFH for Pacific Coast Groundfish includes all waters from depths less than or equal to 3,500 m to MHHW or the upriver extent of saltwater intrusion in river mouths along the coasts of Washington, Oregon, and California. The Pacific Coast Groundfish FMP describes seven habitat units that comprise Pacific groundfish EFH: estuarine, rocky shelf, non-rocky shelf, canyon, continental slope and basin, neritic zone, and oceanic zone. Habitat areas of particular concern include estuary, sea grass, kelp canopy, and rocky habitats.

Coastal Pelagic Fishery Management Plan

The Coastal Pelagic FMP provides protection for commercial pelagic species, including four finfish: Pacific sardine (*Sardinops sagax*), Pacific mackerel (*Scomber japonicus*), northern anchovy (*Engraulis mordax*), and Jack Mackerel (*Trachurus symmetricus*); market squid (*Loligo opalescens*); and various species of krill and euphausiids. The EFH for the finfish species and squid includes all marine and estuarine waters from the shoreline along the coasts of California, Oregon, and Washington, offshore to the limits of the EEZ where sea surface temperatures range between 50 and 78 degrees Fahrenheit (i.e. above the thermocline). The EFH for krill extends the length of the West Coast from the shoreline to a depth of approximately 1,300 feet.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) was enacted on October 21, 1972. All marine mammals are protected under the MMPA. The MMPA prohibits, with certain exceptions, the “take” of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.

Jurisdiction for MMPA is shared by U.S. Fish and Wildlife Service (Service) and the National Marine Fisheries Service (NMFS). The Service’s Branch of Permits is responsible for issuing take permits when exceptions are made to MMPA.

National Invasive Species Act

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended by the National Invasive Species Act of 1996, was enacted to prevent and control infestations of the coastal inland waters of the United States by the zebra mussel and other nonindigenous aquatic nuisance species. The Act was also enacted to reauthorize the National Sea Grant College Program and for other purposes. The Act defines “nonindigenous species” as “any species or other viable biological material that enters an ecosystem beyond its historic range, including any such organisms

transferred from one country into another.” “Aquatic nuisance species” is defined as “a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on such waters.”

California Ocean Plan

Ocean standards protect the beneficial uses of California’s marine waters through establishing water quality objectives and implementation provisions in statewide water quality control plans and polices. Ocean standards plans and policies include: the Water Quality Control Plan for Ocean Waters of California (Ocean Plan); the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (California Thermal Plan); and the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant cooling (Once-Through Cooling Policy).

The Ocean Standards Unit is responsible for developing and updating the statewide plans and policies involving marine waters and providing scientific support and inter-agency coordination regarding marine pollution and resource management.

Marine Invasive Species Act

The Marine Invasive Species Program began in 1999 with the passage of California’s Ballast Water Management for Control of Nonindigenous Species Act, which addressed the threat of species introductions from vessels arriving at California’s ports. In 2003, the Marine Invasive Species Act was passed, reauthorizing and expanding the 1999 Act. Subsequent amendments to the Act and additional legislation further expanded the Program’s scope.

The Marine Invasive Species Program seeks to reduce the risk of aquatic nonindigenous species introduction into California’s waters through:

- The development, implementation, and enforcement of vessel biofouling and vessel ballast water management strategies and polices
- The use of best available technology and peer reviewed science
- Partnerships with stakeholders to improve awareness of invasive species issues and assess program efficacy

Marine Life Protection Act

The Marine Life Protection Act of 1999 directs the state to redesign California’s system of marine protected areas (MPAs) to function as a network in order to: increase coherence and effectiveness in protecting the state’s marine life and habitats, marine ecosystems, and marine natural heritage, as well as to improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance. Six goals guided the development of MPAs in the MLPA planning process:

- Protect the natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems
- Help sustain, conserve and protect marine life populations, including those of economic value, and rebuild those that are depleted

- Improve recreational, educational and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity
- Protect marine natural heritage, including protection of representative and unique marine life habitats in CA waters for their intrinsic values
- Ensure California’s MPAs have clearly defined objectives, effective management measures and adequate enforcement and are based on sound scientific guidelines
- Ensure the State’s MPAs are designed and managed, to the extent possible, as a network

To help achieve these goals, three MPA designations (state marine reserves, state marine parks and state marine conservation areas), one marine managed area (state marine recreational management area) and special closures were used in the MPA planning process. For the purposes of MPA planning, a public-private partnership commonly referred to as the MLPA Initiative was established, and the state was split into five distinct regions (four coastal and the San Francisco Bay) each of which had its own MPA planning process. All four coastal regions have completed these individual planning processes. As a result, the coastal portion of California’s MPA network is now in effect statewide. Options for a planning process in the fifth and final region, the San Francisco Bay, have been developed for consideration at a future date.

Marine Life Management Act

The Marine Life Management Act, which became law on January 1, 1999, established a fishery management system for four groups of fisheries:

- The nearshore finfish fishery and the white seabass fishery
- Emerging fisheries - new and growing fisheries that are not currently subject to specific regulation
- Those fisheries for which the Fish and Game Commission held some management authority before January 1, 1999. Future regulations affecting these fisheries will need to conform to the MLMA
- Those commercial fisheries for which there is no statutory delegation of authority to the Commission and Department. (In the case of these fisheries, CDFW may prepare, and the Commission may adopt, a fishery management plan, but that plan cannot be implemented without a further delegation of authority through the legislative process)

Borrowing from experience with federal fishery management law, the MLMA initiated a comprehensive approach to fisheries management. The primary vehicle for this approach is the development of fishery management plans for all of the State’s major recreational and commercial fisheries.

California Ocean Plan

Ocean standards protect the beneficial uses of California’s marine waters through establishing water quality objectives and implementation provisions in statewide water quality control plans and polices. Ocean standards plans and policies include: the Water Quality Control Plan for Ocean Waters of California (Ocean Plan); the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (California Thermal

Plan); and the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant cooling (Once-Through Cooling Policy).

The Ocean Standards Unit is responsible for developing and updating the statewide plans and policies involving marine waters, and providing scientific support and inter-agency coordination regarding marine pollution and resource management.

California Public Resources Code

Division 5-Parks and Monuments, Chapter 1-State Parks and Monuments, Article 1-State Park System

5001

(a) The Legislature finds and declares all of the following:

- (1) California's state parks are a true reflection of our state's collective history, natural and cultural heritage, and ideals. The state parks can be models of healthy, natural, and sustainable ecosystems and they can also commemorate important cultural traditions or historic events. To remain relevant now and into the future, state parks must protect California's heritage and be welcoming in order that visitors may understand and appreciate these special places that have been set aside for their inspiration and enjoyment.
- (2) The state parks and other nature, recreation, and historic areas deserve to be preserved and managed for the benefit and inspiration of all state residents and visitors to the state parks. It is the intent of the Legislature to clarify the priorities and responsibilities of state agencies with respect to the management and administration of the state park system.
- (3) Individual units of the state park system derive increased importance and recognition through their inclusion in a unified state park system that is preserved and managed for the benefit and inspiration of all Californians and visitors to the state.

(b) The Department of Parks and Recreation has control of the state park system.

5002

All parks, public campgrounds, monument sites, landmark sites, and sites of historical interest established or acquired by the State, or which are under its control, constitute the State Park System except the sites and grounds known as the State Fair Grounds in the City of Sacramento, and Balboa Park in the City of San Diego.

California Coastal Act

Section 30106 Development

"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity

of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line.

ARTICLE 4 MARINE ENVIRONMENT

SECTION 30230 MARINE RESOURCES; MAINTENANCE

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

SECTION 30231 BIOLOGICAL PRODUCTIVITY; WATER QUALITY

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

SECTION 30232 OIL AND HAZARDOUS SUBSTANCE SPILLS

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

ARTICLE 5 LAND RESOURCES

SECTION 30240 ENVIRONMENTALLY SENSITIVE HABITAT AREAS; ADJACENT DEVELOPMENTS

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas

City of Malibu Local Coastal Program

APPEALABLE COASTAL DEVELOPMENT PERMIT - After certification of the Local Coastal Program an action taken by the City on a Coastal Development Permit application may be appealed to the California Coastal Commission for only the following types of developments:

Sand Compatibility and Opportunistic Use Program

1. Developments approved by the City between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance.
2. Developments approved by the City not included within paragraph (1) that are located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff.
3. Developments approved by the City not included within paragraph (1) or (2) that are located in a sensitive coastal resource area.
4. Any development which constitutes a major public works project or a major energy facility as defined in this Chapter. The phrase “major public works” or a “major energy facility” as used in Public Resources Code Sec. 30603(a)(5) and in these regulations shall mean: any proposed public works project or energy facility, as defined by Section 13012 of the Coastal Commission Regulations and the Coastal Act.

4.6.1. Buffers

New development adjacent to the following habitats shall provide native vegetation buffer areas to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted within buffers except as provided in Section 4.6.1 (E) or (F) of the Malibu LIP. The following buffer standards shall apply:

D. Coastal Bluff ESHA

New development shall provide a buffer of no less than 100 feet from the bluff edge.

E. Coastal Sage Scrub ESHA

New development shall provide a buffer of sufficient width to ensure that no required fuel modification area (Zones A, B, and C, if required) will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the coastal sage scrub plant community.

G. Other ESHA

For other ESHA areas not listed above, the buffer recommended by the Environmental Review Board or City biologist, in consultation with the California Department of Fish and Game, as necessary to avoid adverse impacts to the ESHA shall be required.

4.6.2. Lighting

Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity features, shielded, and directed away from ESHA to minimize impacts on wildlife. Night lighting for sports courts or other private recreational facilities in ESHA, ESHA buffer, or where night lighting would increase illumination in ESHA shall be prohibited. Permitted lighting shall conform to the following standards:

1. The minimum necessary to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do not exceed two feet in

- height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent, unless a higher wattage is authorized by the Planning Director.
2. Security lighting attached to the residence is controlled by motion detectors and is limited to 60 watts, or the equivalent.
 3. The minimum lighting necessary for safe vehicular use of the driveway. The lighting shall be limited to 60 watts, or the equivalent.
 4. A light, not to exceed 60 watts or the equivalent, at the entrance to the (identify non-residential accessory structures).
 5. No lighting around the perimeter of the site, no lighting for sports courts or other private recreational facilities, and no lighting for aesthetic purposes is allowed.
 6. Prior to issuance of Coastal Development Permit, the applicant shall be required to execute and record a deed restriction reflecting the above restrictions.

4.6.3. Fencing

- A. Fencing or walls shall be prohibited within ESHA, except where necessary for public safety or habitat protection or restoration. Fencing or walls that do not permit the free passage of wildlife shall be prohibited in any wildlife corridor.
- B. Development adjacent to, but not within ESHA, may include fencing, if necessary for security, that is limited to the area around the clustered development area.

4.6.4. Variances

- A. Variances that modify buffers or ESHA protection standards shall not be granted except where there is no other feasible alternative for siting the development and it does not exceed the limits on allowable development area set forth in Section 4.7 of the Malibu LIP.
- B. Modifications to required development standards that are not related to ESHA protection (street setbacks, height limits, etc.) shall be permitted where necessary to avoid or minimize impacts to ESHA.
- C. Protection of ESHA and public access shall take priority over other development standards and where there is any conflict between general development standards and ESHA and/or public access protection, the standards that are most protective of ESHA and public access shall take precedence.

Redondo Beach Local Coastal Program

SECTION 13. The City Council hereby adds new Land Use Policy 17 to Subsection D of Section VI (“Land Use Policies”) of the Coastal Land Use Plan to read as follows, consistent with Coastal Commission Suggested Modification No. 10.

17. The Coastal Act definition set forth below is incorporated herein as a definition of the Land Use Plan: “Environmentally sensitive habitat area (ESHA)” means any area in which plant or animal life or their habitats are either rare or especially valuable because of the special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

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- a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- b) Development within and adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with continuance of those habitat and recreation areas.

SECTION 14. The City Council hereby adds new Land Use Policy 18 to Subsection D of Section VI ("Land Use Policies") of the Coastal Land Use Plan to read as follows, consistent with Coastal Commission Suggested Modification No. 11:

18. Ensure the protection of bird nesting habitat protected by the Migratory Bird Treaty Act and the long-term protection of breeding, roosting and nesting habitat of bird species listed pursuant to the federal or California Endangered Species Acts, California bird species of special concern; and wading birds (herons or egrets). The trimming and/or removal of any trees that have been used for breeding and nesting by the above identified species within the past (5) years, as determined by a qualified biologist or ornithologist shall be undertaken in compliance with all applicable codes and regulations of the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the U.S. Migratory Bird Treaty Act.

SECTION 15. The City Council hereby adds new Land Use Policy 19 to Subsection D of Section VI ("Land Use Policies") of the Coastal Land Use Plan to read as follows, consistent with Coastal Commission Suggested Modification No.12 as follows:

19. Marine resources shall be maintained, enhanced and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes."

SECTION 16. The City Council hereby adds new Land Use Policy 20 to Subsection D of Section VI ("Land Use Policies") of the Coastal Land Use Plan to read as follows, consistent with Coastal Commission Suggested Modification No.13:

20. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams."

SECTION 17. The City Council hereby adds new Land Use Policy 21 to Subsection D of Section VI ("Land Use Policies") of the Coastal Land Use Plan to read as follows, consistent with Coastal Commission Suggested Modification No.14:

21. The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall only be permitted in accordance with other applicable provisions of this division, where there is no

feasible alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- a) New or expanded port, energy, and coastal dependent industrial facilities, including commercial fishing facilities.
- b) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- c) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreation piers that provide public access and recreational opportunities.
- d) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- e) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive habitat areas.
- f) Restoration purposes.
- g) Nature study, aquaculture, or similar resource dependent uses.

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.”

City of Manhattan Beach Local Coastal Plan

Chapter 12.28 - BEACH REGULATIONS—DISPOSAL OF REFUSE IN THE OCEAN OR ON THE BEACH

12.28.010 - Disposal of oils in the ocean or on beaches.

It shall be unlawful for any person to deposit, place, throw, divert or in any manner dispose of, or to cause or permit to be deposited, placed, thrown, diverted or in any manner disposed of any crude petroleum, refined petroleum, engine oil, or any oily by-product thereof, or any tar or any product containing tar, or any oily substance into or upon the waters of the Pacific Ocean, or into or upon the waters of any lagoon, bay, inlet or tributary thereof or upon any beach, tideland or submerged land, or any portion thereof, within the City.

(§ 1, Ord. 343)

12.28.020 - Disposal of oils on land.

It shall be unlawful for any person to deposit, place, throw, divert, keep, maintain or in any manner dispose of, or to cause or permit to be deposited, placed, thrown, diverted, kept, maintained or in any manner disposed of any crude petroleum, refined petroleum, engine oil or any oily by-product thereof, or any tar, or any product containing tar, or any oily substance into, along or upon any land, premises or place within the City in such a manner that the same, or any portion thereof, may run or be transferred or carried to, or be in any manner deposited upon or conveyed to any beach,

tideland or submerged land, or any portion thereof, or into or upon the waters of the Pacific Ocean, or into or upon the waters of any lagoon, bay, inlet or tributary thereof.

(§ 2, Ord. 343)

2.28.040 - Disposal of refuse in the ocean or on beaches or land.

It shall be unlawful for any person to deposit, place, throw or in any manner dispose of any dead animal or any portion thereof, or any vegetable or animal matter, or any offal, night soil, manure, rubbish, trash, garbage or any decaying or putrid matter, material or substance, or any matter, material or substance which might decay or become putrid, or any matter, material or substance which is or might become injurious to health or which is or might become a nuisance or offensive to the senses of any persons coming in proximity thereto into the waters of the Pacific Ocean, or into the waters of any lagoon, bay, inlet or tributary thereof, or in, upon, or along any beach, tideland or submerged land, or any portion thereof within the City. It shall be unlawful for any person to keep or maintain or to cause or permit to be kept or maintained upon any premises or in or at any place in the City any article, substance or thing in this section enumerated in such a manner that any such article, substance or thing, or any portion thereof, may be transferred or carried to, or be in any manner deposited upon or conveyed to any beach, tideland or submerged land, or any portion thereof, or into or upon the waters of the Pacific Ocean, or into or upon the waters of any lagoon, bay, inlet or tributary thereof.

(§ 4 Ord. 343)

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Appendix B

Site Photographs



Photograph 1. View of sandy beach and developed/disturbed/landscaped landcover types at the Dockweiler State Beach study area, facing southwest.



Photograph 2. View of sandy beach and developed/disturbed/landscaped landcover types at the Dockweiler State Beach study area, facing south.



Photograph 3. View of sandy beach, ice plant mats, and developed/disturbed/landscaped landcover types at the Dockweiler State Beach study area, facing north.



Photograph 4. View of sandy beach and developed/disturbed/landscaped landcover types at the Redondo Beach study area, facing south.



Photograph 5. View of sandy beach and developed/disturbed/landscaped landcover types at the Redondo Beach study area, facing north.



Photograph 6. View of sandy beach and ice plant mats at the Will Rogers State Beach study area, facing northwest.



Photograph 7. View of sandy beach, ice plant mats, and developed/disturbed/landscaped landcover types at the Will Rogers State Beach study area, facing southeast.



Photograph 8. View of culvert outlet directing stormwater flows onto the back beach. View of sandy beach, ice plant mats, and developed/disturbed/landscaped landcover types at the Will Rogers State Beach study area, facing east.



Photograph 9. View of subtidal beach and rock/rip rap landcover types at the Will Rogers State Beach study area, facing west.



Photograph 10. View of sandy beach landcover types at the Zuma Beach study area, facing northwest.



Photograph 11. View of sandy beach and developed/disturbed/landscaped landcover types at the Zuma Beach study area, facing south.



Photograph 12. View of sandy beach and developed/disturbed/landscaped landcover types at the Zuma Beach study area, facing north.



Photograph 13. View of sandy beach at the Manhattan Beach study area, facing northwest.



Photograph 14. View of sandy beach at the Manhattan Beach study area, facing southwest.



Photograph 15. View of coastal scrub habitat within a Manhattan Beach Dune Restoration site at the Manhattan Beach study area, facing northeast.



Photograph 16. View culvert outlet directing stormwater flows into back beach. Note developed and disturbed landscape surrounded by the coastal scrub habitat of the Manhattan Beach Dune Restoration site at the Manhattan Beach study area, facing north.

Appendix C

Floral and Faunal Compendium

Plant and Algae Species Observed within the Study Area on April 24 and July 17, 2024

Scientific Name	Common Name	Status	Native or Introduced
<i>Abronia latifolia</i>	sand verbena	None	Native
<i>Abronia maritima</i>	red sand verbena	CRPR 4.2	Native
<i>Ambrosia chamissonis</i>	beach burr	None	Native
<i>Atriplex</i> spp.	saltbush	None	Native
<i>Atriplex californica</i>	beach saltbush	None	Native
<i>Avena fatua</i>	common wild oat	None	Introduced, Cal-IPC: Moderate
<i>Brassica nigra</i>	black mustard	None	Introduced, Cal-IPC: Moderate
<i>Bromus madritensis</i>	red brome	None	Introduced, Cal-IPC: High
<i>Cakile maritima</i>	European searocket	None	Introduced, Cal-IPC: Limited
<i>Camissonia cheiranthifolia</i>	beach primrose	None	Native
<i>Coreopsis maritima</i>	beach coreopsis	CRPR 2B.2	Native
<i>Datura stramonium</i>	jimsonweed	None	Native
<i>Echium candicans</i>	pride of Madeira	None	Introduced, Cal-IPC: Limited
<i>Eriogonum parifolium</i>	sea cliff buckwheat	None	Native
<i>Eschscholzia californica</i>	California poppy	None	Native
<i>Glebionis coronaria</i>	crown daisy	None	Introduced, Cal-IPC: Limited
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	seaside heliotrope	None	Native
<i>Isocoma acradenia</i>	alkali goldenbush	None	Native
<i>Lactuca</i> sp.	wild lettuce	None	Introduced
<i>Lupinus</i> spp.	lupine	None	Native
<i>Malva parviflora</i>	cheeseweed	None	Introduced
<i>Melilotus</i> spp.	sweet clover	None	Introduced
<i>Mesembryanthemum</i> spp. – <i>Carpobrotus</i> spp	ice plant	None	Introduced, Cal-IPC: High
<i>Malacothrix incana</i>	dunedelion	None	Native
<i>Oxalis pes-caprae</i>	Bermuda buttercup	None	Introduced, Cal-IPC: Moderate
<i>Pennisetum clandestinum</i>	kikuyu grass	None	Introduced, Cal-IPC: Limited
<i>Plantago coronopus</i>	cut leaf plantain	None	Introduced
<i>Plantago lanceolata</i>	narrow-leaved plantain	None	Introduced, Cal-IPC: Limited
<i>Portulacaria afra</i>	elephant bush	None	Introduced
<i>Rumex crispus</i>	curly dock	None	Introduced, Cal-IPC: Limited
<i>Silybum marianum</i>	milk thistle	None	Introduced, Cal-IPC: Limited
<i>Stipa miliacea</i>	smilo grass	None	Introduced, Cal-IPC: Limited
<i>Washingtonia robusta</i>	Mexican fan palm	None	Introduced, Cal-IPC: Moderate
<i>Zostera marina</i>	eelgrass	None	Native

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Scientific Name	Common Name	Status	Native or Introduced
Algae			
<i>Egregia menziesii</i>	feather boa kelp	None	Native
<i>Endocladia muricata</i>	nailbrush seaweed	None	Native
<i>Macrocystis pyrifera</i>	giant kelp	None	Native
<i>Sargassum</i> spp.	common devilweed	None	Introduced
<i>Ulva intestinalis</i>	sea lettuce	None	Native
<i>Ulva lactuca</i>	sea lettuce	None	Native

CRPR = California Rare Plant Rank

1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California

1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California

2B = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

4.2 = Plants of Limited Distribution - A Watch List

Cal-IPC = California Invasive Plant Council Rank

Wildlife Species Observed Within the Study Area on April 24 and July 17, 2024

Scientific Name	Common Name	Status	Native or Introduced
Birds			
<i>Cathartes aura</i>	turkey vulture	None	Native
<i>Charadrius vociferus</i>	killdeer	None	Native
<i>Columba livia</i>	rock pigeon	None	Introduced
<i>Corvus brachyrhynchos</i>	American crow	None	Native
<i>Egretta thula</i>	snowy egret	None	Native
<i>Euphagus cyanocephalus</i>	Brewer's blackbird	None	Native
<i>Haemorhous mexicanus</i>	house finch	None	Native
<i>Junco hyemalis</i>	dark-eyed junco	None	Native
<i>Larus delawarensis</i>	ring-billed gull	None	Native
<i>Larus heermanni</i>	Hermann's gull	None	Native
<i>Larus occidentalis</i>	western gull	None	Native
<i>Limus fedoa</i>	marbled godwit	None	Native
<i>Nannopterum auritum</i>	double-crested cormorant	None	Native
<i>Numenius americanus</i>	long-billed curlew	None	Native
<i>Numenius hudsonicus</i>	Hudsonian whimbrel	None	Native
<i>Thalasseus elegans</i>	elegant tern	None	Native
<i>Tringa semipalmata</i>	willet	None	Native
<i>Passer domesticus</i>	house sparrow	None	Introduced
<i>Pelecanus occidentalis californicus</i>	California brown pelican	FD/SD	Native
<i>Phalacrocorax auritus</i>	double-crested cormorant	None	Native
Mammals			
<i>Tursiops tursiops</i>	bottlenose dolphin	MMPA	Native
Reptiles			
<i>Sceloporus occidentalis</i>	western fence lizard	None	Native
Invertebrates			
<i>Balanus glandula</i>	acorn barnacle	None	Native
<i>Chthalamus sp.</i>	barnacle	None	Native
<i>Danaus plexippus</i>	monarch	FC	Native
<i>Megalorchestia californiana</i>	beach hopper	None	Native
<i>Mytilus californianus</i>	California mussel	None	Native
<i>Strymon melinus</i>	grey scrub hairstreak butterfly	None	Native

MMPA = Marine Mammal Protection Act

FD/SD = Federal and State Delisted

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Appendix D

Special-Status Species Potential to Occur Evaluations

Special-status Plant and Lichen Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Abronia maritima</i> red sand-verbena	None/None G4/S3? 4.2	Perennial herb. Coastal dunes. Dune plant. Elevations: 0-330ft. (0-100m.) Blooms Feb-Nov.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (coastal dune); however, the developed nature of the receiver beach would likely preclude the species from occurring. A recent Calflora record was documented on Zuma Beach from 2023.	Low Potential; no CNDDDB records within 5 miles of the receiver beach; however, few of habitat components are present at the receiver beach (coastal dunes).	Low Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks coastal dune habitat. However, a Calflora record was documented on Dockweiler Beach from 2011.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach.	Present; species was observed during the field reconnaissance survey.
<i>Aphanisma blitoides</i> aphanisma	None/None G3G4/S2 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 5-1000ft. (1-305m.) Blooms Feb-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach contains coastal dunes but lacks suitable soils (gravelly).	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable and lacks suitable soils (gravelly).	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable and lacks suitable soils (gravelly).	No Potential; four CNDDDB records exist within 5 miles of the receiver beach, including one record (#49) at an unknown location/date within the receiver beach. However, habitat at the receiver beach is unsuitable for the species and lacks coastal bluff scrub and dunes due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable and lacks suitable soils (gravelly).
<i>Asplenium vesperinum</i> western spleenwort	None/None G3?/S4 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub. Rocky. Elevations: 590-3280ft. (180-1000m.) Blooms Feb-Jun.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Astragalus brauntonii</i> Braunton's milk-vetch	FE/None G2/S2 1B.1	Perennial herb. Chaparral, coastal scrub, valley and foothill grassland. Recent burns or disturbed areas; usually on sandstone with carbonate layers. Soil specialist; requires shallow soils to defeat pocket gophers and open areas, preferably on hilltops, saddles or bowls between hills. Elevations: 15-2100ft. (4-640m.) Blooms Jan-Aug.	No Potential; four CNDDDB records (#6, 27, 32, 61) within 5 miles of the receiver beach; however, the records are north of the receiver beach in the Santa Monica Mountains. The habitat at the receiver beach is unsuitable for the species and lacks the required soils.	No Potential; 12 CNDDDB records (#2, 3, 8, 14, 15, 17, 18, 34, 43, 58, 59, 60) within 5 miles of the receiver beach; however, the records are north of the receiver beach in the Santa Monica Mountains. Records are historical except #14 (2019), #15 (2020), #17 (2019), #43 (2014), #58 (2019), #59 (2018), and #60 (2020). The habitat at the receiver beach is unsuitable for the species and lacks the required soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral, coastal scrub, or valley and foothill grassland and lacks the required soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral, coastal scrub, or valley and foothill grassland and lacks the required soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral, coastal scrub, or valley and foothill grassland and lacks the required soils.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	FE/SCE G2T1/S1 1B.1	Perennial herb. Coastal dunes, coastal scrub, marshes and swamps. Within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs. Elevations: 5-115ft. (1-35m.) Blooms (Jun)Aug-Oct.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, habitat at the receiver beach does not contain suitable marsh or swamp habitat.	No Potential; one historic CNDDDB record (#3) exists near the Santa Monica pier but the population is considered extirpated in the area. The receiver beach does not contain suitable marsh or swamp habitat.	No Potential; one historic CNDDDB record (#4) exists near Playa Del Rey but the population is considered extirpated in the area. The receiver beach does not contain suitable marsh or swamp habitat.	No Potential; one historic CNDDDB record (#4) exists near Playa Del Rey but the population is considered extirpated in the area. The receiver beach does not contain suitable marsh or swamp habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, habitat at the receiver beach does not contain suitable marsh or swamp habitat.

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Sand Compatibility and Opportunistic Use Program

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	FE/SCE G2T1/S1 1B.1	Annual herb. Coastal bluff scrub, coastal dunes, coastal prairie. Moist, sandy depressions of bluffs or dunes along and near the Pacific Ocean; one site on a clay terrace. Elevations: 5-165ft. (1-50m.) Blooms Mar-May. The only recently observed population is located on private land along 17-Mile Drive in Pebble Beach on the Monterey Peninsula.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). The developed nature of the receiver beach would likely preclude the species from occurring.	No Potential; one CNDDDB historic record (#3) exists around Santa Monica but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks coastal bluff scrub, coastal dune, and coastal prairie habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). The developed nature of the receiver beach would likely preclude the species from occurring.
<i>Atriplex coulteri</i> Coulter's saltbush	None/None G3/S1S2 1B.2	Perennial herb. Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Alkaline (sometimes), clay (sometimes). Elevations: 10-1510ft. (3-460m.) Blooms Mar-Oct.	No Potential; two CNDDDB historic records (#28 and #109) exists around Point Dume and Malibu Beach but since the area has been highly developed, the species is likely extirpated from the area. Clay soils are not present and no <i>Atriplex</i> spp. were observed during the field survey.	No Potential; one CNDDDB historic record (#108) exists around Santa Monica but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach contains suitable coastal dunes but lacks clay soils. No <i>Atriplex</i> spp. were observed during the field survey.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach contains suitable coastal dunes but lacks clay soils. No <i>Atriplex</i> spp. were observed during the field survey.	No Potential; one CNDDDB record (#102) from 2012 exists near Palos Verdes Estates south of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks coastal bluff scrub and dunes due to the developed nature of the beach. Suitable soils are not present. No <i>Atriplex</i> spp. were observed during the field survey.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach contains suitable coastal dunes but lacks clay soils. No <i>Atriplex</i> spp. were observed during the field survey.
<i>Atriplex pacifica</i> south coast saltscale	None/None G4/S2 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub, playas. Alkali soils. Elevations: 0-460ft. (0-140m.) Blooms Mar-Oct.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach contains suitable coastal dunes but lacks alkali soils.	No Potential; one CNDDDB historic record (#105) exists around Santa Monica but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach contains suitable coastal dunes but lacks alkali soils and playas.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks coastal bluff scrub, coastal dune, and coastal scrub habitat. Suitable alkali soils are not present.	Low Potential; one CNDDDB record exists at an unknown location within the receiver beach (#8). However; the record is historical (1903) and habitat at the receiver beach is unsuitable for the species and lacks coastal bluff scrub and dunes due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach contains suitable coastal dunes but lacks alkali soils.
<i>Atriplex parishii</i> Parish's brittlescale	None/None G1G2/S1 1B.1	Annual herb. Chenopod scrub, playas, vernal pools. Alkaline. Elevations: 80-6235ft. (25-1900m.) Blooms Jun-Oct.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks vernal pools and suitable soils are not present. The receiver beach is outside of the elevation range for the species.	No Potential; one CNDDDB record (#8) at an unknown location/date within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks vernal pools and suitable soils are not present. The receiver beach is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks vernal pools and suitable soils are not present. The receiver beach is outside of the elevation range for the species.	No Potential; one CNDDDB record (#8) at an unknown location/date within the receiver beach. Habitat at the receiver beach is unsuitable for the species and lacks vernal pools and suitable soils are not present. The receiver beach is outside of the elevation range for the species.	No Potential; one CNDDDB record (#8) at an unknown location/date within the receiver beach. Habitat at the receiver beach is unsuitable for the species and lacks vernal pools and suitable soils are not present
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	None/None G5T1/S1 1B.2	Annual herb. Coastal bluff scrub, coastal scrub. Alkaline. Elevations: 35-655ft. (10-200m.) Blooms Apr-Oct.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal scrub habitat and lacks alkali soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal scrub habitat and lacks alkali soils.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks coastal bluff scrub and coastal scrub habitat. Suitable alkali soils are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.

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<i>Baccharis malibuensis</i> Malibu baccharis	None/None G1/S1 1B.1	Perennial deciduous shrub. Chaparral, cismontane woodland, coastal scrub, riparian woodland. In Conejo volcanic substrates, often on exposed roadcuts. Sometimes occupies oak woodland habitat. Elevations: 490-1000ft. (150-305m.) Blooms Aug.	No Potential ; one CNDDDB record (#12) near Solstice Canyon from 2000. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the elevation range for the species.
<i>Baccharis plummerae</i> <i>ssp. plummerae</i> Plummer's baccharis	None/None G3T3/S3 4.3	Perennial deciduous shrub. Broad-leaved upland forest, chaparral, cismontane woodland, coastal scrub. Rocky. Elevations: 15-1395ft. (5-425m.) Blooms May-Oct.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.
<i>Calandrinia breweri</i> Brewer's calandrinia	None/None G4/S4 4.2	Annual herb. Chaparral, coastal scrub. Burned areas, disturbed areas, loam (sometimes), sandy (sometimes). Elevations: 35-4005ft. (10-1220m.) Blooms (Jan)Mar-Jun.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or coastal scrub habitat and lacks loamy soils.	Low Potential ; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, the receiver beach does not contain chaparral or coastal scrub habitat and lacks loamy soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or coastal scrub habitat and lacks loamy soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.
<i>Calochortus catalinae</i> Catalina mariposa lily	None/None G3G4/S3S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. In heavy soils, open slopes, openings in brush. Elevations: 50-2295ft. (15-700m.) Blooms (Feb)Mar-Jun.	No Potential ; Habitat at the receiver beach is unsuitable for the species.	No Potential ; Habitat at the receiver beach is unsuitable for the species.	No Potential ; Habitat at the receiver beach is unsuitable for the species.	No Potential ; Habitat at the receiver beach is unsuitable for the species.	No Potential ; Habitat at the receiver beach is unsuitable for the species.
<i>Calochortus clavatus</i> var. <i>clavatus</i> club-haired mariposa lily	None/None G4T3/S3 4.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Clay, Rocky, serpentinite (usually). Elevations: 100-4265ft. (30-1300m.) Blooms (Mar)May-Jun.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach does not contain chaparral or woodland habitat and lacks suitable rocky habitat.
<i>Calochortus clavatus</i> var. <i>gracilis</i> slender mariposa-lily	None/None G4T2T3/S2S 3 1B.2	Perennial bulbiferous herb. Chaparral, coastal scrub, valley and foothill grassland. Shaded foothill canyons; often on grassy slopes within other habitat. Elevations: 1050-3280ft. (320-1000m.) Blooms Mar-Jun(Nov).	No Potential ; one CNDDDB record (#82) near Zuma Creek in the Santa Monica Mountains from 2010. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland. The receiver beach is outside of the elevation range for the species.	No Potential ; one CNDDDB record (#80) along Topanga Canyon Boulevard in the Santa Monica Mountains from 2017. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland. The receiver beach is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no grassy slopes) and lacks coastal scrub. The receiver beach is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no grassy slopes) and lacks coastal scrub due to the developed nature of the beach. The receiver beach is outside of the elevation range for the species.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and is outside of the elevation range for the species.

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<i>Calochortus plummerae</i> Plummer's mariposa-lily	None/None G4/S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Granitic, rocky. Elevations: 330-5580ft. (100-1700m.) Blooms May-Jul.	No Potential ; three CNDDDB records (#41, 162, 210) within 5 miles of the receiver beach, all within the Santa Monica Mountains north and northwest of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland and is outside of the elevation range for the species. No granitic or rocky features are present.	No Potential ; two CNDDDB records (#39, 208) are within 5 miles of the receiver beach, both within the Santa Monica Mountains northwest of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland and is outside of the elevation range for the species. No granitic or rocky features are present.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland and is outside of the elevation range for the species. No granitic or rocky features are present.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or foothill grassland and is outside of the elevation range for the species. No granitic or rocky features are present.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and is outside of the elevation range for the species.
<i>Camissoniopsis lewisii</i> Lewis' evening-primrose	None/None G4/S4 3	Annual herb. Cismontane woodland, coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Clay (sometimes), sandy (sometimes). Elevations: 0-985ft. (0-300m.) Blooms Mar-May(Jun).	No Potential ; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present within the receiver beach (sandy sites); however, no suitable woodland or grassland habitat is present. No clay soils are present at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present within the receiver beach (sandy sites); however, no suitable woodland or grassland habitat is present. No clay soils are present at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks woodland, bluff scrub, coastal dunes, and grassland habitat. No clay soils are present at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable woodland or foothill grassland and lacks coastal scrub due to the developed nature of the beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and does not contain suitable woodland or foothill grassland and lacks coastal scrub due to the developed nature of the beach.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	None/None G3T2/S2 1B.1	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also, in alkaline soils sometimes with salt grass. Sometimes on vernal pool margins. Elevations: 0-1575ft. (0-480m.) Blooms May-Nov.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable soils and marsh and swamp, grassland, and vernal pool habitat.	No Potential ; one CNDDDB historical record (#70) near the University of Los Angeles campus. The receiver beach lacks suitable soils and marsh and swamp, grassland, and vernal pool habitat.	No Potential ; two CNDDDB historical records (#27, 30) near the Ballona Marsh and the City of Inglewood. The receiver beach lacks suitable soils and marsh and swamp, grassland, and vernal pool habitat.	No Potential ; two CNDDDB records (#43, 81) near the City of Torrance. The receiver beach lacks suitable soils and marsh and swamp, grassland, and vernal pool habitat.	No Potential ; two CNDDDB records (#43, 81) near the City of Torrance. The receiver beach lacks suitable soils and marsh and swamp, grassland, and vernal pool habitat.
<i>Cercocarpus betuloides</i> var. <i>blancheae</i> island mountain- mahogany	None/None G5T4/S4 4.3	Perennial evergreen shrub. Chaparral, closed-cone coniferous forest. Elevations: 100-1970ft. (30-600m.) Blooms Feb-May.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential ; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	None/None G5T1/S1 1B.1	Annual herb. Coastal bluff scrub, coastal dunes. Sandy sites. Elevations: 0-330ft. (0-100m.) Blooms Jan-Aug.	Low Potential ; one historic CNDDDB record (#22) exists within a 5-mile radius, however, the exact location is unknown. Few of the habitat components are present at the receiver beach (sandy sites).	Low Potential ; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present within the receiver beach (sandy sites).	Low Potential ; several historic CNDDDB records exist within a 5-mile radius, however, the exact location is unknown and is associated with the El Segundo dunes or upland areas away from the upper high tide line. The developed nature of the receiver beach would likely preclude the species from occurring. Few of the habitat components are present at the receiver beach (sandy sites).	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.	Low Potential ; several historic CNDDDB records exist within a 5-mile radius, however, the exact location is unknown and is associated with the Sand Dune Park or upland areas away from the upper high tide line. The developed nature of the receiver beach would likely preclude the species from occurring. Few of the habitat components are present at the receiver beach (sandy sites).

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<i>Chenopodium littoreum</i> coastal goosefoot	None/None G1/S1 1B.2	Annual herb. Coastal dunes. Generally, on sandy soils, and on dunes. Elevations: 35-100ft. (10-30m.) Blooms Apr-Aug.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites).	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites).	Low Potential; one historic CNDDDB record (#1) exists within a 5-mile radius, however, the exact location is unknown and the species is likely extirpated from the area. Few of the habitat components are present at the receiver beach (sandy soils).	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	FE/SCE G4?T1/S1 1B.2	Annual herb (hemiparasitic). Coastal dunes, marshes and swamps. Limited to the higher zones of salt marsh habitat. Elevations: 0-100ft. (0-30m.) Blooms May-Oct(Nov).	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable marsh and swamp habitat.	No Potential; one CNDDDB historic record (#14) exists around Santa Monica but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as salt marsh habitat.	No Potential; one CNDDDB historic record (#50) exists around Ballona Creek but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as salt marsh habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no marshes or swamps) and lacks coastal scrub due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no marshes or swamps) and lacks coastal scrub due to the developed nature of the beach.
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	None/SCE G2T1/S1 1B.1	Annual herb. Coastal scrub, valley and foothill grassland. Sandy soils. Elevations: 490-4005ft. (150-1220m.) Blooms Apr-Jul.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	None/None G3T2/S2 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Openings, Rocky (sometimes), sandy (sometimes). Elevations: 900-4005ft. (275-1220m.) Blooms Apr-Jun.	No Potential; one CNDDDB record (#8) within 5 miles of the receiver beach; however, the record is historical (1990) and the receiver beach lacks suitable habitat such as chaparral and grasslands and is outside of the elevation range for the species. Soils are not suitable.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat such as valley and foothill grassland habitat and is outside of the elevation range for the species.
<i>Convolvulus simulans</i> small-flowered morning-glory	None/None G4/S4 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Clay, seeps, serpentinite. Elevations: 100-2430ft. (30-740m.) Blooms Mar-Jul.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Coreopsis maritima</i> beach coreopsis	None/None G4/S4 4.2	Annual herb. Coastal chaparral and woodlands. Sandy, Loam. Blooms Mar-May.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species.	Present; This species was observed during the field reconnaissance survey.
<i>Deinandra minthornii</i> Santa Susana tarplant	None/SCR G2/S2 1B.2	Perennial deciduous shrub. Chaparral, coastal scrub. On sandstone outcrops and crevices, in shrubland. Elevations: 920-2495ft. (280-760m.) Blooms Jul-Nov.	No Potential; four CNDDDB records (#8, 13, 26, 44) within 5 miles of the receiver beach; however, the records are in the Santa Monica mountains northwest of the receiver beach. Receiver beach lacks suitable habitat such as chaparral and coastal scrub and is outside of the elevation range for the species.	No Potential; one CNDDDB record (#43) within 5 miles of the receiver beach; however, the record is in the Santa Monica mountains northwest of the receiver beach. Receiver beach lacks suitable habitat such as chaparral and coastal scrub and is outside of the elevation range for the species.	No Potential; the receiver beach lacks suitable habitat such as chaparral and coastal scrub habitat on sandstone outcrops and crevices and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and coastal scrub habitat due to the developed nature of the beach and is outside of the elevation range for the species.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and coastal scrub habitat due to the developed nature of the beach and is outside of the elevation range for the species.

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<i>Deinandra paniculata</i> paniculate tarplant	None/None G4/S4 4.2	Annual herb. Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernal mesic sites. Sometimes in vernal pools or on mima mounds near them. Elevations: 80-3085ft. (25-940m.) Blooms (Mar)Apr-Nov.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i> dune larkspur	None/None G4T2/S2 1B.2	Perennial herb. Chaparral, coastal dunes. On rocky areas and dunes. Elevations: 0-655ft. (0-200m.) Blooms Apr-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). Rocky areas are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). Rocky areas are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach lacks chaparral and coastal dunes. Rocky areas are also not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach.
<i>Delphinium parryi</i> ssp. <i>purpureum</i> Mt. Pinos larkspur	None/None G4T4/S4 4.3	Perennial herb. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Elevations: 3280-8530ft. (1000-2600m.) Blooms May-Jun.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Dichondra occidentalis</i> western dichondra	None/None G3G4/S3S4 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. On sandy loam, clay, and rocky soils. Elevations: 165-1640ft. (50-500m.) Blooms (Jan)Mar-Jul.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Dithyrea maritima</i> beach spectaclepod	None/SCT G1/S1 1B.1	Perennial rhizomatous herb. Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. Elevations: 10-165ft. (3-50m.) Blooms Mar-May.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, suitable vernal pools, dray, saline streambeds, and alkaline flats are not present.	Low Potential; one historic CNDDDB record (#11) exists within a 5-mile radius, however, the exact location is unknown and only source is from an 1884 collection. Few of the habitat components are present at the receiver beach (coastal dunes).	No Potential; one historic CNDDDB record (#3) exists within a 5-mile radius, near El Segundo. However, the exact location is unknown and the species is likely extirpated from the area. No suitable habitat is present at the receiver beach, such as coastal dunes.	No Potential; one historic CNDDDB record (#2) exists within a 5-mile radius, near Hermosa Beach. However, the exact location is unknown and the species is likely extirpated from the area. No suitable habitat is present at the receiver beach, such as coastal dunes.	No Potential; one historic CNDDDB record (#2) exists within a 5-mile radius, near Hermosa Beach. However, the exact location is unknown and the species is likely extirpated from the area.
<i>Dodecahema leptoceras</i> slender-horned spineflower	FE/SCE G1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub. Flood deposited terraces and washes; associates include <i>Encelia</i> , <i>Dalea</i> , <i>Lepidospartum</i> , etc. Sandy soils. Elevations: 655-2495ft. (200-760m.) Blooms Apr-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no flood deposited terraces and washes). The receiver beach is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no flood deposited terraces and washes). The receiver beach is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no flood deposited terraces and washes). The receiver beach is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach. The receiver beach is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and lacks coastal scrub due to the developed nature of the beach. The receiver beach is outside of the species elevation range.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	None/None G3T2/S2 1B.1	Perennial herb. Chaparral, coastal bluff scrub, coastal scrub, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. Elevations: 15-1475ft. (5-450m.) Blooms Apr-Jun.	No Potential; two CNDDDB records (#5, 82) within 5 miles of the receiver beach; however, both occurrences are historical (1959 and 2003). The receiver beach lacks suitable habitat such as chaparral and rocky areas with little soil.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no open, rocky slopes).	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no open, rocky slopes).	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no open, rocky slopes) and lacks coastal scrub due to the developed nature of the beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species (no open, rocky slopes) and lacks coastal scrub due to the developed nature of the beach.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Dudleya cymosa</i> ssp. <i>agouensis</i> Agoura Hills dudleya	FT/None G5T1/S1 1B.2	Perennial herb. Chaparral, cismontane woodland. Rocky, volcanic breccia. Elevations: 655-1640ft. (200-500m.) Blooms May-Jun.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and woodlands and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and woodlands and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and woodlands and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and woodlands and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and woodlands and is outside of the species elevation range.
<i>Dudleya cymosa</i> ssp. <i>marcescens</i> marcescent dudleya	FT/SCR G5T2/S2 1B.2	Perennial herb. Chaparral. On sheer rock surfaces and rocky volcanic cliffs. Elevations: 490-1705ft. (150-520m.) Blooms Apr-Jul.	No Potential ; two CNDDDB records (#11, 12) occur within 5 miles of the receiver beach; however, the records are in the Santa Monica Mountains, north of the receiver beach. The receiver beach lacks suitable habitat such as chaparral and volcanic cliffs and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic cliffs and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic cliffs and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic cliffs and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic cliffs and is outside of the species elevation range.
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i> Santa Monica dudleya	FT/None G5T1/S1 1B.1	Perennial herb. Chaparral, coastal scrub. In canyons on volcanic or sedimentary substrates; primarily on north-facing slopes. Elevations: 490-5495ft. (150-1675m.) Blooms Mar-Jun.	No Potential ; one CNDDDB record (#8) occurs within 5 miles of the receiver beach; however, the record is in the Santa Monica Mountains, north of the receiver beach. The receiver beach lacks suitable habitat such as chaparral and volcanic or sedimentary substrates and is outside of the species elevation range.	No Potential ; one CNDDDB record (#2) occurs within 5 miles of the receiver beach; however, the record is in the Santa Monica Mountains, northwest of the receiver beach. The receiver beach lacks suitable habitat such as chaparral and volcanic or sedimentary substrates and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic or sedimentary substrates and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic or sedimentary substrates and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and volcanic or sedimentary substrates and is outside of the species elevation range.
<i>Dudleya multicaulis</i> many-stemmed dudleya	None/None G2/S2 1B.2	Perennial herb. Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clay soils or grassy slopes. Elevations: 50-2590ft. (15-790m.) Blooms Apr-Jul.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clayey soils or grassy slopes and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clayey soils or grassy slopes and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clayey soils or grassy slopes and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clayey soils or grassy slopes and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clayey soils or grassy slopes and is outside of the species elevation range.
<i>Dudleya parva</i> Conejo dudleya	FT/None G1/S1 1B.2	Perennial herb. Coastal scrub, valley and foothill grassland. In clay or volcanic soils on rocky slopes and grassy hillsides. Elevations: 195-1475ft. (60-450m.) Blooms May-Jun.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clay or volcanic soils on rocky slopes and grassy hillsides. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clay or volcanic soils on rocky slopes and grassy hillsides. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clay or volcanic soils on rocky slopes and grassy hillsides. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clay or volcanic soils on rocky slopes and grassy hillsides. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as clay or volcanic soils on rocky slopes and grassy hillsides. The receiver beach is outside of the species elevation range.
<i>Dudleya verityi</i> Verity's dudleya	FT/None G1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. On volcanic rock outcrops in the Santa Monica Mountains. Elevations: 195-395ft. (60-120m.) Blooms May-Jun.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops. The receiver beach is outside of the species elevation range.
<i>Eriogonum crocatum</i> conejo buckwheat	None/SCR G1/S1 1B.2	Perennial herb. Chaparral, coastal scrub, valley and foothill grassland. Conejo volcanic outcrops; rocky sites. Elevations: 165-1905ft. (50-580m.) Blooms Apr-Jul.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops and rocky sites. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops and rocky sites. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops and rocky sites. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops and rocky sites. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils such as volcanic outcrops and rocky sites. The receiver beach is outside of the species elevation range.

Sand Compatibility and Opportunistic Use Program

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	FE/SCE G5T1/S1 1B.1	Annual/perennial herb. Coastal scrub, valley and foothill grassland, vernal pools. San Diego mesa hardpan and claypan vernal pools and southern interior basalt flow vernal pools; usually surrounded by scrub. Elevations: 65-2035ft. (20-620m.) Blooms Apr-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as vernal pools and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#120) exists around the town of Wiseburn but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as vernal pools and is outside of the species elevation range.
<i>Erysimum insulare</i> island wallflower	None/None G3/S3 1B.3	Perennial herb. Coastal bluff scrub, coastal dunes. Mesas and cliffs. Elevations: 0-985ft. (0-300m.) Blooms Mar-Jul.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal dune habitat along mesas and cliffs.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). However, suitable mesas and cliffs are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal dune habitat along mesas and cliffs.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal dune habitat along mesas and cliffs.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal bluff scrub and coastal dune habitat along mesas and cliffs.
<i>Erysimum suffrutescens</i> suffrutescent wallflower	None/None G3/S3 4.2	Perennial herb. Chaparral, coastal bluff scrub, coastal dunes, coastal scrub. Coastal dunes and bluffs. Elevations: 0-490ft. (0-150m.) Blooms Jan-Jul(Aug).	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). However, suitable bluffs are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. Few of the habitat components are present at the receiver beach (sandy sites). However, suitable bluffs are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks chaparral, suitable coastal bluff scrub. Bluffs are not present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks chaparral, suitable coastal bluff scrub. Bluffs are not present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks chaparral, suitable coastal bluff scrub. Bluffs are not present at the receiver beach.
<i>Galium cliftonsmithii</i> Santa Barbara bedstraw	None/None G4/S4 4.3	Perennial herb. Cismontane woodland. Light shade, coastal canyons, dry banks. Elevations: 655-4005ft. (200-1220m.) Blooms May-Jul.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Hordeum intercedens</i> vernal barley	None/None G3G4/S3S4 3.2	Annual herb. Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools. Vernal pools, dry, saline streambeds, alkaline flats. 5-. Elevations: 15-3280ft. (5-1000m.) Blooms Mar-Jun.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, suitable vernal pools, dry, saline streambeds, and alkaline flats are not present.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes); however, suitable vernal pools, dry, saline streambeds, and alkaline flats are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach does not have suitable coastal dune, grassland, or vernal pool habitat, and suitable dry, saline streambeds, and alkaline flats are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach. Suitable vernal pools, dry, saline streambeds, and alkaline flats are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach. Suitable vernal pools, dry, saline streambeds, and alkaline flats are not present.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	No Potential; one CNDDDB historic record (#71) exists near Point Dume and one CNDDDB record (#72) at Charmlee Wilderness Park. However, the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#24) at an unknown location but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#68) exists near El Segundo but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#67) near Palos Verde Hills but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#67) near Palos Verde Hills but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.
<i>Isocoma menziesii</i> var. <i>decumbens</i> decumbent goldenbush	None/None G3G5T2T3/S 2 1B.2	Perennial shrub. Chaparral, coastal scrub. Sandy soils; often in disturbed sites. Elevations: 35-445ft. (10-135m.) Blooms Apr-Nov.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and coastal scrub habitat.	Low Potential; one CNDDDB historical record (#63) south of Malibu. Few habitat components are present at the receiver site (sandy sites). However, suitable chaparral habitat is not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and coastal scrub habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and coastal scrub habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable chaparral and coastal scrub habitat.

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<i>Juglans californica</i> Southern California black walnut	None/None G4/S4 4.2	Perennial deciduous tree. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Slopes, canyons, alluvial habitats. Elevations: 165-2955ft. (50-900m.) Blooms Mar-Aug.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Juncus acutus</i> ssp. <i>leopoldii</i> southwestern spiny rush	None/None G5T5/S4 4.2	Perennial rhizomatous herb. Coastal dunes, marshes and swamps, meadows and seeps. Moist saline places. Elevations: 10-2955ft. (3-900m.) Blooms (Mar)May-Jun.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, suitable marshes and swamps, meadows and seeps, and moist saline places are not present.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, suitable marshes and swamps, meadows and seeps, and moist saline places are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal dune, marshes and swamps, meadows and seeps, and moist saline habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach. Suitable marshes and swamps, meadows and seeps, and moist saline places are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The habitat at the receiver beach is unsuitable for the species and lacks dunes due to the developed nature of the beach. Suitable marshes and swamps, meadows and seeps, and moist saline places are not present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	None/None G4T2/S2 1B.1	Annual herb. Marshes and swamps, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-. Elevations: 5-4005ft. (1-1220m.) Blooms Feb-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable marsh and swamp and vernal pool habitat and alkaline soils in playas.	No Potential; one CNDDDB historical record (#85) near Malibu. The receiver beach lacks suitable marsh and swamp and vernal pool habitat and alkaline soils in playas.	No Potential; three CNDDDB historical records (27, 83, 84) within 5 miles of the receiver beach. The receiver beach lacks suitable soils and vernal pools.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable marsh and swamp and vernal pool habitat and alkaline soils in playas.	No Potential; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable marsh and swamp and vernal pool habitat and alkaline soils in playas.
<i>Lepechinia fragrans</i> fragrant pitcher sage	None/None G3/S3 4.2	Perennial shrub. Chaparral. Elevations: 65-4300ft. (20-1310m.) Blooms Mar-Oct.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and is outside of the species elevation range.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	None/None G5T3/S3 4.3	Annual herb. Chaparral, coastal scrub. Dry soils, shrubland. 4-. Elevations: 5-2905ft. (1-885m.) Blooms Jan-Jul.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and dry soils in shrubland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and dry soils in shrubland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and dry soils in shrubland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and dry soils in shrubland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral and dry soils in shrubland.
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i> Humboldt lily	None/None G4T3/S3 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, lower montane coniferous forest. Yellow-pine forest, openings or open forest. Elevations: 295-4200ft. (90-1280m.) Blooms May-Jul(Aug).	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated Humboldt lily	None/None G4T4?/S4? 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. Yellow-pine forest or openings, oak canyons. Elevations: 100-5905ft. (30-1800m.) Blooms Mar-Jul(Aug).	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.

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<i>Lycium brevipes</i> var. <i>hassei</i> Santa Catalina Island desert-thorn	None/None G5T1Q/S1 3.1	Perennial deciduous shrub. Coastal bluff scrub, coastal scrub. Elevations: 215-985ft. (65-300m.) Blooms Jun(Aug).	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub and slopes and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub and slopes and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub and slopes and is outside of the species elevation range.	No Potential; one CNDDDB record (#6) approximately 2.15 miles south of the receiver site from 2018. However, the receiver beach lacks suitable coastal scrub and slopes and is outside of the elevation range for the species.	No Potential; one CNDDDB record (#6) approximately 2.15 miles south of the receiver site from 2018. However, the receiver beach lacks suitable coastal scrub and slopes and is outside of the elevation range for the species.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	None/None G2/S2 1B.2	Perennial deciduous shrub. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy washes. Elevations: 605-3740ft. (185-1140m.) Blooms Jun-Jan.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.
<i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i> white-veined monardella	None/None G4T3/S3 1B.3	Perennial herb. Chaparral, cismontane woodland. Dry slopes. Elevations: 165-5005ft. (50-1525m.) Blooms (Apr)May-Aug(Sep-Dec).	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; three CNDDDB records (#1, 2, 3) within 5 miles of the receiver beach; however, the records are in the Santa Monica Mountains north and west of the receiver site. The receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and woodland habitat and is outside of the species elevation range.
<i>Monardella sinuata</i> ssp. <i>gerryi</i> Gerry's curly-leaved monardella	None/None G3T1/S1 1B.1	Annual herb. Coastal scrub. Sandy openings. Elevations: 490-805ft. (150-245m.) Blooms Apr-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal scrub habitat and is outside of the species elevation range.
<i>Mucronea californica</i> California spineflower	None/None G3/S3 4.2	Annual herb. Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Sandy soil. Elevations: 0-4595ft. (0-1400m.) Blooms Mar-Jul(Aug).	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes); however, suitable chaparral, woodland, and grassland habitats are not present.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes); however, suitable chaparral, woodland, and grassland habitats are not present.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, woodland, coastal dune, and grassland habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, woodland, coastal dune, and grassland habitat.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, woodland, and grassland habitat.
<i>Nama stenocarpa</i> mud nama	None/None G4G5/S1S2 2B.2	Annual/perennial herb. Marshes and swamps. Lake shores, riverbanks, intermittently wet areas. Elevations: 15-1640ft. (5-500m.) Blooms Jan-Jul.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks marshes and swamps.	No Potential; one CNDDDB historical record (#6) near Soldier's Home near Santa Monica. The receiver beach lacks marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks marshes and swamps.
<i>Navarretia fossalis</i> spreading navarretia	FT/None G2/S2 1B.1	Annual herb. Chenopod scrub, marshes and swamps, playas, vernal pools. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Elevations: 100-2150ft. (30-655m.) Blooms Apr-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils and vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils and vernal pools and is outside of the species elevation range.	No Potential; one CNDDDB record (#40) within 5 miles of the receiver beach; however, the receiver beach lacks suitable soils and vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils and vernal pools and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable soils and vernal pools.

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<i>Navarretia ojaiensis</i> Ojai navarretia	None/None G2/S2 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Openings in shrublands or grasslands. Elevations: 900-2035ft. (275-620m.) Blooms May-Jul.	No Potential ; one CNDDDB record (#14) within 5 miles of the receiver beach; however, the receiver beach lacks suitable chaparral and coastal scrub and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal scrub, and valley and foothill grassland habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal scrub, and valley and foothill grassland habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal scrub, and valley and foothill grassland habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal scrub, and valley and foothill grassland habitat. The receiver beach is outside of the species elevation range.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	None/None G2/S2 1B.2	Annual herb. Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. Elevations: 10-3970ft. (3-1210m.) Blooms Apr-Jul.	No Potential ; no CNDDDB records within 5 miles of the receiver site. The receiver beach lacks suitable soils and vernal pools.	No Potential ; no CNDDDB records within 5 miles of the receiver site. The receiver beach lacks suitable soils and vernal pools.	No Potential ; two CNDDDB historical records (#14, 33) exists near Inglewood and Sepulveda Boulevard, but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable soils and vernal pools.	No Potential ; one CNDDDB historical records (#14) exists near Sepulveda Boulevard, but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable soils and vernal pools.	No Potential ; one CNDDDB historical records (#14) exists near Sepulveda Boulevard, but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable soils and vernal pools.
<i>Nolina cismontana</i> chaparral nolina	None/None G3/S3 1B.2	Perennial evergreen shrub. Chaparral, coastal scrub. Primarily on sandstone and shale substrates; also known as gabbro. Elevations: 460-4185ft. (140-1275m.) Blooms (Mar)May-Jul.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable sandstone and shale substrates. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable sandstone and shale substrates. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable sandstone and shale substrates. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable sandstone and shale substrates. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable sandstone and shale substrates. The receiver beach is outside of the species elevation range.
<i>Orcuttia californica</i> California Orcutt grass	FE/SCE G1/S1 1B.1	Annual herb. Vernal pools. Elevations: 50-2165ft. (15-660m.) Blooms Apr-Aug.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable vernal pool habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable vernal pool habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable vernal pool habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable vernal pool habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable vernal pool habitat.
<i>Pelazoneuron puberulum</i> var. <i>sonorensis</i> Sonoran maiden fern	None/None G5T3/S2 2B.2	Meadows and seeps (seeps, streams). Along streams, seepage areas. 50-610m. Blooms Jan-Sep.	No Potential ; two CNDDDB records (#4, 6) within 5 miles of the receiver beach habitat; however, the records are historical and occur within the Santa Monica Mountains north of the receiver beach. Habitat at the receiver beach is unsuitable for the species and lacks meadows and seeps and is outside of the species elevation range.	No Potential ; one CNDDDB record (#23) within 5 miles of the receiver beach habitat; however, the record occurs within the Santa Monica Mountains north of the receiver beach. Habitat at the receiver beach is unsuitable for the species and lacks meadows and seeps and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable meadow and seep habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable meadow and seep habitat. The receiver beach is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable meadow and seep habitat. The receiver beach is outside of the species elevation range.
<i>Pentachaeta lyonii</i> Lyon's pentachaeta	FE/SCE G1/S1 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. Elevations: 100-2265ft. (30-690m.) Blooms (Feb)Mar-Aug.	No Potential ; six CNDDDB records (#4, 6, 13, 18, 44, 50) within 5 miles of the receiver beach. However; the records occur within the Santa Monica Mountains north of the receiver beach. The receiver beach lacks suitable chaparral and grassland habitat and is outside of the species elevation range.	No Potential ; one CNDDDB record (#3) within 5 miles of the receiver beach. However; the record occurs within the Santa Monica Mountains northwest of the receiver beach. The receiver beach lacks suitable chaparral and grassland habitat and is outside of the species elevation range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and grassland habitat and is outside of the species elevation range.	No Potential ; one CNDDDB historical record (#2) at an unknown location near San Pedro Hills. However, the receiver beach lacks suitable chaparral and grassland habitat and is outside of the species elevation range.	No Potential ; one CNDDDB historical record (#2) at an unknown location near San Pedro Hills. However, the receiver beach lacks suitable chaparral and grassland habitat.

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<i>Phacelia hubbyi</i> Hubby's phacelia	None/None G4/S4 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Gravelly, rocky areas and talus slopes. Elevations: 0-3280ft. (0-1000m.) Blooms Apr-Jul.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat and gravelly, sock areas, and talus slopes.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat and gravelly, sock areas, and talus slopes.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat and gravelly, sock areas, and talus slopes.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat and gravelly, sock areas, and talus slopes.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat and gravelly, sock areas, and talus slopes.
<i>Phacelia ramosissima</i> var. <i>australitoralis</i> south coast branching phacelia	None/None G5?T3Q/S3 3.2	Perennial herb. Chaparral, coastal dunes, coastal scrub, marshes and swamps. Sandy, sometimes rocky sites. Elevations: 15-985ft. (5-300m.) Blooms Mar-Aug.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes); however, suitable chaparral and marsh and swamp habitat are not present. No rocky sites are present at the receiver beach.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes); however, suitable chaparral and marsh and swamp habitat are not present. No rocky sites are present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal dune and scrub, marsh, and swamp habitat. No rocky sites are present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal dune and scrub, marsh, and swamp habitat. No rocky sites are present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, coastal dune and scrub, marsh, and swamp habitat. No rocky sites are present at the receiver beach.
<i>Phacelia stellaris</i> Brand's star phacelia	None/None G1/S1 1B.1	Annual herb. Coastal dunes, coastal scrub. Open areas. Elevations: 5-1310ft. (1-400m.) Blooms Mar-Jun.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes).	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (coastal dunes).	Low Potential; two historic CNDDDB record (#2, 15) exists within a 5-mile radius, however, the exact location is unknown and only source is from a 1932 collection. Few of the habitat components are present at the receiver beach (coastal dunes).	No Potential; one CNDDDB historic record (#4) exists at an unknown location in Redondo. The habitat at the receiver beach is unsuitable for the species and lacks coastal bluff scrub and dunes due to the developed nature of the beach.	No Potential; one CNDDDB historic record (#4) exists at an unknown location in Redondo. The habitat at the receiver beach is unsuitable for the species and lacks coastal bluff scrub and dunes due to the developed nature of the beach.
<i>Piperia michaelii</i> Michael's rein orchid	None/None G3/S3 4.2	Perennial herb. Chaparral, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal scrub, lower montane coniferous forest. Mudstone and humus, generally dry sites. Elevations: 10-3000ft. (3-915m.) Blooms Apr-Aug.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral, woodlands, and forests. No mudstone or humus present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral, woodlands, and forests. No mudstone or humus present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral, woodland, forest, and coastal scrub habitat. No mudstone or humus present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral, woodlands, and forests. No mudstone or humus present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as chaparral, woodlands, and forests. No mudstone or humus present at the receiver beach.
<i>Potentilla multijuga</i> Ballona cinquefoil	None/None GX/SX 1A	Perennial herb. Meadows and seeps. Brackish meadows. Elevations: 0-5ft. (0-2m.) Blooms Jun-Aug.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as meadows and seeps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as meadows and seeps.	No Potential; One historic CNDDDB record (#1) exists near Ballona but the habitat has been destroyed as of 1959. The population is considered extirpated due to destruction of suitable habitat by urbanization. The receiver beach does not contain suitable meadows and seeps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as meadows and seeps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as meadows and seeps.
<i>Quercus dumosa</i> Nuttall's scrub oak	None/None G3/S3 1B.1	Perennial evergreen shrub. Chaparral, closed-cone coniferous forest, coastal scrub. Generally, on sandy soils near the coast; sometimes on clay loam. Elevations: 50-1310ft. (15-400m.) Blooms Feb-Apr(May-Aug).	No Potential; one CNDDDB historical record (#187) within the Santa Monica Mountains northwest of the receiver beach. The receiver beach lacks suitable chaparral and forest habitat and is outside of the species elevation range. No <i>Quercus</i> spp. were observed.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and forest habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and forest habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and forest habitat and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and forest habitat.
<i>Rhinotropis cornuta</i> var. <i>fishiae</i> Fish's milkwort	None/None G5T4/S4 4.3	Chaparral, Cismontane woodland, Riparian woodland. 100-1000m. Blooms May-Aug.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.

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<i>Romneya coulteri</i> Coulter's matilija poppy	None/None G4/S4 4.2	Perennial rhizomatous herb. Chaparral, coastal scrub. In washes and on slopes; also, after burns. Elevations: 65-3935ft. (20-1200m.) Blooms Mar-Jul(Aug).	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; Habitat at the receiver beach is unsuitable for the species and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and forest habitat.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	None/None G3/S3 1B.2	Perennial rhizomatous herb (emergent). Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. Elevations: 0-2135ft. (0-650m.) Blooms May-Oct(Nov).	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.
<i>Senecio aphanactis</i> chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	No Potential; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable chaparral, woodland, coastal scrub habitat. No drying alkaline flats present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable chaparral, woodland, coastal scrub habitat. No drying alkaline flats present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable chaparral, woodland, coastal scrub habitat. No drying alkaline flats present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable chaparral, woodland, coastal scrub habitat. No drying alkaline flats present at the receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable chaparral, woodland, coastal scrub habitat. No drying alkaline flats present at the receiver beach.
<i>Sidalcea neomexicana</i> salt spring checkerbloom	None/None G4/S2 2B.2	Perennial herb. Chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub, playas. Alkali springs and marshes. Elevations: 50-5020ft. (15-1530m.) Blooms Mar-Jun.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as coniferous forest, mojavean desert scrub and playas and is outside of the species elevation range.	No Potential; one CNDDDB historic record (#8) exists around Santa Monica but since the area has been highly developed, the species is likely extirpated from the area. The receiver beach lacks suitable habitat such as coniferous forest, mojavean desert scrub and playas and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as coniferous forest, mojavean desert scrub and playas and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as coniferous forest, mojavean desert scrub and playas and is outside of the species elevation range.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as coniferous forest, mojavean desert scrub.
<i>Suaeda taxifolia</i> woolly seablite	None/None G4/S3S4 4.2	Perennial evergreen shrub. Coastal bluff scrub, coastal dunes, marshes and swamps. Margins of salt marshes. Elevations: 0-165ft. (0-50m.) Blooms Jan-Dec.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, habitat at the receiver beach does not contain suitable marsh or swamp habitat. Multiple historical Calflora records documented within receiver beach.	Low Potential; no CNDDDB records within 5 miles of the receiver beach. Few habitat components are present at the receiver beach (sandy sites); however, habitat at the receiver beach does not contain suitable marsh or swamp habitat. One historical Calflora records documented near receiver beach.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.	No Potential; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat such as marshes and swamps.
<i>Symphotrichum greatae</i> Greata's aster	None/None G2/S2 1B.3	Perennial rhizomatous herb. Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. Mesic canyons. Elevations: 985-6595ft. (300-2010m.) Blooms Jun-Oct.	No Potential: The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral, woodland or forest habitat and is outside of the species elevation range.	No Potential: The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral, woodland or forest habitat and is outside of the species elevation range.	No Potential: The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral, woodland or forest habitat and is outside of the species elevation range.	No Potential: The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral, woodland or forest habitat and is outside of the species elevation range.	No Potential: The habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral, woodland or forest habitat and is outside of the species elevation range.

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<i>Tortula californica</i> California screw moss	None/None G2G3/S2? 1B.2	Moss. Chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. Elevations: 35-4790ft. (10-1460m.)	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable scrub or grassland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable scrub or grassland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable scrub or grassland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable scrub or grassland.	No Potential; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable scrub or grassland.

Regional Vicinity refers to within an 8-quad search radius of the Study Area.

Status (Federal/State)

- FE = Federal Endangered
- FT = Federal Threatened
- FPE = Federal Proposed Endangered
- FPT = Federal Proposed Threatened
- FD = Federal Delisted
- FC = Federal Candidate
- SE = State Endangered
- ST = State Threatened
- SCE = State Candidate Endangered
- SCT = State Candidate Threatened
- SR = State Rare
- SD = State Delisted
- SSC = CDFW Species of Special Concern
- FP = CDFW Fully Protected
- WL = CDFW Watch List

California Rare Plant Rank (California Native Plant Society California Rare Plant Rank)

- 1A = Presumed extirpated in California, and rare or extinct elsewhere
- 1B = Rare, Threatened, or Endangered in California and elsewhere
- 2A = Presumed extirpated in California, but common elsewhere
- 2B = Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

- .1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
- .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
- .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses

- G1 or S1 Critically Imperiled Globally or Subnationally (state)
- G2 or S2 Imperiled Globally or Subnationally (state)
- G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
- G4/5 or S4/5 Apparently secure, common and abundant
- GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Special-status Wildlife Species in the Regional Vicinity of the Study Area

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Invertebrates							
<i>Aglaothorax longipennis</i> Santa Monica shieldback katydid	None/None G1G2/S1S2	Occur nocturnally in chaparral and canyon stream bottom vegetation, in the Santa Monica Mtns of Southern California. Inhabit introduced ice plant and native chaparral plants.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral or canyon stream bottom vegetation habitat.	No Potential ; one CNDDDB historical record (#1) within Big Rock Canyon entrance, approximately 3.5 miles west of the receiver beach. The receiver beach lacks suitable chaparral or canyon stream bottom vegetation habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or canyon stream bottom vegetation.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or canyon stream bottom vegetation.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and habitat at the receiver beach is unsuitable for the species and does not contain suitable chaparral or canyon stream bottom vegetation.
<i>Atractelmis wawona</i> Wawona riffle beetle	None/None G3/S1S2	Aquatic; found in riffles of rapid, small to medium clear mountain streams; 2000-5000 ft elev. Strong preference for inhabiting submerged aquatic mosses.	No Potential ; one CNDDDB record (#43) from 2009 in Solstice Canyon, approximately 4.2 miles northeast of the receiver beach. The receiver beach is outside of the species elevation range and lacks suitable mountain stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the species elevation range and lacks suitable mountain stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the species elevation range and lacks suitable mountain stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the species elevation range and lacks suitable mountain stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the species elevation range and lacks suitable mountain stream habitat.
<i>Bombus crotchii</i> Crotch's bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach; however, the records are within the Santa Monica Mountains. The receiver beach lacks suitable foraging and nesting habitat and food plant genera are not present.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including one historical record (#158) at an unknown location in Santa Monica, approximately 1.2 miles southeast of the receiver beach. However, the receiver beach lacks suitable foraging and nesting habitat and food plant genera are not present.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including one historical record (#165) at an unknown location on El Segundo beach, approximately 0.15 miles south of the receiver beach. The receiver beach lacks suitable foraging and nesting habitat and food plant genera are not present.	No Potential ; two CNDDDB historical records (#166, 241) within 5 miles of the receiver beach; however, the receiver beach lacks suitable foraging and nesting habitat and nesting habitat and food plant genera are not present.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including one historical record (#158) at an unknown location in Santa Monica, approximately 1.2 miles southeast of the receiver beach. However, the receiver beach lacks suitable foraging and nesting habitat and food plant genera are not present.
<i>Bombus pensylvanicus</i> American bumble bee	None/None G3G4/S2	Long-tongued; forages on a wide variety of flowers including vetches (<i>Vicia</i>), clovers (<i>Trifolium</i>), thistles (<i>Cirsium</i>), sunflowers (<i>Helianthus</i>), etc. Nests above ground under long grass or underground. Queens overwinter in rotten wood or underground.	No Potential ; two CNDDDB historical records (#165, 369) within 5 miles of the receiver beach, including one record at an unknown location at Zuma Beach, potentially within the receiver beach. The site is historical and no observations have been documented since the 1980s. The species may forage on nearby flowers. However, the receiver beach lacks suitable nesting habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including two recent records (#169, 170) within the receiver beach. An individual was observed foraging on invasive Chilean sea fig (<i>Carpobrotus chilensis</i>). However, the receiver beach lacks suitable nesting habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including one recent record (#395) within the receiver beach. An individual was observed foraging on flowers at Dockweiler State beach in coastal dune habitat. However, the receiver beach lacks suitable nesting habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The species may forage on nearby flowers. However, the receiver beach lacks suitable nesting habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The species may forage on nearby flowers. However, the receiver beach lacks suitable nesting habitat.
<i>Brennania belkini</i> Belkin's dune tabanid fly	None/None G1G2/S1S2	Sand obligate species known from coastal dunes near Playa del Rey and El Segundo south to Ensenada, Mexico. One of few tabanids not requiring a blood meal for successful egg production; adults taken on flowers. Larvae collected 50 cm beneath surface of sandy soil; presumably burrowing predators with undetermined hosts, likely beetle larvae. Adult flight generally May - July.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; two CNDDDB historical records (#4) within 5 miles of the receiver beach; however, the record occurred in 1949. The species is likely extirpated. The receiver beach lacks suitable foraging and nesting habitat and nesting habitat and food plant genera are not present.

Sand Compatibility and Opportunistic Use Program

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<i>Cicindela hirticollis</i> gravidia sandy beach tiger beetle	None/None G5T2/S2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; one unknown CNDDDB record (#22) approximately 0.25 miles east of the receiver beach, along Santa Monica Beach. The record was mapped along the coast as preferred habitat for the species but no other location or collection information is available. The species is likely extirpated and the receiver beach has suitable coastal dune habitat.	No Potential ; two CNDDDB historical records (#16, 35) overlapping the receiver beach to the north and south, along Dockweiler Beach. The record was mapped along the coast as preferred habitat for the species and one specimen was collected. The species is likely extirpated and receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; one CNDDDB historical record (#11) overlapping the receiver beach. The species is likely extirpated and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach. The species is likely extirpated and receiver beach lacks habitat due to the developed nature of the receiver beach.
<i>Cicindela senilis frosti</i> senile tiger beetle	None/None G2G3T1T3/S1	Inhabits marine shoreline, from Central California coast south to salt marshes of San Diego. Also found at Lake Elsinore. Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable mud or dried salt pan habitat in the marine shoreline.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable mud or dried salt pan habitat in the marine shoreline.	No Potential ; one CNDDDB historical record (#4) approximately 2.1 miles south of the receiver beach; however, the receiver beach lacks suitable mud or dried salt pan habitat in the marine shoreline.	No Potential ; one CNDDDB historical record (#4) approximately 2.9 miles north of the receiver beach; however, the receiver beach lacks suitable mud or dried salt pan habitat in the marine shoreline.	No Potential ; one CNDDDB historical record (#4) overlapping the receiver beach however, the record occurred in 1979. The species is likely extirpated and the receiver beach lacks suitable mud or dried salt pan habitat in the marine shoreline.
<i>Coelus globosus</i> globose dune beetle	None/None G1G2/S1S2	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable foredune and sand hummock habitat due to the developed nature of the receiver beach.	Moderate Potential ; two CNDDDB historical records (#9, 18) within 5 miles of the receiver beach, include one record approximately 0.25 miles east of the receiver beach. The receiver beach contains stable vegetated foredune and sand hummock habitat.	No Potential ; The species is presumed extant; however, the receiver beach lacks suitable foredune and sand hummock habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable foredune and sand hummock habitat due to the developed nature of the receiver beach.	Moderate Potential ; no CNDDDB records within 5 miles of the receiver beach. The Manhattan Beach Dune Restoration Project site provides undisturbed habitat suitable for the species.
<i>Danaus plexippus</i> plexippus pop. 1 monarch - California overwintering population	FC/None G4T1T2Q/S2	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The closest Xerces site (#2883) is approximately 0.2 miles northeast of the receiver beach. No butterflies were observed in 2022 and 53 were observed in 2021. Individuals may transit through the receiver beach; however, the receiver beach lacks suitable eucalyptus grove habitat for winter roosts.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The closest Xerces site (#2870) is approximately 0.5 miles north of the receiver beach. The site is historical and no counts have been documented since 1998. Individuals may transit through the receiver beach; however, the receiver beach lacks suitable eucalyptus grove habitat for winter roosts.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The closest Xerces site (#2886) is approximately 1.3 miles southeast of the receiver beach. The site is historical and no counts have been documented since the 1970s. Individuals may transit through the receiver beach; however, the receiver beach lacks suitable eucalyptus grove habitat for winter roosts.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The closest Xerces sites (#2881, 2893) are approximately 0.8 miles north and east of the receiver beach. Counts were documented in 2023; 11 butterflies at site #2881 and 3 butterflies at site #2893. Individuals may transit through the receiver beach; however, the receiver beach lacks suitable eucalyptus grove habitat for winter roosts.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach. The closest Xerces sites (#2886, 2888 and 3259) are approximately 1.25 miles northeast and southwest of the receiver beach. Counts were documented in 2023; 18 butterflies at site #3259. Individuals may transit through the receiver beach; however, the receiver beach lacks suitable eucalyptus grove habitat for winter roosts.
<i>Eugnosta busckana</i> Busck's gallmoth	None/None G1G3/S2S3	Coastal Southern California. Tiny micro-moth (1 cm) with larva forming galls on host plant Encelia californica (California brittlebush). Adult flight period is during winter, generally from November to February, and have been reported at UV lights and porch lights.	No Potential ; one CNDDDB historical record (#14) approximately 2.8 miles northwest of the receiver beach. The receiver beach lacks suitable habitat and does not contain suitable host plant for larva (California brittlebrush).	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat and does not contain suitable host plant for larva (California brittlebrush).	No Potential ; one CNDDDB historical record (#4) at an unknown location at El Segundo that potentially overlaps the receiver beach. The receiver beach lacks suitable habitat and does not contain suitable host plant for larva (California brittlebrush).	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat and does not contain suitable host plant for larva (California brittlebrush).	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable habitat and does not contain suitable host plant for larva (California brittlebrush).

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<i>Euphilotes allyni</i> El Segundo blue butterfly	FE/None G1/S1	Restricted to remnant coastal dune habitat in Southern California. Host plant is <i>Eriogonum parvifolium</i> ; larvae feed only on the flowers and seeds; used by adults as major nectar source.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	Low Potential ; two CNDDDB historical records at the El Segundo Dunes (#1,#3) and several iNaturalist observations which are outside the study area. The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach. The species may forage on nearby flowers.	Low Potential ; one CNDDDB historical record at the Miramar Park (#4). The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach. The species may forage on nearby flowers.	Low Potential ; one CNDDDB historical record at the Miramar Park (#4) and several iNaturalist observations which are outside the study area. The restoration site in the study area may provide habitat for the species and the species may forage on nearby flowers.
<i>Euphydryas editha quino</i> quino checkerspot butterfly	FE/None G4G5T1T2/S1 S2	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants <i>Plantago erecta</i> , <i>P. insularis</i> , and <i>Orthocarpus purpurescens</i> .	No Potential ; one CNDDDB records (#100) at Point Dume in 1954 and the receiver beach lacks suitable chaparral and coastal sage shrublands habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and coastal sage shrublands habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and coastal sage shrublands habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and coastal sage shrublands habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable chaparral and coastal sage shrublands habitat due to the developed nature of the receiver beach.
<i>Glaucopsyche lygdamus palosverdesensis</i> 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 <i>Astragalus trichopodus</i> var. <i>lonchus</i> (locoweed).	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.
<i>Glyptostoma gabrielense</i> San Gabriel chestnut snail	None/None G2/S3	Found only in the San Gabriel Mountains and foothills near Los Angeles, California	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.
<i>Haliotis cracherodii</i> Black abalone	FE/SC/P	Primarily found in rocky intertidal and shallow subtidal reefs along the California and Baja California coast. Typically occur in habitats with complex surfaces and deep crevices that provide shelter for juveniles and adults. Found between 0-18ft deep.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach and the receiver beach lacks suitable intertidal reef habitat.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach and the receiver beach lacks suitable intertidal reef habitat.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach and the receiver beach lacks suitable intertidal reef habitat.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach and the receiver beach lacks suitable intertidal reef habitat.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach and the receiver beach lacks suitable intertidal reef habitat.
<i>Haliotis sorenseni</i> White abalone	FE/P	Live on rocky substrates alongside sand channels, which tend to accumulate the algae they eat. They are usually found at depths of 50 to 180 feet. Found in the Pacific Ocean from Point Conception, California to Punta Abreojos, Mexico. In California, they were most abundant at offshore islands (especially San Clemente and Santa Catalina Islands).	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.
<i>Onychobaris langei</i> Lange's El Segundo Dune weevil	None/None G1/S1	Known from El Segundo Dunes. .	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; one CNDDDB historical records at the El Segundo Dunes (#1) in 1938 which is outside the study area. The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species range.

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<i>Panoquina errans</i> wandering (=saltmarsh) skipper	None/None G4/S2	Southern California coastal salt marshes. Requires moist saltgrass for larval development.	No Potential ; no CNDDDB records within 5 miles and the receiver beach lacks suitable coastal salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles and the receiver beach lacks suitable coastal salt marsh habitat.	No Potential ; one CNDDDB record (#1) approximately 1.3 miles north of the receiver beach at the Ballona wetlands. The receiver beach lacks suitable coastal salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles and the receiver beach lacks suitable coastal salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles and the receiver beach lacks suitable coastal salt marsh habitat.
<i>Pelochrista hennei</i> Henne's eucosman moth	None/None G1/S1	Coastal sand dunes with host <i>Phacelia ramosissima</i> . Originally believed to be endemic to the El Segundo sand dunes of Los Angeles County where the type specimen was collected. Also collected from coastal San Luis Obispo County. Larval foodplant is <i>Phacelia ramosissima</i> var <i>austrolitoralis</i> ; larvae can be found on woody stems and upper root parts.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; one CNDDDB historical records at the El Segundo Dunes (#1) in 1984 which is outside the study area. The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat due to the developed nature of the receiver beach.
<i>Rhaphiomidas terminatus terminatus</i> El Segundo flower-loving fly	None/None G1T1/S1	Presumed extinct but recently discovered on Malaga Dunes, Los Angeles County. Perched dunes.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.
<i>Socalchemmis gertschi</i> Gertsch's socialchemmis spider	None/None G1/S1	Known from only 2 localities in Los Angeles County: Brentwood (type locality) and Topanga Canyon. .	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach is outside of the known species location.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	FE/None G1G2/S2	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.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable seasonally astatic pools in grassland and coastal sage scrub habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable seasonally astatic pools in grassland and coastal sage scrub habitat.	No Potential ; three CNDDDB records (#56, 57, 68) within 5 miles of the receiver beach; however, the receiver beach lacks suitable seasonally astatic pools in grassland and coastal sage scrub habitat.	No Potential ; one CNDDDB records (#67) within 5 miles of the receiver beach; however, the receiver beach lacks suitable seasonally astatic pools in grassland and coastal sage scrub habitat.	No Potential ; one CNDDDB records (#67) within 5 miles of the receiver beach; however, the receiver beach lacks suitable seasonally astatic pools in grassland and coastal sage scrub habitat.
<i>Trigonoscuta dorothea dorothea</i> Dorothy's El Segundo Dune weevil	None/None G1T1/S1	Coastal sand dunes in Los Angeles County. .	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; one CNDDDB historical records at the El Segundo Dunes (#2) in 1954 which is outside the study area. and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach and the receiver beach lacks suitable habitat due to the developed nature of the receiver beach.
<i>Trimerotropis occidentiloides</i> Santa Monica grasshopper	None/None G2/S2	Known only from the Santa Monica Mountains. Found on bare hillsides and along dirt trails in chaparral.	No Potential ; two CNDDDB historical records (#1, 2) in the Santa Monica Mountains north of the receiver beach. The receiver beach lacks suitable bare hillside and dirt trail habitat in chaparral.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable bare hillside and dirt trail habitat in chaparral.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable bare hillside and dirt trail habitat in chaparral.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable bare hillside and dirt trail habitat in chaparral.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable bare hillside and dirt trail habitat in chaparral.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	None/None G2/S2	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal lagoon, estuary, and salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal lagoon, estuary, and salt marsh habitat.	No Potential ; one CNDDDB historical record (#16) approximately 1.5 miles north of the receiver beach along Ballona Creek. The receiver beach lacks suitable coastal lagoon, estuary, and salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal lagoon, estuary, and salt marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable coastal lagoon, estuary, and salt marsh habitat.

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Fish							
<i>Eucyclogobius newberryi</i> tidewater goby	FE/None G3/S3 SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable brackish water habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable brackish water habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable brackish water habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable brackish water habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable brackish water habitat.
<i>Gila orcuttii</i> arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.
California grunion <i>Leuresthes tenuis</i>	SSC	The species utilizes the sandy beaches from Morro Bay (Mercieca and Miller 1969) to Central Baja California for spawning. Known grunion runs are expected to occur on Carpinteria State Beach twice a month, at new and full moon between February/March and August or early September. During that time grunion come ashore during the two or three nights following the highest tide, eggs are deposited and then incubate in the sand during the lower tides, when they will not be disturbed by wave action. The eggs are kept moist by residual water in the sand. They hatch about 10 days later, during the next high tide series, when they are inundated with sea water and agitated by rising surf (CDFW 2018).	High Potential ; three iNaturalist records within in the receiver beach study area. The most recent record was adults 2023 where adults were spawning near Malibu Pier. This species is known to spawn on beaches within the vicinity of the study area.	High Potential ; several iNaturalist records within in the receiver beach study area. The most recent record was June 2023 where eggs and adults were spawning near the lagoon outside of the study area.	Present ; several iNaturalist records within in the receiver beach study area. The most recent record was June 2023 where adults were spawning and eggs were observed near the rip rap jetty north of lifeguard tower #50.	Present ; multiple iNaturalist records within in the receiver beach study area. The most recent record was June 24, 2024 where adults were spawning and eggs were observed on the beach near the rip rap jetty.	High Potential ; several iNaturalist records within in the receiver beach study area. The most recent record was April 2021 where adults were spawning near the Manhattan Beach Pier.
<i>Oncorhynchus mykiss irideus</i> pop. 10 steelhead - Southern California DPS	FE/SCE G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; one CNDDDB historical record (#7) within Topanga Creek, approximately 2 miles west of the of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.
<i>Siphateles bicolor mohavensis</i> 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.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; one CNDDDB historical record (#16) within Ballona Creek, approximately 1.5 miles north of the of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable stream habitat.

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Amphibians							
<i>Spea hammondi</i> western spadefoot	FPT/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable grassland and woodland habitat. No vernal pools present for breeding and egg-laying.	No Potential ; one CNDDDB historical record (#1052) within 5 miles of the receiver beach. The receiver beach lacks suitable grassland and woodland habitat. No vernal pools present for breeding and egg-laying.	No Potential ; one CNDDDB historical record (#1047) within 5 miles of the receiver beach. The receiver beach lacks suitable grassland and woodland habitat. No vernal pools present for breeding and egg-laying.	No Potential ; two CNDDDB historical records (#1046, 1083) within 5 miles of the receiver beach. The receiver beach lacks suitable grassland and woodland habitat. No vernal pools present for breeding and egg-laying.	No Potential ; two CNDDDB historical records (#1046, 1083) within 5 miles of the receiver beach. The receiver beach lacks suitable grassland and woodland habitat. No vernal pools present for breeding and egg-laying.
Reptiles							
<i>Actinemys pallida</i> southwestern pond turtle	FPT/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	No Potential ; one CNDDDB historical record (#908) within 5 miles of the receiver beach. The receiver beach lacks suitable aquatic habitat and upland habitat for egg-laying.	No Potential ; one CNDDDB historical record (#909) within 5 miles of the receiver beach. The receiver beach lacks suitable aquatic habitat and upland habitat for egg-laying.	No Potential ; one CNDDDB historical record (#913) within 5 miles of the receiver beach. The receiver beach lacks suitable aquatic habitat and upland habitat for egg-laying.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable aquatic habitat and upland habitat for egg-laying.	No Potential ; no CNDDDB records within 5 miles of the receiver beach. The receiver beach lacks suitable aquatic habitat and upland habitat for egg-laying.
<i>Anniella stebbinsi</i> 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 a high moisture content.	No Potential ; two CNDDDB records (#2, 425) within 5 miles of the receiver beach; however, the receiver beach lacks suitable moist, loose soil habitat.	No Potential ; one CNDDDB historical record (#70) within 5 miles of the receiver beach; however, the receiver beach lacks suitable moist, loose soil habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including a record from 2010 (#1) in the El Segundo Dunes designated Environmentally Sensitive Habitat Area (ESHA), located between the receiver beach and Los Angeles International Airport. However, the receiver beach lacks suitable moist, loose soil habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including two historical records (#57, 58) overlapping the receiver beach to the north and the south. However, the receiver beach lacks suitable moist, loose soil habitat.	Low Potential ; multiple CNDDDB records within 5 miles of the receiver beach, including four historical records (#51, 52, 53, 54) overlapping the receiver beach to the north and the south. However, the receiver beach lacks suitable moist, loose soil habitat.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	No Potential ; two CNDDDB records (#23, 86) within 5 miles of the receiver beach; however, the receiver beach lacks suitable desert, woodland, and riparian habitat.	No Potential ; one CNDDDB record (#91) within 5 miles of the receiver beach; however, the receiver beach lacks suitable desert, woodland, and riparian habitat.	No Potential ; no CNDDDB records within 5 miles, and the receiver beach lacks suitable desert, woodland, and riparian habitat.	No Potential ; no CNDDDB records within 5 miles, and the receiver beach lacks suitable desert, woodland, and riparian habitat.	No Potential ; no CNDDDB records within 5 miles, and the receiver beach lacks suitable desert, woodland, and riparian habitat.
<i>Caretta caretta</i> loggerhead turtle – North Pacific DPS	FE/None	Occurs throughout temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans. The species is known to occur in the eastern Pacific from Alaska to Chile, though the range in California is generally south of Point Conception.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.
<i>Chelonia mydas</i> green sea turtle	FT/None	Marine species that requires adequate supply of seagrasses and algae.	Low Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. There is a low potential for the species to occur within the Study Area while migrating and/or foraging.	Low Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. There is a low potential for the species to occur within the Study Area while migrating and/or foraging.	Low Potential ; two iNaturalist records within 5 miles of the receiver beach. The most recent observation is from September 2023 offshore of the project area. There is a low potential for the species to occur within the Study Area while migrating and/or foraging.	Low Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. There is a low potential for the species to occur within the Study Area while migrating and/or foraging.	Low Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. There is a low potential for the species to occur within the Study Area while migrating and/or foraging.

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<i>Dermochelys coriacea</i> leatherback sea turtle	FE/None	Thoroughly marine species that feed primarily on jellies in both deep and shallow waters. Nests on beaches in Mexico, Costa Rica, and Indonesia. Migrates and feeds along the west coast of North America.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in nearshore coastal waters off Southern California.
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	None/None G5T2T3/S2?	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous veg.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, relatively rocky habitat near intermittent streams.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, relatively rocky habitat near intermittent streams.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, relatively rocky habitat near intermittent streams.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, relatively rocky habitat near intermittent streams.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, relatively rocky habitat near intermittent streams.
<i>Lepidochelys olivacea</i> Olive Ridley sea turtle	FT/None	Occurs throughout the Pacific Islands and the southeast and west coasts of the United States.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in coastal waters off Southern California.	No Potential ; no CNDDDB or iNaturalist records within 5 miles of the receiver beach. The species is not expected to occur in coastal waters off Southern California.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G4/S4 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.	No Potential ; multiple CNDDDB records within 5 miles of the receiver beach; however, the receiver beach lacks suitable habitat, such as lowlands along sandy washes, open areas for sunning, and patches of loose soil for burial.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable habitat, such as lowlands along sandy washes, open areas for sunning, and patches of loose soil for burial.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable habitat, such as lowlands along sandy washes, open areas for sunning, and patches of loose soil for burial.	No Potential ; one CNDDDB record (#207) within 5 miles of the receiver beach; however, the receiver beach lacks suitable habitat, such as lowlands along sandy washes, open areas for sunning, and patches of loose soil for burial.	No Potential ; one CNDDDB record (#207) within 5 miles of the receiver beach; however, the receiver beach lacks suitable habitat, such as lowlands along sandy washes, open areas for sunning, and patches of loose soil for burial.
<i>Thamnophis hammondi</i> two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No Potential ; one CNDDDB record (#181) within 5 miles of the receiver beach; however, the receiver beach lacks suitable aquatic habitat.	No Potential ; one CNDDDB record (#146) at an unknown location within 5 miles of the receiver beach; however, the receiver beach lacks suitable aquatic habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable aquatic habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable aquatic habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable aquatic habitat.
Birds							
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Low Potential ; several iNaturalist and eBird records depicted that this species has been observed flying over the study area. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential ; several iNaturalist and eBird records depicted that this species has been observed flying over the study area. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential ; several iNaturalist and eBird records depicted that this species has been observed flying over the study area. The receiver beach lacks suitable nesting habitat.	Low Potential ; several iNaturalist and eBird records depicted that this species has been observed flying over the study area. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential ; several iNaturalist and eBird records depicted that this species has been observed flying over the study area. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential ; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.

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<i>Athene cunicularia</i> burrowing owl	None/None G4/S2 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential; several eBird records at the El Segundo Dunes which is outside the study area. The receiver beach lacks suitable coastal dune habitat due to the developed nature of the receiver beach.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Buteo swainsoni</i> Swainson's hawk	None/ST G5/S4	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Charadrius nivosus</i> western snowy plover	FT/None G3T3/S3 SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat however, the receiver beach is within the species' designated critical habitat.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat. There is suitable nesting and foraging habitat present in the El Segundo Dunes, located outside of the study area. The southern section of the study area is considered to be critical habitat for the species.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Coturnicops noveboracensis</i> yellow rail	None/None G4/S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; one CNDDDB historical record (#23) within the receiver beach study area; however, the record occurred in 1998. The receiver beach outside the known species range.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD/SD G4T4/S3S4	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3T1/S2 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach outside the known species range.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	None/SE G5T3/S3	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.

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<i>Pelecanus occidentalis californicus</i> California brown pelican	Federally and State Delisted (FD/SD)	Lives year-round in estuaries and coastal marine habitats along the California coast, and forages, rests, and roosts on islands, offshore rocks, breakwaters and other humanmade structures, rocky intertidal areas, mudflats, and beaches. Generally, nests and breeds on offshore Islands in Southern California. Diet includes mostly small fish that school near the surface of the water.	Present: This species has been observed within the Study Area.	Present: This species has been observed within the Study Area.	Present: This species has been observed within the Study Area.	Present: This species has been observed within the Study Area.	Present: This species has been observed within the Study Area.
<i>Polioptila californica californica</i> coastal California gnatcatcher	FT/None G4G5T3Q/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.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Riparia riparia</i> bank swallow	None/ST G5/S3	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.	No Potential; There are no additional CNDDDB records or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; one CNDDDB record located in Will Rogers State Beach (#288) however, this record is from 1907. There are no additional CNDDDB records or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.
<i>Sternula antillarum browni</i> 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; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat but has suitable foraging habitat.	Low Potential; Three historical CNDDDB occurrences are documented within 5 miles of the Dockweiler Beach study area, with the closest approximately 1.4 miles north of the study area (Occurrence #14). However, dredge material placed on the site rendered the area unsuitable for nesting. There are no records of nesting was reported after 1987.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat but has suitable foraging habitat.	Low Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat but has suitable foraging habitat.
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE G5T2/S3	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.	No Potential; no CNDDDB or eBird records within 5 miles of the receiver beach. The receiver beach lacks suitable nesting habitat and foraging habitat.

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Mammals							
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable desert, grassland, shrubland, woodland, and forest habitat. No suitable roosting habitat at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable desert, grassland, shrubland, woodland, and forest habitat. No suitable roosting habitat at the receiver beach.	No Potential ; one CNDDDB historical record (#191) within 5 miles of the receiver beach; however, the receiver beach lacks suitable desert, grassland, shrubland, woodland, and forest habitat. No suitable roosting habitat at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable desert, grassland, shrubland, woodland, and forest habitat. No suitable roosting habitat at the receiver beach.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable desert, grassland, shrubland, woodland, and forest habitat. No suitable roosting habitat at the receiver beach.
<i>Eumops perotis californicus</i> western mastiff bat	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable open, semi-arid to arid habitat. No suitable roosting habitat.	No Potential ; two historical CNDDDB records (#171, 183) within 5 miles of the receiver beach; however, the receiver beach lacks suitable open, semi-arid to arid habitat. No suitable roosting habitat.	No Potential ; two historical CNDDDB records (#68, 171) within 5 miles of the receiver beach; however, the receiver beach lacks suitable open, semi-arid to arid habitat. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#168) within 5 miles of the receiver beach; however, the receiver beach lacks suitable open, semi-arid to arid habitat. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#168) within 5 miles of the receiver beach; however, the receiver beach lacks suitable open, semi-arid to arid habitat. No suitable roosting habitat.
<i>Lasionycteris noctivagans</i> silver-haired bat	None/None G3G4/S3S4	Primarily a coastal and montane forest dweller, feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal and montane forest habitat near water. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#52) within 5 miles of the receiver beach; however, the receiver beach lacks suitable coastal and montane forest habitat near water. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal and montane forest habitat near water. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal and montane forest habitat near water. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal and montane forest habitat near water. No suitable roosting habitat.
<i>Lasiurus cinereus</i> hoary bat	None/None G3G4/S4	Typically roosts in trees in deciduous and coniferous forests and woodlands but occasionally roosts in rocks crevices. Forages in open areas, typically along riparian corridors or over water. Diet primarily consists of moths.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland habitat. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#54) within 5 miles of the receiver beach; however, the receiver beach lacks suitable woodland habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland habitat. No suitable roosting habitat.
<i>Lasiurus frantzii</i> western red bat	None/None G4/S3 SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland and forest habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland and forest habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland and forest habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland and forest habitat. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable woodland and forest habitat. No suitable roosting habitat.
<i>Microtus californicus stephensi</i> south coast marsh vole	None/None G5T2T3/S2 SSC	Occurs in tidal marshes of Orange, Los Angeles, and Ventura Counties.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable tidal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable tidal marsh habitat.	No Potential ; two CNDDDB records (#2, 3) within 5 miles of the receiver beach; however, the receiver beach lacks suitable tidal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable tidal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable tidal marsh habitat.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	None/None G5/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.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable arid habitat, such as woodlands, desert scrub, palm oasis, desert wash, and desert riparian. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable arid habitat, such as woodlands, desert scrub, palm oasis, desert wash, and desert riparian. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#16) within 5 miles of the receiver beach; however, the receiver beach lacks suitable arid habitat, such as woodlands, desert scrub, palm oasis, desert wash, and desert riparian. No suitable roosting habitat.	No Potential ; one historical CNDDDB record (#15) within 5 miles of the receiver beach; however, the receiver beach lacks suitable arid habitat, such as woodlands, desert scrub, palm oasis, desert wash, and desert riparian. No suitable roosting habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable arid habitat, such as woodlands, desert scrub, palm oasis, desert wash, and desert riparian. No suitable roosting habitat.

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<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	FE/None G5T2/S2 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.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal plains habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal plains habitat.	No Potential ; one CNDDDB record (#2) from 1938 within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal plains habitat.	No Potential ; one CNDDDB record (#1) from 1931 within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal plains habitat.	No Potential ; one CNDDDB record (#2) from 1938 within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal plains habitat.
<i>Sorex ornatus salicornicus</i> Southern California saltmarsh shrew	None/None G5T1?/S1 SSC	Coastal marshes in Los Angeles, Orange and Ventura counties. Requires dense vegetation and woody debris for cover.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal marsh habitat.	No Potential ; one historical CNDDDB record (#1) at Ballona Wetlands Ecological Reserve, approximately 1.4 miles north of the receiver beach; however, the receiver beach lacks suitable coastal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal marsh habitat.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable coastal marsh habitat.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	No Potential ; two CNDDDB records (#392, 393) within 5 miles of the receiver beach; however, the receiver beach lacks suitable herbaceous habitat with friable soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable herbaceous habitat with friable soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable herbaceous habitat with friable soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable herbaceous habitat with friable soils.	No Potential ; no CNDDDB records within 5 miles of the receiver beach, and the receiver beach lacks suitable herbaceous habitat with friable soils.
Marine Mammals							
<i>Arctocephalus townsendi</i> Guadalupe fur seal	FT	Guadalupe fur seals live in the waters off Southern California and the Pacific coast of Mexico. During the breeding season, they are found in coastal rocky habitats and caves. Little is known about their whereabouts during the non-breeding season.	No Potential ; the study area lies well north of the breeding grounds for the species, which are almost entirely on Guadalupe Island, Mexico, with a few small populations breeding off Baja California and San Miguel Island. The species is not common along the California Coast, though individuals have been documented as far north as Washington State (NOAA 2022d).	No Potential ; the study area lies well north of the breeding grounds for the species, which are almost entirely on Guadalupe Island, Mexico, with a few small populations breeding off Baja California and San Miguel Island. The species is not common along the California Coast, though individuals have been documented as far north as Washington State (NOAA 2022d).	No Potential ; the study area lies well north of the breeding grounds for the species, which are almost entirely on Guadalupe Island, Mexico, with a few small populations breeding off Baja California and San Miguel Island. The species is not common along the California Coast, though individuals have been documented as far north as Washington State (NOAA 2022d).	No Potential ; the study area lies well north of the breeding grounds for the species, which are almost entirely on Guadalupe Island, Mexico, with a few small populations breeding off Baja California and San Miguel Island. The species is not common along the California Coast, though individuals have been documented as far north as Washington State (NOAA 2022d).	No Potential ; the study area lies well north of the breeding grounds for the species, which are almost entirely on Guadalupe Island, Mexico, with a few small populations breeding off Baja California and San Miguel Island. The species is not common along the California Coast, though individuals have been documented as far north as Washington State (NOAA 2022d).
<i>Balaenoptera physalus</i> fin whale	FE MMPA	Primarily found in deep, offshore waters of all major oceans, primarily in temperate to polar latitudes. Most migrate from the Arctic and Antarctic feeding areas in the summer to tropical breeding and calving areas in the winter.	No Potential ; Fin whales travel in the open seas, away from the coast, and are unlikely to occur near the beaches where receiver will be located.	No Potential ; Fin whales travel in the open seas, away from the coast, and are unlikely to occur near the beaches where receiver will be located.	No Potential ; Fin whales travel in the open seas, away from the coast, and are unlikely to occur near the beaches where receiver will be located.	No Potential ; Fin whales travel in the open seas, away from the coast, and are unlikely to occur near the beaches where receiver will be located.	No Potential ; Fin whales travel in the open seas, away from the coast, and are unlikely to occur near the beaches where receiver will be located.
<i>Balaenoptera musculus</i> blue whale	FE MMPA	Blue whales migrate seasonally between summer feeding grounds and winter breeding grounds. They prefer deep waters, though can be found in more shallow coastal waters when migrating or following food supplies. The North Pacific blue whales live off the California coast and migrate to waters off the coast of Mexico and Central America in winter.	No Potential ; Blue whales prefer deep waters; however, they feed during the summer off the U.S. West Coast.	No Potential ; Blue whales prefer deep waters; however, they feed during the summer off the U.S. West Coast.	No Potential ; Blue whales prefer deep waters; however, they feed during the summer off the U.S. West Coast.	No Potential ; Blue whales prefer deep waters; however, they feed during the summer off the U.S. West Coast.	No Potential ; Blue whales prefer deep waters; however, they feed during the summer off the U.S. West Coast.

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<i>Eschrichtius robustus</i> gray whale	MMPA	Breeding occurs in lagoons in Baja California in the fall. Migration occurs northward along the west coast from mid-February to May.	Moderate Potential; the study area is outside of breeding grounds for this species; however, this species does migrate along the west coast through Southern California where the Study Area is located from mid-February to May. This species is generally found in shallow coastal waters to forage.	Moderate Potential; the study area is outside of breeding grounds for this species; however, this species does migrate along the west coast through Southern California where the Study Area is located from mid-February to May. This species is generally found in shallow coastal waters to forage.	Moderate Potential; the study area is outside of breeding grounds for this species; however, this species does migrate along the west coast through Southern California where the Study Area is located from mid-February to May. This species is generally found in shallow coastal waters to forage.	Moderate Potential; the study area is outside of breeding grounds for this species; however, this species does migrate along the west coast through Southern California where the Study Area is located from mid-February to May. This species is generally found in shallow coastal waters to forage.	Moderate Potential; the study area is outside of breeding grounds for this species; however, this species does migrate along the west coast through Southern California where the Study Area is located from mid-February to May. This species is generally found in shallow coastal waters to forage.
<i>Eubalaena japonica</i> north Pacific right whale	FE MMPA	Although migration patterns are unknown, it is thought the whales spend the summer in far northern feeding grounds and migrate south to warmer waters, such as Southern California, during the winter. Nursery areas are in shallow, coastal waters.	No Potential; Fewer than 500 North Pacific right whales likely remain. The migration patterns of the North Pacific right whale are unknown. Although this species is anticipated to migrate south to warmer waters in the winter (i.e., Southern California), the study area is outside of the nursery areas for this species, which is where this species would move into shallow waters.	No Potential; Fewer than 500 North Pacific right whales likely remain. The migration patterns of the North Pacific right whale are unknown. Although this species is anticipated to migrate south to warmer waters in the winter (i.e., Southern California), the study area is outside of the nursery areas for this species, which is where this species would move into shallow waters.	No Potential; Fewer than 500 North Pacific right whales likely remain. The migration patterns of the North Pacific right whale are unknown. Although this species is anticipated to migrate south to warmer waters in the winter (i.e., Southern California), the study area is outside of the nursery areas for this species, which is where this species would move into shallow waters.	No Potential; Fewer than 500 North Pacific right whales likely remain. The migration patterns of the North Pacific right whale are unknown. Although this species is anticipated to migrate south to warmer waters in the winter (i.e., Southern California), the study area is outside of the nursery areas for this species, which is where this species would move into shallow waters.	No Potential; Fewer than 500 North Pacific right whales likely remain. The migration patterns of the North Pacific right whale are unknown. Although this species is anticipated to migrate south to warmer waters in the winter (i.e., Southern California), the study area is outside of the nursery areas for this species, which is where this species would move into shallow waters.
<i>Eumetopias jubatus</i> Steller sea lion	FD/None MMPA	Breeds on Ano Nuevo, San Miguel and Farallon islands, Point St. George, and Sugarloaf. Hauls-out on islands and rocks. Needs haul-out and breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance.	No Potential; The study area is outside of the breeding grounds for this species. Furthermore, the Study Area does not contain suitable haul-out and breeding sites.	No Potential; The study area is outside of the breeding grounds for this species. Furthermore, the Study Area does not contain suitable haul-out and breeding sites.	No Potential; The study area is outside of the breeding grounds for this species. Furthermore, the Study Area does not contain suitable haul-out and breeding sites.	No Potential; The study area is outside of the breeding grounds for this species. Furthermore, the Study Area does not contain suitable haul-out and breeding sites.	No Potential; The study area is outside of the breeding grounds for this species. Furthermore, the Study Area does not contain suitable haul-out and breeding sites.
<i>Megaptera novaeangliae</i> humpback whale	FE MMPA	Feeding and migration occurs off the coast of California during spring, summer, and fall.	No Potential; The Mexico population of this species feeds off a broad range of the California coast. The study area is outside of the breeding ground for this species, where they typically prefer the warmer shallow water.	No Potential; The Mexico population of this species feeds off a broad range of the California coast. The study area is outside of the breeding ground for this species, where they typically prefer the warmer shallow water.	No Potential; The Mexico population of this species feeds off a broad range of the California coast. The study area is outside of the breeding ground for this species, where they typically prefer the warmer shallow water.	No Potential; The Mexico population of this species feeds off a broad range of the California coast. The study area is outside of the breeding ground for this species, where they typically prefer the warmer shallow water.	No Potential; The Mexico population of this species feeds off a broad range of the California coast. The study area is outside of the breeding ground for this species, where they typically prefer the warmer shallow water.
<i>Mirounga angustirostris</i> northern elephant seal	FP MMPA	Breeding occurs in Channel Islands and birth occurs from December to March. May occur on land in sandy or rocky areas along coastline. Ocean dive depths can be up to 300-800 meters.	Low Potential; The breeding grounds and feeding grounds for this species is well documented. This species typically breeds and give birth in the Channel Islands off California in the winter. The study area is not a known molting area for this species. If the species does come to shore, it is most likely sick or injured.	Low Potential; The breeding grounds and feeding grounds for this species is well documented. This species typically breeds and give birth in the Channel Islands off California in the winter. The study area is not a known molting area for this species. If the species does come to shore, it is most likely sick or injured.	Low Potential; The breeding grounds and feeding grounds for this species is well documented. This species typically breeds and give birth in the Channel Islands off California in the winter. The study area is not a known molting area for this species. If the species does come to shore, it is most likely sick or injured.	Low Potential; The breeding grounds and feeding grounds for this species is well documented. This species typically breeds and give birth in the Channel Islands off California in the winter. The study area is not a known molting area for this species. If the species does come to shore, it is most likely sick or injured.	Low Potential; The breeding grounds and feeding grounds for this species is well documented. This species typically breeds and give birth in the Channel Islands off California in the winter. The study area is not a known molting area for this species. If the species does come to shore, it is most likely sick or injured.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Orcinus orca</i> southern resident killer whale	FE MMPA	During the spring, summer, and fall, the range of Southern Resident killer whales includes the inland waterways of Washington State and the transboundary waters between the United States and Canada. Less is known about their winter movements and range. They have been spotted as far south as central California during the winter months and as far north as Southeast Alaska.	No Potential; The study area is well south of the breeding grounds for this species. Southern Resident killer whales generally occur in Washington State's Puget Sound and are not found south of central California.	No Potential; The study area is well south of the breeding grounds for this species. Southern Resident killer whales generally occur in Washington State's Puget Sound and are not found south of central California.	No Potential; The study area is well south of the breeding grounds for this species. Southern Resident killer whales generally occur in Washington State's Puget Sound and are not found south of central California.	No Potential; The study area is well south of the breeding grounds for this species. Southern Resident killer whales generally occur in Washington State's Puget Sound and are not found south of central California.	No Potential; The study area is well south of the breeding grounds for this species. Southern Resident killer whales generally occur in Washington State's Puget Sound and are not found south of central California.
<i>Phoca vitulina</i> harbor seal	MMPA	Temperate coastal habitats along the coast of California. Rest on rocks, reefs, beaches.	Moderate Potential; This species is known to occur off the coast of California. The study area contains suitable habitat for this species; however, this species is less common than California sea lions offshore of California. If the species does come to shore, it is most likely sick or injured.	Moderate Potential; This species is known to occur off the coast of California. The study area contains suitable habitat for this species; however, this species is less common than California sea lions offshore of California. If the species does come to shore, it is most likely sick or injured.	Moderate Potential; This species is known to occur off the coast of California. The study area contains suitable habitat for this species; however, this species is less common than California sea lions offshore of California. If the species does come to shore, it is most likely sick or injured.	Moderate Potential; This species is known to occur off the coast of California. The study area contains suitable habitat for this species; however, this species is less common than California sea lions offshore of California. If the species does come to shore, it is most likely sick or injured.	Moderate Potential; This species is known to occur off the coast of California. The study area contains suitable habitat for this species; however, this species is less common than California sea lions offshore of California. If the species does come to shore, it is most likely sick or injured.
<i>Phocoena phocoena</i> harbor porpoise	MMPA	Found in temperate, subarctic, and arctic coastal and offshore waters. Commonly found in coastal areas, bays, estuaries, harbors, and fjords. Most often seen in groups of under 10. Feed on schooling fish and occasionally squid and octopus.	No Potential; The study area is well south of the range of this species and is not located within a bay, estuary, harbor or fjord to support this species.	No Potential; The study area is well south of the range of this species and is not located within a bay, estuary, harbor or fjord to support this species.	No Potential; The study area is well south of the range of this species and is not located within a bay, estuary, harbor or fjord to support this species.	No Potential; The study area is well south of the range of this species and is not located within a bay, estuary, harbor or fjord to support this species.	No Potential; The study area is well south of the range of this species and is not located within a bay, estuary, harbor or fjord to support this species.
<i>Physeter microcephalus</i> sperm whale	FE MMPA	Primarily found in deep, offshore waters. In some mid-latitudes, sperm whales seem to generally migrate north and south depending on the seasons, moving toward the poles in the summer. However, in tropical and temperate areas, there appears to be no obvious seasonal migration.	No Potential; Sperm whales spend most of their time in deep ocean waters. The study area is outside of feeding and breeding grounds for this species.	No Potential; Sperm whales spend most of their time in deep ocean waters. The study area is outside of feeding and breeding grounds for this species.	No Potential; Sperm whales spend most of their time in deep ocean waters. The study area is outside of feeding and breeding grounds for this species.	No Potential; Sperm whales spend most of their time in deep ocean waters. The study area is outside of feeding and breeding grounds for this species.	No Potential; Sperm whales spend most of their time in deep ocean waters. The study area is outside of feeding and breeding grounds for this species.
<i>Tursiops truncatus</i> common bottlenose dolphin	MMPA	Bottlenose dolphins are found in temperate and tropical waters around the world. They inhabit a wide variety of habitats, including harbors, bays, gulfs, and estuaries, as well as nearshore coastal waters, deeper waters over the continental shelf, and even far offshore in the open ocean.	Present; This species is known to occur in healthy numbers in the vicinity of the study area in nearshore coastal waters. This species occurs in many environments and feed on a many different types of prey.	Present; This species is known to occur in healthy numbers in the vicinity of the study area in nearshore coastal waters. This species occurs in many environments and feed on a many different types of prey.	Present; This species is known to occur in healthy numbers in the vicinity of the study area in nearshore coastal waters. This species occurs in many environments and feed on a many different types of prey.	Present; This species is known to occur in healthy numbers in the vicinity of the study area in nearshore coastal waters. This species occurs in many environments and feed on a many different types of prey.	Present; This species is known to occur in healthy numbers in the vicinity of the study area in nearshore coastal waters. This species occurs in many environments and feed on a many different types of prey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Zuma Beach Receiver Site	Potential to Occur in Will Rogers State Beach Receiver Site	Potential to Occur in Dockweiler State Beach Receiver Site	Potential to Occur in Redondo Beach Receiver Site	Potential to Occur in Manhattan Beach Receiver Site
<i>Zalophus californianus</i> California sea lion	MMPA	Shallow waters in temperate coastal habitats along the coast of California. Rest on beaches, docks, buoys, and jetties. Prefer sandy beaches or rocky coves for breeding and haul-out sites.	High Potential; This species is known to occur in healthy numbers in the vicinity of the study area in offshore coastal waters. This species is very social on land and in the water. If the species does come to shore, it is most likely sick or injured.	High Potential; This species is known to occur in healthy numbers in the vicinity of the study area in offshore coastal waters. This species is very social on land and in the water. If the species does come to shore, it is most likely sick or injured.	High Potential; This species is known to occur in healthy numbers in the vicinity of the study area in offshore coastal waters. This species is very social on land and in the water. If the species does come to shore, it is most likely sick or injured.	High Potential; This species is known to occur in healthy numbers in the vicinity of the study area in offshore coastal waters. This species is very social on land and in the water. If the species does come to shore, it is most likely sick or injured.	High Potential; This species is known to occur in healthy numbers in the vicinity of the study area in offshore coastal waters. This species is very social on land and in the water. If the species does come to shore, it is most likely sick or injured.

Regional Vicinity refers to within an 8-quad search radius of the Study Area.

Status (Federal/State)

- FE = Federal Endangered
- FT = Federal Threatened
- FPE = Federal Proposed Endangered
- FPT = Federal Proposed Threatened
- FD = Federal Delisted
- FC = Federal Candidate
- SE = State Endangered
- ST = State Threatened
- SCE = State Candidate Endangered
- SCT = State Candidate Threatened
- SR = State Rare
- SD = State Delisted
- SSC = CDFW Species of Special Concern
- FP = CDFW Fully Protected
- WL = CDFW Watch List

California Rare Plant Rank (California Native Plant Society California Rare Plant Rank)

- 1A = Presumed extirpated in California, and rare or extinct elsewhere
- 1B = Rare, Threatened, or Endangered in California and elsewhere
- 2A = Presumed extirpated in California, but common elsewhere
- 2B = Rare, Threatened, or Endangered in California, but more common elsewhere

California Rare Plant Rank Threat Code Extension

- .1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
- .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
- .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Additional notations may be provided as follows

- T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
- ? – Inexact numeric rank
- Q – Questionable taxonomy that may reduce conservation priority

Other Statuses

- G1 or S1 Critically Imperiled Globally or Subnationally (state)
- G2 or S2 Imperiled Globally or Subnationally (state)
- G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
- G4/5 or S4/5 Apparently secure, common and abundant
- GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Appendix E

Project Description

Draft LA County DBH SCOUN Project Description

Project Overview

Throughout the State of California, the sandy beach functions as important natural protection for critical public infrastructure, existing structures, recreational space, and amenities, provides essential coastal habitat, and benefits the local economy. In addition, the beaches in Los Angeles County provide a respite from extreme heat for inland residents, many of whom live in historically marginalized communities; a need that is anticipated to increase as a result of changes to our climate.

In an effort to preserve and enhance this critical public resource, the Los Angeles County Department of Beaches and Harbors (LACDBH) has begun implementing a comprehensive coastal resilience strategy to reduce coastal erosion and prepare for future challenges associated with climate change. Beach nourishment, the addition of beach sand and other high-quality beach-compatible sediments to the coast, is a key component of this strategy.

Following recommendations provided in the County's Sea Level Rise Vulnerability Assessment (Noble Consultants, 2016) and Coastal Resilience Study (Moffatt & Nichol, 2023), as well as direction from the County Board of Supervisors (County of Los Angeles, 2023), LACDBH has developed a program to promote the beneficial reuse of opportunistically available beach quality sediment as beach nourishment. Similar programs, referred to as "sand compatibility and opportunistic use programs" or "SCOUN", have been implemented in Orange and San Diego Counties to take advantage of compatible sediments that may otherwise be landfilled or sold for industrial use in cement or concrete production.

The goal of the LACDBH SCOUN is to increase the resilience of vulnerable coastal areas by streamlining environmental review and regulatory approval for relatively small beach nourishment projects (typically up to 150,000 cubic yards per year, "cy/yr") that leverage opportunistically available sand sources, such as those generated from upland land development or redevelopment projects, harbor maintenance dredging projects, and flood control maintenance operations (California Division of Boating and Waterways, 2024).

The LACDBH SCOUN includes five receiver sites: Zuma Beach, Will Rogers State Beach, Dockweiler State Beach, Manhattan Beach, and Redondo Beach (shown in Figure 1). The sites were selected by LACDBH based on a variety of criteria that include present and future coastal erosion and flooding vulnerabilities, presence of existing resources, presence of critical public infrastructure and amenities, recreational and economic benefits, and avoidance of adverse effects on coastal resources. The term "receiver site" refers to the fact that each site will be receiving sand.

The sections that follow outline the proposed project footprints, describe the project approach, and identify potential sediment sources for each of the five receiver beaches.

Project Description

This section outlines the proposed project footprints and the range of compatible grain sizes for each receiver site. The information is intended to guide the implementation of individual SCOUN projects, the details of which will be formulated at the time of the project based on the quantity and quality of the source material and the condition of the shoreline.

In the discussion that follows, the "Representative Fill Area for Single Event" identifies the typical footprint for a single SCOUN project (using the Beach Berm placement strategy), while the "Maximum Fill Area for Multiple Events" denotes the area within which multiple SCOUN projects may be implemented over the course of the program (using any of the three proposed placement strategies). This larger area is included to provide flexibility in the individual placement locations such that SCOUN projects can be implemented where they are needed most.

Figures referenced in this section are provided at the end of the document. A summary of the key parameters for each receiver site is provided in Table 1-1.

Table 1-1. Key Parameters for LACDBH SCOUP Receiver Sites¹

Beach Receiver Site	Median Grain Size Range		Single SCOUP Event		Multiple SCOUP Events	
	Min (mm)	Max (mm)	Length (ft)	Area (acres)	Length (ft)	Area (acres)
Zuma Beach	0.12	0.53	2,100	17	7,200	162
Will Rogers SB	0.07	0.56	2,800	19	8,900	434
Dockweiler SB	0.10	0.37	2,400	17	5,400	261
Manhattan Beach	0.13	0.38	2,600	20	5,600	290
Redondo Beach	0.13	1.08	2,100	12	8,500	196

ZUMA BEACH RECEIVER SITE

The footprints for the Zuma Beach receiver site are shown in Figure 2. The figure also illustrates potential truck access points, a sand stockpile location, and a representative cross section. The sand stockpile location is on the northwest end of the beach where trucks can enter and exit from Pacific Coast Highway (PCH). Additional stockpile locations may be used based on the location of the project.

The Maximum Fill Area for Multiple Events includes most of Zuma Beach and extends offshore to the 30-ft isobath. Buffers are provided on the east and west ends to prevent excess sediment accumulation where Zuma Creek and Trancas Creek discharge. The Representative Fill Area for Single Event illustrates the scale of a single project with the maximum annual nourishment volume (150,000 cubic yards, “cy”). As noted above, the precise location for each SCOUP nourishment event will be based on the beach condition at the time of the project and the characteristics of the sediment source. The median grain size of surficial sediment samples obtained at Zuma Beach varies between 0.12 and 0.53 mm (Table 1-1).

WILL ROGERS STATE BEACH RECEIVER SITE

The footprints for the Will Rogers State Beach receiver site are shown in Figure 3. The figure also illustrates potential truck access points, a sand stockpile location, and a representative cross section. Trucks are expected to access the site from PCH at Temescal Canyon Road. A sand stockpile location and access to the beach have been identified east of the Lifeguard building on the east end of the State Beach.

The Maximum Fill Area for Multiple Events includes the portion of Will Rogers State Beach between the Bel Air Bay Club and Santa Monica Canyon and extends offshore to the 30-ft isobath. A buffer is provided on the east end to prevent excess sediment accumulation where Santa Monica Canyon discharges. The narrow area west of the Bel Air Bay Club was not included due to a lack of vehicular access.

The Representative Fill Area for Single Event illustrates the scale of a single project with the maximum annual nourishment volume (150,000 cy). The groin field is an ideal location to place opportunistically available sediment, as the existing sand retention structures will prolong the benefits afforded by the added sand. The median grain size of surficial sediment samples obtained at Will Rogers Beach varies between 0.07 and 0.56 mm (Table 1-1).

¹ Median grain sizes determined from surficial sediment samples obtained between elevations of +12 and -30 ft (MLLW) in Spring 2016 (Zuma Beach), Spring 2024 (Will Rogers, Dockweiler, Redondo), and Fall 2024 (Manhattan). Values for “Single SCOUP Event” developed based on the maximum annual nourishment volume placed using Beach Berm strategy. Multiple SCOUP Events developed based on area that may be utilized for Beach Berm, MHTL, and Nearshore SCOUP projects over multiple years.

DOCKWEILER STATE BEACH RECEIVER SITE

The footprints, potential truck access points, and sand stockpile location for the Dockweiler State Beach receiver site are shown in Figure 4. The Maximum Fill Area for Multiple Events was selected to avoid US Fish and Wildlife Service (USFWS) Critical Habitat for Western Snowy Plover and is coincident with a receiver site used by the US Army Corps of Engineers (USACE) to accept sediment dredged from Marina del Rey. The Representative Fill Area for Single Event illustrates the scale of a single project with the maximum annual nourishment volume (150,000 cy) and is centered on the parking lot.

Trucks are expected to access the site via Imperial Highway. A sand stockpile location and access to the beach have been identified on the north end of the parking lot. The median grain size of surficial sediment samples obtained at the site varies between 0.10 and 0.37 mm (Table 1-1).

MANHATTAN BEACH RECEIVER SITE

The footprints for the Manhattan Beach receiver site are shown in Figure 5. The figure also illustrates potential truck access points, a sand stockpile location, and a representative cross section. Trucks are expected to access the site from 36th Street and exit at 40th Street. Sand will be stockpiled in the parking lot between the entry and exit and transported to the beach using the access ramp south of the restroom.

The Maximum Fill Area for Multiple Events includes the north half of Manhattan Beach. This area is both updrift of and historically narrower than the southern end. The Representative Fill Area for Single Event illustrates the scale of a single project with the maximum annual nourishment volume (150,000 cy) centered on the beach access point. The median grain size of surficial sediment samples obtained at the site varies between 0.13 and 0.38 mm.

REDONDO BEACH RECEIVER SITE

The footprints, potential truck access points, and sand stockpile location for the Redondo Beach receiver site are shown in Figure 6. Vehicular access to the beach and a sand stockpile location are provided via an access ramp to Torrance Beach located 1,300 ft south of Redondo Beach. No other viable truck access points are available.

The Maximum Fill Area for Multiple Events includes the entire Redondo Beach shoreline, whereas the Representative Fill Area for Single Event illustrates the scale of a single project with the maximum annual nourishment volume (150,000 cy) located on the narrow portion of the beach north of the existing Topaz Groin. The median grain size of surficial sediment samples obtained at the site varies between 0.13 and 1.08 mm (Table 1-1).

Proposed Project Implementation Approach

This section outlines the SCOUN approach, including placement strategies, timing, requirements for sediment quality and quantity, and potential transportation methods. A summary of the various requirements is provided in Table 1-2.

Table 1-2. Proposed Project Requirements for all SCOUN sites

Fines Content	Maximum Volume	Sand Placement Strategies			Transportation Methods	
(%)	(cy/yr)	Berm	MHTL	Nearshore	Truck	Marine Vessel
Up to 15%	150,000	Yes	Yes	Yes	Yes	Yes
16 to 25%	50,000	No	Yes	Yes	Yes	Yes

BEACH SAND PLACEMENT STRATEGIES

Three placement strategies are included in the LACDBH SCOUP. Each strategy is outlined in the *Final Sand Compatibility and Opportunistic Use Program Plan* (Moffatt & Nichol, 2006) adopted by the California Coastal Sediment Management Workgroup as part of their Coastal Sediment Management Master Plan:

- Beach Berm:** Source material would be placed alongshore as an extension of the existing beach sand berm.
- Mean High Tide Line:** Source material would be placed in a mound near the Mean High Tide Line (MHTL).
- Nearshore:** Source material would be placed in the nearshore waters, landward of the depth of closure such that it remains in the active littoral cell. In the project area, it is assumed that the depth of closure is approximately 30 ft below Mean Lower Low Water (MLLW).

LACDBH anticipates that the Beach Berm method will be the primary method used in their SCOUP. In general, placement on the beach in the form of a berm is recommended for high-quality source material with a fines content (percentage of material passing the #200 sieve) less than or equal to 15%. LACDBH proposes that Mean High Tide Line (MHTL), and Nearshore placements would be used when the fines content of the source material is between 16% and 25%. Example beach berm placement strategies are shown in the SCOUP footprints in Figures 2 through 6.

BEACH CONSTRUCTION METHODS

Regardless of the method used to transport the material to the beach, it is expected that the equipment listed in Table 1-3 will be used for each SCOUP Project. Approximately 10 construction personnel are expected to be on site during active sand placement events. Parking will be provided in the parking lots adjacent to the beach. Construction activities will be conducted during daylight hours on weekdays and potentially on weekends to expedite project completion.

Table 1-3. Expected Equipment per Site per Project²

Equipment ⁽²⁾	Dozer	Loader	Scraper	Sweeper
Number	2	2	2	1

BEACH SAND PLACEMENT TIMING

Ideally, placement will occur in the fall and winter months to avoid disturbing beach users during the peak beach use season generally defined as Memorial Day to Labor Day each year. However, placement during the peak season may occur in those cases where an emergency need exists, and suitable sand sources are identified. To the extent possible, construction activities will be timed to avoid grunion runs and nesting of relevant avian species that exist at some SCOUP beaches.

BEACH SAND QUALITY AND PLACEMENT VOLUMES

The proposed maximum volume placed at any one SCOUP site in a given year is 150,000 cy for material with a fines content less than or equal to 15%, and 50,000 cy for material with a fines content between 16% and 25%. This is consistent with the recommendation provided in the *Final Sand Compatibility and Opportunistic*

² Scraper needed at Redondo Beach only. Table does not include trucks hauling material from source to site.

Use Program Plan (Moffatt & Nichol, 2006) adopted by the California Coastal Sediment Management Workgroup (CSMW).

Source material used as part of the LACDBH SCOUP will adhere to the following requirements:

- Source material placed using the Beach Berm strategy will have a fines content less than or equal to 15%. Source material with a fines content of up to 25% can be placed using the MHTL or Nearshore strategies.
- The source material will be substantially free of chemical and biological contamination.
- The distribution of grain sizes found at the source will be similar to those found at the receiver site.
- The color of the source material will reasonably match the color of the receiving beach after reworking by waves.
- The source material will generally be free of trash, debris, and large fragments of organic material (e.g., tree limbs, shrubs) that could cause health and safety issues, odors, or visual impacts to beach users. Rounded cobble in the source material may be acceptable if there is existing native cobble on the receiver beach.
- Source material that forms a hardpan can only be placed using the Nearshore strategy.
- Use of natural sand, rather than manufactured material, is recommended for beach nourishment projects based on the observation that the rounded particles are considered more comfortable to recreational users.

BEACH SAND TRANSPORTATION METHODS

Given the opportunistic nature of SCOUP, the method used to deliver source material to the receiver site will vary. Potential delivery methods include those traditionally used for beach nourishment (trucking and marine vessels), as well as less traditional methods (e.g., slurry line from the beach to the nearshore).

Vessels will be used to deliver sediments sourced from the marine environment. Two of the most common methods are (1) to pump the material onto the beach via a connected pipeline and (2) to dump the material into the nearshore zone (landward of the depth of closure) using a bottom-dump barge or scow.

Material from inland sources, such as development projects or flood control maintenance, can be delivered via truck and spread along the beach using traditional earthmoving equipment (e.g., dozers, loaders, scrapers). Ingress and egress points have been identified at each site, are shown in the figures provided at the end of this document and are described below.

Zuma Beach: Trucks enter from PCH at the north end of the parking lot closest to Trancas Creek or the main entrance to Zuma Beach and use the internal access road to reach the parking area nearest the target sand placement area. Material is stockpiled in the parking lot. Trucks exit at the nearest location. Loaders transport sand from the stockpile to the beach placement area. Dozers shape the material to match the construction template.

Will Rogers State Beach: Trucks enter and exit at the intersection of PCH and Temescal Canyon Road and use the internal access road to reach the parking area nearest the target sand placement area. Material is stockpiled in the parking lot. Loaders transport sand from the stockpile to the beach placement area. Dozers shape the material to match the construction template.

Dockweiler State Beach: Trucks enter and exit at the intersection of Imperial Highway and Vista Del Mar. Trucks use South Marine Avenue to reach the parking area nearest the target sand placement area. Material is stockpiled in the parking lot. Loaders transport sand from the stockpile to the beach placement area. Dozers shape the material to match the construction template.

Manhattan Beach: Trucks enter at the intersection of N The Strand and 36th Street. Trucks proceed to the parking area and stockpile sand in the parking lot. Trucks exit at the intersection of N The Strand and 40th Street. Loaders transport sand from the stockpile to the beach placement area. Dozers shape the material to match the construction template.

Redondo Beach: Trucks enter and exit at the intersection of Paseo De La Playa and Via Riviera. Trucks proceed to the access ramp, drive down the ramp to the beach, and stockpile sand on the concrete apron. Scrapers transport material to the target placement area. Dozers shape the material to match the construction template.

The number of truck trips will vary based on the quantity of material available for placement. Table 1-4 summarizes the maximum values based on the maximum volume of material that can be placed annually (150,000 cy) at each site. The assumed truck capacity, working period, and placement rate were derived from a similar project conducted in 2024 by the City of San Clemente (Meyerhoff, 2024).

Table 1-4. Proposed Maximum Number of Truck Trips per Year per Site³

Maximum Volume/Site (cy/yr)	Truck Capacity (cy/truck)	Number of Trucks (trucks/yr)	Placement Rate (cy/day)	Duration (days)	Trips				Trip Interval (minutes/truck)
					(monthly)	(weekly)	(daily)	(hourly)	
150,000	14	10,714	1,000	150	1,440	360	72	6	10

POTENTIAL SAND SOURCES

This section outlines potential SCOUP sand sources, including reservoirs and debris basins managed by the County of Los Angeles, dams, local watercourses (rivers, creeks, streams, and lagoons), harbor maintenance dredging, transportation projects, upland development and redevelopment projects, and landslides. While those within 20 miles of the receiver sites are considered most viable (Moffatt & Nichol, 2006), more distant sources have been included to expand potential SCOUP opportunities. The locations of the potential sand sources and haul routes to the five LACDBH receiver beaches are shown in Table 1-5 and Figure 7.

County-Owned Reservoirs and Debris Basins

Reservoirs and debris or retention basins trap material that may otherwise travel downstream and cause flooding. Infilling is sporadic and dependent on several factors, including the rate and timing of precipitation. Material that is impounded within these features is removed during maintenance events and typically is placed in a landfill, used as landfill cover, or repurposed as construction fill. If beach quality sediment within the reservoir can be identified and segregated, it can be used as beach nourishment.

Potentially viable beach sand sources from upland reservoirs and debris basins managed by the Los Angeles County Flood Control District (LACFCD) are listed in Table 1-5 along with the approximate minimum trucking distance between the sand source and each of the five SCOUP receiver sites. The maximum distance from source to receiver site is 80 miles. The average round trip distance is assumed to be 80 miles.

³ Rate of Placement based on 2024 San Clemente North Beach SCOUP Project (Meyerhoff, 2024). Working hours assumed to be 12 hours per day, 5 days per week.

Table 1-5. Distance Between Reservoirs / Debris Basins and SCOUP Receiver Sites

Receiver Site	Maximum Distance (miles)									
	Reservoirs					Retention / Detention Basins				
	Pacoima	Big Tujunga	Devil's Gate	Cogswell	San Gabriel	Morris	Santa Anita	Cloud-croft	Sullivan	Nichols
Zuma Beach	48	61	54	80	67	65	59	17	24	33
Will Rogers SB	32	45	34	62	51	49	41	1	9	18
Dockweiler SB	32	45	34	60	48	45	42	13	12	13
Manhattan Beach	40	52	37	63	50	47	44	18	17	18
Redondo Beach	42	54	39	65	52	49	47	24	23	24

Dams

LA County's largest inland source of beach quality sediment proximate to the coast is the Rindge Dam reservoir in Malibu (Noble Consultants and Larry Paul & Associates, 2017). The dam was constructed in the 1920s along Malibu Creek for water supply and flood control purposes. The dam effectively trapped sediments that would have travelled to the coast naturally, resulting in rapid filling of the reservoir with soil and debris. By the 1950s, the reservoir was almost filled with sediment and no longer functional for water storage or flood protection.

The *Malibu Creek Ecosystem Restoration Study* (USACE and CDPR, 2020) is investigating removal of the dam and restoration of natural sediment delivery to the shoreline. As part of the project, approximately 276,000 cy of beach quality sediment has been identified as suitable for beach nourishment. While this material is presently designated for either onshore or nearshore placement just east of Malibu Pier, there is a potential need for the project to identify alternative receiver sites.

Local Watercourses

Rivers, creeks, streams, and lagoons along the coast offer a potential source of opportunistic fill material when flood control and other maintenance activities generate beach quality sediments. Three sites near the SCOUP receiver beaches include Calleguas Creek, Trancas Creek and Lagoon, and Topanga Lagoon.

Harbor Maintenance Dredging

Small craft harbors generally create sand traps if located within a sediment transport pathway. These harbors require maintenance dredging at varying frequency depending on location and other factors, such as the overall sediment supply in the region. Small craft harbors within the Santa Monica Bay region include Marina del Rey Harbor and Redondo Beach – King Harbor. Dredged material from both harbors has been successfully placed on Dockweiler State Beach and at Redondo Beach in the recent past.

Transportation Projects

Major transportation projects such as roadways and bridges may generate surplus sediment from excavation activities. For example, replacement of the Trancas Creek Bridge at Zuma Beach resulted in a surplus sediment volume of approximately 20,000 cy, of which about 8,000 cy was suitable for use as beach nourishment.

Landslide Material

Landslide deposits are another potential source of sediment for SCOUP. Landslides generally occur during the wet winter season along road or railroad cuts, and other over-steepened areas. When such events impact local infrastructure, such as PCH or the canyon roads in the Santa Monica Mountains, the material must be

removed and may be suitable for beach placement. This beneficial reuse activity is also proposed for other locations in southern California, including San Clemente.

Upland Development & Redevelopment Projects

Development projects frequently generate beach quality sediments that can be used for beach nourishment. For example, development near the Santa Monica Bay Club in 2023 generated a small volume of high-quality beach compatible sediments (500 cy) that could have been beneficially reused for beach sand replenishment. However, in the absence of streamlined sampling, testing, and permitting protocols, the opportunity was lost.

EXISTING CONDITIONS AND SETTING AT THE PROPOSED SCOUP PROJECT BEACHES

Descriptions of the key characteristics and public infrastructure at each receiver site are provided below. The descriptions are based, in part, on the *Beach Facilities Maps* prepared by LACDBH (County of Los Angeles, 2016).

Zuma Beach

Zuma Beach is located within the City of Malibu at the northern end of Santa Monica Bay (Figure 1). It is the widest and longest continuous beach in northern LA County and is comprised of 1.7 miles of beach frontage with 95 acres of public beach space (Figure 2).

Amenities at Zuma Beach include concession stands, restrooms, showers, picnic facilities, volleyball nets, beach wheelchairs, and approximately 2,000 public parking spaces (Moffatt & Nichol, 2023). This beach has become popular for both swimming and body surfing and continues to be a perennial favorite with residents and visitors alike.

In recent years, erosion along Zuma Beach has reduced the recreational area, exposed landward infrastructure to damage, and reduced sandy beach habitat. At-risk critical public infrastructure and existing structures at the site include coastal access points and roads, an entrance booth, twelve public parking lots, nine public restrooms with septic systems, water supply systems, two concession stands, a bike path, a LACDBH maintenance yard, a lifeguard Headquarters and lifeguard stations providing emergency response, and communications networks to support lifeguard services.

Will Rogers State Beach

Will Rogers State Beach is located within the Pacific Palisades community in the City of Los Angeles at the northern end of Santa Monica Bay (Figure 1). The beach is 2.9 miles long and has approximately 103 acres of public beach available for use. Amenities include concession stands, restrooms, showers, volleyball nets, picnic facilities, fire pits, and public parking. The site is popular for both surfing and fishing. The Marvin Braude Bike Trail begins near the western terminus of Temescal Canyon Road and continues south to Torrance County Beach. The highly popular Gladstones restaurant is located along this stretch of beach, as is the Bel Air Bay Club.

At-risk critical public infrastructure and existing structures at the site include coastal access points and roads, the Marvin Braude Bike Trail, six public parking lots, two concession stands, a beach entrance booth, five public restrooms, a LACDBH maintenance yard, water supply and dry utilities systems, a lifeguard Headquarters and lifeguard stations providing emergency response services, and communications networks to support lifeguard services.

The SCOUP site is located on the east end of the beach, northeast of the Bel Air Bay Club (Figure 3).

Dockweiler State Beach

Dockweiler State Beach is located within the central portion of Santa Monica Bay, in the Playa del Rey neighborhood, south of Marina del Rey (Figure 1). It is 3.8 miles long and has 254 acres of

public beach area. Amenities at the site include concession stands, restrooms, showers, picnic facilities, fire rings, volleyball nets, a basketball court, a youth center, hang-gliding facilities, over 1,200 available parking spaces, and a Recreational Vehicle Park with 118 full hook-up spaces. The Marvin Braude Bike Trail, also known as the beach public path, is readily accessible and commonly used for walking, rollerblading, jogging, and bicycling. Groins at the north end of the beach provide fishing opportunities.

At-risk critical public infrastructure and existing structures include coastal access points and roads, the Marvin Braude Bike Trail, seven public parking lots, a parking entry office, Youth Center, hang-gliding office, three concession stands, nine public restrooms, water supply and dry utilities systems, a LACDBH maintenance yard, a lifeguard Headquarters and lifeguard stations providing emergency response, and communications networks to support lifeguard services.

The SCoup site is on the southern end of the State Beach, at the western terminus of Imperial Highway (Figure 4).

Manhattan Beach

Manhattan Beach is located in the City of Manhattan Beach within the central portion of Santa Monica Bay (Figure 1). The beach is 2.0 miles long and has approximately 77 acres of public beach available for use. Hermosa City Beach is located immediately south. Amenities at the site include a concession stand, restrooms, showers, volleyball nets, public parking spaces, the Marvin Braude Bike Trail, and the Manhattan Beach Pier.

At-risk critical public infrastructure and existing structures include coastal access points and roads, two public parking lots, five public restrooms, water supply and dry utilities systems, the Marvin Braude Bike Path, LACDBH maintenance yard, lifeguard facilities including a training center and lifeguard stations providing emergency response, communications networks to support lifeguard services and concession stands.

The SCoup site is on the north end of the beach (Figure 5).

Redondo Beach

Redondo Beach is located toward the southern end of Santa Monica Bay, within the City of Redondo Beach (Figure 1). It is 1.6 miles long, has 51 acres of public beach area, and runs south from the Redondo Beach Pier to Torrance Beach. The SCoup placement area is located between Topaz Groin and the pier (Figure 6). There is a parking structure at the pier as well as street parking. Amenities include showers, restrooms, and volleyball nets. The beach is well known as great for swimming, surfing, and windsurfing and the horseshoe-shaped pier is good for fishing and has many restaurants and shops.

At-risk critical public infrastructure and existing structures include coastal access points, seven public restrooms, water supply system, the Marvin Braude Bike Path, LACDBH maintenance yard, lifeguard building and tower providing emergency response, and communications networks to support lifeguard services.

Additional Approvals

Besides review under CEQA, the contractor of the proposed project may be required to obtain local City approvals and/or permits. These approvals require meeting certain Conditions of Approval prior to obtaining the required permits. In addition, all Conditions of Approval and mitigation measures must be satisfactorily completed.

Tribal Consultation

California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to CEQA Statute § 21080.3.1. LACDBH staff conducted notification and consultation with these Tribes per the requirements of CEQA Statute § 21080.3.2. The mitigation measures in Section V. Cultural Resources were a result of the consultation process.

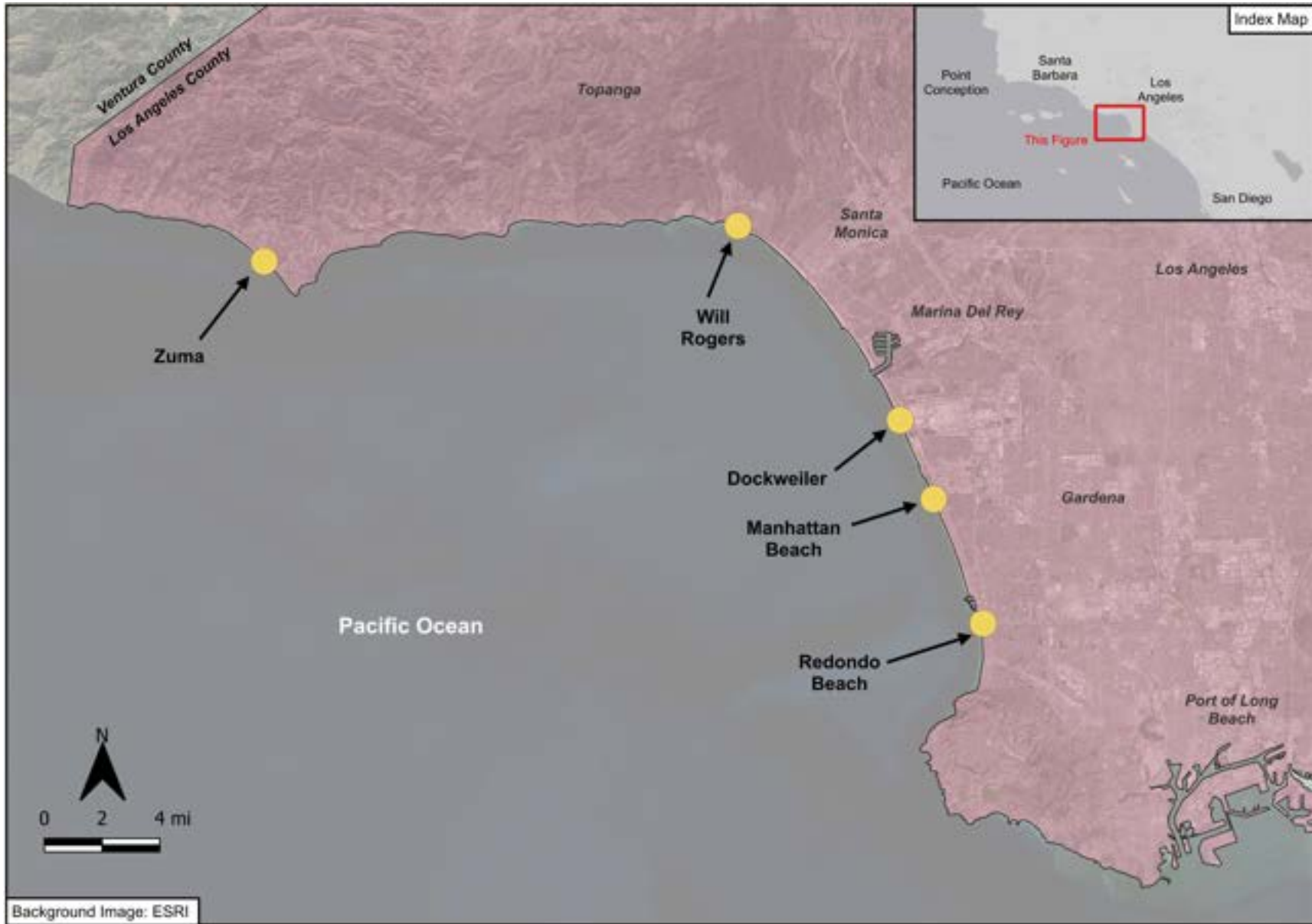


Figure 1. LA County Department of Beaches and Harbors SCOUP Receiver Sites

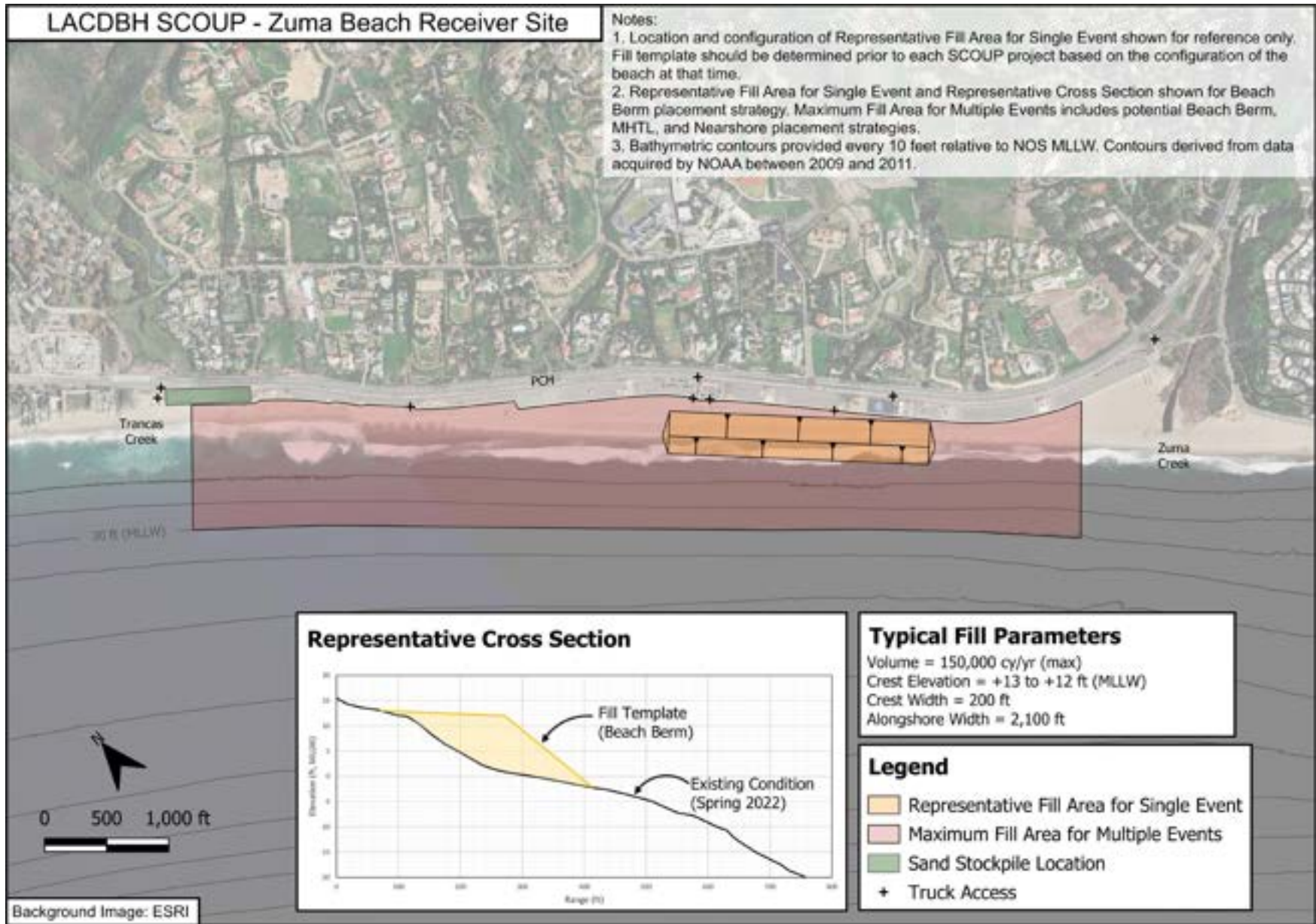


Figure 2. Zuma Beach SCOUP Receiver Site in the City of Malibu

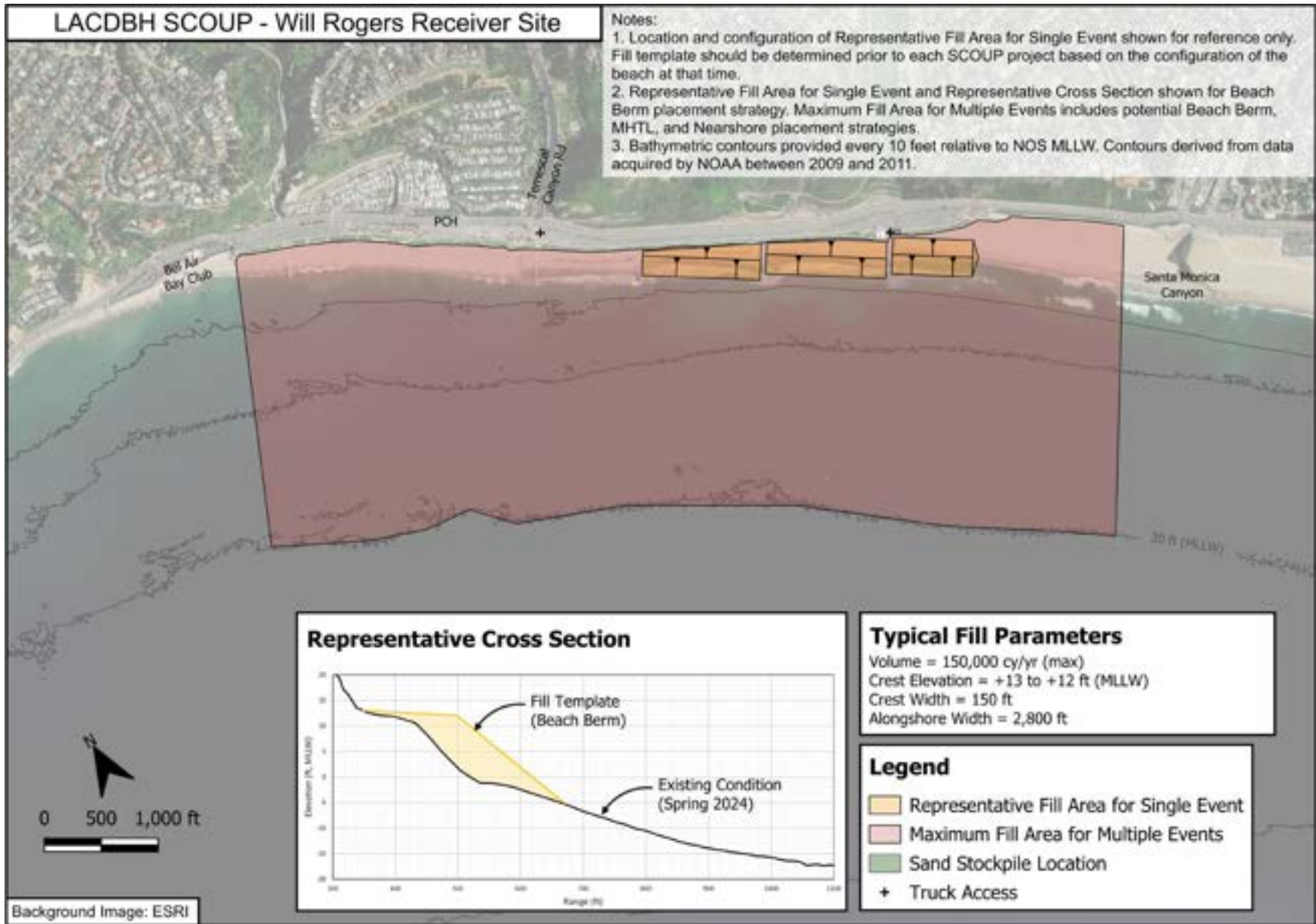


Figure 3. Will Rogers State Beach SCOUP Receiver Site in the City of Los Angeles

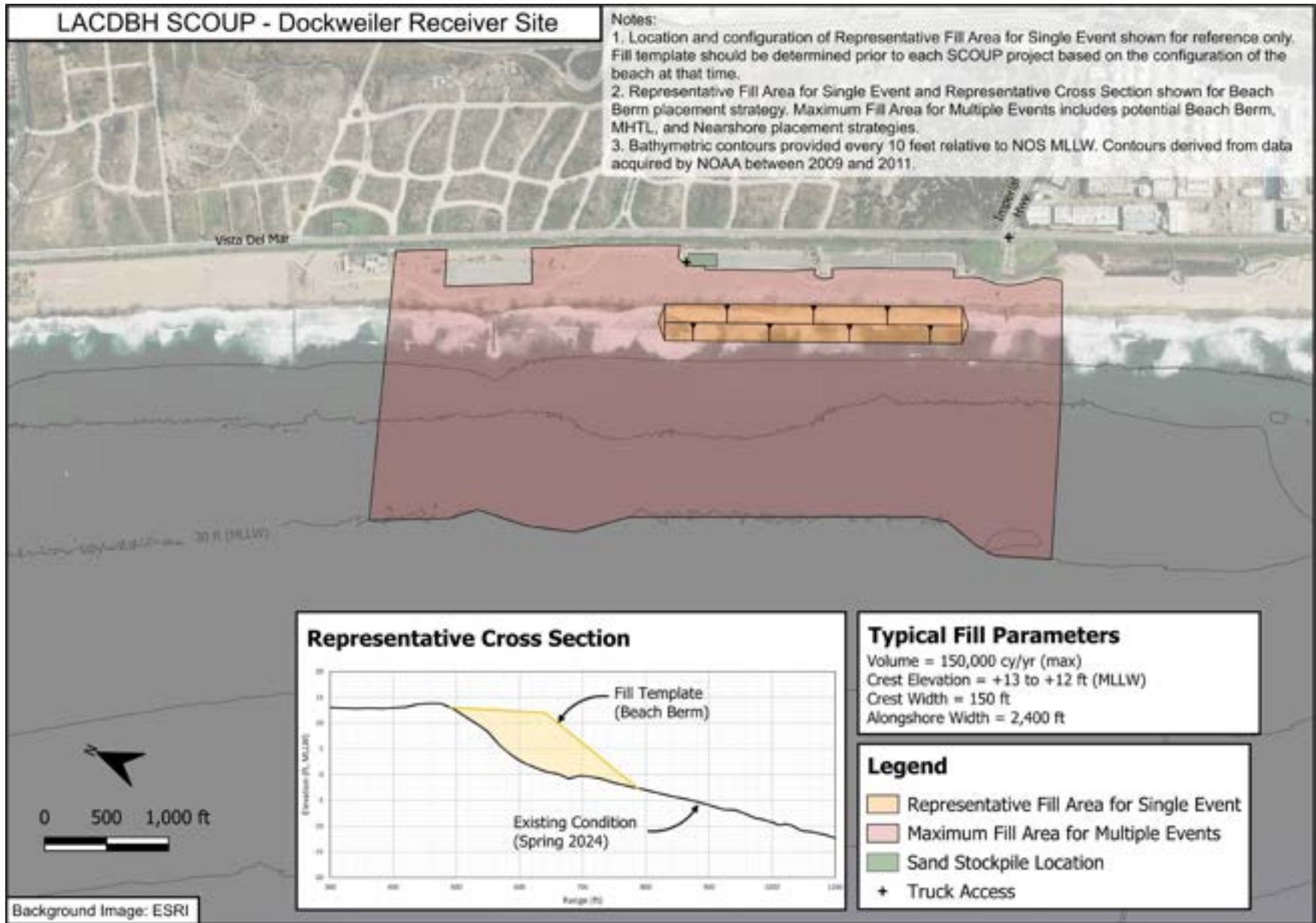


Figure 4. Dockweiler State Beach SCOUP Receiver Site in the City of Los Angeles

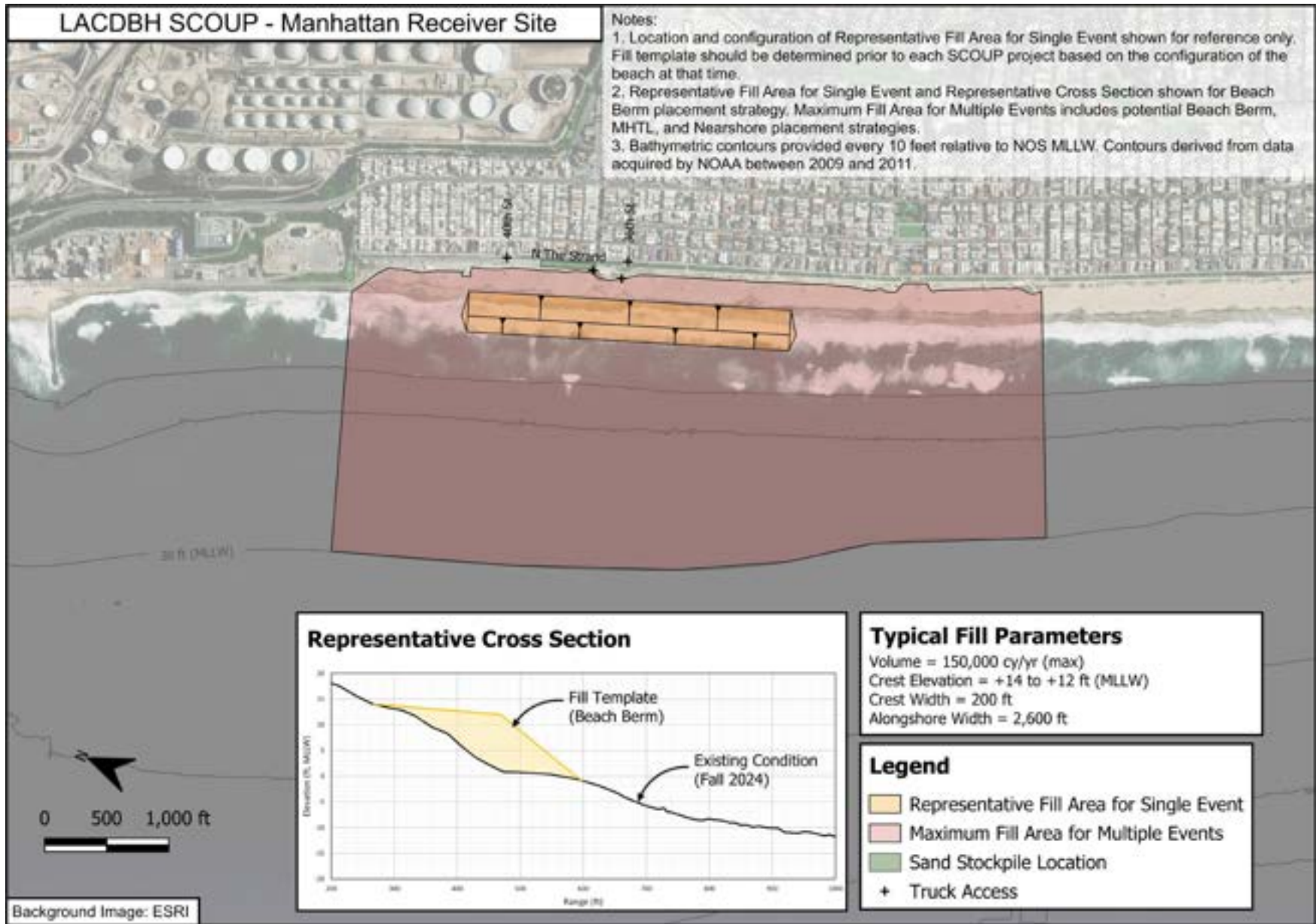


Figure 5. Manhattan Beach SCOUP Receiver Site in the City of Manhattan Beach

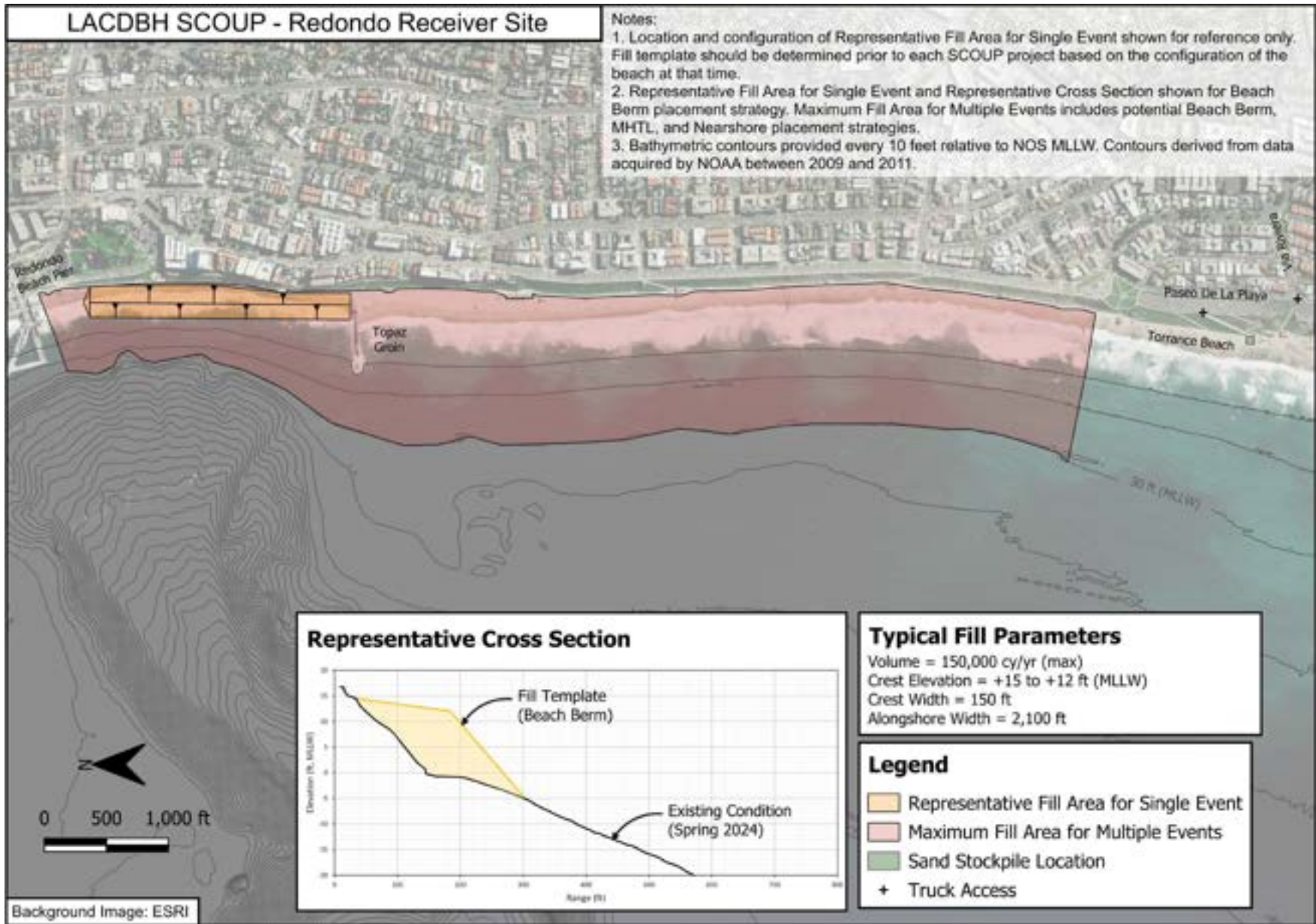


Figure 6. Redondo Beach SCOUP Receiver Site in the City of Redondo Beach

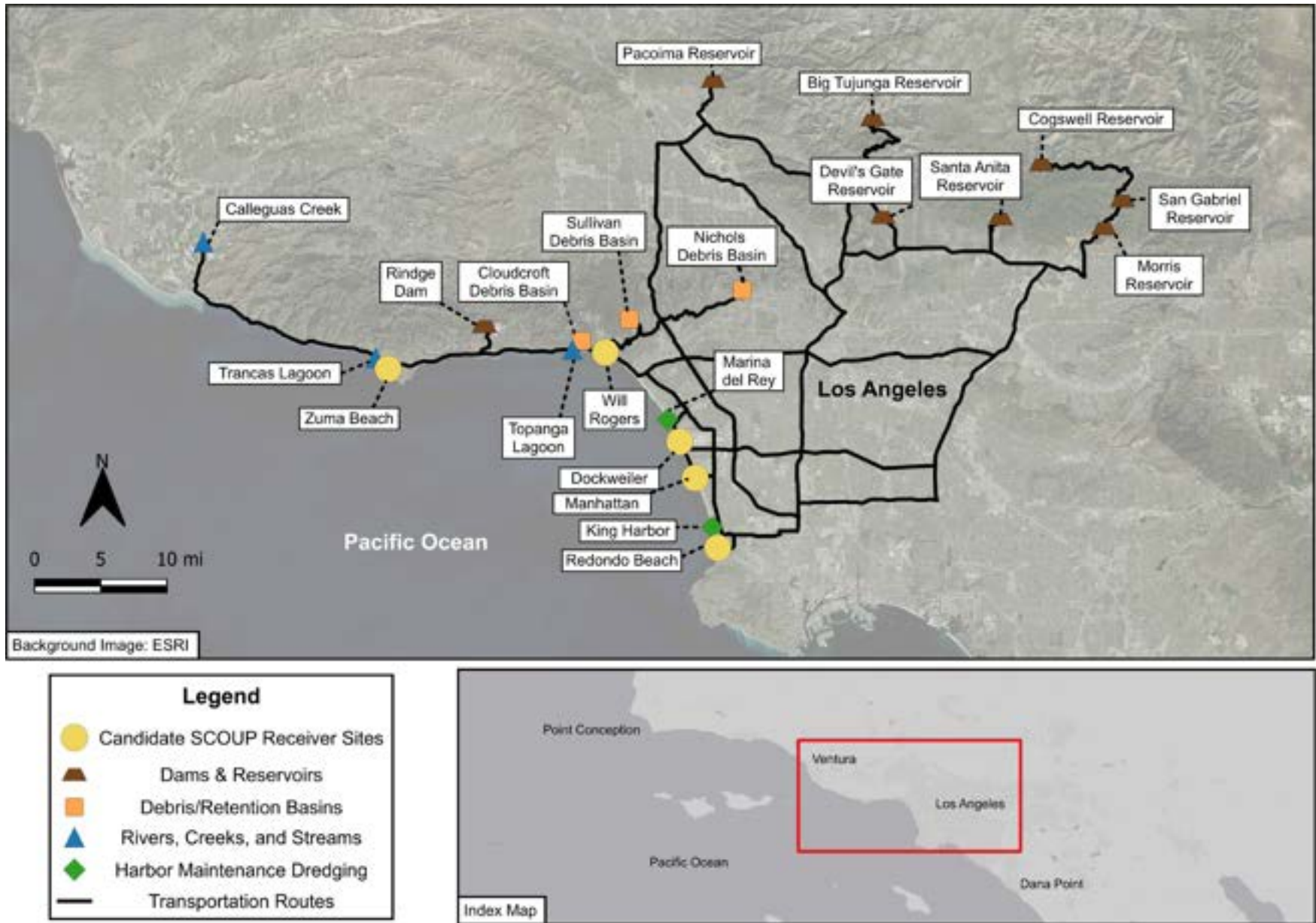


Figure 7. Regional Overview Map of Potential Sand Sources and SCOUN Beach Receiver Sites