DRAFT

# Biological Technical Report

# Modera Melrose Project

~~**AUGUST 2022**~~**FEBRUARY 2023**

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CNPS | California Native Plant Society |
| CRPR | California Rare Plant Rank |
| ESA | federal Endangered Species Act |
| MBTA | Migratory Bird Treaty Act |
| MHCP | Multiple Habitat Conservation Program |
| MM | Mitigation Measure |
| project | Modera Melrose |
| RWQCB | Regional Water Quality Control Board |
| SR | State Route |
| USFWS | U.S. Fish and Wildlife Service |

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# Summary of Findings

This biological technical report was prepared to provide the existing conditions of the biological study area and evaluation of the proposed Modera Melrose project (project). The biological study area refers to the approximately 7.4-acre project site analyzed in this report. The Modera Melrose project is in the City of Oceanside in San Diego County. The Oceanside Subarea Plan is used as a guidance document for development projects in the City of Oceanside, but has yet to be approved by the Oceanside City Council. Dudek conducted a reconnaissance survey, vegetation mapping, and rare plant survey in June 2022. This report documents the results of Dudek's fieldwork, and provides an analysis of the biological impacts related to the proposed project.

Based on species composition and general physiognomy, Dudek biologists mapped two vegetation communities and two land covers within the biological study area: Disturbed Diegan coastal sage scrub (0.49 acres), non-native grassland (5.13 acres), ornamental land (0.10 acres), and disturbed habitat (1.67 acres). No special-status rare plant species were observed during the rare plant survey and/or subsequently determined to have a potential to occur. Special-status wildlife species with moderate potential to occur include orange-throated whiptail (*Aspidoscelis hyperythra*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and California horned lark (*Eremophila alpestris actia*). No potentially jurisdictional aquatic features were observed or mapped within the project site. The project site is nearly surrounded by developed and does not contain habitat, topographic features, or direct connections to serve as a wildlife corridor/habitat linkage.

Overall, the proposed project would result in 7.4 acres of permanent impacts associated with grading for and development of the proposed project. There would be significant impacts from the permanent loss of 0.49 acres of Disturbed Diegan coastal sage scrub and 5.13 acres of non-native grassland. Additionally, there would be significant direct and/or indirect effects on special-status vegetation communities, special-status wildlife species and their habitat, jurisdictional resources adjacent to the project site, and wildlife corridors/habitat linkages adjacent to the project site.

Mitigation to reduce these impacts to a less-than-significant level would include designation of habitat mitigation credits for impacts to native vegetation, pre-construction nesting bird surveys, initial and periodic biological monitoring during construction, best management practices, fencing, and prohibition of invasive species in planting palettes.

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# 1 Introduction

## 1.1 Purpose of the Report

This biological technical report summarizes the methods and results of biological studies conducted on the Modera Melrose project (project) site to describe the existing conditions of biological resources, including vegetation, jurisdictional resources, flora, wildlife, the potential for special-status species, and wildlife movement. This biological technical report presents the evaluation of the biological significance of these resources and potential project impacts, and recommends measures to avoid, minimize, or mitigate potential impacts where feasible to less-than-significant levels.

## 1.2 Location and Project Description

### 1.2.1 Location

The approximately 7.4-acre project site is at the southeast corner of Melrose Drive and West Bobier Drive in the east-central portion of the City of Oceanside on Assessor's Parcel Numbers 161-030-23 and -24. The project site boarders the City of Vista along the project site's eastern boundary line. The project site is approximately 1.6 miles south of State Route (SR) 76 and approximately 2 miles north of SR-78. The project site is surrounded by roads, residential development, and commercial uses (Figure 1, Project Location). It is located on the U.S. Geological Survey 7.5-minute San Luis Rey quadrangle map in Section 13, in Township 11 South, Range 4 West of the San Bernardino Base and Meridian. The approximate center of the project site is at 33.220540, −117.25701 (decimal degrees).

### 1.2.2 Project Description

The project proposes development of a mixed-use infill project that would include 323 multi-family residential units and ground-level commercial space on the 7.4-acre project site (Figure 2, Proposed Project). The proposed residential development would include 33 affordable/low-income units and 290 market rate units ranging from 666 square feet to 1,429 square feet. Access is proposed from West Bobier Drive and the northeastern corner of the project site. In the event of an emergency, adequate emergency access would be provided via the entrance on West Bobier Drive. Additionally, the development would include 526 parking spaces for residences and guests. The project development would include six buildings, five of which would be four- to five-story residential buildings, and one of which would be a four-story mixed-use building that would include commercial uses on the ground level and three residential levels. The proposed residential units would include one, two, or three bedrooms, living areas, and garage spaces for select units.

### 1.2.3 Project Terms

**Project site.** The project site is the approximately 7.4-acre area proposed for the mixed-use residential development. Therefore, the project site consists of all areas within the project site parcels (Assessor's Parcel Numbers 161-030-23 and -24).

**Proposed project.** The proposed project refers to the proposed residential units, commercial space, parking, garage spaces access, and appurtenant facilities.

**Biological study area.** The biological study area refers to the project site areas analyzed in this report, and totals approximately 7.4 acres. For this assessment, the biological study area consists of the same area as the project site.

# 2 Regulatory Context

## 2.1 Federal

### 2.1.1 Federal Endangered Species Act

The federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. The ESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the ESA, it is unlawful to "take" any listed species; "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The ESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

### 2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds, and provides for closed and open seasons for hunting game birds. The MBTA protects more than 800 species of birds, and prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). Current federal interpretation of the MBTA prohibits incidental take of migratory birds, and applies enforcement discretion associated with incidental take (October 4, 2021, 86 FR 54642–54656).

Two species of eagles that are native to the United States, bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), were granted additional protection within the United States under the Bald and Golden Eagle Protection Act (16 USC 668–668d) to prevent the species from becoming extinct.

### 2.1.3 Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates the discharge of dredged and/or fill material into "waters of the United States." The term "adjacent wetlands" (a subset of waters of the United States) is defined in Title 33 of the Code of Federal Regulations (CFR), Section 328.3(c)(16) (33 CFR 328.3[c][16]), as "areas that are inundated or saturated by surface or ground water 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. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of U.S. Army Corps of Engineers jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

## 2.2 State

### 2.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in the state of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the [California Fish and Game] Commission as rare on or before January 1, 1985, is a threatened species." A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

CESA authorizes the taking of threatened, endangered, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, CESA allows CDFW to adopt a CESA incidental take authorization as satisfactory for California Environmental Quality Act (CEQA) purposes based on a finding that the federal permit adequately protects the species and is consistent with state law.

A CESA permit may not authorize the take of "fully protected" species that are protected in other provisions of the California Fish and Game Code, discussed further below.

### 2.2.2 California Fish and Game Code

Section 3511, Birds; Section 4700, Mammals; Section 5050, Reptiles and Amphibians; and Section 5515, Fish, of the California Fish and Game Code provide that designated fully protected species may not be taken or possessed without a permit. Incidental take of these species is not authorized by law.

Pursuant to Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Birds of prey refer to species in the orders Falconiformes and Strigiformes.

Nests of all other birds (except English sparrow [*Passer domesticus*] and European starling [*Sturnus vulgaris*]) are protected under Sections 3503 and 3513 of the California Fish and Game Code.

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, and changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California Fish and Game Code.

### 2.2.3 Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Act include isolated waters that are not regulated by the U.S. Army Corps of Engineers. RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a "water of the state" (California Water Code, Section 13260[a]). Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Developments with impacts on jurisdictional waters must demonstrate compliance with the goals of the Porter–Cologne Act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a Clean Water Act Section 401 certification. If a Clean Water Act Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Act.

### 2.2.4 California Environmental Quality Act

CEQA (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) require identification of a project's potentially significant impacts on biological resources, and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

In Title 14 of the California Code of Regulations (CCR), Section 1.72 (14 CCR, Section 1.72), CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation."

In 14 CCR 1.56, CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California Fish and Game Code.

CDFW recognizes that all plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2, and some ranked 3, of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants in California (CNPS 2022) may meet the criteria for listing as threatened or endangered and should be considered under CEQA (CDFW 2022a). Some of the CRPR 3 and 4 plants meet the criteria for determination as "rare" or "endangered" as defined in Section 1901, Chapter 10 (Native Plant Protection Act), Division 2, of the California Fish and Game Code, as well as Section 2062 and Section 2067, Chapter 1.5 (CESA), Division 3. Therefore, consideration under CEQA for these CRPR 3 and 4 species is strongly recommended by CNPS (CNPS 2022). For purposes of this report, animals considered "rare" under CEQA include endangered or threatened species, Birds of Conservation Concern (USFWS 2021), California Species of Special Concern (CDFW 2022b), and fully protected species.

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service." The criteria used to determine the significance of impacts to biological resources under CEQA are provided in Chapter 6, Anticipated Project Impacts and Analysis of Significance, of this report.

## 2.3 Local

### 2.3.1 North County Multiple Habitat Conservation Program

The North County Multiple Habitat Conservation Program (MHCP) is a long-term regional conservation plan established to protect sensitive species and habitats in northern San Diego County. The MHCP is divided into seven Subarea Plans—one for each jurisdiction within the MHCP—that are permitted and implemented separately from one another. The City of Carlsbad is the only city under the MHCP that has an approved and permitted Subarea Plan. The Oceanside Subarea Plan has been prepared and is used as a guidance document for development projects in Oceanside, but the Oceanside Subarea Plan has not been approved or permitted (City of Oceanside 2010).

### 2.3.2 City of Oceanside Subarea Plan

The overall goal of the Oceanside Subarea Plan is to contribute to regional biodiversity and the viability of rare, unique, or sensitive biological resources throughout Oceanside and the larger region while allowing public and private development to occur consistent with the City of Oceanside's General Plan and Capital Improvement Program. In addition, the Oceanside Subarea Plan calls for the conservation of 90% to 100% of all hardline conservation areas; conservation of a minimum of 2,511 acres of existing native habitats as a biological preserve in Oceanside; conservation of a minimum of 95% of rare and narrow endemic species populations within the

preserve and a minimum of 80% throughout Oceanside as a whole; and restoration of a minimum of 164 acres of coastal sage scrub habitat within Oceanside, of which 145 acres will be within a wildlife corridor planning zone. Parcels within the wildlife corridor planning zone contribute to the north/south regional gnatcatcher steppingstone corridor (City of Oceanside 2010). Although the Oceanside Subarea Plan is used as a guidance document for development projects in Oceanside, the Subarea Plan has yet to be approved by the Oceanside City Council, and incidental take authority has therefore not been transferred to the City of Oceanside from USFWS and CDFW.

The Oceanside Subarea Plan identifies undeveloped lands within Oceanside where conservation and management will achieve the Oceanside Subarea Plan's biological goals while minimizing adverse effects on lands uses, economics, or private property rights. In addition, the Oceanside Subarea Plan establishes preserve planning zones, the existing biological conditions and goals of which were used as foundations for their designation; however, the zones are defined for effective implementation of the Subarea Plan. Brief descriptions of the preserve planning zones are provided below (City of Oceanside 2010):

- **Wildlife Corridor Planning Zone.** The Wildlife Corridor Planning Zone extends from U.S. Marine Corps Base Camp Pendleton south to Buena Vista Creek. This zone varies in width from 1 to 2 miles along most of its length, and is centered roughly on El Camino Real and the associated San Diego Gas & Electric Company electric transmission corridor. It encompasses those habitat parcels that potentially contribute to the north/south regional gnatcatcher steppingstone corridor, recognizing that existing preserve lands north of the San Luis Rey River complete the steppingstone corridor connection to U.S. Marine Corps Base Camp Pendleton. The project site is not within the Wildlife Corridor Planning Zone.
- **Pre-Approved Mitigation Areas.** These areas represent land areas that have significant resource value and therefore qualify for on-site mitigation credit. Development is allowed in Pre-Approved Mitigation Areas, subject to planning guidelines to avoid, minimize, and fully mitigate impacts. The project site is not within a Pre-Approved Mitigation Area.
- **Agricultural Exclusion Zone.** This zone includes lands north of San Luis Rey River that are planned for agricultural uses under the Oceanside General Plan. Ongoing agricultural practices may continue in this area as long as they do not remove existing natural habitats. The project site is not within an Agricultural Exclusion Zone.
- **Off-Site Mitigation Zone.** This zone includes all other parcels within Oceanside that support natural vegetation outside of the Wildlife Corridor Planning Zone, Agricultural Exclusion Zone, and Coastal Zone. The Off-Site Mitigation Zone includes several Pre-Approved Mitigation Areas. In addition, there is less emphasis on impact avoidance within this zone as long as off-site mitigation is directed to the Wildlife Corridor Planning Zone or Pre-Approved Mitigation Areas. The project site is within the Off-Site Mitigation Zone.
- **Coastal Zone.** This zone is all areas within Oceanside's coastal zone where the federal Coastal Zone Management Act and California Coastal Act policies apply. The project site is not within the Coastal Zone.

In addition to preserve planning zones, the Oceanside Subarea Plan also identifies specific "hardline" and "softline" preserves. Generally, hardline preserves are areas that are already preserved to Oceanside Subarea Plan standards, and softline preserves are areas specifically targeted for preservation through application of Subarea Plan standards and policies (City of Oceanside 2010). The project site does not contain, and is not adjacent to, any preserves.

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# 3 Survey Methods

## 3.1 Literature Review

Prior to conducting field surveys, Dudek reviewed regional California Natural Diversity Database occurrence data[1] (CDFW 2022c), the California Rare Plant Inventory[1] (CNPS 2022), USFWS occurrence data[1] and critical habitat (USFWS 2022a), the San Diego Geographic Information Source (SanGIS 2022), the National Wetlands Inventory (USFWS 2022b), and the U.S. Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA 2022a) to analyze the occurrence potential of special-status species and jurisdictional waters that are known to occur or may potentially occur within the biological study area.

General information regarding wildlife species present in the region was obtained from Unitt (2004) for birds, Tremor (2017) for mammals, and Stebbins (2018) and California Herps (CaliforniaHerps.com 2022) for reptiles and amphibians.

## 3.2 Survey Schedule

The 2022 survey and site conditions are presented in Table 1.

**Table 1. Survey Details and Conditions**

| Date | Time | Survey Types | Personnel | Survey Conditions |
|---|---|---|---|---|
| 6/6/2022 | 8:44 AM–11:42 AM | Reconnaissance survey; vegetation mapping; rare plant survey | Erin Bergman, Leslie Fisher | 70–75°F; 0% cloud cover; 0–4 mph wind |

## 3.3 Reconnaissance Survey

Dudek biologists traversed the entire project site by foot and performed a general inventory of plant and animal species detected by sight, calls, tracks, scat, or other signs. The survey area is shown in Figure 3. If detected during the reconnaissance survey, plant and wildlife species commonly accepted as regionally sensitive by CNPS, CDFW, and USFWS were recorded. During the reconnaissance survey, a habitat assessment was conducted for potentially occurring sensitive resources that were not apparent at the time of the survey (e.g., rare annual plants, special-status wildlife species, and raptor nests). In addition, the site was assessed for any potentially jurisdictional aquatic resources.

## 3.4 Vegetation Mapping

Vegetation communities were evaluated within the biological study area on an aerial map at a 200 scale (1 inch =200 feet). These boundaries and locations were digitized and downloaded by Dudek GIS technicians using

[1] U.S. Geological Survey 7.5-minute San Luis Rey quadrangle and surrounding seven quadrangles: Las Pulgas Canyon, Morro Hill, Bonsall, Oceanside, San Marcos, Encinitas, and Rancho Santa Fe.

ArcGIS software. Vegetation communities and land covers were mapped using the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County of San Diego and noted in Vegetation Communities of San Diego County (Oberbauer et al. 2008).

## 3.5 Special-Status Plants

Special-status plant species considered in this report are those that are (1) species listed by federal and/or state agencies, proposed for listing as threatened or endangered, or candidate species (CDFW 2022a); (2) species with a CRPR (CNPS 2022); or (3) species listed in the Oceanside Subarea Plan Proposed Covered Species list (City of Oceanside 2010).

A focused survey for special-status plants was conducted on June 6, 2022. A reference check was done before the survey at a nearby site to verify the blooming status of thread-leaf brodiaea (*Brodiaea filifolia*), San Diego button celery (*Eryngium aristulatum* var. *parishii*), and vernal pool pincushion plant (*Navarretia fossalis*). Prior to special-status plant surveys, Dudek evaluated plant records in the San Luis Rey quadrangle and the surrounding seven quadrangles: Las Pulgas Canyon, Morro Hill, Bonsall, Oceanside, San Marcos, Encinitas, and Rancho Santa Fe (CDFW 2022c; CNPS 2022; USFWS 2022a) to determine target species. In addition to Dudek biologists' knowledge of biological resources and regional distribution of each species, elevation, habitat, and soils present within the biological study area were evaluated to determine the potential for various special-status plant species to occur. Field survey methods conformed to CNPS Botanical Survey Guidelines (CNPS 2001); Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000); and General Rare Plant Survey Guidelines (Cypher 2002). Figure 4, Regional Species Occurrences, shows the surrounding species occurrences. Surveys were conducted by walking meandering transects throughout the project site to detect special-status species.

## 3.6 Special-Status Wildlife

All wildlife species detected during the field surveys by sight, vocalizations, burrows, tracks, scat, and other signs were recorded. Binoculars (10×40) were used to aid in the identification of observed wildlife.

Special-status wildlife species considered in this report are those that are (1) listed by federal and/or state agencies, proposed for listing as threatened or endangered, or are candidate species (CDFW 2022b); (2) Species of Special Concern and Birds of Conservation Concern (CDFW 2022b; USFWS 2021); (3) fully protected species (CDFW 2022b); or (4) listed in the Oceanside Subarea Plan Proposed Covered Species list (City of Oceanside 2010). Figure 4 shows the surrounding species occurrences.

# 4 Physical Characteristics

## 4.1 Site Description

The project site is currently a disturbed, vacant land. A review of aerial photography (Google Earth 2022) suggests that the majority of the site has experienced periodic disturbance through mowing and/or disking for many years. One dirt access road intersects the property in a slight northeast/southwest direction across the non-native grassland, suggesting prior access for vehicles and/or equipment. The property is partially fenced along the southern and eastern boundaries. The unfenced areas are adjacent to Melrose Drive and West Bobier Drive, which provides opportunities for frequent human access and utilization. Trash, debris, and old straw wattles are present on site, particularly along the southwestern portions of the site. Wall graffiti is also present on a short retaining wall just outside the site boundaries along the southern portion of the site.

The project site supports primarily non-native grasslands and disturbed areas. Ornamental plantings occur along the southeastern edge of the site, which borders an existing residential development. Small and isolated patches of disturbed Diegan coastal sage scrub occur in the western and northwestern portions of the site.

Elevations on site range from approximately 417 feet above mean sea level to 451 feet above mean sea level. The topography is steeper along the southwest, west, and northwest edges of the site, along Melrose Drive and West Bobier Drive. At these locations, the terrain rises quickly from the bike paths, sidewalks, and roadways. From west to east, the topography gently slopes downward toward the middle of the site at its lowest point before rising gently toward the southeast of the site.

## 4.2 Soils

Soils on site are classified as Tujunga sand (TuB), 0% to 5% slopes; and Diablo clay (DaC), 2% to 9% slopes (USDA 2022a). Tujunga sand is considered a “hydric" soil.” These soil types are “predominantly non-hydric” or “non-hydric” (USDA 2022b). The soils are shown in Figure 5.

## 4.3 Hydrology

Nearly the entire project site is within the Carlsbad Hydrological Unit (904.00) Loma Alta Hydrological Area (904.10). A very small section of the northwestern edge of the project site is within the San Luis Rey Hydrologic Unit (903.00) Lower San Luis Hydrological Aera (903.11). The U.S. Geological Survey maps this area in the Loma Alta Creek–Frontal Gulf of Santa Catalina Hydrologic Subarea within the San Marcos Creek–Frontal Gulf of Santa Catalina Hydrologic Area within the San Luis Rey–Escondido Hydrologic Unit. Similarly, only the very northwestern edge of the site is within the adjacent Guajome Lake San Luis Rey River Subarea within the Low San Luis Rey River Hydrological Area (Figure 6, Hydrologic Setting). The main drainage in this area is Loma Alta Creek, which runs parallel to Oceanside Boulevard northwest of the project site and drains to the west. Loma Alta Creek outlets into the Pacific Ocean approximately 7 miles west of the site.

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# 5 Results

## 5.1 Vegetation Communities

Dudek biologists mapped two vegetation communities and two land covers within the biological study area: Disturbed Diegan coastal sage scrub, non-native grassland, ornamental, and disturbed habitat. See Figure 7, Vegetation Communities, and Table 2.

**Table 2. Vegetation Communities and Land Covers**

| Vegetation/Land Cover Type | Total Acreage |
|---|---|
| Disturbed Diegan coastal sage scrub | 0.49 |
| Non-native grassland | 5.13 |
| Ornamental | 0.10 |
| Disturbed habitat | 1.67 |
| **Total*** | **7.40** |

* May not total due to rounding.

### 5.1.1 Disturbed Diegan Coastal Sage Scrub

Disturbed Diegan coastal sage scrub is mapped in small, isolated patches along the central-western and northwestern portions of the biological study area. Disturbed Diegan coastal sage scrub is dominated by approximately 10%-25% cover of native shrubs, such as coyotebrush (*Baccharis pilularis*), California brittle bush (*Encelia californica*), ~~and California sagebrush (*Artemisia californica*), and~~ interspersed with California buckwheat (*Eriogonum* fasciculatum) and 25%-50% cover of non-native grasses/herbs such as red brome (*Bromus rubens*) and black mustard (*Brassica nigra*). The Diegan coastal sage scrub habitat onsite is disturbed with non-native grasses, historical mowing or grading, soil erosion, and soil disturbance. The Diegan coastal sage scrub is in small patches and surrounded by urban development. The site doesn't consist of habitat that would support coastal California gnatcatcher or coastal California gnatcatcher nesting.

### 5.1.2 Non-Native Grassland

Non-native grassland comprises the majority of the biological study area where it is dominated by naturalized species, including non-native bromes (*Bromus* spp.), oats (Avena sp.), panic veldtgrass (*Ehrharta erecta*), perennial rye grass (*Festuca perennnis*), mouse barley (*Hordeum murinum*), and fountain grass (*Pennisetum setaceum*). As discussed above, the site and areas of non-native grasslands appear to have experienced periodic disturbance through disking and/or mowing for many years.

### 5.1.3 Ornamental

Ornamental refers to areas where non-native ornamental species and landscaping schemes have been installed and maintained, usually as part of commercial or residential property. The ornamental areas mapped within the biological study area occur along the southeastern edge of the site where the biological study area is bordered by existing residential development. Ornamentals in this area include species such as hottentot fig (*Carpobrotus edulis*), Peruvian peppertree (*Schinus molle*), and similar species.

### 5.1.4 Disturbed Habitat

Disturbed habitat refers to areas where soils have been recently or repeatedly disturbed by grading, compaction, or clearing of vegetation. Within the biological study area, disturbed habitat includes the dirt access road bisecting the site, areas with barren ground, and areas with evidence of debris and significant ground disturbance that may have occurred from previous ground-disturbing activities. Disturbed habitat on site supports sparse or interspersed non-native species, such as mustard (*Brassica nigra, Hirschfeldia incana*), sowthistle (*Sonchus* sp.), fennel (*Foeniculum vulgare*), and similar species.

### 5.1.5 Flora and Fauna

A total of 58 plants were observed during the June 2022 survey, consisting of 15 native (26%) and 43 non-native (74%) species. A cumulative list of plant species observed by Dudek biologists during all surveys is presented in Appendix A, Plant Species List. Latin and common names for plant species with a CRPR follow the California Native Plant Society's Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2022). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2020) and common names follow the California Natural Communities List (CDFW 2022d) or the United States Department of Agriculture Natural Resources Conservation Service's Plants Database (USDA 2022c).

Ten wildlife species were observed during the June 2022 survey, consisting of eight birds, one invertebrate, and one reptile. All wildlife species observed or detected during the surveys were recorded and are presented in Appendix B, Wildlife Species List. Latin and common names of animals follow Crother (2017) for reptiles and amphibians, the American Ornithological Society (AOS 2021) for birds, Wilson and Reeder (2005) for mammals, and the North American Butterfly Association (NABA 2016) or San Diego Natural History Museum (SDNHM 2002) for butterflies.

## 5.2 Special-Status Plants

No special-status plants were observed during the focused plant surveys in June 2022. Special-status plants evaluated but that have low potential or are not expected to occur are described in Appendix C, Special-Status Plant Species with Low Potential and Not Expected to Occur within the Biological Study Area. The regional context of species occurrences is shown in Figure 4. Although federal critical habitat is designated on the parcel north of West Bobier Drive for thread-leaved brodiaea (*Brodiaea filifolia*), the project site does not contain critical habitat (Figure 8, USFWS Critical Habitat). Further, thread-leaved brodiaea was observed in bloom at a nearby reference site on June 6, 2022, prior to the site-specific survey.

## 5.3 Special-Status Wildlife

No special-status wildlife were observed during the survey in June 2022. Special-status wildlife species with potential to occur on site are listed in Appendix D, Special-Status Wildlife Species Potentially Occurring within the Biological Study Area. Special-status species with moderate potential to occur include orange-throated whiptail (*Aspidoscelis hyperythra*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and California horned lark (*Eremophila alpestris actia*). Special-status wildlife that occur in the vicinity but do not have potential

to occur based on lack of habitat, elevation, or range are included in Appendix E, Special-Status Wildlife Species with Low Potential and Not Expected to Occur within the Biological Study Area. The regional context of species occurrences is shown in Figure 4. The project site does not contain critical habitat (Figure 8).

## 5.4 Jurisdictional Resources

No potentially jurisdictional features were mapped within the biological study area. One concrete-lined stormwater control feature (v-ditch) was observed along the southern boundary, but outside of the biological study area. This feature follows the public bike path and appears to collect runoff, including possibly sheet flow runoff associated with the biological study area.

## 5.5 Wildlife Corridors/Habitat Linkages

The biological study area is outside of the Wildlife Corridor Planning Zone designated by the Oceanside Subarea Plan (City of Oceanside 2010). The site is surrounded by development, which limits movement of larger mammals. One small undeveloped parcel borders the northeastern edge of the site. However, this parcel is small; vacant; appears to be regularly maintained, mowed, or disked; and is also surrounded by development. In addition, an active residential development project (Melrose Heights) is located between the biological study area and the nearest open space area (Guajome Regional Park), located approximately 600 feet north of the site. As a result, there is no direct connection between the biological study area and other natural areas that would support the movement of larger wildlife to or through the biological study area. The small, isolated patches of disturbed Diegan coastal sage scrub may support some common birds, reptiles, invertebrates, and small mammals commonly found in upland scrub and disturbed vegetation.

Urban-adapted species observed or that could commonly occur in the non-native grassland and disturbed areas in the lowlands include desert cottontail (*Sylvilagus audubonii*), western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), horned lark (*Eremophila alpestris*), American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), and California towhee (*Melozone crissalis*).

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# 6 Anticipated Project Impacts and Analysis of Significance

This chapter addresses direct, indirect, and cumulative impacts to biological resources that would result from implementation of the proposed project.

Direct impacts are defined as those that result in the direct removal of a biological resource through clearing, grubbing, and/or grading. These impacts are further classified as temporary or permanent: temporary impacts primarily result from staging or work areas outside of the permanent footprint that will be restored to its pre-project conditions, and permanent impacts refer to the buildings, roads, and other permanent structures. As shown in Figure 9, Impacts to Biological Resources, no temporary impacts are proposed; permanent impacts would occur in all areas of the biological study area (i.e., project site).

Indirect impacts primarily result from adverse "edge effects" as either short-term indirect impacts related to construction activities or long-term indirect impacts associated with the proximity of a development to natural areas. Cumulative impacts refer to incremental individual environmental effects over long-term implementation of a project when considered together with other impacts from other projects in an area. These impacts taken individually may be minor, but can become collectively significant as they occur over a period of time.

## 6.1 Explanation of Findings of Significance

Impacts to special-status vegetation communities, special-status plants, special-status wildlife species, jurisdictional resources, and wildlife movement must be quantified and analyzed to determine whether such impacts are significant under CEQA. CEQA Guidelines Section 15064(b) states that an ironclad definition of "significant" effect is not possible because the significance of an activity may vary with the setting. Appendix G of the CEQA Guidelines, however, does provide "examples of consequences which may be deemed to be a significant effect on the environment" (14 CCR 15064[e]). These effects include substantial effects on rare or endangered species of animals or plants or the habitat of the species. CEQA Guidelines Section 15065(a) is also helpful in defining whether a project may have "a significant effect on the environment." Under Section 15065(a), a project may have a significant effect on the environment if it has the potential to (1) substantially degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or (6) eliminate important examples of a major period of California history or prehistory.

## 6.2 Direct Impacts

On-site impacts consist of permanent impacts from the proposed project. The permanent impacts consist of the grading and development of the proposed project.

### 6.2.1 Vegetation Communities

The proposed project would result in permanent direct impacts. These impacts are summarized in Table 3 and shown in Figure 9.

**Table 3. Permanent Impacts to Vegetation Communities and Land Covers**

| Vegetation/Land Cover Type | Impacts (Acres) | Mitigation | |
|---|---|---|---|
| | Development | Ratio[b] | Acres Required |
| Disturbed Diegan coastal sage scrub | 0.49 | ~~1~~2:1 | 0.98~~49~~ |
| Non-native grassland | 5.13 | 0.5:1 | 2.57 |
| Ornamental | 0.10 | 0 | 0 |
| Disturbed habitat | 1.67 | 0 | 0 |
| **Total[a]** | **7.40** | – | **3.55~~06~~** |

[a] Acreages may not sum precisely due to rounding.
[b] Per Table 5-2 of the Oceanside Subarea Plan (City of Oceanside 2010).

The project site is within the Oceanside Subarea Plan Offsite Mitigation Zone. Therefore, impacts to disturbed Diegan coastal sage scrub and non-native grassland require mitigation per Table 5-2, Mitigation Standards for Impacts to Natural Vegetation and Habitat, of the Oceanside Subarea Plan (City of Oceanside 2010). Due to the low quality of the disturbed Diegan coastal sage scrub (small size, soil disturbance, lack of habitat for Coastal California gnatcatcher) a mitigation ratio of 2~~1~~:1 is assumed. Permanent impacts to these vegetation communities would be a potentially significant impact. The permanent loss of these vegetation communities would be mitigated to less than significant through the conservation of native habitats, as described in Mitigation Measure (MM) BIO-1 (Habitat Mitigation), provided in Section 7.1, Minimization and Mitigation Measures. Permanent impacts to ornamental areas totaling 0.10 acres and disturbed habitat totaling 1.67 acres would be less than significant and no mitigation is required. Since the City does not require mitigation for disturbed habitat (Table 5-2 of the Subarea Plan), there is no mitigation proposed for the 1.67 acres of disturbed habitat on site. Additionally, since there is no Implementing Agreement between the City and the wildlife agencies for the Subarea Plan, the mitigation ratios provided in the plan are used as a guidance and the City has discretion as to when they require mitigation.

### 6.2.2 Special-Status Plant Species

No special-status plants were observed during focused survey in June 2022. In addition, Dudek biologists' habitat evaluation of special-status plants, including those with a blooming period outside of the June site visit, determined that special-status plants have a low potential to occur or not expected, as described in Appendix C. Therefore, the project would not result in direct impacts to special-status plant species.

### 6.2.3 Special-Status Wildlife Species

Special-status species with moderate potential to occur on site are listed in Appendix D and include orange-throated whiptail, San Diegan tiger whiptail, Southern California rufous-crowned sparrow, Bell's sage sparrow, and California horned lark. These species would primarily occur in the disturbed Diegan coastal sage scrub, but could occasionally use the non-native grassland on site. Impacts to the non-native grassland could result in loss of foraging and/or breeding and nesting habitat for these species, and would be a potentially significant impact. The permanent loss of habitat would be mitigated to less than significant through the conservation of native habitats, as described in MM-BIO-1 (Habitat Mitigation), provided in Section 7.1.

Special-status wildlife that occur in the vicinity of the project site but do not have potential to occur based on lack of habitat, elevation, or range are listed in Appendix E.

The California Fish and Game Code protects bird nests, and the MBTA prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. If clearing, grubbing, or other activities that result in the removal of vegetation occur during the nesting bird season, any impacts to active nests or the young of nesting bird species would be potentially significant. This impact would be mitigated to less than significant through nesting bird surveys and establishment of appropriate buffers, as described in MM-BIO-2 (Nesting Bird Surveys), provided in Section 7.1.

### 6.2.4 Jurisdictional Resources

No potentially jurisdictional features were mapped within the biological study area. Therefore, no direct impacts to jurisdictional resources would occur as a result of the project.

### 6.2.5 Wildlife Corridors/Habitat Linkages

The biological study area is outside of the Wildlife Corridor Planning Zone designated by the Oceanside Subarea Plan (City of Oceanside 2010). The site is surrounded by development, which limits movement of larger mammals. One small undeveloped parcel borders the northeastern edge of the site. However, this parcel is small and vacant; appears to be regularly maintained, mowed, or disked; and is also surrounded by development. In addition, an active residential development project (Melrose Heights) is located between the biological study area and the nearest open space area (Guajome Regional Park), located approximately 600 feet north of the site. As a result, there is no direct connection between the biological study area and other natural areas that would support the movement of larger wildlife to or through the biological study area. The small, isolated patches of disturbed Diegan coastal sage scrub may support some common birds, reptiles, invertebrates, and small mammals commonly found in upland scrub. Therefore, no impacts to wildlife corridors or habitat linkages would occur as a result of the proposed project.

## 6.3 Indirect Impacts

### 6.3.1 Vegetation Communities and/or Special-Status Plants

#### Short-Term Indirect Impacts

Potential short-term or temporary indirect impacts to any special-status vegetation communities and special-status plants adjacent to the biological study area (if they occur) would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-4 (Temporary Installation of Fencing), provided in Section 7.1.

##### Generation of Fugitive Dust

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

##### Changes in Hydrology

Construction could result in hydrologic impacts adjacent to and downstream of the limits of grading.

### Chemical Pollutants

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

## Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proposed project to special-status vegetation communities and/or special-status plants adjacent to the site (if they occur) after construction. Permanent indirect impacts that could affect special-status vegetation communities include chemical pollutants, altered hydrology, non-native invasive species, and increased human activity. Each of these potential indirect impacts is discussed in the following paragraphs and would be mitigated through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-5 (Invasive Species Prohibition), provided in Section 7.1.

### Chemical Pollutants

The effects of chemical pollutants on vegetation communities and special-status plant species are described above. During landscaping activities, herbicides may be used to prevent vegetation from reoccurring around structures. However, weed control treatments would include only legally permitted chemical, manual, and mechanical methods. Additionally, the herbicides used during landscaping activities would be contained within the project site.

### Altered Hydrology

Water would be used for landscaping purposes that may alter the on-site hydrologic regime. These hydrologic alterations may affect special-status vegetation communities and special-status plant communities. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants (*Linepithema humile*), which can compete with native ant species that could be seed dispersers or plant pollinators. However, the water, and associated runoff, used during landscaping activities would be contained within the project site, and long-term indirect impacts associated with altered hydrology are not expected because the storm drain design proposed for the project would mitigate flood and water quality impacts such that no adjacent properties would be negatively impacted from runoff generated by the development (Kimley-Horn and Associates 2021).

### Non-Native, Invasive Plant and Animal Species

Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including exotic plant competition for light, water, and nutrients, and the formation of thatches that block sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators or seed dispersal agents for plants within vegetation communities and special-status plant populations. However, the project site is in a vacant lot that appears to have experienced periodic disturbance through disking and/or mowing activities. The majority of the site is already disturbed by non-native species and human activity.

### Increased Human Activity

The proposed development would contain ground-level commercial space and 323 multi-family residential units ranging from 666 square feet to 1,429 square feet. Increased human activity could result in trampling of vegetation and soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation, and allow exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. An increased human population would increase the risk for damage to vegetation communities and/or special-status plants if they occur adjacent to the site.

## 6.3.2 Special-Status Wildlife Species

### Short-Term Indirect Impacts

Short-term, construction-related, or temporary indirect impacts to special-status wildlife species that occur within the biological study area (e.g., orange-throated whiptail, San Diegan tiger whiptail, southern California rufous-crowned sparrow, Bell's sage sparrow, and California horned lark) would primarily result from construction activities. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, chemical pollutants, and increased human activity. These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM- BIO-4 (Temporary Installation of Fencing), provided in Section 7.1.

### Generation of Fugitive Dust

Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

### Noise

Construction-related noise could occur from equipment used during vegetation clearing and construction of the residences and associated infrastructure. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, cited in Lovich and Ennen 2011).

### Chemical Pollutants

Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater, and indirectly impact wildlife species through poisoning or altering suitable habitat.

### Increased Human Activity

Increased human activity associated with construction activities can deter wildlife from using habitat areas near the project site.

### Long-Term Indirect Impacts

Potential long-term or permanent indirect impacts to special-status wildlife species that could occur within the biological study area include increased non-native, invasive plant and animal species and increased human activity. These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-5 (Invasive Species Prohibition), provided in Section 7.1.

#### Non-Native, Invasive Plant and Animal Species

Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including the fact that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status wildlife species. However, the project site is in an area already disturbed by non-native species and human disturbance.

#### Increased Human Activity

The proposed development would contain ground-level commercial space and 323 multi-family residential units ranging from 666 square feet to 1,429 square feet. Increased human activity could result in trampling of vegetation and soil compaction, which could affect the viability and function of suitable habitat for wildlife species. An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the project site. However, the project site is in an area already disturbed by non-native species and human disturbance.

#### Collision

The proposed development would include non-reflective glass windows to help reduce potential bird collisions with windows.

## 6.3.3 Jurisdictional Resources

### Short-Term Indirect Impacts

Potential short-term or temporary indirect impacts to jurisdictional resources adjacent to the biological study area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants, including herbicides. Potential short-term indirect impacts that could affect jurisdictional aquatic resources adjacent to the biological study area are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-4 (Temporary Installation of Fencing), provided in Section 7.1.

#### Generation of Fugitive Dust

As stated above, excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, and transpiration, as well as increased penetration of phytotoxic gaseous pollutants and increased incidence of pests and diseases.

### Changes in Hydrology

Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the construction area. The effects of changes in hydrology would be similar to those described in Section 6.3.1, Vegetation Communities and/or Special-Status Plants.

### Chemical Pollutants

Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect jurisdictional resources. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

## Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed project to jurisdictional aquatic resources after construction. Permanent indirect impacts that could affect jurisdictional aquatic resources include chemical pollutants, altered hydrology, non-native invasive species, and increased human activity. Each of these potential indirect impacts is discussed in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-5 (Invasive Species Prohibition), provided in Section 7.1.

### Chemical Pollutants

The effects of chemical pollutants on jurisdictional resources are described above.

### Altered Hydrology

Water used for landscaping purposes may alter the adjacent hydrologic regime. These hydrologic alterations may affect nearby jurisdictional resources. However, the water, and associated runoff, used during landscaping activities would be contained within the project site, and long-term indirect impacts associated with altered hydrology are not expected because the storm drain proposed for the project is designed to mitigate flood and water quality impacts such that no adjacent properties would be negatively impacted from runoff generated by the development (Kimley-Horn and Associates 2021).

### Non-Native, Invasive Plant and Animal Species

The effects of non-native, invasive plant and animal species would be similar to those described in Section 6.3.1. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within nearby jurisdictional resources. However, the project site is in an area already disturbed by non-native species and human disturbance.

### Increased Human Activity

The effects of increased human activity would be similar to those described in Section 6.3.1. An increased human population increases the risk for damage to jurisdictional resources occurring adjacent to the site.

### 6.3.4 Wildlife Corridors/Habitat Linkages

#### Short-Term Indirect Impacts

Short-term indirect impacts to habitat connectivity and wildlife corridors could result from increased human activity. These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-3 (Biological Monitoring) and MM-BIO-4 (Temporary Installation of Fencing), provided in Section 7.1.

##### Increased Human Activity

Project construction would occur during the daytime and would not affect wildlife species, such as mammals, that are most active in evenings and nighttime. Wildlife species such as birds, rabbits, and lizards are active in the daytime, but use a variety of habitats and could continue using other areas adjacent to the biological study area for wildlife movement.

#### Long-Term Indirect Impacts

Long-term indirect impacts include increased human activity and lighting. These impacts are described in detail below and would be mitigated to less than significant through implementation of MM-BIO-4 (Biological Monitoring) and MM-BIO-6 (Invasive Species Prohibition), provided in Section 7.1.

##### Increased Human Activity

The proposed project would contain ground-level commercial space and 323 multi-family residential units ranging from 666 square feet to 1,429 square feet. Increased human activity can deter wildlife from using habitat areas near the proposed project. However, the project site is in an area already disturbed by non-native species and human disturbance.

## 6.4 Cumulative Impacts

The cumulative biological study area is the area covered by the Oceanside Subarea Plan (City of Oceanside 2010). Direct impacts to special-status plant species and special-status wildlife could occur due to project implementation but would be mitigated per the Oceanside Subarea Plan, and therefore would not contribute to any cumulative sensitive species impacts. The project would implement standard best management practices, which would avoid contributions toward a cumulative indirect impact to special-status wildlife species and sensitive habitats. As with all other projects, the proposed project would be required to comply with the California Fish and Game Code and MBTA to avoid impacts to nesting birds. Therefore, the project is not anticipated to result in significant cumulative impacts to regional biological resources.

# 7 Avoidance, Minimization, and Mitigation Measures

The project would have potential direct and/or indirect significant impacts to vegetation communities, special-status wildlife species, potential jurisdictional resources, and wildlife corridors/habitat linkages.

## 7.1 Minimization and Mitigation Measures

The following minimization and mitigation measures would be implemented to reduce potential direct and indirect impacts to less than significant.

MM-BIO-1 Habitat Mitigation**.** The applicant shall mitigate for impacts to disturbed Diegan coastal sage and non-native grassland in accordance with Table 5-2, Mitigation Standards for Impacts to Natural Vegetation and Habitat, in the 2010 City of Oceanside Subarea Plan which states that mitigation shall occur at a ratio of 3:1 for coastal sage scrub and 0.5:1 for non-native grassland. However, due to the high level of disturbance of the coastal sage scrub onsite, small patches of habitat and soil disturbance within the coastal sage scrub a ~~2~~1:1 mitigation ratio is applied. Therefore .49 acres of coastal sage scrub and 2.57 acres of non-native grassland will be required for project related impacts. Mitigation shall include preservation of any lands within the Wildlife Corridor Planning Zone and south of State Route 76, or any land within the Wildlife Corridor Planning Zone and north of State Route 76, or any Preapproved Mitigation Area within the City of Oceanside. Mitigation may also include purchase credits within an existing mitigation bank.

MM-BIO-2 Nesting Bird Surveys. Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the breeding season (typically January 15 through August 31) shall require a survey for nesting bird species to be conducted on or within 300 feet of the construction area for non-listed nesting migratory birds, and within 500 feet of the construction area for federally or state-listed birds and raptors. This survey is necessary to ensure avoidance of impacts to nesting raptors and/or birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code, Sections 3503 and 3513.

The pre-construction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the City of Oceanside (City) for review and approval prior to initiating any construction activities. If nesting birds are detected by the City-approved biologist, the following buffers shall be established: (1) no work within 300 feet of a non-listed nesting migratory bird nest, and (2) no work within 500 feet of a listed bird or raptor nest. However, the City may reduce these buffer widths depending on site-specific conditions (e.g., the width and type of screening vegetation between the nest and proposed activity) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within the recommended buffer widths, the project applicant shall contact the City and Wildlife Agencies to determine the appropriate buffer. Once the nest is no longer occupied for the season, construction may proceed in the setback areas.

If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed impact area.

MM-BIO-3 Biological Monitoring. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, all grading of native habitat shall be monitored by a biologist. The biological monitor(s) shall be contracted to perform biological monitoring during all clearing and grubbing activities.

The project biologist(s) also shall perform the following duties:

a. Attend the pre-construction meeting with the contractor and other key construction personnel prior to clearing and grubbing to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
b. During clearing and grubbing, the project biologist shall conduct meetings with the contractor and other key construction personnel each morning prior to construction activities to go over the proposed activities for the day, and for the monitor(s) to describe the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife prior to clearing and grubbing.
c. Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing and grubbing.
d. Supervise and monitor the initial vegetation clearing and grubbing weekly to ensure against direct and indirect impacts to biological resources (e.g., reptiles or biological resources adjacent to the site) that are intended to be protected, and to document that protective fencing is intact.
e. Flush wildlife species (i.e., reptiles, mammals, avian, or other mobile species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance to nesting birds (see MM-BIO-2).
f. Periodically monitor the construction site to verify that the project is implementing the Stormwater Quality Management Plan best management practices, including dust control, silt fencing, removal of construction debris and a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour.
g. Keep monitoring notes for the duration of the project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of any biological resources on or adjacent to the site.
h. Prepare a monitoring report after the construction activities are completed that describes the biological monitoring activities, including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

MM-BIO-4 Temporary Installation of Fencing. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, the contractor shall install temporary fencing, or use existing fencing, along the limits of grading.

MM-BIO-5 Invasive Species Prohibition. The final landscape plans shall be reviewed by the project biologist and a qualified botanist to confirm that there are no invasive plant species as included on the most recent version of the California Invasive Plant Council's inventory for the project region.

## 7.2 Regional Resource Planning Context – Compliance Review

### City of Oceanside MHCP Subarea Plan

The project site is not within a preserve, nor does it include any wetlands or riparian areas on site or adjacent to the site. With implementation of the mitigation measures provided in Section 7.1, this project will be in compliance with the Oceanside MHCP Subarea Plan.

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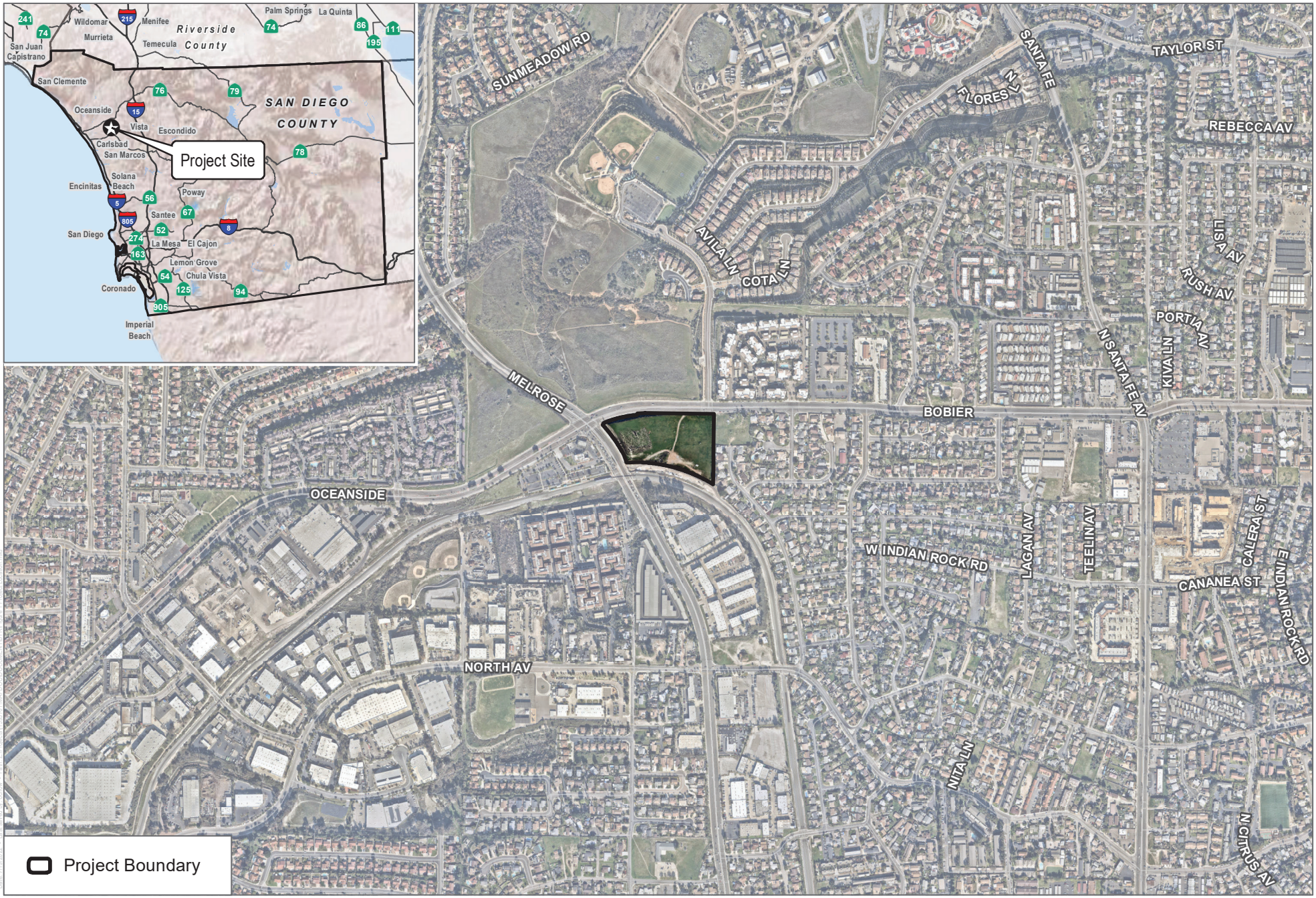


SOURCE: SANGIS 2019

DUDEK

0 500 1,000 Feet

**FIGURE 1**

Project Location

Modera Melrose Project

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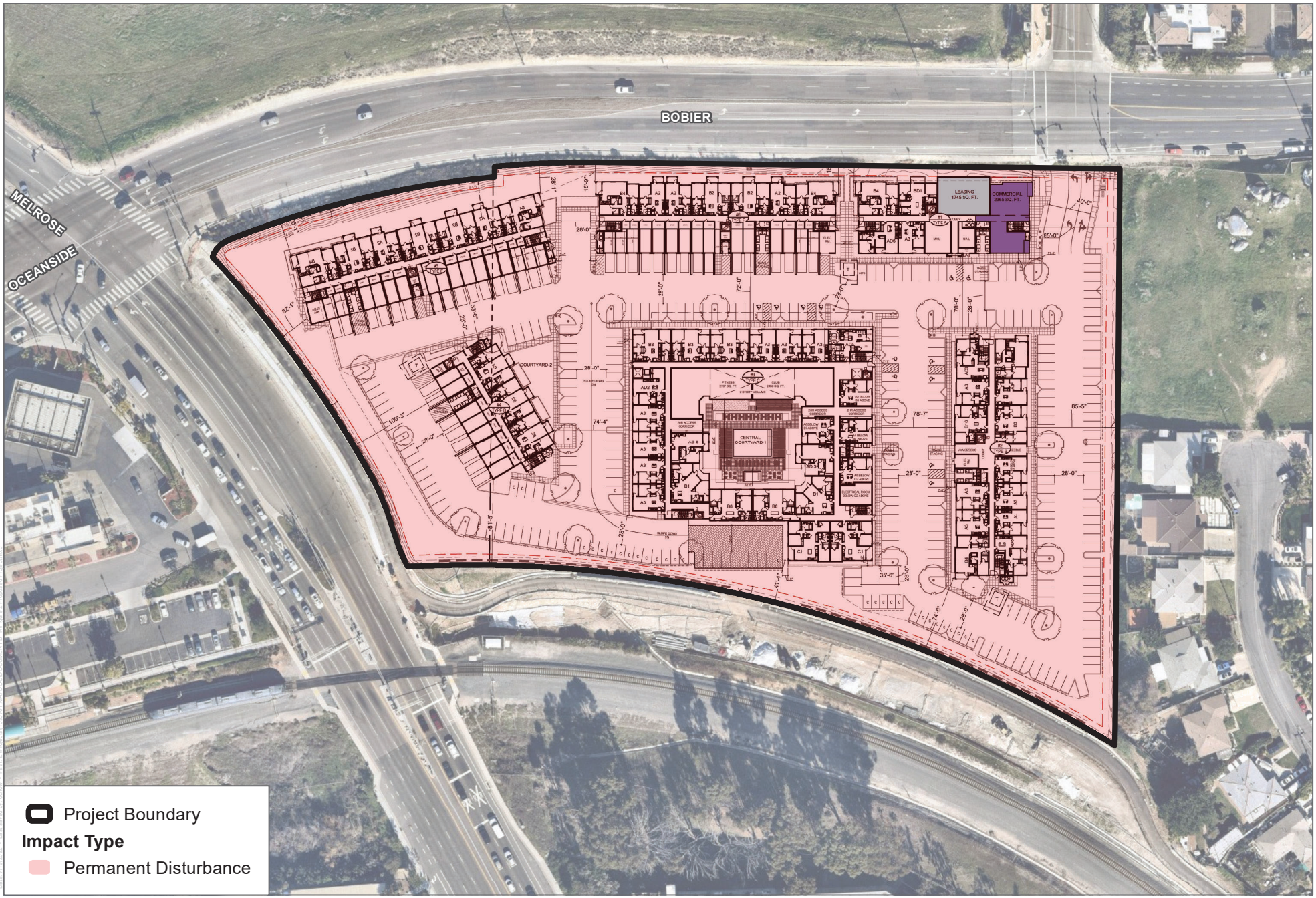


SOURCE: SANGIS 2019, AO Architects 2021

DUDEK

0 100 200 Feet

**FIGURE 2**

Proposed Project

Modera Melrose Project

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SOURCE: SANGIS 2019, Dudek 2022

DUDEK

0 100 200 Feet

**FIGURE 3**

Survey Area

Modera Melrose Project

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SOURCE: SANGIS 2019, SanBIOS 2009, CA Dept. of Fish and Wildlife 2021

DUDEK

0 400 800 Feet

**FIGURE 4**

Regional Species Occurrences

Modera Melrose Project

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SOURCE: SANGIS 2019, CA Dept. of Conservation 2018

DUDEK

0 100 200 Feet

**FIGURE 5**

Soils

Modera Melrose Project

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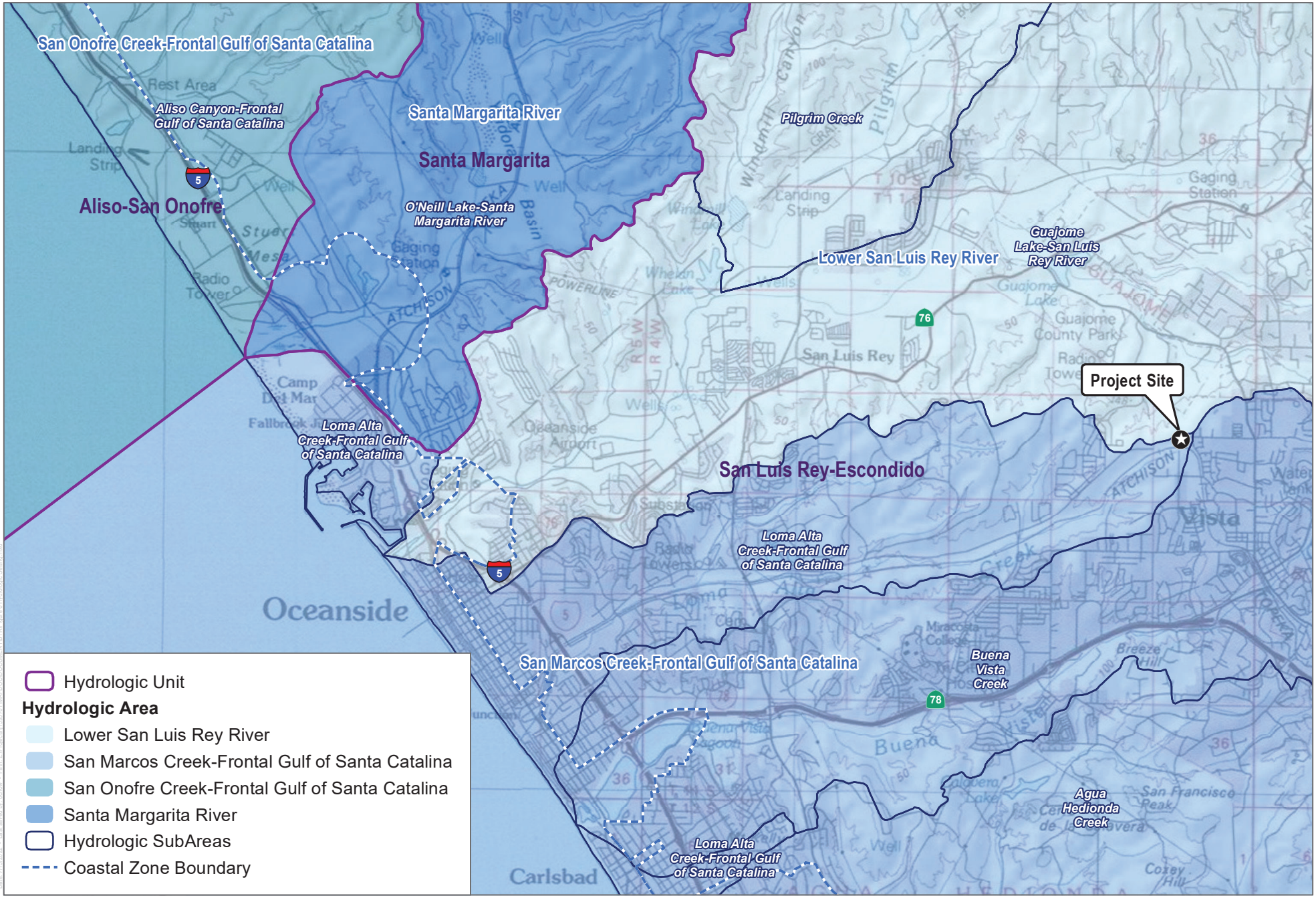


SOURCE: USGS 7.5-Minute Series Las Pulgas Canyon, Morro Hill, Bonsall, Oceanside, San Luis Rey, San Marcos Quadrangles; USGS 2022

DUDEK

0 1 2 Miles

**FIGURE 6**

Hydrologic Setting

Modera Melrose Project

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SOURCE: SANGIS 2019, Dudek 2022

DUDEK

0 100 200 Feet

**FIGURE 7**

Vegetation Communities

Modera Melrose Project

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SOURCE: SANGIS 2019, USFWS 2022

DUDEK

0 100 200 Feet

**FIGURE 8**

USFWS Critical Habitat

Modera Melrose Project

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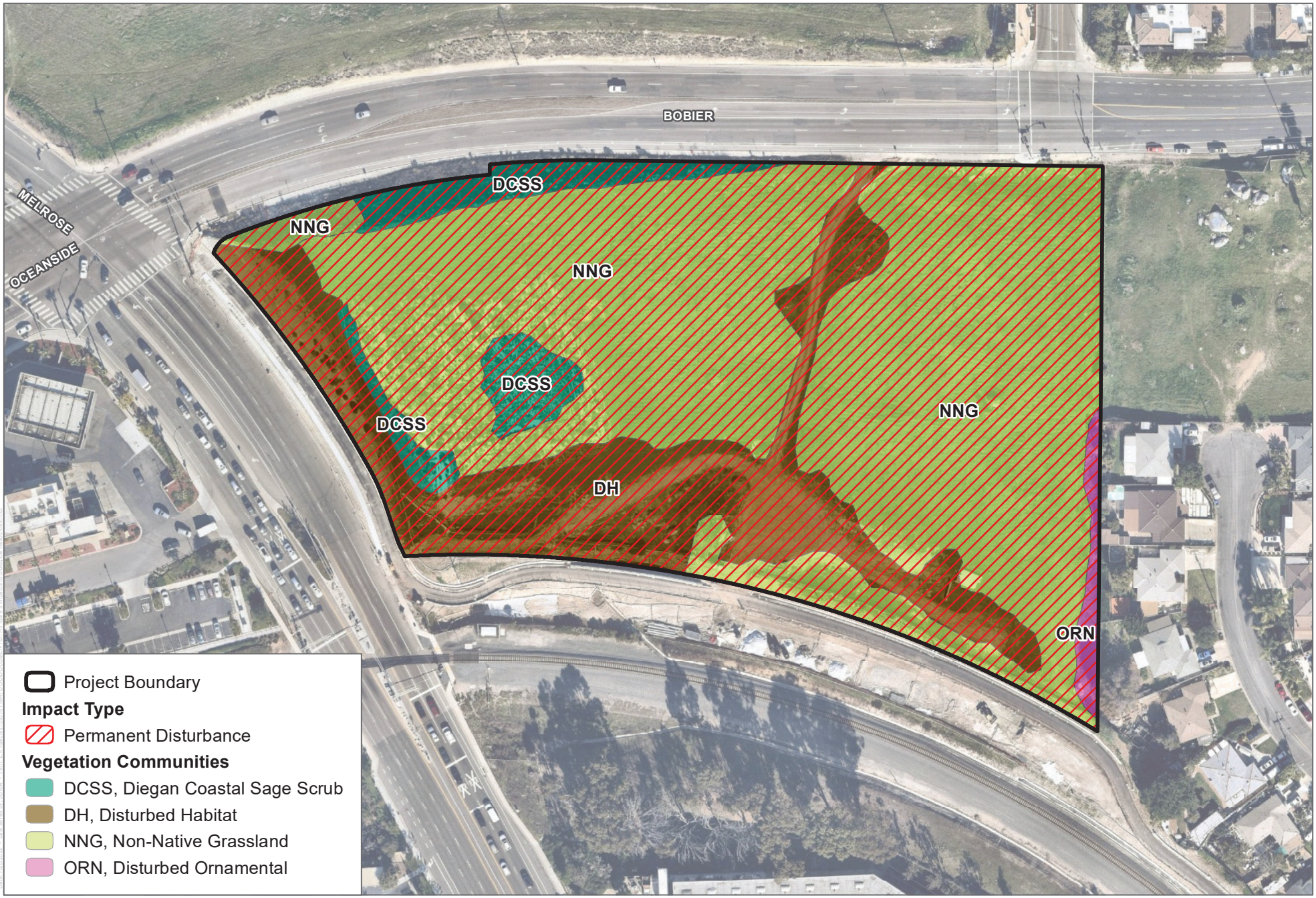


SOURCE: SANGIS 2019, Dudek 2022

DUDEK

0 100 200 Feet

**FIGURE 9**

Impacts to Biological Resources

Modera Melrose Project

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# Appendix A
Plant Species List

# Vascular Species

## Eudicots

### AIZOACEAE – FIG-MARIGOLD FAMILY

* *Carpobrotus edulis* – hottentot fig

### ANACARDIACEAE – SUMAC OR CASHEW FAMILY

*Malosma laurina* – laurel sumac

* *Schinus molle* – Peruvian peppertree

### APIACEAE – CARROT FAMILY

* *Foeniculum vulgare* – fennel

### ASTERACEAE – SUNFLOWER FAMILY

*Baccharis pilularis* ssp. *consanguinea* – coyotebrush

*Baccharis salicifolia* – mulefat

* *Carduus pycnocephalus* ssp. *pycnocephalus* – Italian plumeless thistle
* *Centaurea melitensis* – Maltese star-thistle
* *Cynara cardunculus* – cardoon

*Deinandra fasciculata* – clustered tarwee

* *Dittrichia graveolens* – stinkwort

*Encelia californica* – California brittle bush

* *Erigeron bonariensis* – asthmaweed

*Erigeron canadensis* – Canadian horseweed

* *Glebionis coronaria* – crowndaisy

*Hazardia squarrosa* var. *grindelioides* – sawtooth bristleweed

* *Hedypnois rhagadioloides* – crete weed
* *Helminthotheca echioides* – bristly oxtongue

*Heterotheca grandiflora* – telegraphweed

* *Hypochaeris glabra* – smooth cat's ear
* *Lactuca serriola* – prickly lettuce

*Pseudognaphalium californicum* – ladies' tobacco

* *Sonchus asper* – spiny sowthistle
* *Sonchus oleraceus* – common sowthistle

### BORAGINACEAE – BORAGE FAMILY

*Amsinckia menziesii* – Menzies' fiddleneck

*Phacelia cicutaria* var. *hispida* – caterpillar phacelia

## BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard
* *Hirschfeldia incana* – shortpod mustard

## CARYOPHYLLACEAE – PINK FAMILY

* *Spergularia bocconi* – Boccone's sandspurry

## CHENOPODIACEAE – GOOSEFOOT FAMILY

* *Atriplex semibaccata* – Australian saltbush
* *Chenopodium murale* – nettleleaf goosefoot
* *Salsola tragus* – prickly Russian thistle

## CRASSULACEAE – STONECROP FAMILY

* *Crassula ovata* – jade plant

## EUPHORBIACEAE – SPURGE FAMILY

*Croton setiger* – dove weed

* *Euphorbia maculata* – spotted sandmat
* *Ricinus communis* – castorbean

## FABACEAE – LEGUME FAMILY

*Acmispon americanus* var. *americanus* – American bird's-foot trefoil

* *Lotus corniculatus* – bird's-foot trefoil
* *Trifolium hirtum* – rose clover

## GERANIACEAE – GERANIUM FAMILY

* *Erodium cicutarium* – redstem stork's bill
* *Pelargonium peltatum* – ivyleaf geranium

## MALVACEAE – MALLOW FAMILY

* *Malva parviflora* – cheeseweed mallow

*Malvella leprosa* – alkali mallow

## MYRSINACEAE – MYRSINE FAMILY

*Lysimachia arvensis* – scarlet pimpernel

## POLYGONACEAE – BUCKWHEAT FAMILY

*Eriogonum fasciculatum* var. *fasciculatum* – California buckwheat

* *Rumex crispus* – curly dock

### SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco
* *Solanum elaeagnifolium* – silverleaf nightshade

### ULMACEAE – ELM FAMILY

* *Ulmus parvifolia* – Chinese elm

## Monocots

### ARECACEAE – PALM FAMILY

* *Washingtonia robusta* – Washington fan palm

### POACEAE – GRASS FAMILY

* *Avena barbata* – slender oat
* *Avena fatua* – wild oat
* *Bromus diandrus* – ripgut brome
* *Bromus rubens* – red brome
* *Ehrharta erecta* – panic veldtgrass
* *Festuca perennis* – perennial rye grass
* *Hordeum murinum* – mouse barley
* *Pennisetum setaceum* – fountain grass

* signifies introduced (non-native) species

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# Appendix B
Wildlife Species List

# Birds

## Finches

### FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

*Haemorhous mexicanus* – house finch

*Spinus psaltria* – lesser goldfinch

## Flycatchers

### TYRANNIDAE – TYRANT FLYCATCHERS

*Sayornis nigricans* – black phoebe

*Sayornis saya* – Say's phoebe

## Hawks

### ACCIPITRIDAE – HAWKS, KITES, EAGLES AND ALLIES

*Buteo jamaicensis* – red-tailed hawk

## Hummingbirds

### TROCHILIDAE – HUMMINGBIRDS

*Calypte anna* – Anna's hummingbird

## Jays, Magpies and Crows

### CORVIDAE – CROWS AND JAYS

*Corvus corax* – common raven

## Pigeons and Doves

### COLUMBIDAE – PIGEONS AND DOVES

*Zenaida macroura* – mourning dove

# Invertebrates

## Butterflies

### PIERIDAE – WHITES AND SULFURS

*Pontia protodice* – checkered white

# Reptiles

## Lizards

### PHRYNOSOMATIDAE – IGUANID LIZARDS

*Sceloporus occidentalis* – western fence lizard

# Appendix C

Special-Status Plant Species with Low Potential and Not Expected to Occur within the Biological Study Area

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Artemisia palmeri* | San Diego sagewort | None/None/4.2/None | Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/perennial deciduous shrub/ (Feb)May–Sep/45–3,000 | Not expected to occur. There are small patches of suitable coastal scrub and sandy soils present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Asplenium vespertinum* | western spleenwort | None/None/4.2/None | Chaparral, cismontane woodland, coastal scrub; rocky/ perennial rhizomatous herb/Feb–June/590–3,280 | Not expected to occur. The site is outside of the species' known elevation range and this species was not observed during the June 2022 survey. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Astragalus tener* var. *titi* | coastal dunes milk-vetch | FE/SE/1B.1/None | Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/ Mar–May/0–165 | Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022; USFWS 2022). |
| *Atriplex coulteri* | Coulter's saltbush | None/None/1B.2/None | Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/ 5–1,510 | Not expected to occur. There are small patches of suitable coastal scrub, clay soils, and disturbed non-native grasslands present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. This species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 4 miles southwest of the project site near Lake Calavera Preserve (CDFW 2022; USFWS 2022). |
| *Atriplex pacifica* | south coast saltscale | None/None/1B.2/None | Coastal bluff scrub, coastal dunes, coastal scrub, playas/ annual herb/Mar–Oct/0–460 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 2.9 miles northwest of the project site along San Luis Rey River; however, the only source of information for this occurrence is from 1881 (CDFW 2022). |
| *Baccharis vanessae* | Encinitas baccharis | FT/SE/1B.1/None | Chaparral (maritime), cismontane woodland; sandstone/ perennial deciduous shrub/Aug, Oct, Nov/195–2,360 | Not expected to occur. No suitable vegetation is present. Additionally, this perennial shrub was not observed during the focused plant survey in June 2022, and there are no known occurrences within 5 miles of the project site (CDFW 2022; USFWS 2022). |
| *Bloomeria clevelandii* | San Diego goldenstar | None/None/1B.1/None | Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr–May/160–1,525 | Low potential to occur. There are small patches of suitable coastal scrub, clay soils, and non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Brodiaea filifolia* | thread-leaved brodiaea | FT/SE/1B.1/Covered | Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools; often clay/ perennial bulbiferous herb/Mar–June/80–3,675 | Not expected to occur. Although there are small patches of suitable coastal scrub, clay soils, and disturbed non-native grasslands on site, this species was not observed during the focused plant survey in June 2022. In addition, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. This species is known to occur on the property immediately north of the site across West Bobier Drive, with the closest mapped individuals approximately 465 feet north of the project site (CDFW 2022; USFWS 2022). |
| *Brodiaea orcuttii* | Orcutt's brodiaea | None/None/1B.1/None | Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5,550 | Not expected to occur. Although grassland is present, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. This species was not detected during the focused plant survey in June 2022. Additionally, the closest known occurrence is approximately 3.7 miles southeast of the project site along State Route 78 (CDFW 2022). |
| *Calandrinia breweri* | Brewer's calandrinia | None/None/4.2/None | Chaparral, Coastal scrub; burned areas, disturbed areas, loam (sometimes), sandy (sometimes)/annual herb/(Jan)Mar–June/ 35–4,000 | Not expected to occur. There are small patches of suitable coastal scrub and sandy soils present. This species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences of this species within 5 miles of the project site (CCH 2022). |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Calochortus plummerae* | Plummer's mariposa-lily | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; granitic, rocky/ perennial bulbiferous herb/May–July/330–5,575 | Not expected to occur. Although there are small patches of suitable coastal scrub and disturbed non-native grasslands on site, this species was not observed during the focused plant survey in June 2022. In addition, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Camissoniopsis lewisii* | Lewis' evening-primrose | None/None/3/None | Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/ annual herb/Mar–May(June)/0–985 | Not expected to occur. Although there are small patches of suitable coastal scrub, sandy and clay soils, and disturbed non-native grasslands on site, this species was not observed during the focused plant survey in June 2022. In addition, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. The closest known occurrence is approximately 3.1 miles northwest of the project site near San Luis Rey River (CCH 2022). |
| *Caulanthus simulans* | Payson's jewelflower | None/None/4.2/None | Chaparral, coastal scrub; sandy, granitic/annual herb/ (Feb)Mar–May(June)/295–7,220 | Not expected to occur. Although there is suitable coastal scrub and sandy soils present, this species was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Ceanothus cyaneus* | Lakeside ceanothus | None/None/1B.2/None | Chaparral, Closed-cone coniferous forest/perennial evergreen shrub/ Apr–June/770–2,475 | Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022), and this evergreen shrub was not observed during the focused plant survey in June 2022. |
| *Ceanothus verrucosus* | wart-stemmed ceanothus | None/None/2B.2/None | Chaparral/perennial evergreen shrub/Dec–May/0–1,245 | Not expected to occur. Although a large population of this species was documented in 2001 approximately 2.8 miles east of the project site (CDFW 2022), the site does not support suitable vegetation, and this evergreen shrub was not detected during the focused plant survey in June 2022. |
| *Centromadia parryi* ssp. *australis* | southern tarplant | None/None/1B.1/None | Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/annual herb/May–Nov/0–1,575 | Not expected to occur. Southern tarplant is more likely to be found in foothill grassland that is vernally mesic. Areas with the potential for grassland habitat are disturbed. Disturbed non-native annual grasses are abundant within the biological study area. The majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. This species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Centromadia pungens* ssp. *laevis* | smooth tarplant | None/None/1B.1/None | Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/annual herb/ Apr–Sep/0–2,100 | Not expected to occur. Smooth tarplant occurs in alkaline foothill grasslands. Disturbed non-native annual grasses are abundant within the biological study area. However, this species was not detected during the focused plant survey in June 2022. In addition, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years species. The closest known CNDDB occurrence is approximately 2.9 miles northwest of the project site near San Luis Rey River (CDFW 2022). |
| *Chaenactis glabriuscula* var. *orcuttiana* | Orcutt's pincushion | None/None/1B.1/None | Coastal bluff scrub (sandy), coastal dunes/annual herb/ Jan–Aug/0–330 | Not expected to occur. No suitable vegetation is present. This species was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Chamaebatia australis* | southern mountain misery | None/None/4.2/None | Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/ Nov–May/980–3,345 | Not expected to occur. The site is outside the species' known elevation range, and there is no suitable vegetation present. This evergreen shrub was not observed during the focused plant survey in June 2022. Additionally, the closest known occurrence is approximately 4 miles east of the project site (CCH 2022). |
| *Chorizanthe orcuttiana* | Orcutt's spineflower | FE/SE/1B.1/None | Closed-cone coniferous forest, chaparral (maritime), coastal scrub; sandy openings/annual herb/Mar–May/5–410 | Low potential to occur. There are small patches of suitable coastal scrub and sandy soils present. However, there are no known occurrences within 5 miles of the project site (CDFW 2022; USFWS 2022). |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Chorizanthe polygonoides* var. *longispina* | long-spined spineflower | None/None/1B.2/None | Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay/annual herb/Apr–July/ 95–5,020 | Not expected to occur. There are small patches of coastal scrub, clay soils, and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Cistanthe maritima* | seaside cistanthe | None/None/4.2/None | Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985 | Not expected to occur. There are small patches of coastal scrub, sandy soils, and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Comarostaphylis diversifolia* ssp. *diversifolia* | summer holly | None/None/1B.2/None | Chaparral, cismontane woodland/perennial evergreen shrub/ Apr–June/95–2,590 | Not expected to occur. No suitable vegetation is present. This species was not observed during the focused plant survey in June 2022. The closest known CNDDB occurrence is approximately 3.1 miles southwest of the project site within Lake Calavera Preserve (CDFW 2022). |
| *Convolvulus simulans* | small-flowered morning-glory | None/None/4.2/None | Chaparral (openings), coastal scrub, valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/95–2,430 | Not expected to occur. There are small patches of coastal scrub, sandy soils, and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. Although the closest known CNDDB occurrence is approximately 1.5 miles southeast of the project site (CCH 2022), this species was not observed during the focused plant survey in June 2022. |
| *Corethrogyne filaginifolia* var. *linifolia* | Del Mar Mesa sand aster | None/None/1B.1/None | Coastal bluff scrub, chaparral (maritime, openings), coastal scrub; sandy/perennial herb/May, July, Aug, Sep/45–490 | Not expected to occur. San Diego sand aster and Del Mar Mesa sand aster have been lumped back taxonomically to *Corethrogyne filaginifolia.* However, these rare varieties recognized by the California Native Plant Society occur near Del Mar and within Torrey Pines State Preserve. There are small patches of suitable coastal scrub and sandy soils present. However, this species was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Cryptantha wigginsii* | Wiggins' cryptantha | None/None/1B.2/None | Coastal scrub; often clay/annual herb/Feb–June/65–900 | Not expected to occur. There are small patches of suitable coastal scrub and sandy soils present. However, this species was not observed during the focused plant survey in June 2022. The closest known occurrence is approximately 4.7 miles southwest of the project site within Hidden Canyon Park (CDFW 2022). |
| *Deinandra paniculata* | paniculate tarplant | None/None/4.2/None | Coastal scrub, valley and foothill grassland, vernal pools; usually vernally mesic, sometimes sandy/annual herb/ (Mar)Apr Nov(Dec)/80–3,085 | Not expected to occur. There are small patches of suitable coastal scrub, sandy soils, and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not observed during the focused plant survey in June 2022. Additionally, the closest known occurrence is approximately 1.2 miles north of the project site along Guajome Regional Park (CCH 2022). |
| *Dichondra occidentalis* | western dichondra | None/None/4.2/None | Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/ 160–1,640 | Not expected to occur. There are small patches of suitable coastal scrub and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not observed during the focused plant survey in June 2022. Additionally, the closest known occurrence is approximately 4 miles southwest of the project site within Lake Calvera Preserve (CCH 2022). |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Dudleya blochmaniae* ssp. *blochmaniae* | Blochman's dudleya | None/None/1B.1/ Covered | Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/ Apr–June/15–1,475 | Not expected to occur. There are small patches of suitable coastal scrub, clay soils, and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not observed during the focused plant survey in June 2022. Additionally, the closest known occurrence is approximately 0.2 miles north of the project site (CDFW 2022). |
| *Dudleya multicaulis* | many-stemmed dudleya | None/None/1B.2/None | Chaparral, coastal scrub, valley and foothill grassland; often clay/ perennial herb/Apr–July/45–2,590 | Not expected to occur. There are small patches of suitable coastal scrub and clay soils present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Dudleya variegata* | variegated dudleya | None/None/1B.2/None | Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/ Apr–June/5–1,905 | Not expected to occur. There are small patches of suitable coastal scrub and clay soils present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not detected during the focused plant survey in June 2022 and there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Dudleya viscida* | sticky dudleya | None/None/1B.2/Covered | Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/perennial herb/May–June/30–1,805 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. The closest known CNDDB occurrence is approximately 4 miles south of the project site near Ocean Hills (CDFW 2022). |
| *Ericameria palmeri* var. *palmeri* | Palmer's goldenbush | None/None/1B.1/None | Chaparral, coastal scrub; mesic/perennial evergreen shrub/ (July)Sep–Nov/95–1,970 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this evergreen shrub was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Eryngium aristulatum* var. *parishii* | San Diego button-celery | FE/SE/1B.1/None | Coastal scrub, valley and foothill grassland, vernal pools; mesic/ annual/perennial herb/Apr–June/65–2,035 | Not expected to occur. San Diego button-celery occurs in areas with native grasslands and, often, mesic meadows or vernal pools. Typical habitat is the coastal grassland areas of Marine Corps Base Camp Pendleton. The biological study area does not consist of native grasslands. The biological study area consists of disturbed soils and non-native annual grasses, along with small patches of coastal scrub. This species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022; USFWS 2022). |
| *Eryngium pendletonense* | Pendleton button-celery | None/None/1B.1/None | Coastal bluff scrub, valley and foothill grassland, vernal pools; clay, vernally mesic/perennial herb/Apr–June(July)/45–360 | Not expected to occur. Pendleton button-celery is known to occur only on Marine Corps Base Camp Pendleton. Pendleton button-celery occurs in vernally mesic native grasslands. The biological study area does not consist of native grasslands. The biological study area consists of disturbed soils and non-native annual grasses, along with small patches of coastal scrub. This species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Erysimum ammophilum* | sand-loving wallflower | None/None/1B.2/None | Chaparral (maritime), coastal dunes, coastal scrub; sandy, openings/ perennial herb/Feb–June/0–195 | Not expected to occur. The site is outside of the species' known elevation range. The site contains small patches of suitable coastal scrub. This species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Erythranthe diffusa* | Palomar monkeyflower | None/None/4.3/None | Chaparral, lower montane coniferous forest; sandy or gravelly/ annual herb/Apr–June/4,000–6,005 | Not expected to occur. The site is outside the species' known elevation range, and there is no suitable vegetation present. This species was not detected during the focused plant survey in June 2022. There are no known occurrences within 5 miles of the project site (CCH 2020). |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Euphorbia misera* | cliff spurge | None/None/2B.2/None | Coastal bluff scrub, coastal scrub, Mojavean desert scrub; rocky/ perennial shrub/Dec–Aug(Oct)/30–1,640 | Not expected to occur. The site contains small patches of suitable coastal scrub. However, this perennial shrub was not observed during the focused plant survey in June 2022. The closest known CNDDB occurrence overlaps the project site and is mapped along the railroad, but the exact location is unknown (CDFW 2022). |
| *Ferocactus viridescens* | San Diego barrel cactus | None/None/2B.1/Covered | Chaparral, coastal scrub, valley and foothill grassland, vernal pools/ perennial stem succulent/May–June/5–1,475 | Not expected to occur. There are small patches of suitable coastal scrub present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Githopsis diffusa* ssp. *filicaulis* | Mission Canyon bluecup | None/None/3.1/None | Chaparral/annual herb/Apr–June/1,475–2,295 | Not expected to occur. The site is outside of the species' known elevation range, and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). This species was not detected during the focused plant survey in June 2022. |
| *Harpagonella palmeri* | Palmer's grapplinghook | None/None/4.2/None | Chaparral, coastal scrub, valley and foothill grassland; clay; open grassy areas within shrubland/annual herb/Mar–May/65–3,135 | Low potential to occur. There are small patches of suitable coastal scrub, clay soils, and disturbed non-native grasslands present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Hazardia orcuttii* | Orcutt's hazardia | None/ST/1B.1/ Covered | Chaparral (maritime), coastal scrub; often clay/ perennial evergreen shrub/Aug–Oct/260–280 | Not expected to occur. The site is outside of the species' known elevation range. There are small patches of suitable coastal scrub and clay soils present. However, this evergreen shrub was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Heterotheca sessiliflora* ssp. *sessiliflora* | beach goldenaster | None/None/1B.1/None | Chaparral (coastal), coastal dunes, coastal scrub/perennial herb/ Mar–Dec/0–4,020 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Holocarpha virgata* ssp. *elongata* | graceful tarplant | None/None/4.2/None | Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/annual herb/May–Nov/195–3,610 | Not expected to occur. There are small patches of suitable coastal scrub and disturbed non-native grasslands present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Hordeum intercedens* | vernal barley | None/None/3.2/None | Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools/annual herb/Mar–June/ 15–3,280 | Not expected to occur. There are small patches of suitable coastal scrub and disturbed non-native grassland present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Horkelia truncata* | Ramona horkelia | None/None/1B.3/None | Chaparral, cismontane woodland; clay, gabbroic/perennial herb/ May–June/1,310–4,265 | Not expected to occur. Clay soils are present; however, the site is outside the species' known elevation range, and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Isocoma menziesii* var. *decumbens* | decumbent goldenbush | None/None/1B.2/None | Chaparral, coastal scrub (sandy, often in disturbed areas)/ perennial shrub/Apr–Nov/30–445 | Not expected to occur. There are small patches of suitable coastal scrub and sandy soils present. However, this species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 2.8 miles east of the project site along the San Marcos Mountains (CDFW 2022). |
| *Iva hayesiana* | San Diego marsh-elder | None/None/2B.2/Covered | Marshes and swamps, playas/perennial herb/Apr–Oct/ 30–1,640 | Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 3.3 miles southwest of the project site within the Lake Calavera Preserve (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Juglans californica* | Southern California black walnut | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/ perennial deciduous tree/Mar–Aug/165–2,950 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Juncus acutus* ssp. *leopoldii* | southwestern spiny rush | None/None/4.2/None | Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)/perennial rhizomatous herb/ (Mar)May–June/5–2,955 | Not expected to occur. No suitable vegetation is present. The closest known occurrence is approximately 3.3 miles north of the project site within Lake Calavera Preserve (CCH 2022). This species was not detected during the focused plant survey in June 2022. |
| *Lasthenia glabrata* ssp. *coulteri* | Coulter's goldfields | None/None/1B.1/None | Marshes and swamps (coastal salt), playas, vernal pools/ annual herb/Feb–June/0–4,005 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Lepidium virginicum* var. *robinsonii* | Robinson's pepper-grass | None/None/4.3/None | Chaparral, coastal scrub/annual herb/Jan–July/0–2,905 | Not expected to occur. There are small suitable patches coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 3.1 miles northwest of the project site near San Luis Rey River Valley (CDFW 2020). |
| *Leptosyne maritima* | sea dahlia | None/None/2B.2/None | Coastal bluff scrub, coastal scrub/perennial herb/Mar–May/ 15–490 | Low potential to occur. There are small suitable patches of coastal scrub present, but the closest known CNDDB occurrence is approximately 3.8 miles southwest of the project site within Lake Calavera Preserve (CDFW 2022). Due to the isolation and size of the coastal scrub patches, it is unlikely this species would occur. |
| *Lycium californicum* | California box-thorn | None/None/4.2/None | Coastal bluff scrub, coastal scrub/perennial shrub/ (Dec)Mar, June, July, Aug/15–490 | Not expected to occur. There are small suitable patches of coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2020). |
| *Microseris douglasii* ssp. *platycarpha* | small-flowered microseris | None/None/4.2/None | Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/annual herb/Mar–May/45–3,510 | Low potential to occur. There are small suitable patches of coastal scrub, clay soils, and disturbed non-native grasslands present. However, the majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. In addition, there are no known occurrences within 5 miles of the project site (CCH 2020). |
| *Monardella hypoleuca* ssp. *lanata* | felt-leaved monardella | None/None/1B.2/None | Chaparral, cismontane woodland/perennial rhizomatous herb/ June–Aug/980–5,165 | Not expected to occur. The site is outside the species ' known elevation range, and there is no suitable vegetation present. This species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 3.2 miles east of the project site within San Marcos Mountains (CDFW 2022). |
| *Myosurus minimus* ssp. *apus* | little mousetail | None/None/3.1/None | Valley and foothill grassland, vernal pools (alkaline)/annual herb/ Mar–June/65–2,100 | Not expected to occur. Little mousetail occurs within vernal grasslands and vernal pools. The biological study area does not consist of quality habitat for little mousetail. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Nama stenocarpa* | mud nama | None/None/2B.2/None | Marshes and swamps (lake margins, riverbanks)/annual/ perennial herb/Jan–July/15–1,640 | Not expected to occur. No suitable vegetation is present. The closest known CNDDB occurrence is approximately 3 miles northwest of the project site near San Luis Rey River (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Navarretia fossalis* | spreading navarretia | FT/None/1B.1/None | Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/ 95–2,150 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Nemacaulis denudata* var. *denudata* | coast woolly-heads | None/None/1B.2/None | Coastal dunes/annual herb/Apr–Sep/0–330 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Nemacaulis denudate* var. *gracilis* | slender cottonheads | None/None/2B.2/None | Coastal dunes, desert dunes, Sonoran desert scrub/annual herb/ (Mar)Apr–May/160–1,310 | Low potential to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Nolina cismontana* | chaparral nolina | None/None/1B.2/None | Chaparral, coastal scrub; sandstone or gabbro/ perennial evergreen shrub/(Mar)May–July/455–4,185 | Not expected to occur. The site is outside the species ‘ known elevation range. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Ophioglossum californicum* | California adder’s-tongue | None/None/4.2/None | Chaparral, Valley and foothill grassland, Vernal pools/ perennial rhizomatous herb/Jan–June(Dec)/195–1,720 | Not expected to occur. No suitable vegetation is present. The majority of the site appears to have periodically experienced disturbance through mowing and/or disking for many years. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). This species was not detected during the focused plant survey in June 2022. |
| *Orcuttia californica* | California Orcutt grass | FE/SE/1B.1/None | Vernal pools/annual herb/Apr–Aug/45–2,165 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Orobanche parishii* ssp. *brachyloba* | short-lobed broomrape | None/None/4.2/None | Coastal bluff scrub, coastal dunes, coastal scrub; sandy/ perennial herb (parasitic)/Apr–Oct/5–1,000 | Not expected to occur. There are small suitable patches of coastal scrub and sandy soils present, but this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Pentachaeta aurea* ssp. *aurea* | golden-rayed pentachaeta | None/None/4.2/None | Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland/ annual herb/Mar–July/260–6,070 | Not expected to occur. There are small suitable patches of coastal scrub and disturbed non-native grasslands present, but this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Phacelia stellaris* | Brand’s star phacelia | None/None/1B.1/None | Coastal dunes, coastal scrub/annual herb/Mar–June/0–1,310 | Not expected to occur. There are small suitable patches of coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Pinus torreyana* ssp. *torreyana* | Torrey pine | None/None/1B.2/None | Closed-cone coniferous forest, chaparral; sandstone/ perennial evergreen tree/N.A./95–525 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). This perennial tree was not detected during the focused plant survey in June 2022. |
| *Pogogyne abramsii* | San Diego mesa mint | FE/SE/1B.1/None | Vernal pools/annual herb/Mar–July/295–655 | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Polygala cornuta* var. *fishiae* | Fish's milkwort | None/None/4.3/None | Chaparral, cismontane woodland, riparian woodland/ perennial deciduous shrub/May–Aug/325–3,280 | Not expected to occur. No suitable vegetation is present. There are no known occurrences within 5 miles of the project site (CCH 2022). This species was not detected during the focused plant survey in June 2022. |
| *Pseudognaphalium leucocephalum* | white rabbit-tobacco | None/None/2B.2/None | Chaparral, cismontane woodland, coastal scrub, riparian woodland; sandy, gravelly/perennial herb/ (July)Aug–Nov(Dec)/0–6,890 | Not expected to occur. There are small patches of suitable coastal scrub habitat and sandy soils present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Psilocarphus brevissimus* var. *multiflorus* | Delta woolly-marbles | None/None/4.2/None | Vernal pools/annual herb/May–June/30–1,640 | Not expected to occur. No suitable vegetation is present. There are no known occurrences within 5 miles of the project site (CCH 2022). This species was not detected during the focused plant survey in June 2022. |
| *Quercus dumosa* | Nuttall's scrub oak | None/None/1B.1/ Covered | Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/ 45–1,310 | Not expected to occur. There are small patches of suitable coastal scrub, sandy, and clay soils present, but this species was not detected during the focused plant survey in June 2022. Additionally, the closest known CNDDB occurrence is approximately 3.6 miles southwest of the project site within Lake Calavera Preserve (CDFW 2022). |
| *Quercus engelmannii* | Engelmann oak | None/None/4.2/None | Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/ 160–4,265 | Absent. Engelmann oak was not observed during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Salvia munzii* | Munz's sage | None/None/2B.2/None | Chaparral, Coastal scrub/perennial evergreen shrub/ Feb–Apr/375–3,495 | Not expected to occur. There are small patches of suitable coastal scrub and clay soils present, but this evergreen shrub was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Selaginella cinerascens* | ashy spike-moss | None/None/4.1/None | Chaparral, coastal scrub/perennial rhizomatous herb/N.A./ 65–2,100 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Senecio aphanactis* | chaparral ragwort | None/None/2B.2/None | Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/ annual herb/Jan–Apr(May)/45–2,625 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Sidalcea neomexicana* | salt spring checkerbloom | None/None/2B.2/None | Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas; alkaline, mesic/perennial herb/ Mar–June/45–5,020 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Sphaerocarpos drewiae* | bottle liverwort | None/None/1B.1/None | Chaparral, Coastal scrub/ephemeral liverwort/295–1,965 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Sphenopholis interrupta* ssp. *californica* | prairie false oat | None/None/1B.1/None | Chaparral; Clay/annual herb/Apr/50–50 | Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. One CNDDB occurrence overlaps with the project site; however, the location is unknown within the San Luis Rey U.S. Geological Survey Quadrangle (CDFW 2022). |
| *Stemodia durantifolia* | purple stemodia | None/None/2B.1/None | Sonoran desert scrub (often mesic, sandy)/perennial herb/ (Jan)Apr, June, Aug–Oct, Dec/590–985 | Not expected to occur. The site is outside the species' known elevation range, and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |

| Scientific Name | Common Name | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Stipa diegoensis* | San Diego County needle grass | None/None/4.2/None | Chaparral, coastal scrub; rocky, often mesic/perennial herb/ Feb–June/30–2,625 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |
| *Suaeda esteroa* | estuary seablite | None/None/1B.2/None | Marshes and swamps (coastal salt)/perennial herb/ (May)July–Oct(Jan)/0–15 | Not expected to occur. The site is outside the species ‘ known elevation range, and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). This species was not detected during the focused plant survey in June 2022. |
| *Suaeda taxifolia* | woolly seablite | None/None/4.2 | Coastal bluff scrub, Coastal dunes, Marshes and swamps/ perennial evergreen shrub/Jan–Dec/0–165 | Not expected to occur. The site is outside of the species ‘ known elevation range and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). This evergreen shrub was not detected during the focused plant survey in June 2022. |
| *Tetracoccus dioicus* | Parry’s tetracoccus | None/None/1B.2/None | Chaparral, coastal scrub/perennial deciduous shrub/ Apr–May/540–3,280 | Low potential to occur. There are small patches of suitable coastal scrub present. The closest known CNDDB occurrence is approximately 2.8 miles east of the project site along the San Marcos Mountains (CDFW 2022). Due to the isolation and size of the coastal scrub patches, it is unlikely this species would occur. |
| *Viguiera laciniata (= Bahiopsis laciniata)* | San Diego County viguiera | None/None/4.3/None | Chaparral, coastal scrub/perennial shrub/Feb–June(Aug)/ 195–2,460 | Not expected to occur. There are small patches of suitable coastal scrub present. However, this species was not detected during the focused plant survey in June 2022. Additionally, there are no known occurrences within 5 miles of the project site (CCH 2022). |

**Status Legend**
**Federal**
FE: Federally listed as endangered
FT: Federally listed as threatened
**State**
SE: State listed as endangered
ST: State listed as threatened
CRPR: California Rare Plant Rank
1B: Plants rare, threatened, or endangered in California and elsewhere
2B: Plants 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
**Threat Rank**
0.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2: Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
0.3: Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)
**Oceanside Subarea Plan**
Covered: Species covered under the Subarea Plan
**Notes:** CRPR = California Rare Plant Rank; amsl = above mean sea level; CNDDB: California Natural Diversity Database; N.A. = not applicable.
**References**
CCH (California Consortium of Herbaria). 2022. Data provided by the participants of the Consortium of California Herbaria. Accessed July 2022. https://ucjeps.berkeley.edu/consortium/about.html.

CDFW (California Department of Fish and Wildlife). 2022. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento: CDFW, Biogeographic Data Branch. Accessed July 2022. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

USFWS (U.S. Fish and Wildlife Service). ‘2022. “Critical Habitat and Occurrence Data” [map]. USFWS Geospatial Services. Accessed July 2022. https://www.fws.gov/data.

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# Appendix D

Special-Status Wildlife Species Potentially Occurring within the Biological Study Area

| Scientific Name | Common Name | Status (Federal/State/ Oceanside Subarea Plan) | Habitat | Potential to Occur |
|---|---|---|---|---|
| **Reptiles** | | | | |
| *Aspidoscelis hyperythra* | orange-throated whiptail | None/WL/Covered | Low-elevation coastal scrub, chaparral, and valley–foothill hardwood. | **Moderate** potential to occur. The project site supports small patches of isolated coastal scrub habitat and sandy soils. Although the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years, if present in Guajome Regional Park, it would be possible for this species to access the site through narrow edges of habitat along developed areas. Additionally, the closest known California Natural Diversity Database (CNDDB) occurrences are located approximately 2 miles north of the project site along the San Luis Rey River where it was documented in 1989 (CDFW 2022). It was also documented approximately 2.8 miles east of the project site in 1999 along the San Marcos Mountains (CDFW 2022). |
| *Aspidoscelis tigris stejnegeri* | San Diegan tiger whiptail | None/SSC/None | Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas. | **Moderate** potential to occur. The site supports small patches of isolated coastal scrub habitat and sandy soils. Although the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years, if present in Guajome Regional Park, it would be possible for this species to access the site through narrow edges of habitat along developed areas. Additionally, the closest known CNDDB occurrences are located approximately 2.3 miles north of the project site along the San Luis Rey River with an unknown collection date (CDFW 2022). It was also documented approximately 4 miles northeast of the project site in 1999 along Gopher Canyon (CDFW 2022). |

| Scientific Name | Common Name | Status (Federal/State/ Oceanside Subarea Plan) | Habitat | Potential to Occur |
|---|---|---|---|---|
| **Birds** | | | | |
| *Aimophila ruficeps canescens* | southern California rufous-crowned sparrow | None/WL/Covered | Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches. | **Moderate** potential to forage and low potential to nest. The site supports small patches of isolated coastal scrub, and disturbed non-native grasslands may provide some areas for foraging (seeds, forbs, grasses). The closest known CNDDB occurrence is approximately 2.7 miles east of the project site along the San Marcos Mountains (CDFW 2022). The small isolated patches of coastal scrub are unlikely to support nesting. |
| *Artemisiospiza belli belli* | Bell's sage sparrow | None/WL/Covered | Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter. | **Moderate** potential to forage and low potential to nest. The site supports small patches of isolated coastal scrub, and disturbed non-native grasslands may provide some areas for foraging (seeds, forbs, grasses). However, there are no known occurrences within 5 miles of the project site (CDFW 2022). Their distribution in north San Diego County is more inland (Unitt 2004). |
| *Eremophila alpestris actia* | California horned lark | None/WL/None | This subspecies of horned lark occurs on the state's southern and central coastal slope and in the San Joaquin Valley. Nests and forages in grasslands, disturbed lands, agriculture, and beaches. | **Moderate** potential to nest and forage. The site supports disturbed non-native grasslands and sparse/barren ground that may be suitable for nesting and foraging (seeds, forbs). The closest known CNDDB occurrence is approximately 5 miles south of the project site, north of Agua Hedionda Creek in 1999 (CDFW 2022). |

**Status Legend**
**State**
SSC: California species of special concern
WL: California Department of Fish and Wildlife watch list species
**Oceanside Subarea Plan**
Covered: Species covered under the Subarea Plan

**References**

CDFW (California Department of Fish and Wildlife). 2022. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento: CDFW, Biogeographic Data Branch. Accessed July 2022. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

Unitt, P. 2004. *San Diego County Bird Atlas.* Online (Google Earth) version. Proceedings of the San Diego Society of Natural History, no. 39. San Diego, California: San Diego Natural History Museum.

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# Appendix E

Special-Status Wildlife Species with Low Potential and Not Expected to Occur within the Biological Study Area

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| **Amphibians** | | | | |
| *Anaxyrus californicus* | arroyo toad | FE/SSC/Covered | Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral, and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering. | Not expected to occur. The project site lacks suitable vegetation, and aquatic and associated upland habitats required by this species. The closest known California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service (USFWS) occurrence is 2.5 miles north of the project site along the San Luis Rey River (CDFW 2022; USFWS 2022). |
| *Spea hammondii* | western spadefoot | None/SSC/Covered | Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture. | Not expected to occur. The project site lacks suitable vegetation, and aquatic and associated upland habitats required by this species. The closest known CNDDB and USFWS occurrence is 1.3 miles north of the project site along the San Luis Rey River (CDFW 2022; USFWS 2022). |
| **Reptiles** | | | | |
| *Actinemys pallida* | southwestern pond turtle | None/None/Covered | Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter. | Not expected to occur. The project site lacks suitable vegetation, aquatic and associated upland habitats required by this species. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Anniella stebbinsi* | Southern California legless lizard | None/SSC | Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils. | Low potential to occur. Although the site supports small patches of isolated coastal scrub habitat and sandy soils, the soils on site are compacted through apparently many years of disturbance (possible disking and mowing). The compacted soils on site would not provide suitable burrowing substrates for this species. In addition, the urban environment would not provide adequate access to the site from regional open space areas. The closest known CNDDB occurrence is approximately 4.6 miles northwest of the project site along the San Luis Rey River (CDFW 2022). |
| *Arizona elegans occidentalis* | California glossy snake | None/SSC/None | Commonly occurs in desert regions throughout Southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas. | Low potential to occur. Although the site supports small patches of isolated coastal scrub habitat and sandy soils, the soils on site are compacted through apparently many years of disturbance (possible disking and mowing). The compacted soils on site would not provide suitable burrowing substrates for this species. In addition, the urban environment would not provide adequate access to the site from regional open space areas. The closest known CNDDB occurrence is approximately 1.3 miles east of the project site where a specimen was collected in 1967 (CDFW 2022). Based on level of urbanization, it likely no longer exists. Additionally, the occurrence is mapped to a general location to 6 miles southeast of Bonsall (CDFW 2022). |
| *Crotalus ruber* | red diamond rattlesnake | None/SSC/None | Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats. | Low potential to occur. The project site lacks suitable vegetation and habitat conditions for this species. In addition, the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Phrynosoma blainvillii* | Blainville's horned lizard | None/SSC/None | Open areas of sandy soil in valleys, foothills, and semi-arid mountains, including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats. | Low potential to occur. Although the site supports small patches of isolated coastal scrub habitat and sandy soils, the urban environment would not provide adequate access to the site from regional open space areas. Additionally, the closest known CNDDB occurrences are approximately 0.8 miles southeast of the project site where it was documented in 1931 (CDFW 2022). Based on level of urbanization, it likely no longer exists. Additionally, the occurrence is mapped to a general location in the vicinity of Vista (CDFW 2022). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Plestiodon skiltonianus interparietalis* | Coronado skink | None/WL/None | Woodlands, grasslands, pine forests, and chaparral; rocky areas near water. | Not expected to occur. The site lacks aquatic or dense vegetated areas preferred by this species. In addition, the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years. There are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Salvadora hexalepis virgultea* | coast patch-nosed snake | None/SSC/None | Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites. | Low potential to occur. Although there are small patches of isolated coastal scrub, the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years, so the site is unlikely to support a regular supply of small mammal burrows for this species. There are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Thamnophis hammondii* | two-striped gartersnake | None/SSC/None | Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools. | Not expected to occur. The project site lacks suitable vegetation, and aquatic and associated habitats required by this species. There are no known occurrences within 5 miles of the project site (CDFW 2022). |
| **Birds** | | | | |
| *Accipiter cooperii* (nesting) | Cooper's hawk | None/WL/Covered | Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water. | Low potential to nest. Suitable nesting trees or substrates are generally lacking. There is potential for the species to forage on site. The closest known CNDDB occurrence is approximately 1.8 miles north of the project site along the San Luis Rey River in 2003 (CDFW 2022). |
| *Agelaius tricolor* (nesting colony) | tricolored blackbird | BCC/SSC, ST/None | Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry (Rubus armeniacus); forages in grasslands, woodland, and agriculture. | Not expected to nest. No suitable nesting vegetation is present. The closest known CNDDB occurrences are approximately 2.0 and 3.6 miles northwest of the project site along the San Luis Rey River in the vicinity of Whelan Lake where the species was documented in 1932 and 1936, respectively (CDFW 2022). |
| *Aquila chrysaetos* (nesting and wintering) | golden eagle | None/FP, WL/Covered | Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats. | Not expected to occur. No suitable vegetation or habitat is present. The project site is too small and urbanized for this species. There are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Athene cunicularia* (burrow sites and some wintering sites) | burrowing owl | BCC/SSC/None | Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows. | Not expected to occur. Although the site supports non-native grasslands, no suitable burrows or ground squirrels were documented during the June 2022 survey. No evidence of burrowing owls was detected on site. In addition, the closest known occurrence is approximately 140 feet north of the site in 1898 (SanBIOS 2022). There are no other occurrences within 5 miles of the project site (CDFW 2022). |
| *Buteo swainsoni* (nesting) | Swainson's hawk | None/ST/None | Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture. | Not expected to occur. No suitable nesting vegetation is present. The closest known CNDDB occurrence is approximately 2.9 miles northwest of the project site along the San Luis Rey River in 1902 (CDFW 2022). |
| *Campylorhynchus brunneicapillus sandiegensis* (San Diego and Orange Counties only) | coastal cactus wren | None/SSC/Covered | Southern cactus scrub patches. | Not expected to occur. No cactus or succulent plant species occur in enough cover to form cactus scrub communities on site. The closest known CNDDB occurrence is approximately 4.9 miles northwest of the project site within Marine Corps Base Camp Pendleton (CDFW 2022). |
| *Charadrius nivosus nivosus* (nesting) | western snowy plover | FT, BCC/SSC/Covered | On coasts, nests on sandy marine and estuarine shores; in the interior, nests on sandy, barren, or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds. | Not expected to occur. No suitable habitat is present. There are no known occurrences within 5 miles of the project site, with the closest record within Buena Vista Lagoon (CDFW 2022; USFWS 2022). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Circus hudsonius* (nesting) | northern harrier | BCC/SSC/None | Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats. | Not expected to nest on site due to the proximity to urban areas. In addition, the open non-native grassland areas appear to have periodically experienced disturbance through mowing and/or disking for many years and the site lacks the undisturbed dense and tall vegetation that is often used for nesting. There is potential for the species to forage on site. There are no known occurrences within 5 miles of the project site, with the closest record within Buena Vista Lagoon (CDFW 2022). |
| *Coccyzus americanus occidentalis* (nesting) | western yellow-billed cuckoo | FT/SE/None | Nests in dense, wide riparian woodlands and forest with well-developed understories. | Not expected to occur. Although the closest known occurrence is approximately 0.4 miles north of the project site within Guajome Regional Park (CDFW 2022; USFWS 2022), no suitable riparian or woodland vegetation is present on site. |
| *Elanus leucurus* (nesting) | white-tailed kite | None/FP/None | Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands. | Not expected to occur. Although the closest known CNDDB occurrence is approximately 0.1 miles north of the project site near Guajome Regional Park in 2005 (CDFW 2022), the site lacks suitable nesting vegetation and trees. There is potential for the species to forage on site. |
| *Empidonax traillii extimus* (nesting) | southwestern willow flycatcher | FE/SE/Covered | Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration. | Not expected to occur. No suitable riparian or woodland vegetation is present. The closest known CNDDB occurrence is approximately 1.9 miles north of the project site along Old River Club, east of Guajome Lake (CDFW 2022; USFWS 2022). |
| *Falco peregrinus anatum* (nesting) | American peregrine falcon | FPD/FP, SCD/Covered | Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present. | Not expected to nest on site due to lack of suitable nesting habitat. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Icteria virens* (nesting) | yellow-breasted chat | None/SSC/Covered | Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush. | Not expected to occur. No suitable riparian or woodland vegetation is present. The closest known CNDDB occurrence is approximately 1.9 miles north of the project site along Old River Club, east of Guajome Lake (CDFW 2022). |
| *Ixobrychus exilis* (nesting) | least bittern | None/SSC/None | Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation. | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Laterallus jamaicensis coturniculus* | California black rail | None/FP, ST/None | Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations. | Not expected to occur. No suitable vegetation is present. The closest known CNDDB occurrence is approximately 0.4 miles south of the project site (CDFW 2022). However, this specimen was documented in 1938 with an unknown location in the vicinity of Vista (CDFW 2022). In addition, this species was last observed in San Diego County in 1983 (Unitt 2012). |
| *Pandion haliaetus* (nesting) | osprey | None/WL/Covered | Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast. | Not expected to nest on site due to lack of suitable nesting habitat. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Passerculus sandwichensis beldingi* | Belding's savannah sparrow | BCC/SE/Covered | Nests and forages in coastal saltmarsh dominated by pickleweed (*Salicornia* spp.). | Not expected to occur. No suitable coastal saltmarsh vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Passerculus sandwichensis rostratus* (wintering) | large-billed savannah sparrow | None/SSC/Covered | Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub. | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Pelecanus occidentalis californicus* (nesting colonies and communal roosts) | California brown pelican | FPD/FP, SCD/Covered | Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands. | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Plegadis chihi* (nesting colony) | white-faced ibis | None/WL/Covered | Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries. | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). |
| *Polioptila californica californica* | coastal California gnatcatcher | FT/SSC/Covered | Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally, avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level. | Low potential to occur. This species was not present during the June 2022 site visit by Erin Bergman, who holds a 10(a)(1)(A) permit to survey for coastal California gnatcatcher. Although the closest CNDDB occurrence is approximately 420 feet north of the project site (CDFW 2022; USFWS 2022), the site only supports small patches of isolated coastal scrub, which are disconnected from other known habitat areas and populations. These small and isolated patches are unlikely to support a pair. In addition, the site is surrounded by development, and open non-native grassland areas appear to have periodically experienced disturbance through mowing and/or disking for many years. |
| *Rallus obsoletus levipes* | Ridgway's rail | FE/SE, FP/Covered | Coastal wetlands, brackish areas, coastal saline emergent wetlands. | Not expected to occur. No suitable vegetation is present. The closest known occurrence is a CNDDB record approximately 1.9 miles northwest of the project site within Guajome Lake Marsh in 1984 (CDFW 2022; USFWS 2022). |
| *Riparia riparia* (nesting) | bank swallow | None/ST/None | Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration. | Not expected to nest on site due to lack of suitable nesting habitat. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). |
| *Setophaga petechia* (nesting) | yellow warbler | None/SSC/None | Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats. | Not expected to occur. No suitable riparian or woodland vegetation is present. The closest known CNDDB occurrence is approximately 1.9 miles north of the project site along Old River Club, east of Guajome Lake (CDFW 2022). |
| *Sternula antillarum browni* (nesting colony) | California least tern | FE/FP, SE/Covered | Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats. | Not expected to occur. No suitable vegetation is present. The closest known occurrence is a CNDDB record approximately 1.8 miles north of the project site within Guajome Lake (CDFW 2022; USFWS 2022). |
| *Thalasseus elegans* (nesting colony) | elegant tern | BCC/WL/Covered | Inshore coastal waters, bays, estuaries, and harbors; forages over open water. | Not expected to occur. No suitable vegetation is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Vireo bellii pusillus* (nesting) | least Bell's vireo | FE/SE/Covered | Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season. | Not expected to occur. Although the closest known CNDDB occurrence is approximately 415 feet north of the project site within Guajome Regional Park (CDFW 2022; USFWS 2022), the site lacks suitable riparian or woodland vegetation to support this species. |
| **Fishes** | | | | |
| *Eucyclogobius newberryi* | tidewater goby | FE/None/None | Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River. | Not expected to occur. No suitable aquatic habitat is present. The closest known occurrence is a CNDDB record approximately 4.9 miles northwest of the project site along the San Luis Rey River (CDFW 2022; USFWS 2022). |
| *Gila orcuttii* | arroyo chub | None/SSC/None | Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud. | Not expected to occur. The site is outside the species' known geographic range, and there is no suitable vegetation present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| **Mammals** | | | | |
| *Antrozous pallidus* | pallid bat | None/SSC/None | Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in human-built structures and trees. | Not expected to occur. No suitable roosting habitat is present on site. The closest known CNDDB occurrence is approximately 3.4 miles northwest of the project site along the San Luis Rey River (CDFW 2022). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Chaetodipus californicus femoralis* | Dulzura pocket mouse | None/SSC/None | Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level. | Not expected to occur. Although the site contains small, isolated areas of coastal scrub and open non-native grassland habitat that would typically provide suitable habitat, the site is surrounded by development, and open grassland areas appear to have periodically experienced disturbance through mowing and/or disking for many years, so the site is unlikely to support this species. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Chaetodipus fallax fallax* | northwestern San Diego pocket mouse | None/SSC/Covered | Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland. | Not expected to occur. Although the site contains small, isolated areas of coastal scrub and open non-native grassland habitat that would typically provide suitable habitat, the site is surrounded by development, and open grassland areas appear to have periodically experienced disturbance through mowing and/or disking for many years, so the site is unlikely to support this species. The closest known CNDDB occurrence is approximately 4.4 miles southwest of the project site along Eternal Hills Memorial Park (CDFW 2022). |
| *Choeronycteris mexicana* | Mexican long-tongued bat | None/SSC/None | Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings. | Not expected to occur. No suitable roosting habitat is present on site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Corynorhinus townsendii* | Townsend's big-eared bat | None/SSC/None | Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, human-made structures, and tunnels. | Not expected to roost on site due to lack of habitat. This species is presumed absent from coastal San Diego (Tremor et al. 2017). Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Dasypterus xanthinus (=Lasiurus xanthinus)* | western yellow bat | None/SSC/None | Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms. | Low potential to occur. This species primarily roosts in fan palms (Tremor et al. 2017), of which only one was present on site and unlikely to support this species. Additionally, the closest known CNDDB occurrence is approximately 0.9 miles southeast of the project site at an unknown location in the vicinity of Vista in 1998 (CDFW 2022). |
| *Dipodomys stephensi* (including D. cascus) | Stephens' kangaroo rat | FE/ST/Covered | Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas. | Not expected to occur. The site is surrounded by development and the flat open portion of the site, which could provide the most suitable area for the species, appears to have been periodically disturbed for many years, including likely disking and mowing that would have extirpated any populations on the site. In addition, the coastal sage scrub present is situated in small, isolated patches along a major roadway. Additionally, most of the records in Oceanside are from along the San Luis Rey River, well southwest of the site. Stephens' kangaroo rat in the region is now limited to Marine Corps Base Camp Pendleton and some areas of Fallbrook associated with the Naval Weapons Station adjacent to Camp Pendleton (Tremor et al. 2017). The project site is completely isolated from known populations of the species on Camp Pendleton, so there are no opportunities for immigration to the site, even if suitable habitat were present. The closest known occurrence is a CNDDB record 1.6 miles northwest of the project site, southeast of Mission San Luis Rey (CDFW 2022; USFWS 2022). |
| *Eumops perotis californicus* | western mastiff bat | None/SSC/None | Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels. | Low potential to roost on site due to lack of habitat. Tremor et al. (2017) describes the species as rarely roosting in palm trees, of which only one was present on site and unlikely to support this species. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Leptonycteris yerbabuenae* | lesser long-nosed bat | FPD/SSC/None | Sonoran desert scrub, semi-desert grasslands, lower oak woodlands. | Not expected to occur on site. The single occurrence of this species in San Diego County is from Oceanside in 1996; it likely occurs only as a rare visitor to the area (Tremor et al. 2017). Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Lepus californicus bennettii* | San Diego black-tailed jackrabbit | None/None/Covered | Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands. | Not expected to occur due to the urbanized environment. This conspicuous species was not observed during the June 2022 survey. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Neotoma lepida intermedia* | San Diego desert woodrat | None/SSC/None | Coastal scrub, desert scrub, chaparral, cacti, rocky areas. | Not expected to occur due to the urbanized environment and lack of suitable vegetated areas. The middens of this species were not observed during the June 2022 survey. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Nyctinomops femorosaccus* | pocketed free-tailed bat | None/SSC/None | Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings. | Not expected to occur due to lack of roosting habitat. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Perognathus longimembris pacificus* | Pacific pocket mouse | FE/SSC/None | Fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium. | Not expected to occur. The site is outside of the species' known extant geographic range, and there is no suitable vegetation present. The site is surrounded by development, and the flat, open portion of the site that could provide the most suitable area for the species appears to have been periodically disturbed for many years, including likely disking and mowing, which would have extirpated any populations on the site. In addition, the coastal sage scrub present is situated in small, isolated patches along a major roadway. There appears to be only one historical confirmed record for Pacific pocket mouse in Oceanside near the mouth of the San Luis Rey River, and the only two known extant populations in San Diego County are on Marine Corps Base Camp Pendleton, well north of the project site (Tremor et al. 2017). The project site is completely isolated from known populations of the species on Camp Pendleton, so there are no opportunities for immigration to the site, even if suitable habitat were present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| *Taxidea taxus* | American badger | None/SSC/None | Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils. | Low potential to occur due to high levels of human activity in the area. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |
| **Invertebrates** | | | | |
| *Branchinecta lynchi* | vernal pool fairy shrimp | FT/None/None | Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats. | Not expected to occur. Although the site supports clay soils, the project site is outside the known distribution range for this species. As such, the nearest occurrence for this species is in the vicinity of Murrieta (CDFW 2022; USFWS 2022). |
| *Branchinecta sandiegonensis* | San Diego fairy shrimp | FE/None/None | Vernal pools, non-vegetated ephemeral pools. | Low potential to occur. Although the site supports clay soils (along the northwest and eastern edges of the site), the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years, so the site is unlikely to support this species. The closest records for fairy shrimp species is approximately 5 miles northwest of the project site on Marine Corps Base Camp Pendleton (CDFW 2022; USFWS 2022). |

| Scientific Name | Common Name | Status (Federal/State) | Habitat | Potential to Occur |
|---|---|---|---|---|
| *Danaus plexippus* | Monarch butterfly | FC/None/None | Wind-protected tree groves with nectar sources and nearby water sources | Not expected to occur. The site lacks wind-protected trees or groves that would be suitable as transitory or overwintering habitat for this species. Additionally, there are no known occurrences or overwintering sites within 5 miles of the project site (CDFW 2022; Xerces 2022). |
| *Euphydryas editha quino* | Quino checkerspot butterfly | FE/SCE/Covered | Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta, Antirrhinum coulterianum*, and *Plantago patagonica* (Silverado Occurrence Complex). | Low potential to occur. No host plants were observed during the rare plant survey. The site is outside critical habitat. The closest known USFWS occurrence overlaps with the project site; however, this occurrence is dated 1951 and with an unknown location in the vicinity of Vista (USFWS 2022). |
| *Streptocephalus woottoni* | Riverside fairy shrimp | FE/None/Covered | Vernal pools, non-vegetated ephemeral pools. | Low potential to occur. Although the site supports clay soils (along the northwest and eastern edges of the site), the majority of the site is surrounded by development and appears to have periodically experienced disturbance through mowing and/or disking for many years, so the site is unlikely to support this species. The closest records for fairy shrimp species is approximately 5 miles northwest of the project site on Marine Corps Base Camp Pendleton (CDFW 2022; USFWS 2022). |
| *Panoquina errans* | wandering skipper | None/None/Covered | Saltmarsh. | Not expected to occur. No suitable saltmarsh habitat is present. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2022). |

**Status Legend**
**Federal**
BCC: U.S. Fish and Wildlife Service Birds of Conservation Concern
FC: Federal candidate species (former Category 1 candidates)
FPD: Federally proposed for delisting
FE: Federally listed as endangered
FT: Federally listed as threatened
**State**
FP: California Department of Fish and Wildlife fully protected species
SCD: State candidate for delisting
SCE: State candidate for listing as endangered
SE: State listed as endangered
ST: State listed as threatened
SSC: California species of special concern
WL: California Department of Fish and Wildlife watch list species
**Oceanside Subarea Plan**
Covered: Species covered under the Subarea Plan

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