Appendix C
Biological Technical Report

DRAFT

Biological Technical Report

Olive Park Apartments Project

OCTOBER 2024 – REVISED JANUARY 2025

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Table of Contents

SECTION **PAGE NO.**

TABLES

FIGURES

APPENDICES

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BAGEPA	Bald and Golden Eagle Protection Act
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
City	City of Oceanside
CNDDB	California Natural Diversity Database
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
FESA	federal Endangered Species Act
FR	Federal Register
MBTA	Migratory Bird Treaty Act
MHCP	Multiple Habitat Conservation Program
MM	Mitigation Measure
MSCP	Multiple Species Conservation Program
NCTD	North County Transit District
OHWM	ordinary high-water mark
PDF	Project Design Feature
project	Olive Park Apartments Project
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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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 Olive Park Apartments Project (project). The biological study area refers to the approximately 43.50-acre Parcel Area and 1.86 acres of off-site areas analyzed in this report, which is in Oceanside, San Diego County, California. The Oceanside Subarea Plan is used as a guidance document for development projects in Oceanside (City of Oceanside 2010), but has yet to be approved by the Oceanside ~~Planning Commission~~City Council.

Dudek conducted vegetation mapping in 2022 with updates in 2023 and 2024, a jurisdictional delineation in 2024, and focused coastal California gnatcatcher (*Polioptila californica californica*) surveys in 2023 into 2024; focused surveys for least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) and rare plant surveys were completed in 2024. This report documents the results of Dudek's fieldwork and provides an analysis of the biological impacts related to the proposed project.

Dudek mapped seven vegetation communities and two land covers within the biological study area: Diegan coastal sage scrub (including disturbed form), southern mixed chaparral (including disturbed form), non-native grassland, freshwater marsh, non-vegetated channel, southern willow scrub (disturbed form), eucalyptus woodland, disturbed habitat, and urban/developed.

No coastal California gnatcatcher, least Bell's vireo, or southwestern willow flycatcher were detected in the biological study area and focused survey results were negative for those species. Three special-status species were detected in or adjacent to the Parcel Area or off-site areas: Cooper's hawk (*Accipiter cooperii*), yellow warbler (*Setophaga petechia*), and monarch (*Danaus plexippus plexippus*). Six additional species, Southern California legless lizard (*Anniella stebbinsi*), red diamondback rattlesnake (*Crotalus ruber*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), south coast garter snake (*Thamnophis sirtalis* ssp.), and Crotch's bumble bee (*Bombus crotchii*) have a moderate potential to occur. Two plant species were mapped in the Parcel Area during focused rare plant surveys: San Diego marsh-elder (*Iva hayesiana*) and ashy spike-moss (*Selaginella cinerascens*).

The proposed project would result in 10.87 acres of on-site permanent impacts associated with grading and development (On-Site Impact Area), and an additional 0.88 acres of permanent, off-site impacts from utility and access connections within and adjacent to Olive Drive extending to the Parcel Area, pedestrian connection to the NCTD College Boulevard Station, and construction of an emergency-only ingress/egress route proposed south of the NCTD rail line with an exit/entry at College Boulevard (Off-Site Impact Area). The project does not propose any impacts to Loma Alta Creek or the surrounding 100-foot wetland buffer.

The project would result in the permanent loss of Diegan coastal sage scrub (1.26 acres), disturbed southern mixed chaparral (2.45 acres), and non-native grassland (4.33 acres). Additionally, there would be permanent direct impacts to two jurisdictional isolated swale/erosional features, totaling 0.007 acres/286 linear feet and 0.003 acres/114 linear feet.

Mitigation to reduce these impacts to a less-than-significant level includes an open space easement designation and management of conserved native habitat; pre-construction nesting bird surveys; biological monitoring during clearing, grubbing, and grading; best management practices; compliance with the General Order for Waste Discharge Requirements; compensatory mitigation for impacts to potential aquatic (erosional) features; directional fencing and signage to prevent intrusion into biological habitat; limitations on construction activities; prohibition of

invasive species in planting palettes and review of planting stock for invasive species; a resident education program; and pre-construction surveys for Crotch's bumble bee.

1 Introduction

1.1 Purpose of the Report

This biological technical report summarizes the methods and results of biological studies conducted on the proposed Olive Park Apartments Project (project) site (referred to as the "Parcel Area") and off-site areas, collectively referred to as the biological study area (study area). This report describes the existing conditions of the biological resources in the biological study area, including vegetation communities and land covers, jurisdictional resources, plants, wildlife, 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 impact levels.

1.2 Location and Project Description Overview

The project proposes development of the mostly previously disturbed, approximately 10.87-acre northeastern portion of a vacant parcel (Assessor's Parcel Number 162-111-04) comprising approximately total 43.50 acres, and the approximately 0.88 acres for off-site improvements. The Parcel Area is in the Mira Costa Neighborhood Area of Oceanside, California (Figure 1, Project Location). The Parcel Area is generally south of Oceanside Boulevard and west of College Boulevard; more specifically, it is west of the terminus of Olive Drive and south of the North County Transit District (NCTD) rail line and the College Boulevard Sprinter Station. The Parcel Area is approximately 1.5 miles north of State Route 78, near the southeastern boundary of the City of Oceanside, and is adjacent to the City of Vista (Figure 1). The study area is in Township 11S, Range 4W, Section 22 of the U.S. Geological Survey (USGS) 7.5-minute San Luis Rey, California, topographic quadrangle.

Uses in the vicinity of the Parcel Area primarily include residential development, open space, and commercial/industrial uses. The biological study area abuts existing residential developments to the east and south, commercial/industrial uses to the north, and undeveloped land to the west. Areas surrounding the study area are zoned commercial (north and west of the Parcel Area) and residential (south and east of the Parcel Area) (City of Oceanside 2024). The NCTD rail line and College Boulevard Sprinter Station are 50 feet north of the Parcel Area.

The City of Oceanside General Plan designates the Parcel Area Medium Density Residential (MDA-R) with a maximum density of 9.9 dwelling units per acre (City of Oceanside 2002). The Parcel Area is zoned RS-Single Family Residential with a maximum density of 5.9 dwelling units per acre (City of Oceanside 2024).

The project proposes to develop a maximum of 260 multi-family residential units under Option A or 282 dwelling units under Option B with a different unit mix. The total area to be disturbed by the project includes the On-Site and Off-Site Impact Areas for both of those options. All the dwelling units would be affordable to low-, very-low, and extremely low-income households with one- to three-bedroom/two-bath units. Access to the site would be provided via Olive Drive at the eastern side of the study area. An emergency access only entry/exit to the project would be provided adjacent to the NCTD rail line. The project would comply with the minimum parking standards for a 100% affordable project. The project would voluntarily provide ~~335~~346 parking spaces regardless of which option is chosen.

Off-site improvements would consist of utility and access connections within and adjacent to Olive Drive extending to the Parcel Area, pedestrian connection to the NCTD College Boulevard Station, and the emergency-only ingress/egress route proposed south of the NCTD rail line with an exit/entry at College Boulevard. Total acreage for the Off-Site Impact Area would be 0.88 acres.

The project would include two separate residential buildings that may be developed in one or two phases. The project would also include an all-weather-accessible pedestrian/bicycle connection for the project and neighboring residents to the adjacent NCTD College Boulevard Station.

Approximately 32.63 acres of natural open space would be conserved to the south and west of the 10.87-acre portion of the parcel that would be disturbed by the project. The 32.63 acres would be placed in a conservation easement as part of the proposed project.

The proposed drainage facilities include curb inlets, storm drains, and flow control and detention facilities. Conveyance of stormwater through the study area would require a dual storm drain system consisting of two volume-based biofiltration basins with two underground storage facilities to address water quality, hydromodification, peak flow attenuation, and water quality requirements. Stormwater would then outlet into an existing drainage south of the railroad tracks then move westward to Loma Alta Creek's existing natural channel. A single biofiltration basin is also proposed at the emergency access road to address water quality requirements for flows in that location, which cannot be routed to one of the storage facilities. Flows from that portion of the emergency access road would be directed toward College Boulevard, mingling with existing street flows before entering the rail line. Here, flows would travel westerly to merge with the treated and mitigated flows from the study area, then westerly to Loma Alta Creek. All proposed drainage facilities would comply with County of San Diego and City of Oceanside (City) standards.

The project has been designed to avoid and minimize impacts to waters of the state to the maximum extent practicable. Two potential non-federal wetlands/waters of the state aquatic features within the Parcel Area would be filled by the project, with a total area of disturbance of 0.01 acres, 400 linear feet, and approximately 14 cubic yards. The applicant will obtain authorization from the San Diego Regional Water Quality Control Board (RWQCB) under the Porter–Cologne Water Quality Control Act in accordance with General Order for Waste Discharge Requirements. The General Order requires a minimum of one-to-one mitigation ratio, measured as area or length, to compensate for wetland and/or stream losses.

The applicant's proposal to address potential impacts to these aquatic features has been incorporated into the project, as outlined in Project Design Feature (PDF) BIO-2 provided in Section 1.2.2, Project Design Features.

1.2.1 Project Terms

Parcel Area. The Parcel Area is the area inside the property boundary, which consists of Assessor's Parcel Number 162-111-04 and covers approximately 43.50 acres. The Parcel Area includes an approximately 10.87-acre area (On-Site Impact Area) proposed to be impacted to develop a maximum of 260 multi-family residential units under Option A or 282 dwelling units under Option B with a different unit mix. The remaining 32.63 acres of the Parcel Area would be placed in a conservation easement.

Proposed project. The proposed project or project refers to the Olive Park Apartments Project apartment buildings, amenities, and associated off-site improvements.

On-Site Impact Area. The On-Site Impact Area refers to the 10.87 acres of on-site permanent impacts associated with grading and development in the Parcel Area.

Off-Site Impact Area. The Off-Site Impact Area refers to the area where off-site improvements will occur, consisting of utility and access connections within and adjacent to Olive Drive extending to the Parcel Area, a pedestrian connection to the NCTD College Boulevard Station, and the emergency-only ingress/egress route proposed south of the NCTD rail line with an exit/entry at College Blvd north of the residences along the north side of Olive Drive. The total area of the Off-Site Impact Area is equal to 0.88 acres. The off-site portion of the biological study area (off-site areas) primarily includes the off-site impact area, in addition to land immediately adjacent to the northern off-site impact area.

Biological study area (study area). The study area refers to the Parcel Area and off-site areas analyzed in this report and totals approximately 45.36 acres.

1.2.2 Project Design Features

The project applicant would include the following project design features into the design and implementation of the project that would reduce or negate potential impacts.

PDF-BIO-1: Biological Resource Minimization Measures

Section 5.2.8 of the Oceanside Subarea Plan includes minimization measures that will be required to be implemented by the project. These minimization measures, as follows, will reduce construction-related edge effects and are required of all projects that may impact biological resources within Oceanside (City of Oceanside 2010):

1. The project applicant shall temporarily fence (with silt barriers) the limits of project impacts (including construction staging areas and access routes) to prevent unauthorized habitat impacts and prevent the spread of silt from the construction zone into adjacent native habitats to be preserved. Fencing shall be installed in a manner that does not impact habitats to be preserved. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City. Temporary construction fencing shall be removed upon project completion.
2. Any necessary localized security-related lighting shall be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from natural habitats.
3. The biological monitor shall prepare periodic construction monitoring reports and a post-construction report to document compliance.
4. The project applicant shall ensure that the following conditions are implemented during project construction:
    a. Employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint.
    b. To avoid attracting predators of covered species, the project site including off-site work areas shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site.
    c. Pets of project personnel shall not be allowed on the project site including off-site work areas.
    d. Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in waters of the State or United States or their banks, except as authorized by the applicable regulatory agencies.

e. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas outside of waters of the State or United States within the fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering waters of the State or United States and shall be shown on the construction plans. Fueling of equipment shall take place within existing paved areas greater than 100 feet from waters of the State or United States. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction plans.

PDF-BIO-2: General Order for Waste Discharge Requirements

The project has been designed to avoid and minimize impacts to waters of the state to the maximum extent practicable. Two potential non-federal wetlands/waters of the state aquatic features within the Parcel Area would be filled by the project, with a total area of disturbance of 0.01 acres, 400 linear feet, and approximately 14 cubic yards. The applicant will obtain authorization from the San Diego RWQCB under the Porter–Cologne Water Quality Control Act in accordance with the General Order for Waste Discharge Requirements. The project will implement the following measures:

- Prior to the issuance of grading or other construction permits that would disturb aquatic features, the project shall (i) secure non-federal wetlands/waters of the state credits at a ratio of 1 to 1 for the filling of aquatic features; and (ii) submit evidence of the same to the RWQCB and the City.
- The credits shall be secured from the Wildlands San Luis Rey Mitigation Bank, another agency-approved mitigation bank with a service territory in the Northern Valley ecoregion in North San Diego County, a different agency-approved mitigation bank, or through an agency-approved in-lieu fee program to achieve no net loss of aquatic features.

  If no credits are available for purchase, no net loss may be achieved through either off-site permittee responsible mitigation at a resource-agency approved location or on-site permittee responsible mitigation consisting of the creation of 0.01 acres/400 linear feet of ephemeral aquatic resources. The project's current proposal consists of creating an ephemeral swale along the along the southwest portion of the development area bordering a proposed parking lot. The ephemeral swale will consist of a soft bottom rock and cobble lined earthen drainage swale that conveys storm water runoff from the southern hillside. No urban runoff will be conveyed to the ephemeral mitigation swale. The hillside storm water flows from south to north and will be conveyed to the eastern side of the mitigation swale by a series of concrete brow ditches and storm drain structures. The storm water will flow from east to west within the swale at velocities under 5 feet per second to avoid scour within the swale. The swale will be a minimum of 400 lineal feet with a 1-foot minimum bottom area. At the west end of the mitigation area the water will enter a concrete brow ditch due to vertical grade change and be conveyed west then northerly to the proposed storm drain outfall riprap.
- The applicant shall provide a copy of the issued General Order for Waste Discharge Requirements and proof of mitigation to the City prior to issuance of grading permits that would disturb aquatic features.

PDF-BIO-3: Glare Reduction

Windows on the buildings shall comply with State of California Green Building Standards Code, Section A5.107, as follows:

Glazing

1. Glazing with visual markers shall include, but is not limited to, the following:
   a. Etched or fritted glass with patterns of elements on the exterior having minimum dimensions of 1/4" (.64 cm [centimeters]) diameter for dots or 1/8" (.32 cm) width for stripes in a density of 2 inches (5.1 cm) maximum horizontally and vertically (the "2 × 2 Rule"). Note: If the visual markers are on glass surface 2, they can be effective if visible behind an exterior surface with reflectivity of 15 percent or less.
   b. Interior or exterior glazing film with 2 × 2 visual markers.
   c. Laminated glass with 2 × 2 visual markers, patterned ultraviolet (UV) coating or use of contrasting patterned UV-absorbing and UV-reflecting films. Note: Low-e coatings shall be behind the visual markers.
   d. Glass block or channel glass.
   e. Developed glazing technologies documented to reduce bird strikes, as tested by an independent third party and approved by the authority having jurisdiction; OR

Slats, Screens, Netting, Louvers

1. Glazing protected by exterior features that create a visible barrier in front of the glazing, may include, but not be limited to:
   a. Horizontal or vertical slats of 1/8" (.32 cm) minimum face width with minimum 2" (5.1 cm) spacing that obscure 85 percent or more of glass when viewed from all feasible angles.
   b. Grilles, screens or 1/8" (.32 cm) dia. welded wire mesh with openings no more than 2" (5.1 cm) maximum horizontally and vertically installed parallel to and no more than 3 1/4 ft (1 m) from the first surface of glass (glass surface 1).
   c. Netting with 1" (2.5 cm) maximum openings, installed taut at least 6" (15 cm) away from the first surface of glass; or
   d. Sunshades or louvers 9" (22.5 cm) deep vertically spaced a maximum 9" (22.5 cm) or 6" (15 cm) deep horizontally at maximum 6" (15 cm) spacing and parallel or angled to the glass surfaces.

PDF-AQ-1: Dust Control and Air Quality Measures

The project shall include design features related to dust control in compliance with the San Diego Air Pollution Control District Rule 55. Compliance with the following dust control measures shall be identified on grading plan approvals:

- During clearing, grading, earth-moving, excavation, and transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this shall include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour during active operations.
- Watering of active disturbance areas, including active grading areas and unpaved roads, shall occur approximately every 2 hours of active operations, approximately 3 times per work day (at a minimum).
- The project shall comply with San Diego County Air Pollution Control District Rule 55.
- Speeds on unpaved roads shall be reduced to less than 15 miles per hour.

- Grading shall be prohibited on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour.
- Dirt and debris spilled onto paved surfaces at the project site, including off-site work areas and on adjacent roadways, shall be swept, vacuumed, and/or washed at the end of each work day.
- Construction equipment shall be maintained and properly tuned in accordance with the manufacturers' specifications.
- Idling time of diesel-powered construction equipment shall be monitored and limited to no more than 2 minutes.
- All equipment maintenance records and data sheets, including design specifications and emissions control tier classifications, shall be kept on site and furnished to the lead agency or other regulators upon request.
- Late-model engines shall be used in on- and off-road equipment.
- Low-emission diesel products and/or alternative fuels shall be used in on- and off-road equipment.
- Paints, architectural coatings, and industrial maintenance coatings shall have volatile organic compound levels of less than 10 grams per liter.
- Engine retrofit technology shall be used to control emissions from on- and off-road equipment.
- All trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained.

2 Regulatory Context

2.1 Federal

2.1.1 Federal Endangered Species Act

The federal Endangered Species Act (FESA) 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. FESA 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 FESA, it is unlawful to take any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take authorization for federally listed threatened or endangered species under Section 7, which is generally available for projects that also require other federal agency permits or federal funding, and incidental take permits under Section 10(a)(1)(B), which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon approval of a habitat conservation plan, USFWS can issue incidental take permits for the take of federally listed species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in 50 CFR 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country; it is enforced in the United States by USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). On December 22, 2017, the Department of Interior issued a legal opinion (M-Opinion 37050) that interpreted the above prohibitions as only applying to direct and purposeful actions of which the intent is to kill, take, or harm migratory birds; their eggs; or their active nests. Incidental take of birds, eggs, or nests that are not the purpose of such an action, even if there are direct and foreseeable results, was not prohibited. On January 7, 2021, USFWS published a final rule (the January 7th rule) that codified the previous administration's interpretation, which after further review was determined to be inconsistent with the majority of relevant court decisions and readings of the MBTA's text, purpose, and history. On May 7, 2021, USFWS published a proposed rule to revoke the January 7th rule, which would result in a return to implementing the statute as prohibiting incidental take. On July 19, 2021, USFWS announced the availability of two revised economic analysis documents for public review that evaluated the potential for the proposed rule to impact small entities, including businesses, governmental jurisdictions, and other organizations. The public review period on these documents ended on August 19, 2021. A final rule revoking the January 7th rule was published on October 4, 2021, and went into effect on December 3, 2021. In its summary of the October 4, 2021, final rule, USFWS explained that "the immediate effect of this final rule is to return to implementing the MBTA as prohibiting

incidental take and applying enforcement discretion, consistent with judicial precedent and longstanding agency practice prior to 2017" (86 FR 54642).

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) (16 USC 668 et seq.) provides for the protection of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), and prohibits the take, possession, and transportation of these species except pursuant to federal regulations. The BGEPA defines "take" as any action that would "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" bald and golden eagles, including parts, nests, or eggs. Under the Code of Federal Regulations (CFR), the term "disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR 22.6). Under the BGEPA, it is also illegal to "sell, purchase, barter, trade, import, or export, or offer for sale, purchase, barter, or trade, at any time or in any manner, any bald eagle or any golden eagle, or the parts, nests, or eggs" of these birds (50 CFR 22.12).

Pursuant to 50 CFR 22.26, an amendment to the BGEPA was published in December 2016, allowing for a permit to be obtained that authorizes take of bald eagles and golden eagles where the take is "compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided." In February 2024, the latest amendment to the BGEPA (89 FR 9920–9965) revised the regulations for the issuance of permits for eagle incidental take and eagle nest take. These regulations provided a number of revisions, including creating general permit options for qualifying wind-energy generation projects, power line infrastructure, activities that may disturb breeding bald eagles, and bald eagle nest take. The general permit options are intended to "simplify and expedite the permitting process for activities that have relatively consistent and low risk to eagles and well-established avoidance, minimization, and compensatory mitigation measures." Projects that do not meet the eligibility criteria for general permits may still apply for specific permits. The revised regulations created a tier structure within specific permits, with tier levels related to the complexity of the project. In addition, the regulations provide allowances for fulfilling compensatory mitigation requirements through the purchase of "eagle credits" from USFWS approved in-lieu fee programs and conservation banks that will be authorized for particular Eagle Management Units. Other revisions include narrowing the definition of "eagle nest" to exclude nest structures on nesting substrates that fail due to natural circumstances, such as a fallen tree, which result in a nest structure that will no longer and never again be functional or used by eagles; revising the definition for "in-use nest" to clarify that the eggs in an "in-use nest" must be viable and do not include non-viable eggs that are present, for example, in an alternate nest outside of the breeding season; and revising the permit fees.

2.1.4 Clean Water Act

Clean Water Act Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under CWA Section 404, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

The definition of waters of the United States establishes the geographic scope for authority under CWA Section 404; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3[a]) has changed multiple times over the past few decades, starting with the United States v. Riverside Bayview Homes, Inc. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers), 2006 (Rapanos v. United States), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule), and 2021 (Pasqua Tribe et al v. United States Environmental Protection Agency resulting in remand and vacatur of the Navigable Waters Protection Rule and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation. On December 30, 2022, the agencies announced the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004–3144). The Rule was published in the Federal Register (FR) on January 18, 2023, and became effective on March 20, 2023, restoring federal jurisdiction over waters that were protected prior to 2015 under the CWA for traditional navigable waters, territorial seas, interstate waters, and upstream water resources that significantly affect those waters. The Rule represents a re-expansion of federal jurisdiction over certain water bodies and wetlands previously exempt pursuant to the 2020 Navigable Waters Protection Rule. The Rule also considers various subsequent court decisions, including two notable Supreme Court decisions.

There are two key changes that the Rule incorporates. First, the Rule reinstates the "Significant Nexus" test. The "Significant Nexus" test refers to waters that either alone, or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas (86 FR 69372–69450). The "Significant Nexus" test attempts to establish a scientific connection between smaller water bodies, such as ephemeral or intermittent tributaries, and larger, more traditional navigable waters such as rivers. Significant nexus evaluations take into consideration hydrologic and ecologic factors, including, but not limited to, volume, duration, and the frequency of surface water flow in the resource and its proximity to a traditional navigable water, and the functions performed by the resource on adjacent wetlands. Second, the Rule adopts the "Relatively Permanent Standard" test. To meet the Relatively Permanent Standard, water bodies must be relatively permanent, standing, or continuously flowing, and have a continuous surface connection to such waters.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in Sackett v. EPA, in which it rejected the U.S. Environmental Protection Agency's (EPA) claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface water connection to traditional navigable waterways would be afforded federal protection under the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water[s] of the United States (i.e., a relatively permanent body of water connected to traditional interstate navigable waters), and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins.

On August 29, 2023, the EPA and USACE announced the final rule amending the 2023 definition of "waters of the United States," conforming with the Sackett v. EPA decision. Some of the key changes include removing the significant nexus test from consideration when identifying tributaries and other waters as federally protected, and revising the adjacency test when identifying federally jurisdictional wetlands. Under the EPA's new waters of the United States definition, a "waters of the United States" must be a relatively permanent, standing, or continuously

flowing body of water that has an apparent surface connection to a "traditionally navigable water" to fall within federal purview. The new rule applies to wetlands and streams throughout the United States. Although the Sackett opinion did not specifically reference streams, the EPA's new rule extends the "continuous surface connection" standard to streams, thereby removing non-permanent, ephemeral streams that do not meet these standards from federal jurisdiction.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 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 USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high-water mark," which is defined in 33 CFR 328.3©(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."

Clean Water Act Section 401

The State Water Resources Control Board has authority over wetlands pursuant to CWA Section 401, as well as the Porter–Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards (i.e., RWQCBs). The San Diego RWQCB has authority for Section 401 compliance in the project area. A request for certification is submitted to the RWQCB at the same time that an application is filed with USACE.

The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050[e]). The State Water Resources Control Board's definition of a water of the state includes the following (SWRCB 2021):

1. Natural wetlands.
2. Wetlands created by modification of a surface water of the state.
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even

if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021).

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 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 an 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 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

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. On July 10, 2023, Senate Bill 147 was signed into law and amends the California Fish and Game Code to allow a 10-year permitting mechanism for a defined set of projects within the renewable energy, transportation, and water infrastructure sectors. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Pursuant to California Fish and Game Code Section 1602, CDFW regulates all diversions, obstructions, or 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 California Fish and Game Code Section 1602.

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 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 USACE. 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 a project, the RWQCB may still require the issuance of an order for Waste Discharge Requirements 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 to less than significant. 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 [hu]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 California Fish and Game Code Section 1602.

Plants ranked as California Rare Plant Rank (CRPR) 1A, 1B, 2A, or 2B may qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380. CDFW recommends that potential impacts to CRPR 1 and 2 species be evaluated in CEQA review documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to CEQA Guidelines Section 15380, but these species may be evaluated on a case-by-case basis.

For purposes of this report, animals considered "rare" under CEQA include endangered or threatened species, California Species of Special Concern, fully protected species, and species proposed for coverage in the Oceanside Subarea Plan (City of Oceanside 2010).

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 Game [now CDFW] or the 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.

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 program established to protect sensitive species and habitats in northern San Diego County through the MHCP Plan (SANDAG 2003). The MHCP area is divided into seven subareas, each with its own Subarea Plan; the subareas 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 City of 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, and sensitive biological resources throughout Oceanside and the larger region while allowing public and private development to occur consistent with the City's General Plan and Capital Improvement Program. In addition, the 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 the City 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 from USFWS and CDFW (the wildlife agencies).

The Oceanside Subarea Plan identifies undeveloped lands within Oceanside where conservation and management will achieve the Subarea Plan's biological goals while minimizing adverse effects on lands uses, economics, and private property rights. In addition, the Subarea Plan establishes Preserve planning zones, the existing biological conditions and goals of which were used as foundations for their designation (City of Oceanside 2010). 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 (SDG&E) electric transmission corridor. It encompasses 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 study area is outside of 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's Parcel Area is not located within a Pre-Approved Mitigation Area.
- **Agricultural Exclusion Zone.** This zone includes lands north of the 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 study area is not located 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, Agriculture Exclusion Zone, and Coastal Zone. The Off-Site Mitigation Zone includes several Pre-Approved Mitigation Areas. The project study area is located within an Off-Site Mitigation Zone and is mapped as a softline Preserve area.
- **Coastal Zone.** This zone includes all areas within the City's Coastal Zone where the federal Coastal Zone Management Act and California Coastal Act policies apply. The project study area is not located within the Coastal Zone.

In addition to Preserve planning zones, the Subarea Plan also identifies specific "hardline" and "softline" Preserves. Generally, hardline Preserves are areas that are already preserved to Subarea Plan standards, and softline Preserves are areas specifically targeted for preservation through application of Subarea Plan standards and policies. The Parcel Area is designated as a softline Preserve (City of Oceanside 2010). Hardline Preserve areas are located immediately west of the study area and in an area along the railroad tracks north of the eastern part of the study area (City of Oceanside 2010). The southern and western parts of the study area would be conserved as part of this project and would be contiguous with the hardline Preserve area to the west. The Oceanside Subarea Plan describes hardline Preserves as areas specifically targeted for future preservation through the application of the Subarea Plan standards and policies. Hardline Preserves are also considered part of Focused Planning Areas. Preserve areas within the Subarea Plan area prohibit the following land uses: all forms of development, agricultural uses, active recreation, mineral extraction, landfills, itinerant worker camps, roads or other transportation facilities, most flood control projects, and brush control or fuel management, except for existing firebreaks that must be maintained for safety reasons within 100 feet of existing buildings (City of Oceanside 2010). Any implementation of these prohibited land uses within a Preserve would require written concurrence from the City, CDFW, and USFWS through an amendment process. Conditionally allowed land uses in Preserve areas include passive recreation (e.g., hiking, birdwatching, and fishing); utility projects that include full restoration of temporarily impacted habitat, flood control, or siltation basins that support natural vegetation and habitat value; and maintenance of existing firebreaks adjacent to existing buildings (City of Oceanside 2010).

Wetland Buffers

A wetland buffer generally refers to an area that extends perpendicularly into upland areas from the delineated edge of a wetland or riparian area. Wetland buffer areas establish an upland zone adjacent to wetlands and are designed to avoid and minimize indirect effects on wetland functions (e.g., species habitat, water quality maintenance, flood capacity). Section 5.2.4 of the Subarea Plan states the following (City of Oceanside 2010):

> Wherever development or other discretionary actions are proposed in or adjacent to riparian habitats (not including the San Luis Rey River), the riparian area and other wetlands or associated natural habitats shall be designated as biological open space and incorporated into the Preserve. In addition, a minimum 50-foot biological buffer, plus a minimum 50-foot planning buffer (total width of both equals 100 feet) shall be established for upland habitats, beginning at the outer edge of riparian vegetation. The planning buffer serves as an area of transition between the biological buffer and specified land uses on adjoining uplands. Foot paths, bikeways, and passive recreational uses may be incorporated into planning buffers, but buildings, roads, or other intensive uses are prohibited. The following uses are prohibited in the 50-foot biological buffer: (1) new development, (2) foot paths, bikeways, and passive recreational uses not already planned, and (3) fuel modification activities for new development. In the event that natural habitats do not currently (at the time of proposed action) cover the 50-foot buffer area, native habitats appropriate to the location and soils shall be restored as a condition of project approval. In most cases, coastal sage scrub vegetation shall be the preferred habitat to restore within the biological buffer.

However, because the Subarea Plan has not been approved by the City, these buffers and setbacks are subject to reduction based on approval from the City and the wildlife agencies.

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3 Survey Methods

3.1 Literature Review

Dudek reviewed available relevant literature and data on sensitive habitats and species distribution to determine those resources that have the potential to occur within the USGS 7.5-minute San Luis Rey quadrangle and surrounding quadrangles.

A literature review was conducted to evaluate the environmental setting of the study area and identify potential special-status biological resources that may be found in the study area. The review included the following:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2024a)
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2024)
- Google Earth (2024)
- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey (USDA 2024a)
- USFWS Critical Habitat and Occurrence Database (USFWS 2024a)
- USFWS National Wetlands Inventory (USFWS 2024b)
- USGS National Hydrography Dataset (USGS 2024)
- San Diego County Bird Atlas (Unitt 2004)

General information regarding wildlife species present in the region was obtained from Unitt (2004) for birds, Tremor (2017) for mammals, and Stebbins (2003) for reptiles and amphibians.

3.2 Survey Schedule

The 2022 through 2024 surveys and site conditions are presented in Table 1.

Table 1. Survey Details and Conditions

Date	Time	Survey Type	Personnel	Survey Conditions
Vegetation Mapping, Jurisdictional Delineation, and Rare Plant Surveys				
11/17/2022	7:08 a.m.–12:42 p.m.	Vegetation mapping	OK, EC	51°F–72°F; 0%–10% cloud cover, 1–4 mph winds
12/1/2023	Not recorded	Vegetation mapping	PL	Not recorded
1/19/2024	10:00 a.m.–2:45 p.m.	JD, vegetation mapping	CA, KD	62°F–70°F; 50%–80% cloud cover; 0–1 mph wind
4/3/2024	9:30 a.m. - 12:15 p.m.	Rare plants	OK	63°F–72°F; 0% cloud cover; 0–4 mph wind
5/15/2024	7:07 a.m. - 12:31 p.m.	Rare plants	KD	58°F–66°F; 100% cloud cover; 0–2 mph wind
7/8/2024	7:04 a.m. – 11:06 p.m.	Rare plants	KD	65°F–75°F; 100% cloud cover; 0–3 mph wind

Table 1. Survey Details and Conditions

Date	Time	Survey Type	Personnel	Survey Conditions
Coastal California Gnatcatcher Focused Surveys				
12/21/2023	9:00 a.m.–11:00 a.m.	CAGN	PL	57°F–67°F; 80%–90% cloud cover, 0–2 mph winds
1/5/2024	8:30 a.m.–10:40 a.m.	CAGN	PL	55°F–57°F; 60%–80% cloud cover; 0–2 mph winds
1/19/2024	8:30 a.m.–10:30 a.m.	CAGN	PL	54°F–57°F; 90% cloud cover; 0–2 mph winds
2/18/2024	9:00 a.m.–11:00 a.m.	CAGN	PL	57°F–59°F; 90% cloud cover; 0 mph winds
3/3/2024	9:00 a.m.–11:00 a.m.	CAGN	PL	55°F–58°F; 90%–100% cloud cover; 1 mph winds
3/17/2024	8:30 a.m.–10:30 a.m.	CAGN	PL	55°F–64°F; 30%–60% cloud cover; 0–2 mph winds
3/31/2024	8:30 a.m.–10:30 a.m.	CAGN	PL	55°F–56°F; 10% cloud cover; 2–7 mph winds
4/14/2024	10:00 a.m.–12:00 p.m.	CAGN	PL	63°F–70°F; 0% cloud cover; 1 mph wind
4/28/2024	10:00 a.m.–12:00 p.m.	CAGN	PL	63°F–70°F; 0% cloud cover; 1–4 mph wind
Least Bell's Vireo and Southwestern Willow Flycatcher (SWFL) Focused Surveys				
4/14/2024	8:00 a.m.–10:00 a.m.	LBVI	PL	55°F–63°F; 0% cloud cover; 1 mph wind
4/28/2024	8:00 a.m.–10:00 a.m.	LBVI	PL	59°F–67°F; 0% cloud cover; 0–2 mph winds
5/8/2024	8:00 a.m.–10:00 a.m.	LBVI	PL	60°F–68°F; 10 – 100% cloud cover; 0–3 mph winds
5/19/2024	8:00 a.m.–11:00 a.m.	LBVI, SWFL	PL	61°F–68°F; 40 – 90% cloud cover; 1–3 mph winds
5/29/2024	8:00 a.m.–10:20 a.m.	LBVI	PL	63°F–69°F; 20 – 100% cloud cover; 0–3 mph winds
6/8/2024	6:40 a.m.–10:00 a.m.	LBVI, SWFL	PL	63–66°F; 100% cc; 0–4 mph wind
6/19/2024	7:00 a.m.–10:30 a.m.	LBVI, SWFL	PL	62–68°F; 100–90% cc; 0–3 mph wind
6/29/2024	7:00 a.m.–10:30 a.m.	LBVI, SWFL	PL	64–74°F; 100–10% cc; 1–4 mph wind
7/5/2024	7:00 a.m.–10:30 a.m.	SWFL	PL	67–75°F; 0% cc; 1–3 mph wind

Notes: mph = miles per hour; JD = jurisdictional delineation; CAGN = coastal California gnatcatcher; LBVI = least Bell's vireo; SWFL = southwestern willow flycatcher; — = data to be provided after future survey
Personnel: EC = Erin Coltharp; CA = Callie Amoaku; KD = Kathleen Dayton; OK = Olivia Koziel; PL = Paul Lemons.

3.3 Vegetation Mapping

Vegetation communities and land covers within the survey area were mapped in the field based on general physiognomy and species composition. Data was recorded using the Field Maps Mobile Application over aerial base map imagery of the study area, and a geographic information system (GIS) coverage was created by Dudek GIS technicians using ArcGIS software.

The vegetation community and land cover mapping follow the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), which is based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). Communities were given additional descriptions to more accurately represent existing conditions and community composition. Vegetation communities were classified as a "disturbed" form of the community when native shrub cover comprised 20% to 50% of the relative cover and non-native species comprised approximately 50% or more of the relative cover.

3.4 Jurisdictional Delineation

A jurisdictional delineation was conducted by Dudek senior biologists and wetland scientists Callie Amoaku and Kathleen Dayton. The jurisdictional delineation was conducted on January 19, 2024 (Table 1). Prior to conducting the jurisdictional delineation, USFWS National Wetlands Inventory data (USFWS 2024b) and the USGS National Hydrography Dataset (USGS 2024) were reviewed to determine if the study area contains any features mapped by these agencies. Site-specific topographical data were reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device. Several areas supporting hydrophytic vegetation were also assessed for the presence of wetland hydrology and hydric soils to determine whether they were three-parameter wetlands. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device and refined on desktop software using project-specific topographic contours.

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) and updated datasheet (USACE 2010) were used to determine the limits of non-wetland waters. Non-wetland waters were delineated on topographical maps in conjunction with Esri Collector on a mobile device. The widths of each potential non-wetland water were determined in the field according to the OHWM manual.

During the jurisdictional delineation surveys, Dudek biologists walked and evaluated the study area for evidence of an OHWM, surface water, saturation, wetland vegetation, and connection to a traditional navigable water of the United States. The extent of any identified jurisdictional areas was determined by mapping the areas with similar vegetation and topography to the sampled locations. Wetland Determination Forms were not taken because no hydrophytic vegetation associated with a feature was present within the study area. To determine if non-wetland waters within the study area are "relatively permanent waters," Dudek used the Beta Streamflow Duration Assessment Method for the Arid West (Mazor et al. 2021) to determine if the features within the study area are ephemeral or intermittent.

Potential waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in

these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in USACE's 2008 A Field Guide to Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b).

CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

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 are candidate species (CDFW 2024b); (2) species with a CRPR of 1 through 3 (CNPS 2024); or (3) species listed on the Oceanside Subarea Plan Proposed Covered Species list (City of Oceanside 2010).

Focused surveys for special-status plants were completed in 2024. 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 2024b; CNPS 2024; USFWS 2024a) to determine target species. In addition to Dudek's knowledge of biological resources and regional distribution of each species, elevation, habitat, and soils present within the rare plant survey area were evaluated to determine the potential for various special-status plant species to occur. Field survey methods conformed to the California Native Plant Society's 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). Surveys were conducted by walking meandering transects throughout the study area 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 or 10×50 magnification) 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; (2) Species of Special Concern; (3) fully protected species (CDFW 2024c); or (4) listed on the Oceanside Subarea Plan Proposed Covered Species list (City of Oceanside 2010).

Focused surveys were conducted for coastal California gnatcatcher (*Polioptila californica californica*) from 2023 into 2024, and surveys for least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) were conducted in 2024. These surveys are described in detail below.

3.6.1 Coastal California Gnatcatcher

Nine focused surveys for coastal California gnatcatcher were performed within suitable habitat between December 21, 2023, and April 28, 2024, by coastal California gnatcatcher permitted biologist Paul Lemons (TE051248-6) according to the schedule provided in Table 1. The surveys were conducted following the currently accepted Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997).

Survey routes for site visits completely covered the areas of suitable coastal California gnatcatcher habitat in the study area. Appropriate birding binoculars (i.e. 10×50 magnification) were used to aid in detecting and identifying bird species. A recording of coastal California gnatcatcher vocalizations was used to elicit a response from the species. The recording was played approximately every 50 to 100 feet. Weather conditions, time of day, and season were within protocol limits and appropriate for the detection of gnatcatchers, as shown in Table 1. The survey report submitted to USFWS for focused surveys for coastal California gnatcatcher in the study area is provided as Appendix D to this report.

3.6.2 Least Bell's Vireo

A Section 10(a)(1)(A) permit is not required to perform presence/absence surveys for least Bell's vireo. Dudek wildlife biologist Paul Lemons conducted least Bell's vireo surveys (Table 1). Focused surveys for these species were initiated on April 14, 2024, and completed on June 29, 2024.

The eight surveys for least Bell's vireo followed the currently accepted Least Bell's Vireo Survey Guidelines (USFWS 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential least Bell's vireo habitats between April 10 and July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations was not used during the surveys. Surveys were conducted between dawn and noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather. The route was arranged to cover all potentially suitable habitat on site, which consists of a portion of Loma Alta Creek that runs through the northwestern part of the study area and associated riparian vegetation. Binoculars (10×50 magnification) were used to aid in detecting and identifying wildlife species. The full survey report submitted to USFWS for focused surveys for least Bell's vireo and southwestern willow flycatcher is provided in Appendix E to this report.

3.6.3 Southwestern Willow Flycatcher

A Section 10(a)(1)(A) permit is required to conduct presence/absence surveys for flycatcher. For southwestern willow flycatcher, five surveys are required per A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher issued by USGS and the U.S. Department of the Interior and approved by USFWS (Sogge et al. 2010). The 2010 protocol states that five survey visits are required, with one visit between May 15 and May 31, two visits between June 1 and June 24, and two visits between June 25 and July 17. Permitted Dudek wildlife biologist Paul Lemons conducted southwestern willow flycatcher surveys (see Table 1). Per Sogge et al. (2010), each survey visit was separated by at least 5 days. Recorded southwestern willow flycatcher vocalizations were used approximately every 50 to 100 feet within suitable habitat to induce southwestern willow flycatcher responses. Various subspecies of this species are not easily differentiated visually or by call or song in the field, and any

resident willow flycatchers observed in the final survey period were assumed to be the “southwestern” subspecies. Surveys for this species were conducted from May to July, as dictated in the protocol.

The survey method consists of slowly walking a systematic, meandering transect within and adjacent to all suitable habitat in the study area. Survey routes for site visits completely covered the areas of potentially suitable southwestern willow flycatcher habitat in the study area. If a southwestern willow flycatcher were detected, the playing of the recording would cease to avoid harassment. The location of any southwestern willow flycatcher detected would have been mapped using the Field Maps Mobile Application on an aerial imagery basemap. Binoculars (10 × 50 magnification) were used to aid in detecting and identifying wildlife species. Weather conditions, time of day, and season were appropriate for the detection of southwestern willow flycatcher (see Table 1). The full survey report submitted to USFWS for focused surveys for least Bell’s vireo and southwestern willow flycatcher is provided in Appendix E to this report.

4 Physical Characteristics

4.1 Site Description

Uses in the vicinity of the study area primarily include residential development, open space, and commercial/industrial uses. The study area abuts existing residential developments to the east and south, commercial/industrial uses to the north, and undeveloped land to the west. Areas surrounding the study area are commercial (north and west of the study area) and residential zones (south and east of the study area) (City of Oceanside 2024). The NCTD rail line and College Boulevard Sprinter Station are 50 feet north of the Parcel Area (Google Earth 2024). One off-site area is between College Boulevard and the Parcel Area and just south of the railroad, which is property of the NCTD. The NCTD property contains a dirt trail, which appears to be frequently used by the public. Another off-site area consists of part of the existing western end of Olive Drive and limited adjacent areas.

Several dirt trails and disturbed openings exist throughout the study area that appear to be used frequently by trespassing individuals. Several itinerant encampments and litter/debris piles were observed during surveys in various locations throughout the study area, suggesting frequent human access and use.

The biological study area supports primarily native vegetation on the southern slope and western upland areas, and more naturalized vegetation and an increase in disturbed habitat in the eastern, previously disturbed and flatter areas, although these disturbed areas still contain patches of native vegetation. The off-site area contains a mix of developed areas, disturbed habitat, native coastal sage scrub vegetation, and some ornamental species.

Elevations in the Parcel Area range from approximately 185 feet above mean sea level to 450 feet above mean sea level. Generally, the southern half of the study area is a steep vegetated area sloping to the northwest, representing the northwest side of Loma Alta Mountain. The north side of the study area is more level, gently sloping down to the west, following the flow of Loma Alta Creek (Google Earth 2024).

4.2 Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey for San Diego County, California (USDA 2024a), was consulted. Seven soil types are mapped in the study area: Corralitos loamy sand, 0% to 5% slopes; Diablo clay, 15% to 30% slopes, eroded; Diablo clay, 30% to 50% slopes; Gaviota fine sandy loam, 30% to 50% slopes; Las Flores loamy fine sand, 5% to 9% slopes, eroded; Las Flores loamy fine sand, 9% to 15% slopes, eroded; and Salinas clay loam, 0% to 2% slopes. Corralitos loamy sand and Las Flores loamy fine sand, 5% to 9% slopes, eroded, have a partial hydric rating (USDA 2024b).

Soil types within the study area are shown in Figure 2, Soil Types.

4.3 Hydrology

The study area is within the San Luis Rey–Escondido Hydrologic Unit, within the San Marcos Creek–Frontal Gulf of Santa Catalina Hydrologic Area, and within the Loma Alta Creek–Frontal Gulf of Santa Catalina Hydrologic Sub-Area of the Water Quality Control Plan for the San Diego Basin (RWQCB 2021) (Figure 3, Hydrologic Setting). The major surface waterbody in the vicinity of the project is Loma Alta Creek, which flows east to west. Loma Alta Creek crosses under the railroad tracks into the study area and passes through the northwestern part of the study area, continuing

approximately 5 miles until its confluence with the Pacific Ocean. Within this hydrologic subarea, downstream impaired Section 303(d) listed water bodies include the Pacific Ocean shoreline and San Luis Rey River mouth. There are no additional features mapped within the study area by the National Wetlands Inventory (USFWS 2024b). Sources of hydrology in the study area include annual precipitation and runoff from surrounding developed areas.

5 Results

5.1 Vegetation Communities

Dudek mapped seven vegetation communities and two land covers within the biological study area: Diegan coastal sage scrub (including disturbed form), southern mixed chaparral (including disturbed form), non-native grassland, freshwater marsh, non-vegetated channel, southern willow scrub (disturbed form), eucalyptus woodland, disturbed habitat, and urban/developed.

Acreages of vegetation communities and land covers mapped to represent current existing conditions in the study area are summarized in Table 2, and mapping is shown in Figure 4, Biological Resources.

Table 2. Vegetation Communities and Land Covers

Vegetation Community or Land Cover Type	Mapping Unit Code[1]	Existing Acreage in On-Site Area	Existing Acreage in Off-Site Area	Total Existing Acreage in Study Area
Disturbed Habitat	11000	6.72	0.57	7.29
Urban/Developed	12000	0.19	0.11	0.30
Diegan Coastal Sage Scrub[2]	32500	15.64	1.18	16.82
Diegan Coastal Sage Scrub (Disturbed) [2]	32500	1.99	0.00	1.99
Southern Mixed Chaparral[2]	37120	7.12	0.00	7.12
Southern Mixed Chaparral (Disturbed) [2]	37120	4.60	0.00	4.60
Non-Native Grassland[2]	42200	4.33	0.00	4.33
Freshwater Marsh[2]	52400	0.05	0.00	0.05
Southern Willow Scrub (Disturbed)[2]	63320	1.37	0.00	1.37
Non-Vegetated Channel[2]	64200	0.55	0.00	0.55
Eucalyptus Woodland	79100	0.92	0.00	0.92
	Total Acres[3]	**43.50**	**1.86**	**45.36**

Notes:

1 Per Oberbauer et al. 2008

2 Vegetation communities are considered sensitive, in that impacts require mitigation per Table 5-2, Mitigation Standards for Impacts to Natural Vegetation and Habitat, in the Oceanside Subarea Plan (City of Oceanside 2010).

3 Totals may not sum due to rounding.

5.1.1 Disturbed Habitat

Disturbed habitats are areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association (Oberbauer et al. 2008). These areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species. Examples of these areas may include graded landscapes or areas, graded firebreaks, graded construction pads, temporary construction staging areas, off-road-vehicle trails, areas repeatedly cleared for fuel management,

or areas that are repeatedly used in ways that prevent revegetation (e.g., dirt parking lots, trails that have persisted for years) (Oberbauer et al. 2008).

Overall, the easternmost side of the study area is highly disturbed. Areas mapped as disturbed habitat throughout the study area include ~~fuel modification~~ areas adjacent to housing that are cleared of most woody vegetation and contain patches of non-native iceplant (*Carpobrotus edulis*) in some areas, and primarily invasive broad leaf filaree (*Erodium botrys*) or bare ground in other areas, generally with a low cover of invasive, apparently periodically mowed grasses. Disturbed habitat also includes compacted trails, encampments or otherwise cleared areas, and access roads that support minimal vegetation.

5.1.2 Urban/Developed

Urban/developed refers to areas that have been constructed on or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008).

Urban/developed land associated with residential development adjacent to the study area occurs in a small amount along the eastern boundary of the study area.

5.1.3 Non-Native Grassland

Non-native grassland consists of dense to sparse cover of annual grasses with flowering culms 0.5 to 3 feet in height (Oberbauer et al. 2008). In San Diego County, the presence of wild oat (*Avena fatua*), bromes, stork's bill (*Erodium cicutarium*), and mustard are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will dominate.

Areas of non-native grassland are present in the eastern portion of the study area, and these areas are dominated by invasive grasses such as red brome (*Bromus rubens*), with associated invasive annual herbs such as broad leaf filaree; there is a low cover of native species.

5.1.4 Diegan Coastal Sage Scrub and Southern Mixed Chaparral

Diegan coastal sage scrub (coastal sage scrub) and southern mixed chaparral occupy the majority of the slope on the southern side of the study area, as well as in patches throughout the flatter parts of mostly the central, western, and off-site area. Coastal sage scrub and southern mixed chaparral are denser on the western half of the study area, and denser and generally more mature on the steeper slope area.

In areas mapped as Diegan coastal sage scrub, California sagebrush (*Artemisia californica*) and lemonadeberry (*Rhus integrifolia*) are dominant, with associated species including toyon (*Heteromeles arbutifolia*), coastal goldenbush (*Isocoma menziesii*), and coyote brush (*Baccharis pilularis*). In coastal sage scrub present along the northern boundary of the study area, coyote brush is codominant with lemonadeberry and toyon.

Although lemonadeberry is one of the species also characteristic of coastal sage scrub, areas where relatively large lemonadeberry and toyon shrubs were codominant and smaller shrub cover was minimal were mapped as southern mixed chaparral to best represent the habitat structure. Areas with a higher cover of shorter shrub species, such as California sagebrush and goldenrod, were mapped as coastal sage scrub.

Disturbed coastal sage scrub and disturbed southern mixed chaparral occur in the central and eastern portions of the study area and represent areas with approximately 20% to 25% native shrub cover, with disturbed bare ground or primarily non-native grass and herb cover between shrubs. Encampments of people experiencing homelessness are present scattered throughout the study area, and these contribute to the amount of site disturbance.

5.1.5 Freshwater Marsh

According to Holland (1986), coastal and valley freshwater marsh is a wetland habitat type that develops where the water table is at or just above the ground surface, such as around the margins of lakes, ponds, slow-moving streams, ditches, and seepages. Due to being permanently flooded by fresh water, there is an accumulation of deep, peaty soils. It typically is dominated by species such as cattail (*Typha* sp.), wooly sedge (*Carex lanuginosa*), yellow nutsedge (*Cyperus esculentus*), and bulrush (*Scirpus* sp.).

A small amount of freshwater marsh occurs along the center of Loma Alta Creek. In the study area, this wetland habitat is dominated by species such as southern cattail (*Typha domingensis*).

5.1.6 Southern Willow Scrub (Disturbed)

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species (*Salix* spp.), with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*). This community was formerly extensive along the major rivers of coastal Southern California, but currently occupies a smaller area (Oberbauer et al. 2008).

Disturbed southern willow scrub is present along the edges of most of the segment of Loma Alta Creek that passes through the study area, except in the westernmost part of the study area. This vegetation community is dominated by small to medium-sized willows (*Salix* spp.) with associated non-native Pampas grass (*Cortaderia selloana*). It is considered a "disturbed" form of southern willow scrub based on the high percent cover of non-native species combined with the low percent cover of native riparian species. Encampments are scattered throughout the study area and contribute to the amount of site disturbance. During the initial vegetation mapping site visit, an individual was observed cutting down vegetation, including Pampas grass, south of Loma Alta Creek.

5.1.7 Non-Vegetated Channel

Non-vegetated floodplain or channel is not recognized by Holland (1986) but is recognized by Oberbauer et al. (2008). According to Oberbauer et al. (2008), non-vegetated floodplain or channel is the sandy, gravelly, or rocky fringe of waterways or flood channels that is unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel.

Non-vegetated channel occurs along Loma Alta Creek in the northwestern part of the study area (which will not be impacted) where there is open water with minimal marsh vegetation.

5.1.8 Eucalyptus Woodland

Eucalyptus woodland is a "naturalized" vegetation community that is fairly widespread in Southern California and is considered a woodland habitat. It typically consists of monotypic stands of introduced Australian eucalyptus trees, such as bluegum (*Eucalyptus globulus*) and redgum (*Eucalyptus camaldulensis*). The understory is either depauperate

(i.e., lacking species variety) or absent, owing to high leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Eucalyptus woodland is present in patches primarily near Loma Alta Creek, with a few individual trees near the northern study area boundary in the eastern part of the study area.

5.2 Flora and Fauna

A total of 164 species of native or naturalized plants were observed during vegetation mapping and other site visits conducted in 2022, 2023, and 2024, and focused rare plant surveys conducted in 2024, consisting of 86 native (52%) and 78 non-native (48%) species. A cumulative list of plant species observed by Dudek 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 On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2024). 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 2024) and common names follow the California Natural Communities list (CDFW 2023) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2024c).

A total of 46 wildlife species were observed during surveys in 2023 and 2024, consisting of 43 native species and 3 non-native or domestic species. Mammals that were observed are common species adapted to urban areas, such as desert cottontail (*Sylvilagus audubonii*) and northern raccoon (*Procyon lotor*). 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, American Ornithological Society (AOS 2024) 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.

5.3 Special-Status Plants

Two plant species with a CRPR were observed and mapped in the biological study area during rare plant surveys. San Diego marsh-elder (*Iva hayesiana*; CRPR 2B.2) is present along the northern boundary of the Parcel Area near Loma Alta Creek. The occurrences of San Diego marsh-elder are located within the 100-foot wetland buffer surrounding Loma Alta Creek and are not near the On-Site Impact Area or Off-Site Impact Area.

Multiple small patches of ashy spike-moss (*Selaginella cinerascens*; CRPR 4.1) are located near the southern boundary of the On-Site Impact Area, and two additional patches are located more than 300 feet southwest of the On-Site Impact Area. Of the small patches located near the southern On-Site Impact Area boundary, one patch overlaps the southern On-Site Impact Area boundary, and the remainder are located outside of the On-Site Impact Area. Plant species with a CRPR of 4 (i.e., ashy spike-moss) are considered limited distribution or watchlist species and less sensitive/rare than plant species with a CRPR of 1 through 3 (CNPS 2024).

Special-status plants occurring or with the potential to occur in the biological study area are described in Appendix C1, Special-Status Plant Species Occurring or With Potential to Occur within the Biological Study Area. Special-status plants evaluated but are not expected to occur are described in Appendix C2, Special-Status Plant Species Not Expected to Occur within the Biological Study Area.

5.4 Special-Status Wildlife

5.4.1 Coastal California Gnatcatcher

Appendix D includes the 2023–2024 Focused Coastal California Gnatcatcher Survey Report for the Proposed Olive Park Apartments Project. Coastal California gnatcatchers were not detected during the nine focused surveys conducted from 2023 into 2024, and thus the species is not expected to occur in the study area.

Coastal California gnatcatcher is listed as a federally threatened species, California Species of Special Concern, and an Oceanside Subarea Plan covered species. It is distributed from eastern Orange and southwestern Riverside Counties south through the coastal foothills of San Diego County and along the coast of Palos Verdes Peninsula. It occurs in low numbers in the San Gabriel and San Bernardino Mountains of Los Angeles and San Bernardino Counties (Zeiner et al. 1990). Coastal California gnatcatcher is considered an obligate resident of coastal scrub habitat in arid washes, on mesas, and on slopes of coastal hills, and habitat areas dominated by California buckwheat (*Eriogonum fasciculatum*), coastal sagebrush (*Artemisia californica*), and prickly pear (*Opuntia* sp.) patches are especially preferred (Zeiner et al. 1990). Coastal California gnatcatcher is an insectivorous species that forages by gleaning. The parcel west of the study area and a small area within the western boundary of the study area are designated critical habitat for coastal California gnatcatcher (Figure 5, USFWS Critical Habitat). It appears likely that the critical habitat mapping was intended to end along the boundary of the Parcel Area and not continue into the study area. USFWS (72 FR 72010–72213) describes designation of critical habitat through considering the "physical and biological features (primary constituent elements [PCEs]) that are essential to the conservation of the species and that may require special management considerations or protection. These include, but are not limited to: (1) Space for individual and population growth and for normal behavior; (2) Food, water, air, light, minerals, or other nutritional or physiological requirements; (3) Cover or shelter; (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and (5) Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species." Juvenile coastal California gnatcatchers disperse from their natal territory using habitat linkages or corridors connecting areas of suitable Diegan coastal sage scrub. Additionally, although much less frequently, California gnatcatchers may use chaparral, grassland, or riparian habitat that is near sage scrub habitat for foraging, natal dispersal, or (very infrequently) for nesting (Campbell et al. 1998, as cited in 72 FR 72010–72213).

There is a large, spatially broad CNDDB occurrence that overlaps the study area and extends outside of it, also overlapping currently developed areas in which the species would not be expected to occur (CDFW 2024a).

Prior to obtaining the results of focused surveys, given the amount of suitable coastal sage scrub habitat currently present in the study area, which also extends to the west of the study area, the potential for coastal California gnatcatchers to occur was considered moderate in disturbed Diegan coastal sage scrub and southern mixed chaparral areas, and high in areas mapped as Diegan coastal sage scrub. Thus, nine passes of focused surveys were conducted in suitable habitat. However, it is apparent from aerial imagery that shrubs in the majority of the study area had been cleared prior to 1938, and flatter areas were periodically cleared multiple times since then, potentially lowering the chance of a present and well-established coastal California gnatcatcher population in the study area (Historic Aerials 2024).

The frequent human activity combined with the history of periodic clearing in much of the study area may deter gnatcatchers from using this area during foraging and/or dispersal, and from persisting in the area.

5.4.2 Least Bell's Vireo and Southwestern Willow Flycatcher

Appendix E incudes the 2024 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Proposed Olive Park Apartments Project. Least Bell's vireo and southwestern willow flycatcher were not detected during the focused surveys conducted for these species in 2024, and thus the species are not expected to occur in the study area.

Least Bell's vireo is listed as a federally and state endangered species. This species summers in Southern California and winters in southern Mexico and Baja. They nest and forage in low, dense riparian thickets along water or along dry parts of intermittent streams. They are also known to forage in riparian and adjacent shrubland late in the nesting season. They are primarily insectivorous. Males and females typically build their nest together (usually in a fork of a branch of tree or shrub) about 3 feet off the ground. The materials used often include grasses, plant fibers, and other soft plant materials, such as fibers and moss, then they line and secure it with spider silk. Clutch size is typically two to four eggs that incubate 14 to 15 days. Brown-headed cowbirds (*Molothrus ater*) are a common nest parasite (Cornell Lab of Ornithology 2024a).

This species is typically found in more extensive and denser riparian habitat than is found in the study area. Due to the presence of riparian habitat in the study area and records of occurrence within 0.5 miles of the study area, focused surveys for this species were completed in 2024. There is one known CNDDB occurrence of this species roughly 0.25 miles west of the study area from 2001, in a wider area of riparian habitat along Loma Alta Creek (CDFW 2024a). There is no designated critical habitat for least Bell's vireo in the biological study area.

Southwestern willow flycatcher is state and federally listed endangered species closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. This species is threatened primarily by loss, degradation, and fragmentation of riparian habitats (Cornell Lab of Ornithology 2024b).

There is no designated critical habitat for southwestern willow flycatcher in the biological study area. This species is typically found in more extensive and denser riparian habitat than is found in the study area, and the species has become increasingly rare in the region. Due to the presence of riparian habitat in the study area, focused surveys for this species were completed in 2024. There are no known CNDDB occurrences within 1 mile of the study area, but there are multiple occurrences within 5 miles of the study area (CDFW 2024a).

5.4.3 Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is not threatened or endangered in California; however, it is a candidate species for listing under CESA. This species occurs almost exclusively in California, where it inhabits open grassland and scrub habitats from Southern to Central California (Xerces Society et al. 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. This species has a very short tongue and is therefore best suited to forage at open flowers with short corollas. Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014; Xerces Society et al. 2018), but it is assumed that flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee has a moderate potential to forage and nest in the study area, although it has a low potential to nest in the impact area (on-site and off-site). Suitable floral resources are present in the study area to support foraging Crotch's bumble bees. The study area contains nectar source species, such as deerweed (*Acmispon*

glaber). This species typically nests in small mammal burrows or other suitable refugia from February through October. In general, the ground in the on-site and off-site impact areas and open habitat throughout the study area appears compacted and supports few small mammal burrows. Known occurrences of the species within 5 miles of the study area are close to the coast and near Lake Calavera (CDFW 2024a; Richardson 2024).

5.4.4 Other Special-Status Species

Cooper's hawk is not listed or a Species of Special Concern (SSC), but is a CDFW watch list species and is considered for coverage under the Oceanside Subarea Plan (City of Oceanside 2010). Cooper's hawk has a high potential to nest within 500 feet of the impact areas in tall, mature trees. During wildlife surveys conducted in 2024, an active Cooper's hawk nest was observed in a tree between Olive Drive and the off-site impact area, immediately adjacent to a private residence on private property. The nest location is approximately 75 feet south of the northern off-site impact area, and 180 feet east of the On-Site Impact Area. Once a nesting location is established, Cooper's hawks often nest in the same area annually (Rosenfield and Beilefeldt 1996). Cooper's hawks that nest in this particular location are acclimated to a relatively loud environment from nearby road traffic, train noise, and high levels of human presence.

Yellow warbler (SSC) was observed near the northern study area boundary during riparian bird surveys. Yellow warbler has a low potential to nest in or within 300 feet of the proposed impact areas and has a higher potential to nest in riparian habitat near Loma Alta Creek in the northwestern part of the Parcel Area, away from the On-Site and Off-Site Impact Areas.

The monarch butterfly (*Danaus plexippus plexippus*) California overwintering population is a federal candidate for listing as threatened or endangered. A monarch was observed passing through the study area during a wildlife survey conducted in 2024. There is a high potential for monarch to forage in the study area when nectar sources are present and pass through the study area on occasion. However, the potential for monarch to overwinter in Eucalyptus trees in the study area is very low. In this region, monarchs typically overwinter in specific well-known locations in Eucalyptus trees most often closer to the coast, and overwintering monarchs were not observed in the study area during site visits conducted in winter. There are no known overwintering sites in or adjacent to the study area (Xerces 2024).

Four USFWS Birds of Conservation Concern were observed during wildlife surveys and include wrentit (*Chamaea fasciata*), western gull (*Larus occidentalis*; flyover), California thrasher (*Toxostoma redivivum*), and Nuttall's woodpecker (*Dryobates nuttallii*). Birds of Conservation Concern, without any additional status that would qualify them as special-status species for the purpose of this report, are not required to be assessed under CEQA, thus are not discussed further in this report.

Special-status species present or with moderate or high potential to occur in the study area are listed in Appendix F1, Special-Status Wildlife Species Detected or Potentially Occurring within the Biological Study Area. Other special-status species with moderate or high potential to occur in the study area include Southern California legless lizard, red diamondback rattlesnake, San Diegan tiger whiptail, coast patch-nosed snake, and south coast garter snake (CDFW 2024a). Of these, Southern California legless lizard and south coast garter snake have a low potential to occur in the proposed project area and are more likely to occur in the northwestern part of the biological study area near Loma Alta Creek. Yellow warbler has a low potential to nest in the On-Site or Off-Site Impact Areas and has a higher potential to nest near Loma Alta Creek. Special-status wildlife that occur in the vicinity but do not have potential to occur based on lack of suitable habitat, elevation, or geographic range are included in Appendix F2, Special-Status Wildlife Species with Low Potential and Not Expected to Occur within the Biological Study Area.

5.5 Jurisdictional Resources

The USFWS National Wetlands Inventory and USGS National Hydrography Dataset do not identify any features within the study area besides Loma Alta Creek (USFWS 2024b; USGS 2024). Loma Alta Creek crosses under the railroad tracks into the Parcel Area and passes through the northwestern part of the Parcel Area, continuing approximately 5 miles until its confluence with the Pacific Ocean. Vegetation mapped as disturbed southern willow scrub surrounding the creek would likely be regulated by CDFW as riparian habitat, and the creek below the OHWM would be regulated by USACE, RWQCB, and CDFW. Per Section 5.2.4 of the Oceanside Subarea Plan (City of Oceanside 2010), this riparian habitat would likely require a biological and planning buffer if development is proposed adjacent to Loma Alta Creek. Project impacts would completely avoid Loma Alta Creek and a 100-foot wetland buffer, thus it was excluded from the jurisdictional review area discussed in Appendix G. The jurisdictional review area focused on the eastern side of the biological study area, where impacts are proposed. The jurisdictional delineation within the development footprint is in the process of being verified by the USACE and RWQCB.

5.5.1 Aquatic Resources

This section describes the aquatic resources that were found to occur in the biological study area during the jurisdictional delineation.

The main drainage in the biological study area is Loma Alta Creek, which traverses the study area on the western side far removed from the on-site and off-site impact areas. Additionally, there are two isolated aquatic features within the Parcel Area that exhibit topographical relief or bed and bank. Both of these features originate and terminate within the study area and do not have a surface connection to any features, including a traditionally navigable water. These features are shown in Figure 4. Table 3 provides a detailed summary of aquatic resources delineated in the study area. Table 3 also includes descriptions of the features identified; Cowardin type, if available (Cowardin et al. 1979; USACE n.d.); any OHWM indicators present; location; and acreage/linear feet.

Photos of the potential aquatic features delineated within the study area and additional areas reviewed for the presence of these resources are provided in the report in Appendix G.

Loma Alta Creek

Loma Alta Creek is located far outside the proposed project area and off-site impact areas. The portion of Loma Alta Creek within the Parcel Area is approximately 10 to 15 feet wide and supports flowing water and scattered cattail, wooly sedge, yellow nutsedge, and bulrush. Wetland data points were taken within and adjacent to the creek, as well as in a nearby depression with saltgrass (*Distichlis spicata*) (Figure 4). A Stream Duration Assessment Method form was also used to collect data about the creek, indicating it is at least an intermittent channel. Appendix H includes the data forms. One portion of the creek along a terrace (SP-02) supported hydrophytic vegetation, hydric soils, and hydrology, indicating it is a wetland. Another data point was collected along the bank and although hydrophytic vegetation was present, hydric soils and hydrology were not. This area (and similar areas) was mapped as riparian habitat subject to CDFW's jurisdiction. SP-01 was negative for hydrophytic vegetation, hydric soils, and hydrology.

Loma Alta Creek continues southwest and off site where it becomes channelized in a concrete-lined channel near Crouch Street. The channel runs parallel to Oceanside Boulevard where it outlets into the Pacific Ocean approximately 5 miles west of the Parcel Area.

Feature 1 - Swale

Feature 1 is an isolated swale that is entirely within the Parcel Area and does not connect to any feature either directly or through a culvert. The swale develops in the eastern portion of the Parcel Area where the hillslope becomes steeper and terminates at the dirt path along the northern portion of the Parcel Area. The swale has a gentle topographic relief with grasses and some forbs. There is no break in bank. Dudek collected data using the Stream Duration Assessment Method (Appendix H), and the swale lacks relatively permanent water characteristics, such as surface water, hydrophytic vegetation, algal cover, or aquatic invertebrates. The RWQCB asserts jurisdiction over this feature.

Feature 2 – Erosional Feature

Feature 2 is an isolated erosional feature that is entirely within the Parcel Area and does not connect to any feature either directly or through a culvert. The erosional feature develops in the eastern portion of the Parcel Area where the hillslope becomes steeper and terminates at the dirt path along the northern portion of the Parcel Area. There is sudden break in bank at the southern dirt path. Based on aerial review, this erosional feature developed around the mid-1990s (Google Earth 2024). The erosional feature lacks relatively permanent water characteristics, such as surface water, hydrophytic vegetation, algal cover, or aquatic invertebrates. The RWQCB asserts jurisdiction over this feature.

Table 3 provides a summary of the presence or absence of indicators at each potential aquatic resource described above.

Table 3. Potential Waters of the State Summary for the Study Area

Feature Name	Jurisdiction	Observed OHWM Indicators[1]	Observed Wetland Parameters	Location (Latitude/ Longitude; Decimal Degrees)	Acres[2]
Wetland Waters					
Loma Alta Creek	USACE, RWQCB, CDFW	Not Recorded	Yes	33.202598, −117.294701	0.05
				Subtotal	*0.05*
Non-Wetland Waters					
Loma Alta Creek	USACE, RWQCB, CDFW	BBS; VC; DD; SR	Hydrology	33.202598, −117.294701	0.55
Feature 1	RWQCB	None	None	33.203716, −117.288533	0.007
Feature 2	RWQCB	BBS	None	33.203464, −117.289705	0.003
				Subtotal	*0.56*
Riparian					
Loma Alta Creek	CDFW	Not Recorded	Hydrophytic vegetation	33.202598, −117.294701	1.37
				Subtotal	*1.37*
				Grand Total	**1.98**

Sources: Appendix H; Cowardin et al. 1979.

Notes: OHWM = ordinary high-water mark; USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife
See Appendix G for additional details.

1 OHWM indicators: BBS = break in bank slope; VC = change in vegetation cover; DD = drift and/or debris deposits; SR = surface relief; None = no indicators

2 Acreages are rounded to the nearest hundredth; therefore, totals may not sum precisely.

Waters of the United States (USACE)

Loma Alta Creek is an intermittent channel that meets the relatively permanent standard and outlets into the Pacific Ocean, a traditionally navigable water; therefore, it is likely regulated by USACE.

Feature 1 would not be considered jurisdictional by USACE under an exclusion in the conforming Rule. The feature did not meet the parameters to be considered a federal wetland or have consistent flows. As such, Feature 1 would be considered a swale "characterized by low volume, infrequent, or short duration flow" per 33 CFR 328.3(b)(8). Feature 2 would not be considered jurisdictional by USACE under an exclusion in the conforming Rule. The feature did not meet the parameters to be considered a federal wetland or have consistent flows. As such, Feature 2 would be considered an erosional feature "characterized by low volume, infrequent, or short duration flow" per 33 CFR 328.3(b)(8).

Waters of the State (RWQCB)

RWQCB regulates surface water, including stormwater, and groundwater. Although the RWQCB relies on the USACE 1987 Manual to define wetlands, non-wetland features are generally evaluated based on whether they may be regulated under the Porter–Cologne Act. Features 1 and 2 described above are subject to regulation by the RWQCB under the Porter–Cologne Act because they appear to demonstrate conveyance of water and/or groundwater.

California Department of Fish and Wildlife Jurisdiction

The potential CDFW features within the study area are the same as those described in Section 5.5.1, Potential Aquatic Resources. Loma Alta Creek and the surrounding riparian habitat would be subject to California Fish and Game Code Section 1600. However, Feature 1 lacks a bed and bank, and therefore would not be considered a streambed, and Feature 2 is an erosional feature; neither of these would be regulated under California Fish and Game Code Section 1600.

5.6 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 study area is surrounded by development to the immediate north, east, and south, which limits movement of larger mammals. Although relatively isolated from large undeveloped areas and other Preserves, native vegetation communities present, including Diegan coastal sage scrub, southern mixed chaparral, and disturbed southern willow scrub, likely serve as a stepping-stone for dispersing or migrating birds. The various vegetation communities support a variety of birds, reptiles, invertebrates, and small mammals commonly found in upland scrub.

The study area supports use by local urban-adapted species such as northern raccoon (*Procyon lotor*), desert cottontail, and most likely, coyote (*Canis latrans*).

5.7 Wetland Buffer

Per Section 5.2.4 of the Oceanside Subarea Plan (City of Oceanside 2010), a 50-foot biological buffer plus a 50-foot planning buffer are recommended from the edge of the disturbed southern willow scrub mapped in the Parcel Area. This 100-foot buffer is shown in Figure 6, Impacts to Biological Resources. Prior to entering the Parcel Area, Loma Alta Creek flows parallel to the north side of the railroad tracks. The existing railroad tracks act as a buffer from this area, and additionally, the impact areas of the proposed project are just over 100 feet south of the creek. The creek passes under the railroad tracks and into the Parcel Area in the northwestern part of the Parcel Area. The limits of the proposed project are more than 300 feet east of the mapped riparian area associated with the portion of Loma Alta Creek that passes through the Parcel Area. The Subarea Plan provides that "In the event that natural habitats do not currently (at the time of proposed action) cover the 50-foot buffer area, native habitats appropriate to the location and soils shall be restored as a condition of project approval" (City of Oceanside 2010). The Subarea Plan further states that "coastal sage scrub vegetation [is] be the preferred habitat to restore within the biological buffer" (City of Oceanside 2010). Coastal sage scrub vegetation makes up the majority of the habitat present within 50 feet of the riparian area, and thus the existing Parcel Area currently complies with this aspect of the Oceanside Subarea Plan and the project would not disturb those resources.

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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 the permanent footprint that will be restored to its pre-project conditions, and permanent impacts refer to the buildings, roads, and other permanent structures. 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 apartments to open space areas. For this project, all impacts are assumed to be permanent.

Cumulative impacts refer to incremental individual environmental effects over the long-term implementation of the project when considered together with other impacts from other projects in the area. These impacts taken individually may be minor, but can become collectively significant as they occur over 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 that section, a proposed project may have a significant effect on the environment if the project 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 the major period of California history or prehistory.

6.2 Direct Impacts

Permanent impacts would consist of the on-site grading and development of the proposed project, and off-site impacts from the extension of Olive Drive, the pedestrian connection to the Sprinter Station, and construction of an emergency access road from College Boulevard to the Parcel Area.

6.2.1 Vegetation Communities

The proposed project would result in permanent direct impacts to disturbed habitat (3.45 acres), urban/developed (0.14 acres), Diegan coastal sage scrub (1.26 acres), disturbed southern mixed chaparral (2.45 acres), and non-native grassland (4.33 acres). These impacts are summarized in Table 4 and their spatial distributions are shown in Figure 6.

Table 4. Permanent Impacts to and Proposed Mitigation for Vegetation Communities and Land Covers

Vegetation Community/ Land Cover Type	Proposed Impacts (Acres)		Total Impacts (Acres)[a]	Mitigation		Conservation Easement (Acres)	Mitigation Excess or (Deficit) (Acres)
	On Site	Off Site		Mitigation Ratio[b]	Mitigation Required (Acres)		
Disturbed Habitat	3.03	0.43	3.45	None	0	3.69	+0.24
Urban/ Developed	0.14	0.11	0.25	None	0	0.06	0
Diegan Coastal Sage Scrub	0.92	0.34	1.26	2:1[c]	2.52	14.72	+12.20
Diegan Coastal Sage Scrub (Disturbed)	0	0	0	2:1[c]	0	1.99	+1.99
Southern Mixed Chaparral	0	0	0	1:1	0	7.12	+4.66 acres excess after 0.30-acre deficit for southern mixed chaparral (disturbed) and 2.16-acre deficit for non-native grassland is applied
Southern Mixed Chaparral (Disturbed)	2.45	0	2.45	1:1	2.45	2.15	0 (see southern mixed chaparral, above)
Non-Native Grassland	4.33	0	4.33	0.5:1	2.16	0	0 (see southern mixed chaparral)
Freshwater Marsh	0	0	0	4:1	0	0.05	+0.05
Southern Willow Scrub (Disturbed)	0	0	0	3:1	0	1.37	+1.37

Table 4. Permanent Impacts to and Proposed Mitigation for Vegetation Communities and Land Covers

Vegetation Community/ Land Cover Type	Proposed Impacts (Acres)		Total Impacts (Acres)[a]	Mitigation		Conservation Easement (Acres)	Mitigation Excess or (Deficit) (Acres)
	On Site	Off Site		Mitigation Ratio[b]	Mitigation Required (Acres)		
Non-Vegetated Channel	0	0	0	4:1	0	0.55	+0.55
Eucalyptus Woodland	0	0	0	None	0	0.92	+0.92
Total[a]	**10.87**	**0.88**	**11.75**	**N/A**	**7.13**	**32.63**	**+21.98**

Notes:

[a] Acreages may not sum precisely due to rounding.

[b] Per Table 5-2 in the Subarea Plan (City of Oceanside 2010).

[c] Per the Subarea Plan, "impacts to coastal sage scrub in the Coastal Zone and Agency approved areas of the Offsite Mitigation Zone shall be mitigated at a 2:1 ratio" (City of Oceanside 2010). The Parcel Area is within the "Offsite Mitigation Zone."

Impacts to Diegan coastal sage scrub, disturbed southern mixed chaparral, and non-native grassland require mitigation, per Table 5-2, Mitigation Standards for Impacts to Natural Vegetation and Habitat, in the Oceanside Subarea Plan (City of Oceanside 2010). Permanent impacts to Diegan coastal sage scrub, disturbed southern mixed chaparral, and non-native grassland are considered a potentially significant impact. The permanent loss of these vegetation communities would be mitigated to less than significant through the on-site conservation of the remainder of the Parcel Area that is not proposed to be impacted, as described in Mitigation Measure (MM-) BIO-1 (Designation of Open Space), provided in Section 7.1, Minimization and Mitigation Measures. A portion (2.46 acres) of the excess 7.12 acres of southern mixed chaparral would be used to mitigate for the 0.30-acre deficit of disturbed southern mixed chapparal (compared to what is in the conservation easement area) and the 2.16-acre impact to non-native grassland (the conservation easement area does not contain non-native grassland). The non-native grassland that the project would disturb does not support any grassland-exclusive species, such as burrowing owl (*Athene cunicularia*) or *Brodiaea*, but rather provides general habitat for the species commonly found throughout the study area. The southern mixed chaparral provides habitat for the species that have been observed in the grassland, such as California towhee (*Melozone crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), and desert cottontail, as well as providing potential habitat to support some of the special-status species that have potential to occur, such as red diamondback rattlesnake, San Diegan tiger whiptail, coast patch-nosed snake, and potential foraging habitat for Crotch's bumble bee. Therefore, the various habitats included in the conservation easement area would provide a similar biological function and value as the habitat being impacted.

Permanent impacts to disturbed habitat totaling 3.45 acres and to urban/developed totaling 0.25 acres that would result from the proposed project would be less than significant and no mitigation is required.

Coast live oak (*Quercus agrifolia*) individual(s) are present in the northern part of the northern off-site parcel, outside of the Off-Site Impact Area. All existing coast live oak trees will remain and impacts to the species would be avoided.

Direct impacts to sensitive vegetation communities would be mitigated to a level below significant with implementation of MM-BIO-1 (Designation of Open Space), and potentially significant direct impacts to sensitive

vegetation would be avoided through implementation of PDF-BIO-1 (Biological Resource Minimization Measures), MM-BIO-5 (Temporary Fencing), and MM-BIO-4 (Biological Monitoring).

6.2.2 Special-Status Plant Species

Special-status plants observed in the biological study area during the site visit with a CRPR of 1 or 2 (San Diego marsh elder) are located near Loma Alta Creek and over 300 feet from the limits of the proposed project and would not be directly impacted by the proposed project. Plant species with a CRPR of 4 (i.e., ashy spike-moss) are considered limited distribution or watchlist species and less sensitive/rare than plant species with a CRPR of 1 through 3 (CNPS 2024). A small amount of ashy spike-moss overlaps the southern boundary of the On-Site Impact Area and may be impacted by the proposed project.

CNPS specifies that plants with a CRPR of 4 are species which warrant population monitoring in general, but currently seem to have a low level of vulnerability to threat of extinction statewide (CNPS 2020). Furthermore, CRPR 4 species "generally do not currently appear to meet the criteria for listing as threatened or endangered", and thus typically are not required to have impacts assessed according to CEQA guidelines (CNPS 2020). Certain CRPR 4 species under specific population and geographic range-related circumstances may meet CEQA Section 15380 definitions which would qualify the species for impact assessment, including if the species is included in sensitive species lists maintained by the U.S. Bureau of Land Management (BLM), USFWS, or U.S. Forest Service (USFS) (CNPS 2020). Ashy spike-moss is not included on BLM, USFWS, or USFS sensitive plant species lists (BLM 2024; USFS 2024; USFWS 2024c).

Because San Diego marsh elder would not be impacted, there would be no direct impacts to special-status plant species with a CRPR of 1 or 2, and therefore direct impacts to special-status plants as a result of the proposed project would be less than significant.

6.2.3 Special-Status Wildlife Species

If special-status wildlife is present within the On-Site Impact Area or Off-Site Impact Area during ground-disturbing activities, such as grubbing or grading, or during other construction activities involving machinery, wildlife individuals could be killed or injured. Direct impacts to special-status wildlife that could occur within the On-Site Impact Area or Off-Site Impact Area during construction of the proposed project would be avoided through implementation of PDF-BIO-1 (Biological Resource Minimization Measures), MM-BIO-3 (Nesting Bird Surveys), MM-BIO-4 (Biological Monitoring), and MM-BIO-8 (Crotch's Bumble Bee Pre-Construction Survey). Mitigation for loss of suitable habitat for special-status wildlife species with potential to occur in the study area would be accomplished through on-site preservation of suitable habitat per MM-BIO-1 (Designation of Open Space) and/or in accordance with CDFW guidance, and thus impacts would be less than significant.

Coastal California Gnatcatcher and Critical Habitat

The parcel to the west of the project Parcel Area and a small area (0.37 acres) within the western boundary of the Parcel Area are designated as critical habitat for coastal California gnatcatcher (see Figure 5). It appears likely that the critical habitat mapping was intended to end along the boundary of the Parcel Area and not continue into the Parcel Area. Nonetheless, proposed project impacts would occur entirely in the easternmost part of the study area and would not impact or occur near any designated critical habitat. Thus, there would be no direct impacts to designated critical habitat. Coastal California gnatcatchers were not detected within the biological study area during

focused surveys conducted from 2023 into 2024, and thus are not expected to occur in the study area during construction of the proposed project. Direct impacts to all nesting birds, which would include coastal California gnatcatcher if the species were present, would be avoided through implementation of MM-BIO-3 (Nesting Bird Surveys). Thus, there would be no direct impacts to coastal California gnatcatcher.

Least Bell's Vireo

This species is typically found in more extensive and denser riparian habitat than is found in the biological study area. Due to the presence of riparian habitat in the study area and records of occurrence within 0.5 miles of the study area (CDFW 2024a), focused surveys for this species were in 2024. There is one known CNDDB occurrence of this species roughly 0.25 miles west of the Parcel Area from 2001, in a wider area of riparian habitat along Loma Alta Creek (CDFW 2024a). There is no designated critical habitat for least Bell's vireo in the biological study area. There would be no direct impacts to disturbed southern willow scrub.

Least Bell's vireo was not detected in the biological study area during focused surveys conducted in 2024, and thus is not expected to occur in the study area during construction of the proposed project. Direct impacts to all nesting birds, which would include least Bell's vireo if the species were present, would be avoided through implementation of MM-BIO-3 (Nesting Bird Surveys). Additionally, the most suitable habitat present for the species is disturbed southern willow scrub, which is present along the portion of Loma Alta Creek in the northwestern part of the Parcel Area, and direct impacts would occur entirely in the eastern part of the study area. Thus, there would be no direct impacts to least Bell's vireo.

Southwestern Willow Flycatcher

This species is typically found in more extensive and denser riparian habitat than is found in the biological study area, and it has become increasingly rare in the region. Due to the presence of riparian habitat in the study area, focused surveys for this species were in 2024. There are no known CNDDB occurrences within 1 mile of the study area, but there are multiple occurrences within 5 miles of the study area (CDFW 2024a). There is no designated critical habitat for southwestern willow flycatcher in the biological study area, and there would be no direct impacts to disturbed southern willow scrub.

Southwestern willow flycatcher was not detected within the biological study area during focused surveys conducted in 2024**,** and thus they are not expected to occur in the study area during construction of the proposed project. Direct impacts to all nesting birds, which would include southwestern willow flycatcher if the species were present, would be avoided through implementation of MM-BIO-3 (Nesting Bird Surveys). Additionally, the most suitable habitat present for the species is disturbed southern willow scrub, which is present along the portion of Loma Alta Creek in the northwestern part of the Parcel Area, and direct impacts would occur entirely in the eastern part of the study area. Thus, there would be no direct impacts to southwestern willow flycatcher.

Crotch's Bumble Bee

If Crotch's bumble bees were nesting in the limits of the On-Site Impact Area or Off-Site Impact Area during ground-disturbing activities, such as grubbing or grading, individuals could be killed or injured. This direct impact would be avoided and mitigated to a less-than-significant level with implementation of MM-BIO-8 (Crotch's Bumble Bee Pre-Construction Survey).

Other Special-Status Species

Additional special-status species detected or with a moderate or high potential to occur are listed in Appendix F1 and include Cooper's hawk, Southern California legless lizard, red diamondback rattlesnake, San Diegan tiger whiptail, coast patch-nosed snake, south coast garter snake, yellow warbler, and monarch butterfly. Monarch butterfly is only expected to forage or pass through the study area on occasion, and thus no direct impacts to an overwintering population of the species would be expected to result from implementation of the proposed project. Of these, Southern California legless lizard, south coast garter snake, and yellow warbler have a low potential to occur in the On-Site Impact Area or Off-Site Impact Area and are more likely to occur in the northwestern part of the Parcel Area near Loma Alta Creek. Impacts to 3.45 acres of disturbed habitat, 1.26 acres of Diegan coastal sage scrub, 2.45 acres of disturbed southern mixed chaparral, and 4.33 acres of non-native grassland are not likely to result in loss of breeding or nesting habitat for Cooper's hawk or yellow warbler, but could result in loss of foraging and/or breeding habitat for red diamondback rattlesnake, San Diegan tiger whiptail, and coast patch-nosed snake , a potentially significant impact. The permanent loss of habitat would be mitigated to less than significant through the preservation of 8.19 acres of the 32.63-acre conservation easement area. As shown in Table 4, the remaining 24.44 acres of conservation easement is available for mitigation unrelated to project impacts. See MM-BIO-1 (Designation of Open Space).

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-3 (Nesting Bird Surveys).

6.2.4 Jurisdictional Resources

There would be no direct impacts to Loma Alta Creek or its associated 100-foot wetland buffer.

The project has been designed to avoid and minimize impacts to waters of the state to the extent feasible. However, two jurisdictional aquatic features occur in the eastern portion of the Parcel Area, and project development would result in the fill of both features for a total of 0.01 acres, 400 linear feet, and approximately 14 cubic yards. The applicant will obtain authorization from the San Diego RWQCB under the Porter–Cologne Act in accordance with the General Order for Waste Discharge Requirements. The General Order requires a minimum of one-to-one mitigation ratio, measured as area or length, to compensate for wetland or stream losses. This direct impact would be addressed consistent with the Waste Discharge Requirements through implementation of PDF-BIO-2 (General Order for Waste Discharge Requirements) to achieve no net loss of wetlands. The project shall secure non-federal wetlands/waters of the state credits at a ratio of 1 to 1 for the filling of aquatic features, or if no credits are available for purchase, no net loss may be achieved through either off-site permittee-responsible mitigation at a resource agency-approved location or on-site permittee responsible mitigation consisting of the creation of 0.01 acres/400 linear feet of ephemeral aquatic resources within the proposed project limits assessed in this report, to be achieved as described in PDF-BIO-2. Therefore, this impact would be less than significant.

6.2.5 Wildlife Corridors/Habitat Linkages

The study area is outside of the Wildlife Corridor Planning Zone designated by the Oceanside Subarea Plan (City of Oceanside 2010). The study area is surrounded by development to the north (including the railroad tracks), east,

west, and south, which limits movement of larger mammals. The habitats in the study area likely serve as a stepping-stone for dispersing and migrating avian individuals, as well as habitat for resident wildlife species. Loma Alta Creek is a small riparian corridor that may provide habitat for a variety of avian species, some fish species, common amphibians such as chorus frogs (*Pseudacris* sp.), raccoons, and other urban-adapted mammals. The on-site and off-site impact areas are more than 300 feet from Loma Alta Creek and largely disturbed with dirt paths regularly used by people and some illegal encampments that limit use of the area by larger animals. The primary species in the study area include commonly found birds, lizards, snakes, small mammals, and invertebrates. Therefore, the development of approximately 11.75 acres concentrated in the eastern portion of the study area and off-site area would not result in significant impacts to wildlife corridors or habitat linkages. Further, as shown in Table 4, the western portion of the study area, including the portion of Loma Alta Creek located in the study area, would be preserved as a conservation easement area. Therefore, no significant impacts to wildlife corridors or habitat linkages would occur as a result of the proposed project, and impacts would be less than significant.

6.2.6 Wetland Buffer

Prior to entering the study area, Loma Alta Creek flows parallel to the north side of the railroad tracks. The impact areas for the proposed project are just over 100 feet south of the off-site portion of the creek, with the railroad tracks acting as a buffer between them. The creek passes under the railroad tracks and into the study area in the northwestern portion of the study area. The On-Site Impact Area and Off-Site Impact Areas are more than 300 feet east of the mapped riparian vegetation associated with the portion of Loma Alta Creek that passes through the study area. Within the 50-foot biological buffer and additional 50-foot planning buffer from the creek, the primary vegetation community is coastal sage scrub, with some southern mixed chaparral and eucalyptus, which provide an upland buffer to the riparian area, consistent with the Oceanside Subarea Plan. Thus, there would be no impact to the Subarea Plan's 100-foot buffer surrounding the riparian vegetation associated with Loma Alta Creek 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 special-status vegetation communities and special-status plants in the biological study area could 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; increased human activity; and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts could affect special-status vegetation communities within the biological study area and any special-status plants that have a moderate to high potential to occur in the biological study area. These potential impacts are described in detail in the following paragraphs and would be reduced to less than significant through implementation of PDF-BIO-1 (Biological Resource Minimization Measures), PDF-AQ-1 (Dust Control and Air Quality Measures), MM-BIO-4 (Biological Monitoring), and MM-BIO-5 (Temporary Installation of Fencing).

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. Dust is only expected to be a potential impact in the area immediately surrounding the on-site and off-site impact areas. Short-term potential indirect impacts from dust would be minimized to less than significant through implementation of PDF-AQ-1 (Dust Control and Air Quality Measures), and implementation would be ensured and documented through MM-BIO-4 (Biological Monitoring).

Changes in Hydrology and Chemical Pollutants. Construction could result in hydrologic impacts adjacent to and downstream of the limits of grading. 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. However, all proposed project grading would be subject to restrictions and requirements that address erosion and runoff, including the federal CWA and the National Pollutant Discharge Elimination System, and preparation of a Stormwater Pollution Prevention Plan and Standard Urban Stormwater Management Plan. These programs would reduce any proposed project impacts with respect to erosion/runoff and potential impacts from chemical pollutants to less than significant.

Increased Human Activity. Increased human activity during construction could result in the potential for trampling of vegetation and soil compaction outside of the On-Site and Off-Site Impact Areas, 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. The area proposed for development is either ~~subject to fuel modification~~ previously disturbed and mostly lacks native woody vegetation, and/or is already frequently traversed by trespassing individuals. Increased human activity within the On-Site and Off-Site Impact Areas can lead to the generation of trash and debris, which could affect viability of sensitive vegetation if discarded outside of the On-Site and Off-Site Impact Areas. Some localized security-related lighting, on-site security personnel, and/or a remotely monitored alarm system may be required during construction. Potential impacts from additional human activity during project construction would be minimal and would not result in significant impacts to species using the adjacent areas. Short-term indirect impacts to sensitive vegetation and plants would be less than significant with implementation of MM-BIO-5 (Temporary Installation of Fencing), which would prevent construction personnel from accessing areas outside of the approved On-Site and Off-Site Impact Areas; PDF-BIO-1 (Biological Resource Minimization Measures); and MM-BIO-4 (Biological Monitoring).

Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the project to special-status vegetation communities and/or special-status plants after construction. Potential permanent indirect impacts that could affect special-status vegetation communities include chemical pollutants, altered hydrology, non-native invasive species, and increased human activity. There is currently a relatively high level of human disturbance in the study area, and each of the potential indirect impacts is discussed in the following paragraphs. These would be mitigated through implementation of MM-BIO-1 (Designation of Open Space), MM-BIO-2 (Permanent Fencing and Signage), and MM-BIO-6 (Invasive Species Prohibition).

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 impact areas; therefore, no significant impacts associated with chemical pollutants would occur.

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 impact areas, and long-term indirect impacts associated with altered hydrology are not expected.

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 of or seed dispersal agents for plants within vegetation communities and special-status plant populations. However, the proposed development is situated in an area already disturbed by non-native species and human activity, and all landscaping associated with the proposed project would exclude invasive species listed on the California Invasive Plant Council's Inventory, per MM-BIO-6 (Invasive Species Prohibition). The remainder of the study area not proposed for development would be placed within an open space easement and managed to reduce the number of non-native species in those areas and the potential for disturbance of native and protected plant species, per MM-BIO-1 (Designation of Open Space) and MM BIO-2 (Permanent Fencing and Signage).

Increased Human Activity. The project proposes to develop a maximum of 260 multi-family residential units under Option A or 287 dwelling units under Option B with a different unit mix. Increased human activity could result in the potential for trampling of vegetation, an increase in trash and debris, and soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. An increased human population increases the risk for damage to vegetation communities and/or special-status plants. The area proposed for development is either ~~subject to fuel modification~~ previously disturbed and mostly lacks native woody vegetation, and/or is already frequently traversed by trespassing individuals. With the designation of open space (MM-BIO-1) and construction of permanent fencing (MM-BIO-2), this impact would be mitigated to less than significant.

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 or have a moderate or high potential to occur within the biological study area (e.g., Cooper's hawk, Southern California legless lizard, red diamondback rattlesnake, San Diegan tiger whiptail, coast patch-nosed snake, south coast garter snake, yellow warbler, Crotch's bumble bee, and monarch) would primarily result from construction activities. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, chemical

pollutants, lighting, increased human activity, and invasive predators and non-native animal species. These impacts are described in detail in the following paragraphs. Impacts would be mitigated to less than significant through implementation of PDF-BIO-1 (Biological Resource Minimization Measures), PDF-AQ-1 (Dust Control and Air Quality Measures), MM-BIO-3 (Nesting Bird Surveys), MM-BIO-4 (Biological Monitoring), and MM-BIO-5 (Temporary Installation of Fencing).

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. Dust is only expected to be a potential impact in the area immediately surrounding the On-Site and Off-Site Impact Areas. Short-term potential indirect impacts from dust would be minimized to less than significant through implementation of PDF-AQ-1 (Dust Control and Air Quality Measures), and implementation would be ensured and documented through MM-BIO-4 (Biological Monitoring).

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, as cited in Lovich and Ennen 2011). Suitable native habitat is present west of the on-site impact area, which would provide refuge for wildlife, including preservation of the ability to move temporarily to avoid loud construction noises. Additionally, the study area is already subject to a baseline level of noise from the nearby trains, roads, and human disturbance. Potential noise impacts to nesting birds would be avoided and minimized through implementation of MM-BIO-3 (Nesting Bird Surveys), appropriate disturbance avoidance buffers would be implemented for any active nests, and monitoring would ensure avoidance and minimization of impacts through implementation of MM-BIO-4 (Biological Monitoring). Therefore, short-term indirect impacts due to noise would be less than significant.

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. 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 On-Site and Off-Site Impact Areas; therefore, impacts associated with chemical pollutants would be less than significant.

Lighting. Night lighting during construction could alter natural behavior of wildlife. Night work is not proposed for this project, and the study area is in an urban area subject to light pollution. Any localized security-related lighting necessary during construction would be directed downward and away from the open space easement where wildlife occurs in more abundance, per PDF-BIO-1 (Biological Resource Minimization Measures). Therefore, short-term lighting impacts would be less than significant.

Increased Human Activity. Construction activities can deter wildlife from using habitat near impact areas and increase the potential for vehicle collisions. Because the on-site and off-site impact areas are already illegally used by people, the proposed project would result in a removal of all illegal use of the area and allow wildlife to better use the areas outside of the impact areas. Nighttime work is not proposed. Some localized security-related lighting, on-site security personnel, and/or a remotely monitored alarm system may be required during construction. Potential impacts from human activity would be minimal and not result in significant impacts to species using the adjacent areas. Additionally, MM-BIO5 (Temporary Installation of Fencing) would prevent construction personnel from accessing areas outside of the approved On-Site and Off-Site Impact Areas. Thus, this impact would be less than significant.

Invasive Predators and Non-Native Animal Species. Trash from construction-related activities could attract predators, such as ravens and raccoons, in higher numbers than occur naturally in the area; this increase in predators could negatively affect the wildlife species in the areas adjacent to the On-Site and Off-Site Impact Areas. Pets such as dogs brought to the construction site would also negatively impact wildlife using habitat adjacent to the On-Site and Off-Site Impact Areas. This impact would be reduced to less than significant through implementation of PDF-BIO-1 (Biological Resource Minimization Measures) and MM-BIO-4 (Biological Monitoring), which would ensure that all trash is removed from the study area, including off-site work areas, each day.

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 non-native, invasive plant and animal species; increased human activity; lighting; and window collisions. The building windows would comply with the California Green Building Standards Code, Section A5.107, which provides recommendations on how to incorporate bird-friendly designs into the building by reducing glare on windows (see PDF-BIO-3). These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of MM-BIO-2 (Permanent Fencing and Signage), MM-BIO-6 (Invasive Species Prohibition), and MM-BIO-7 (Resident Education Program).

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 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. Invasive species will be prohibited through MM-BIO-6. The intrusion of pets such as domestic cats into sensitive habitat adjacent to the on-site and off-site impact areas could negatively affect populations of native wildlife. However, the proposed development is situated in an area already disturbed by non-native species and human activity. Additionally, residents would be educated about invasive species and the importance of keeping cat food and pet cats indoors, per MM-BIO-7 (Invasive Species Prohibition). The remainder of the Parcel Area not proposed for development would be placed within an open space easement and managed to reduce the number of non-native species and to protect those areas per MM-BIO-1 (Designation of Open Space), which would have permanent fencing and signage per MM-BIO-2. This impact would be mitigated to less than significant through implementation of MM-BIO-1 (Designation of Open Space), MM-BIO-2 (Permanent Fencing and Signage), MM-BIO-6 (Invasive Species Prohibition), and MM-BIO-7 (Resident Education Program).

Increased Human Activity. The project proposes to develop a maximum of 260 multi-family residential units under Option A or 282 dwelling units under Option B with a different unit mix. Increased human activity could result in an increase in trash and debris adjacent to the developed area, causing habitat degradation. The project would also increase the potential for 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. However, the proposed development is situated in a previously graded area with existing human disturbance. Because the on-site and off-site impact areas are already illegally used by people, the proposed project would result in removal of all illegal use of the site and allow wildlife to better use the areas outside of the impact areas. The

parts of the Parcel Area not proposed to be impacted would be placed within an open space easement and managed to minimize human activity in those areas. With the designation of open space (MM-BIO-1), construction of permanent fencing (MM-BIO-2), and educating residents (MM-BIO-7, Resident Education Program), this impact would be mitigated to less than significant.

Lighting. As required by the Oceanside Municipal Code and building codes, lighting would be directed downward and away from the open space easement where wildlife will occur. The buildings and parking areas would include lighting designed to minimize light pollution and preserve dark skies. Therefore, long-term lighting impacts would be less than significant.

Collision. The building windows would comply with the California Green Building Standards Code, Section A5.107, which provides recommendations on how to incorporate bird-friendly designs by reducing glare on windows (see PDF-BIO-3). The design of the proposed development would include standard, non-reflective glass windows used in residential developments of this type to minimize the potential bird collisions with windows. Additionally, as reflected on the project plans, the windows proposed for the building are minimal in comparison to the building scale. Windows are proposed at the entryways, and standard sized windows would be placed along the exterior of the building with wide, solid spaces between them to break up the glass. There would be no floor-to-ceiling windows around the building facades.

6.3.3 Jurisdictional Resources

Short-Term Indirect Impacts

Potential short-term or temporary indirect impacts to jurisdictional resources in or 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; the introduction of chemical pollutants, including herbicides; and increased human activity. However, Loma Alta Creek is approximately 300 feet from the On-Site Impact Area, with a variety of upland habitats providing a natural buffer, and the final completed developed footprint of the proposed project would be even smaller than the On-Site Impact Area (approximately 6 acres). Thus, indirect impacts to jurisdictional aquatic resources would be less than significant. Potential short-term indirect impacts that could affect jurisdictional aquatic resources within or adjacent to the biological study area are described in detail in the following paragraphs. PDF-AQ-1 (Dust Control and Air Quality Measures), MM-BIO-4 (Biological Monitoring), and MM-BIO-5 (Temporary Installation of Fencing) would ensure that potential short-term indirect impacts would be less than significant.

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. Dust from project construction would be controlled per PDF-AQ-1 (Dust Control and Air Quality Measures). Dust is only expected to be a potential impact in the area immediately surrounding the On-Site and Off-Site Impact Areas, and therefore would not impact Loma Alta Creek, which is approximately 300 feet from the impact areas. Indirect impacts would be less than significant.

Changes in Hydrology and Chemical Pollutants. Construction could result in hydrologic impacts adjacent to and downstream of the limits of grading. 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. Loma Alta Creek is approximately 300 feet from the On-Site Impact Area, with a variety of

upland habitats providing a natural buffer. Additionally, all proposed project grading would be subject to restrictions and requirements that address erosion and runoff, including the federal CWA and the National Pollutant Discharge Elimination System, and preparation of a Stormwater Pollution Prevention Plan and Standard Urban Stormwater Management Plan. These programs are expected to minimize proposed project impacts to less than significant with respect to erosion/runoff, and potential impacts from chemical pollutants.

Increased Human Activity. Increased human activity during construction could result in potential degradation of aquatic resources outside of the on-site and off-site impact areas. Increased human activity within impact areas can lead to the generation of trash and debris, which could find its way into aquatic resources if not properly contained and discarded appropriately. Potential impacts from additional human activity during project construction would be minimal and not result in significant impacts to species using the adjacent areas. Implementation of MM-BIO-5 (Temporary Installation of Fencing), which would prevent construction personnel from accessing areas outside of the approved on-site and off-site impact areas, as well as implementation of PDF-BIO-1 (Biological Resource Minimization Measures) and MM-BIO-4 (Biological Monitoring), would ensure that impacts would be less than significant.

Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the project to jurisdictional aquatic resources after construction. However, Loma Alta Creek is approximately 300 feet from the proposed On-Site Impact Area, with a variety of upland habitats providing a natural buffer. In addition, the final completed developed footprint of the proposed project would be even smaller than the on-site impact area (approximately 6 acres); thus, indirect impacts to jurisdictional aquatic resources would be less than significant. 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 less than significant with implementation of MM-BIO-2 (Permanent Fencing and Signage) and MM-BIO-6 (Invasive Species Prohibition).

Chemical Pollutants. The effects of chemical pollutants on jurisdictional resources are the same as for short-term indirect impacts described above.

Altered Hydrology. Water used for landscaping purposes may alter the adjacent hydrologic regime. These hydrologic alterations may affect nearby jurisdictional resources. Water and associated runoff associated with landscaping activities would be contained within the project impact areas, and long-term indirect impacts associated with altered hydrology are not expected.

Non-Native, Invasive Plant and Animal Species. The effects of non-native, invasive plant and animal species would be similar to those described above for vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within nearby jurisdictional resources. However, the proposed development is situated in a previously graded area already disturbed by non-native species and human activity. Native habitats within the open space easement would be managed to reduce the number of non-native species in those areas per MM-BIO-1 (Designation of Open Space). MM-BIO-2 (Permanent Fencing and Signage) and MM-BIO-6 (Invasive Species Prohibition) would further ensure that impacts would be less than significant.

Increased Human Activity. The potential long-term indirect effects of increased human activity would be similar to those described above for vegetation communities. An increased human population increases the risk for damage

to jurisdictional resources; however, the study area is already subject to a high level of human disturbance, including near Loma Alta Creek. MM-BIO-2 provides for installation of fencing and signage to prevent easy access into the open space area. The portion of Loma Alta Creek that is within the Parcel Area is completely within the open space easement and would be managed in perpetuity.

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, construction noise, and lighting. These impacts are described in detail in the following paragraphs and would be mitigated to less than significant through implementation of PDF-BIO-1 (Biological Resource Minimization Measures), MM-BIO-4 (Biological Monitoring), and MM-BIO-5 (Temporary Installation of Fencing).

Increased Human Activity. Project construction would occur during the daytime and would not affect wildlife species such as most mammals that are most active in evenings and at night. 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 within and adjacent to the biological study area for wildlife movement. The proposed project would result in removal of the existing unpermitted use of the study area as a location for dumping trash and other unauthorized activities, and construction fencing would protect the study area, including off-site work areas, from unanticipated impacts. Nighttime work is not proposed. Potential impacts from additional human activity during construction would be minimal and not result in significant impacts to species using adjacent areas. Additionally, MM-BIO5 (Temporary Installation of Fencing) would prevent construction personnel and equipment from accessing areas outside of the approved on-site and off-site impact areas. This impact would be less than significant with implementation of PDF-BIO-1 (Biological Resource Minimization Measures), MM-BIO-5, and MM-BIO-4 (Biological Monitoring).

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 effects on their movement patterns. Suitable native habitat is present west of the On-Site Impact Area, which would provide refuge for wildlife, including preservation of the ability to safely move temporarily to avoid loud construction noises. Additionally, the study area is already subject to a baseline level of noise from the nearby trains, roads, and human disturbance. Thus, short term indirect impacts due to noise to wildlife using adjacent habitat for movement would be less than significant.

Lighting. Night lighting during construction could alter natural behavior of wildlife. Night work is not proposed for this project, and the study area is located in an urban area subject to light pollution. Some localized security-related lighting, on-site security personnel, and/or a remotely monitored alarm system may be required during construction. Any localized security-related lighting necessary during construction would be directed downward and away from the open space easement where wildlife occurs in more abundance, per PDF-BIO-1 (Biological Resource Minimization Measures). Therefore, short-term lighting impacts would be less than significant.

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 PDF-BIO-1 (Biological Resource Minimization Measures), MM-BIO-1 (Designation of Open Space), MM-BIO-2 (Permanent Fencing and Signage), MM-BIO-4 (Biological Monitoring), and MM-BIO-6 (Invasive Species Prohibition).

Increased Human Activity. The project proposes to develop a maximum of 260 multi-family residential units (Option A) with an option to build 282 dwelling units (Option B) with a different unit mix. Increased human activity can deter wildlife from using habitat areas near the proposed project. However, the project is situated in an area with a high level of existing human disturbance, and animals that currently use the area are likely tolerant of urbanized settings. Additionally, because the on-site and off-site impact areas are already illegally used by people, the proposed project would result in a removal of all illegal use of the site and allow wildlife to better use the areas outside of proposed On-Site and Off-Site Impact Areas. The parts of the Parcel Area not proposed to be impacted would be located within an open space easement and managed to minimize human activity in those areas. With the designation of open space (MM-BIO-1) construction of permanent fencing (MM-BIO-2), and provision of a resident education program (MM-BIO-7), this impact would be mitigated to less than significant.

Lighting. Per PDF-BIO-1 and compliance with applicable laws, lighting would be directed downward and away from the open space easement where wildlife occurs in more abundance. The buildings and parking areas would include lighting designed to minimize light pollution and preserve dark skies. Therefore, lighting impacts would be less than significant.

Non-Native, Invasive Plant and Animal Species. Invasive plant and animal species that thrive in edge habitats could have similar potential long-term indirect impacts to wildlife species moving through the study area as described above for special-status wildlife species. The remainder of the Parcel Area not proposed for development would be placed within an open space easement and managed to reduce the number of non-native species and to protect that area, per MM-BIO-1 (Designation of Open Space) and MM-BIO-2 (Permanent Fencing and Signage). This impact would be mitigated to less than significant through MM-BIO-1 (Designation of Open Space), MM-BIO-2 (Permanent Fencing and Signage), MM-BIO-6 (Invasive Species Prohibition), and MM-BIO-7 (Resident Education Program).

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 and special-status wildlife species could occur due to project implementation but would be mitigated to less than significance for the reasons disclosed in this report. In addition, the project would comply with the relevant provisions of the Oceanside Subarea Plan and 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 reasonably foreseeable cumulative 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 biological resources.

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7 Avoidance, Minimization, and Mitigation Measures

There would be potential direct and indirect significant impacts to sensitive vegetation communities, special-status plants, special-status wildlife species, jurisdictional resources, and wildlife corridors/habitat linkages with implementation of the project.

7.1 Minimization and Mitigation Measures

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

MM-BIO-1 Designation of Open Space. Mitigation shall be provided as follows to mitigate the project impacts to sensitive vegetation communities to a less than significant level through preservation of the requisite habitat in perpetuity:~~Mitigation for the proposed project's impacts to sensitive vegetation communities shall consist of the following:~~

- The applicant shall offset permanent impacts to Diegan coastal sage scrub (1.26 acres), disturbed southern mixed chaparral (2.45 acres), and non-native grassland (4.33 acres) through the conservation of 32.63 acres (Figure 7, Proposed Open Space Easement) containing 14.72 acres of Diegan coastal sage scrub, 1.99 acres of disturbed Diegan coastal sage scrub, 7.12 acres of southern mixed chaparral, 2.15 acres of disturbed southern mixed chaparral, 0.60 acres of freshwater marsh, and 1.37 acres of disturbed southern willow scrub in a conservation easement. The conserved area also contains 3.69 acres of disturbed habitat and 0.92 acres of eucalyptus woodland, which could provide restoration or enhancement opportunities in the future.
- The open space easement shall be managed, maintained, and monitored through implementation of a habitat management plan. The habitat management plan shall include tasks that outline invasive species control, trash removal, access control, biological monitoring, and fencing. The habitat management plan will include performance standards for assessing the habitat quality of each sensitive vegetation community conserved per the SAP management guidelines. The satisfaction of these performance criteria shall be verified by a Qualified Biologist via a biological survey and an associated letter documenting the survey results. A "Qualified Biologist" is a professional with 5 years of experience in biological resource evaluation in San Diego County, with qualifications to be verified to the satisfaction of the City Planner.
- The open space easement shall include all habitat that is not a manufactured slope and/or not under an existing easement and shall (1) be protected by a conservation easement or other City of Oceanside approved mechanism that provides preservation in perpetuity, (2) have a permanent responsible party clearly designated, and (3) be managed in accordance with a habitat management plan in perpetuity. The habitat management plan shall be prepared by a qualified biologist pursuant to the performance criteria and the 2010 City of Oceanside Multiple Habitat Conservation Program Subarea Plan's Preserve management guidelines. The

habitat management plan shall also include Property Analysis Report (PAR) analysis verified by a Qualified Biologist and approved by the City to identify yearly maintenance and monitoring costs required to satisfy the performance criteria, as well as identify an initial management fund endowment to provide for management in perpetuity.

- The open space easement will be in favor of an agency, non-profit organization, or other entity approved by the USFWS and CDFW. The USFWS and CDFW will be named as a third-party beneficiaries. The open space easement will be approved by the USFWS and CDFW prior to its execution. There should be no active trails in the open space area. The project applicant will submit a draft easement to the USFWS and CDFW for review and approval. The project applicant will submit the final open space easement and evidence of its recordation to the USFWS and CDFW within 60 days of receiving approval of the draft open space easement.
- The applicant shall submit a draft habitat management plan, including (1) a description of perpetual management, maintenance, and monitoring actions and the Property Analysis Record or other cost estimation results for the non-wasting endowment, and (2) a description of any restoration and/or enhancement proposed for the open space easement. The applicant shall submit the plan to the City of Oceanside, CDFW, and USFWS.
- The applicant shall establish a non-wasting endowment or other financial instrument in a form and an amount approved by the City of Oceanside, CDFW, and USFWS based on the Property Analysis Record or similar cost estimation method to secure the ongoing funding for the perpetual management, maintenance and monitoring of the conservation easement by an agency, non-profit organization, or other entity approved by the City of Oceanside, CDFW, and USFWS. The non-wasting endowment or other financial instrument shall be held by a non-profit conservation entity approved by the City of Oceanside, CDFW, and USFWS. The Property Analysis Record shall recognize that the grantor shall be permitted to allocate mitigation credits to itself or others for habitat preserved by the conservation easement that is in excess of what is required for the project in accordance with applicable permitting and regulatory requirements.

DOCUMENTATION: The applicant shall prepare the habitat management plan, draft plats, and legal descriptions of the easements, then submit them for preparation and recordation with the City of Oceanside. **TIMING:** Prior to issuance of any grading permit, the applicant shall provide evidence to the City of Oceanside Planning Division that the required compensatory mitigation has been provided to the satisfaction of the City of Oceanside. In addition, (1) a resource manager shall be selected and evidence provided by the applicant as to the acceptance of this responsibility by the proposed resource manager, and (2) the easement shall be recorded. **MONITORING:** Upon final review of the habitat management plan, resource manager selected, endowment funded, and recordation and verification of the easements, the condition shall be satisfied.

MM-BIO-2 To protect the proposed conservation easement from entry and disturbance, permanent fencing and signage shall be installed. Fencing shall have no gates except to allow access for maintenance and monitoring of the conservation easement area, and shall be designed to prevent intrusion by pets, especially domestic cats. Open space fencing or walls shall be placed along the biological open space boundary as indicated on the approved plans. In addition, evidence shall be provided in the form of site photos and a statement from a California Registered Engineer or licensed surveyor that the permanent walls or fences, and open space signs have been installed. The sign

must be corrosion resistant, a minimum of 6 by 9 inches, on posts not less than 3 feet in height from the ground surface, and must state the following:

> "**Sensitive Environmental Resources Area Restricted by Easement**
>
> Entry without express written permission from the City of Oceanside is prohibited. To report a violation or for more information about easement restrictions and exceptions, contact the City of Oceanside, Development Services Department."

DOCUMENTATION: The applicant shall install the signage and fencing as indicated above and provide site photos and a statement from a California Registered Engineer or licensed surveyor that the open space fencing has been installed at the conservation easement boundary. **TIMING:** Prior to any occupancy or use of the premises following completion of construction in reliance of this permit, the fencing and signage shall be placed**. MONITORING**: The City of Oceanside shall review the photos and statement for compliance with this condition.

MM-BIO-3 Nesting Bird Surveys. Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the avian breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird species to be conducted within the limits of grading and a 500-foot buffer (where feasible) within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors and other birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 and 3513. If any active nests are detected, the area shall be flagged and mapped on the construction plans or a biological resources figure, and the information provided to the construction supervisor and any personnel working near the nest buffer. Active nests shall have avoidance buffers established around them (e.g., 250 feet for passerines to 500 feet for raptors) by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers or signage. The project biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot buffer at their discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is determined by a qualified monitor to be no longer occupied for the season, construction may proceed in the buffer 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 work area and a 500-foot buffer, where feasible.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. **TIMING:** Prior to pre-construction conference and prior to any clearing, grubbing, trenching, grading, or any land disturbances and throughout the duration of the grading, compliance with this condition is mandatory unless the requirement is waived by the City of Oceanside upon receipt of concurrence from the Wildlife Agencies. **MONITORING:** The City of Oceanside shall review the concurrence letter.

MM-BIO-4 Biological Monitoring. To prevent inadvertent disturbance to areas outside the limits of grading, 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 and periodic monitoring during and after grading when recommended by a Qualified Biologist. The project biologist(s) also shall do the following:

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. The Qualified Biologist shall conduct a training session for all project personnel prior to any grading/construction activities. At a minimum the training shall include a description of the target species of concern, its habitats, the general provisions of the Endangered Species Act (Act) and the MHCP, the need to adhere to the provision of the Act and the MHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the target species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished. Prior to 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.

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 construction activities weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.

e. Flush wildlife species (e.g., reptiles, mammals, avian, and other mobile species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance to nesting birds (see MM-BIO-3) or "flushing" of federally listed species (i.e., coastal California gnatcatcher).

f. Periodically monitor the construction site to verify that the project is implementing the following stormwater pollution prevention plan best management practices: 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. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded, and to document that no unauthorized impacts have occurred.

g.h. If dead or injured federally and/or state-listed species are found onsite, the City, CDFW, and/or USFWS will be notified in compliance with applicable laws and regulations.

h.i. Keep monitoring notes for the duration of project construction for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of biological resources.

~~i.~~j. Prepare a monitoring report after 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.

~~j.~~k. Halt work, if necessary, and confer with the City of Oceanside to ensure the proper implementation of special-status species and sensitive resource protection measures.

~~f~~ l. Submit a final report to the City of Oceanside within 60 days of project completion that includes as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were to be avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that compliance with all measures was achieved.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. **TIMING:** Prior to final grading release. **MONITORING:** The City of Oceanside shall review the concurrence letter.

MM-BIO-5 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.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. **TIMING:** Prior to final grading release. **MONITORING:** The City of Oceanside shall review the concurrence letter.

MM-BIO-6 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. In addition, any planting stock to be brought onto the study area, including off-site areas, for landscape or habitat creation/restoration/enhancement, if such activities occur, shall be first inspected by a qualified pest inspector to ensure it is free of pest species that could invade natural areas, including, but not limited to, Argentine ants (*Linepithema humile*), fire ants (*Solenopsis invicta*), and other insect pests. Any planting stock found to be infested with such pests shall not be allowed in the study area or within 300 feet of natural habitats unless documentation is provided to the City of Oceanside that these pests already occur in natural areas around the study area. The stock shall be quarantined, treated, or disposed of according to best management principles by qualified experts in a manner that precludes invasions into natural habitats. The applicant shall ensure that all temporary irrigation shall be for the shortest duration possible, and that no permanent irrigation shall be used for landscape adjacent to the conservation easement.

DOCUMENTATION: The applicant shall provide documentation to the City of Oceanside that this condition has been met. **TIMING:** Prior to final grading release. **MONITORING:** The City of Oceanside shall review the documentation.

MM-BIO-7 Resident Education Program. The applicant shall develop a resident education program in coordination with the City of Oceanside (City). The program shall advise residents of the potential impacts to listed species and the potential penalties for harming such species. The program shall include information pamphlets and signage on the fencing between the development and the

conservation easement. Pamphlets shall be distributed to all residences. At a minimum, the program shall discuss how to prevent the spreading of non-native ants and other insect pests from developed areas into the conservation easement, impacts from free-roaming pets (particularly cats) on native wildlife populations, and the importance of keeping cats indoors and keeping pet food indoors and in a secured location.

DOCUMENTATION AND TIMING: The applicant shall submit the program to the City at least 30 days prior to ~~completion of project grading~~ Certificate of Occupancy. The applicant shall submit to the City the final program within 60 days of receiving approval of the draft program from the City.

MM-BIO-8 Crotch's Bumble Bee Pre-Construction Survey. A pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of ground-disturbing construction activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). The survey shall ensure that no nests for Crotch's bumble bee are within the construction area. The pre-construction survey shall include a habitat assessment and focused surveys, both of which shall be based on recommendations described in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species, released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current version at the time of construction.

The habitat assessment shall, at a minimum, include historical and current species occurrences; document potential habitat on site, including foraging, nesting, and/or overwintering resources; and identify which plant species are present. For the purposes of this mitigation measure, nest resources are defined as abandoned small mammal burrows, bunch grasses with a duff layer, thatch, hollow trees, brush piles, and human-made structures that may support bumble bee colonies such as rock walls, rubble, and furniture. The habitat assessment shall be repeated prior to February 1 in each year ground-disturbing activities occur to determine if nesting resources are present within the on-site and/or off-site impact areas. If nesting resources are present in the on-site and/or off-site impact areas, focused surveys shall be conducted.

The focused survey shall be performed by a biologist with expertise in surveying for bumble bees and include at least three survey passes that are not on sequential days or in the same week, preferably spaced 2 to 4 weeks apart. The timing of these surveys shall coincide with the colony active period (April 1 through August 31 for Crotch's bumble bee). Surveys may occur between 1 hour after sunrise and 2 hours before sunset. Surveys shall not be conducted during wet conditions (e.g., foggy, raining, or drizzling), and surveyors shall wait at least 1 hour following rain. Optimal surveys are when there are sunny to partly sunny skies and a temperature greater than 60°F. Surveys may be conducted earlier if other bees or butterflies are flying. Surveys shall not be conducted when it is windy (i.e., sustained winds greater than 8 miles per hour). Within non-developed habitats, the biologist shall look for nest resources suitable for bumble bee use. Ensuring that all nest resources receive 100% visual coverage, the biologist shall watch the nest resources for up to 5 minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence would be apparent after 5 minutes of observation. If a bumble bee worker is detected, then a representative shall be identified to species. Biologists should be able to view several burrows at one time to sufficiently determine if bees are entering/exiting them, depending on their proximity to one

another. It is up to the discretion of the biologist regarding the actual survey viewshed limits from the chosen vantage point to determine which would provide 100% visual coverage; this could include a 30- to 50-foot-wide area. If a nest is suspected, the surveyor can block the entrance of the possible nest with a sterile vial or jar until nest activity is confirmed (no longer than 30 minutes).

Identification shall include trained biologists netting/capturing the representative bumble bee in appropriate insect nets, per the protocol in U.S. National Protocol Framework for the Inventory and Monitoring of Bees. The bee shall be placed in a clear container for observation and photographic documentation, if able. The bee shall be photographed using a macro lens from various angles to ensure recordation of key identifying characteristics. If bumble bee-identifying characteristics cannot be adequately captured in the container due to movement, the container shall be placed in a cooler with ice until the bumble bee becomes inactive (generally within 15 minutes). Once inert, the bumble bee shall be removed from the container and placed on a white sheet of paper or card for examination and photographic documentation. The bumble bee shall be released into the same area from which it was captured upon completion of identification. Based on implementation of this method on a variety of other bumble bee species, they become active shortly after removal from the cold environment, so photography must be performed quickly.

If Crotch's bumble bee nests are not detected, no further mitigation would be required. The mere presence of foraging Crotch's bumble bees would not require implementation of additional minimization measures because they can forage up to 10 kilometers from their nests. If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 100 feet of the nest, or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources shall be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). Outside of the nesting season, it is assumed that no live individuals would be present within the nest because the daughter queens (gynes) usually leave by September, and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to surrounding open space areas that support suitable hibernacula resources.

A written survey report shall be submitted to the City of Oceanside and CDFW within 30 days of the pre-construction survey. The report shall include survey methods, weather conditions, and survey results, including a list of insect species observed and a figure showing the locations of any Crotch's bumble bee nest sites or individuals observed. The survey report shall include the qualifications/resumes of the surveyor(s) and approved biologist(s) for identification of photo vouchers and a detailed habitat assessment. If Crotch's bumble bee nests are observed, the survey report shall also include recommendations for avoidance, and the location information shall be submitted to the California Natural Diversity Database at the time of, or prior to, submittal of the survey report.

~~If the above measures are followed, the applicant would not need to obtain authorization from CDFW through the CESA Incidental Take Permit process. If nest resources cannot be avoided, as outlined in this measure,~~ If Crotch's bumble bee is detected within the project area, the project applicant shall consult with CDFW regarding the need to obtain an Incidental Take Permit. Any measures determined to be necessary through the Incidental Take Permit process to offset impacts

to Crotch's bumble bee may supersede measures provided in this document and shall be incorporated into the habitat mitigation and monitoring plan.

In the event that an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee shall be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process. Mitigation shall be accomplished through on-site preservation of suitable habitat and/or in accordance with CDFW guidance for off-site locations. The funding source shall be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount shall be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record shall take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement.

DOCUMENTATION: The applicant shall provide a letter of agreement with this condition to the City of Oceanside. **TIMING:** Prior to issuance of grading permits. **MONITORING:** The City of Oceanside shall review the concurrence letter.

7.2 Regional Resource Planning Context – Compliance Review

City of Oceanside MHCP Subarea Plan

The proposed project will not encroach into the 50-foot wetland buffer or the additional 50-foot planning buffer from Loma Alta Creek. The 32.63 acres of the Parcel Area that will not be permanently impacted will be included in an open space easement and managed in perpetuity. The overall open space easement will include contiguous areas of coastal sage scrub and chaparral habitat, resulting in a cohesive conservation easement that is contiguous with additional habitat to the west of the study area. Lighting along the open space conservation easement will be low level and facing away from the open space areas, consistent with the Oceanside Subarea Plan (City of Oceanside 2010). Impacts to any coast live oak tree individuals (present in the off-site area) will be avoided.

Regarding the draft SAP's reference to the site as subject to corrective action, the project is consistent with the corrective action goals for the property that the SAP identified in response to unauthorized habitat disturbance by prior owners, as set forth in Section 5.4 of the draft SAP. First, the project would result in the preservation and restoration/enhancement of coastal sage scrub habitat on more than 75% of the site (nearly 95% of coastal sage scrub). Secondly, more than 18 acres of coastal sage scrub will be protected onsite through the restoration and enhancement of disturbed habitat adjacent to existing coastal sage scrub and the conservation of the existing coastal sage scrub onsite as identified in MM-BIO-1. The project restoration, enhancement and conservation efforts are consistent with the draft SAP's corrective action goals for the property, and they will enhance the functions and values of the existing coastal sage scrub habitat on the Parcel Area in furtherance of the draft SAP biological goals and objectives. Consequently, as the Draft EIR disclosed, the project is consistent with the draft SAP including by means of the combined preservation and restoration/enhancement on-site that comports with the corrective action goals in Section 5.4 of the draft SAP related to prior unlawful habitat removal that occurred under previous ownership of the Parcel Area.

Conditions of Coverage for Cooper's Hawk

As part of the project review process (e.g., CEQA) for individual projects within the MHCP area, qualified biologists must survey all potential nesting areas during the nesting season. Surveys must be conducted when impacts could occur as a result of direct or indirect impacts from a project in or adjacent to suitable habitat. Preserve/open space areas must include 300-foot biological buffers around nest sites where feasible. No direct impact to active nests are allowed during the nesting season (City of Oceanside 2010).

Tree pruning activities will be avoided in or near preserve areas during the breeding season (March 1 through July 31) (City of Oceanside 2010).

Nesting bird surveys are included as a mitigation measure for the project and include surveying for Cooper's hawk and other raptor nests. A 300-foot buffer around nest sites would not be feasible or reasonable in a situation where nesting is occurring in a backyard in an existing developed area, such as would likely be the case in this project's situation. The location of the Cooper's hawk nest observed in 2024 was within the backyard of a private residence.

Conditions of Coverage for Coastal California Gnatcatcher

In addition to minimum conservation requirements, all of the following conditions must be met for California gnatcatcher to be adequately conserved (City of Oceanside 2010):

1. Implement an adaptive management program to comprehensively monitor and manage gnatcatcher habitat and populations throughout the preserve system. Increased coordination of monitoring and management may improve knowledge of species' requirements and habitat quality in the study area.

Coastal California gnatcatcher was not detected during focused surveys conducted from 2023 into 2024 and thus is not expected to occur in the study area.

2. Take of occupied gnatcatcher habitat must be mitigated according to approved MHCP (Volume I, Section 4.3) or subarea plan ratios using one or more of the following measures: (a) conservation of occupied gnatcatcher habitat inside the BCLA [Biological Core and Linkage Area] or in the unincorporated core area; (b) conservation of linkage areas identified by the MHCP as critical to regional gnatcatcher population connectivity (whether or not such areas are currently occupied by gnatcatchers or vegetated with coastal sage scrub); or (c) restoration of gnatcatcher habitat within critical breeding or linkage areas identified by the MHCP.

Coastal California gnatcatcher was not detected during focused surveys conducted from 2023 into 2024, and thus is not expected to occur in the study area; therefore, the proposed project will not result in take of any occupied gnatcatcher habitat.

3. Oceanside—Conserve at least 664 acres of existing coastal sage scrub in the city, and restore or enhance at least 164 additional acres of coastal sage scrub. Within the city's designated Wildlife Corridor Planning Zone, conserve at least 480 acres of biological open space in a configuration that accommodates continued movement by California gnatcatchers between State Route 78 and the San Luis Rey River. Of this 480-acre total, conserve at least 210 acres of existing gnatcatcher breeding habitat (coastal sage scrub), and increase the net amount of

viable breeding habitat within the zone by at least 145 acres through restoration of disturbed, developed, or annual grassland habitats to coastal sage scrub in key locations (Note: Acreages conserved and restored within the Wildlife Corridor Planning Zone count towards the 664 total coastal sage scrub and 164 total restoration acreage requirements for the city.) Conserve 120 acres of contiguous biological open space on the western portion of the city-owned El Corazon property, including at least 45 acres west of the San Diego Gas and Electric transmission easement and 75 acres along Garrison Creek on the northern portion of the property, as detailed in the Oceanside Subarea Plan.

The study area is not within the Wildlife Corridor Planning Zone.

Conditions of Coverage for Least Bell's Vireo

Conditions of coverage for least Bell's vireo from the Oceanside Subarea Plan are as follows (City of Oceanside 2010):

1. As part of the project review process (e.g., CEQA) for individual projects within the MHCP area, a qualified biologist possessing a Section 10(a)1(A) research permit for this species must survey all areas containing potentially suitable habitat (riparian vegetation communities) using approved survey protocols. Surveys shall occur prior to any proposed impact regardless of location inside or outside of the FPA [Focused Planning Area]. Surveys shall be conducted when impacts could occur as a result of indirect impacts by placement of the project in or adjacent to suitable habitat or through creation of suitable conditions for brown-headed cowbirds (e.g., agricultural fields, livestock presence, woodland parks, and roadsides).
2. Any take, both inside and outside of the FPA, shall be consistent with the conditions outlined herein. Projects that impact least Bell's vireo populations outside the FPA shall be required to ensure sufficient management to maintain these populations.
3. Occupied habitat within the FPA shall be managed to restrict activities that could degrade least Bell's vireo habitat, including livestock grazing, human disturbance, clearing or alteration of riparian vegetation, brown-headed cowbird parasitism, and insufficient water levels leading to loss of riparian habitat and surface water. Area-specific management directives shall include measures to provide appropriate successional habitat, cowbird control, and specific measures to protect against detrimental edge effects, and will remove invasive exotic species (e.g., *Arundo donax*). Initiate cowbird trapping when cowbird parasitism rates exceed 10% or as recommended by monitoring results. Restrict human access to vireo-occupied habitat during the breeding season (March 15 to September 15) except for qualified researchers or land managers performing essential preserve management, monitoring, or research functions.
4. Projects having direct or indirect impacts to the least Bell's vireo within the MHCP planning area shall adhere to the following measures to avoid or reduce impacts:
    a) The removal of native vegetation and habitat shall be avoided and minimized to the maximum extent practicable. Determination of adequate avoidance and minimization of impacts shall be consistent with Sections 3.6 and 3.7 of the MHCP plan. Deviations from these guidelines shall require written concurrence of the USFWS and CDFG [now CDFW]. For temporary impacts, the work site shall be returned to preexisting contours and revegetated with appropriate native species. All revegetation for temporary and permanent impacts shall occur at the ratios specified in Section 4.3 of the MHCP plan, with a minimum

3:1 ratio for recreation of occupied or potential vireo habitat. Revegetation specifications shall ensure creation and restoration of riparian woodland vegetation to vireo quality. All revegetation plans shall be prepared and implemented consistent with Appendix C (Revegetation Guidelines) and shall require written concurrence of the USFWS and CDFG. If written objections are not provided by the wildlife agencies within 30 days of receipt of written request for concurrence by the local jurisdiction, then the deviation may proceed as approved by the local agency. The wildlife agencies shall provide written comments specifying wildlife agency concerns.

b) Projects shall be carried out consistent with Appendix B (Standard Best Management Practices).

c) Projects shall to the maximum extent practicable avoid impacts during the breeding season of the least Bell's vireo (generally March 15–September 15). Projects that cannot be conducted without placing equipment or personnel in or adjacent to sensitive habitats shall be timed to ensure that habitat is removed prior to the initiation of the breeding season (generally before March 15).

d) Construction noise levels at the riparian canopy edge shall be kept below 60 dBA L_{eq} (Measured as Equivalent Sound Level) from 5 a.m. to 11 a.m. during the peak nesting period of March 15 to July 15. For the balance of the day/season, the noise levels shall not exceed 60 decibels, averaged over a 1-hour period on an A-weighted decibel (dBA) (i.e., 1 hour L_{eq}/dBA). Noise levels shall be monitored and monitoring reports shall be provided to the jurisdictional city, the USFWS, and the CDFG. Noise levels in excess of this threshold shall require written concurrence from the USFWS and CDFG and may require additional minimization/mitigation measures.

e) Brown-headed cowbirds and other exotic species detrimental to least Bell's vireo shall be removed from the site. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions shall require monitoring and control of cowbirds.

f) Biological buffers of at least 100 feet shall be maintained adjacent to occupied least Bell's vireo habitat, measured from the outer edge of riparian vegetation. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Buffers less than 100 feet shall require written concurrence of the USFWS and CDFG within 30 days of receipt of written request for concurrence by the local jurisdiction.

5. Suitable unoccupied habitat preserved within the FPA shall be managed to maintain or mimic effects of natural fluvial processes (e.g., periodic substrate scouring and deposition).
6. Natural riparian connections with upstream riparian habitat shall be maintained to ensure linkage to suitable occupied and unoccupied habitat within the County [of San Diego] MSCP [Multiple Species Conservation Program Plan] and City of San Diego MSCP Subarea Plan [areas].

Least Bell's vireo was not detected during focused surveys conducted in 2024, and thus is not expected to occur in the study area; therefore, the proposed project will not result in take of any least Bell's vireo or occupied vireo habitat. Riparian habitat present along Loma Alta Creek within the study area will be maintained and preserved.

Conditions of Coverage for Southwestern Willow Flycatcher

Conditions of coverage for southwestern willow flycatcher from the Oceanside Subarea Plan are as follows (City of Oceanside 2010):

1. As part of the project review process (e.g., CEQA) for individual projects within the MHCP area, a qualified biologist possessing a Section 10(a)1(A) research permit for this species must survey all areas containing suitable habitat (riparian woodlands and forests) using approved survey protocols. Surveys shall be conducted when impacts could occur as a result of indirect impacts by placement of the project in or adjacent to potential habitat or through creation of suitable conditions for brown-headed cowbirds (e.g., agricultural fields, livestock presence, woodland parks, roadsides). Surveys shall occur prior to any proposed impact regardless of location inside or outside of the FPA.
2. Nesting southwestern willow flycatchers shall be treated consistent with the Critical Population Policy (Appendix D) and impacts totally avoided. Although southwestern willow flycatcher is not an MHCP Narrow Endemic, wintering localities and confirmed vagrants shall be treated consistent with the Narrow Endemic Species Policy (Appendix D), including the following: (a) maximum avoidance of impacts, to the degree feasible while maintaining reasonable use of the property; (b) for unavoidable impacts, species-specific mitigation designed to minimize adverse effects to species viability and to contribute to species recovery; and (c) no more than 5% gross cumulative loss of suitable habitat inside the FPA or 20% gross cumulative loss outside the FPA.
3. Occupied habitat within the FPA shall be managed to restrict activities that could degrade willow flycatcher habitat, including livestock grazing, human disturbance, clearing or alteration of riparian vegetation, brown-headed cowbird parasitism, and insufficient water levels leading to loss of riparian habitat and surface water. Area-specific management directives shall include measures to provide appropriate successional habitat, cowbird control, and specific measures to protect against detrimental edge effects, and will remove invasive exotic species (e.g., *Arundo donax*). Human access to flycatcher-occupied habitat will be restricted during the breeding season (May 1–September 15) except for qualified researchers or land managers performing essential preserve management, monitoring, or research functions.
4. Projects having direct or indirect impacts to the southwestern willow flycatcher shall adhere to the following measures to avoid or reduce impacts:
    a) The removal of native vegetation and habitat shall be avoided and minimized to the maximum extent practicable. Determination of adequate avoidance and minimization of impacts shall be consistent with Sections 3.6 and 3.7 of the MHCP plan. Deviations from these guidelines shall require written concurrence of the USFWS and CDFG. For temporary impacts, the work site shall be returned to preexisting contours and revegetated with appropriate native species. All revegetation for temporary and permanent impacts shall occur at the ratios specified in Section 4.3 of the MHCP plan, with a minimum 3:1 ratio for creation of occupied or potential willow flycatcher habitat. Revegetation specifications shall ensure creation and restoration of riparian woodland vegetation to a quality that eventually is expected to support nesting southwestern willow flycatchers, in the opinion of experts on this species, recognizing that it may take decades to achieve this state. All revegetation plans shall be prepared and implemented consistent with Appendix C

(Revegetation Guidelines) and shall require written concurrence of the USFWS and CDFG. If written objections are not provided by the wildlife agencies within 30 days of receipt of written request for concurrence by the local jurisdiction, then the deviation may proceed as approved by the local agency. The wildlife agencies shall provide written comments specifying wildlife agency concerns.

b) Projects shall be carried out consistent with Appendix B (Standard Best Management Practices).

c) Projects shall to the maximum extent practicable avoid impacts during the breeding season of the flycatcher (May 1 to September 15). Projects that cannot be conducted without placing equipment or personnel in or adjacent to sensitive habitats shall be timed to ensure that habitat is removed prior to the initiation of the breeding season.

d) Construction noise levels at the riparian canopy edge shall be kept below 60 dBA L_{eq} (measured as equivalent sound level) from 5 a.m. to 11 a.m. during the peak nesting period of May 1 to September 15. For the balance of the day/season, the noise levels shall not exceed 60 decibels, averaged over a 1-hour period on an A-weighted decibel (dBA) (i.e., 1 hour L_{eq}/dBA). Noise levels shall be monitored, and monitoring reports shall be provided to the jurisdictional city, the USFWS, and the CDFG. Noise levels in excess of this threshold shall require written concurrence from the USFWS and CDFG within 30 days of receipt of request for written concurrence from the local jurisdiction and may require additional minimization/mitigation measures.

e) Brown-headed cowbirds and other exotic species that prey upon the flycatcher shall be removed from the site. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions shall require monitoring and control of cowbirds.

f) Biological buffers of at least 100 feet shall be maintained adjacent to occupied flycatcher habitat, measured from the outer edge of riparian vegetation. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Buffers less than 100 feet shall require written concurrence of the USFWS and CDFG within 30 days of receipt of request for written concurrence from the local jurisdiction.

5. Suitable unoccupied habitat preserved within the FPA shall be managed to maintain or mimic effects of natural fluvial processes (e.g., periodic substrate scouring and deposition).
6. Natural riparian connections with upstream riparian habitat shall be maintained to ensure linkage to suitable occupied and unoccupied habitat within the County MSCP and City of San Diego MSCP Subarea Plans.

Southwestern willow flycatcher was not detected during focused surveys conducted in 2024, and thus is not expected to occur in the study area; therefore, the proposed project will not result in take of any southwestern willow flycatcher or occupied southwestern willow flycatcher habitat. Riparian habitat present along Loma Alta Creek within the study area will be maintained and preserved.

8 References

AOS (American Ornithological Society). 2024. “Check-List of North and Middle American Birds.” Accessed March 2024. http://checklist.aou.org/.

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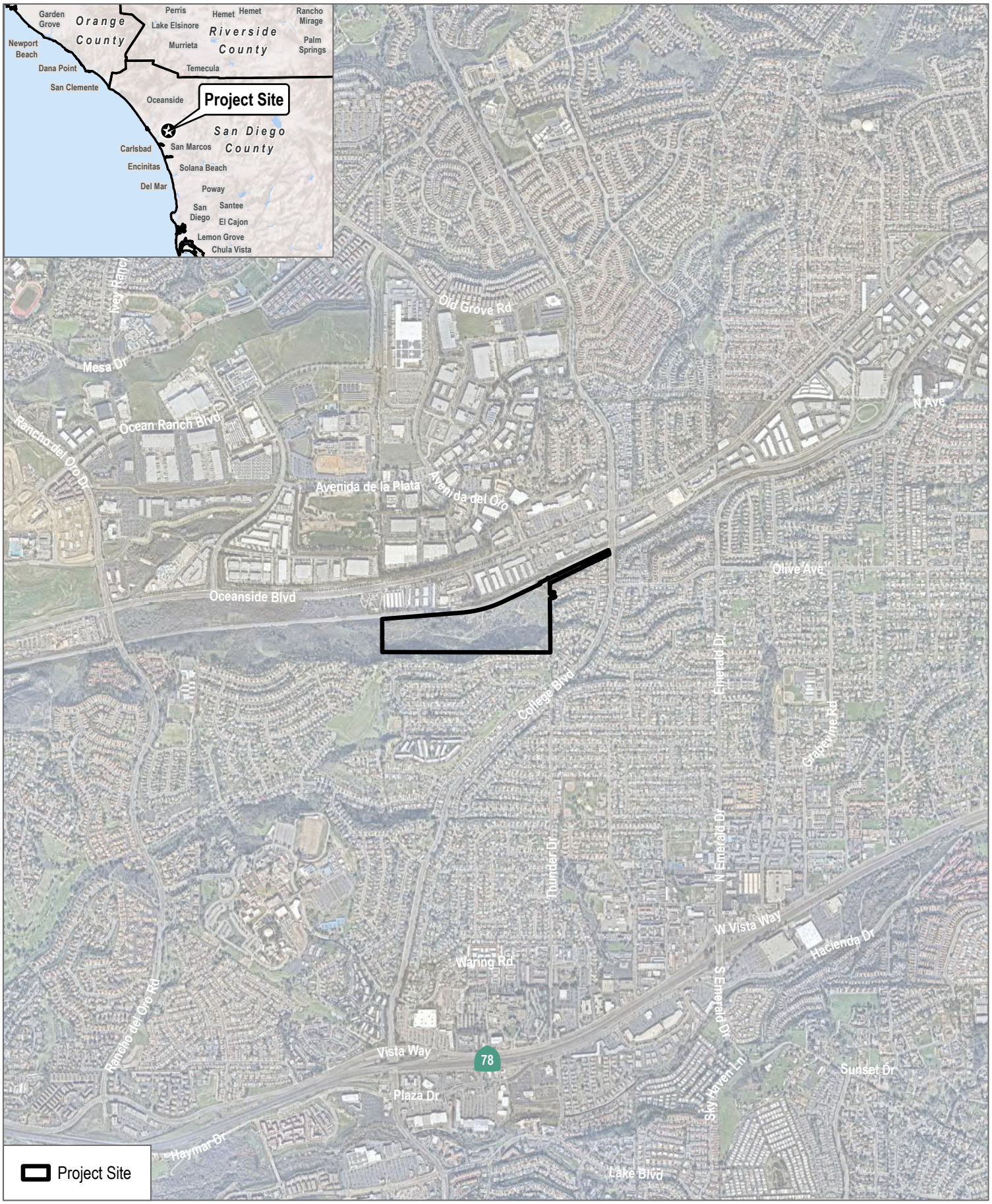

SOURCE: SanGIS 2023

DUDEK

0 500 1,000 2,000 Feet

FIGURE 1

Project Location

Olive Park Apartments

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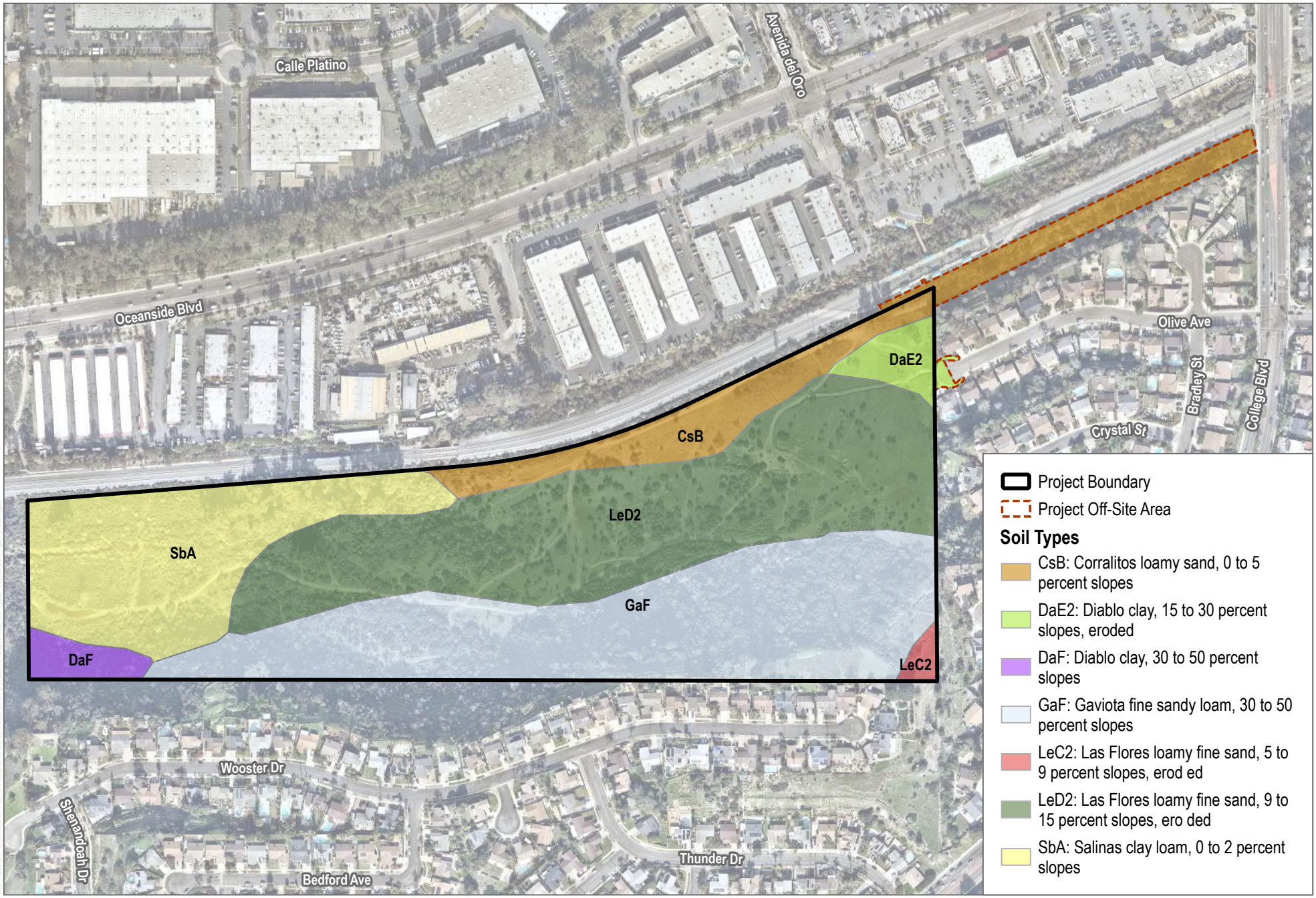

SOURCE: SanGIS 2023, USDA NRCS SSurgo Soils

DUDEK

0 187.5 375 Feet

FIGURE 2

Soil Types

Olive Park Apartments

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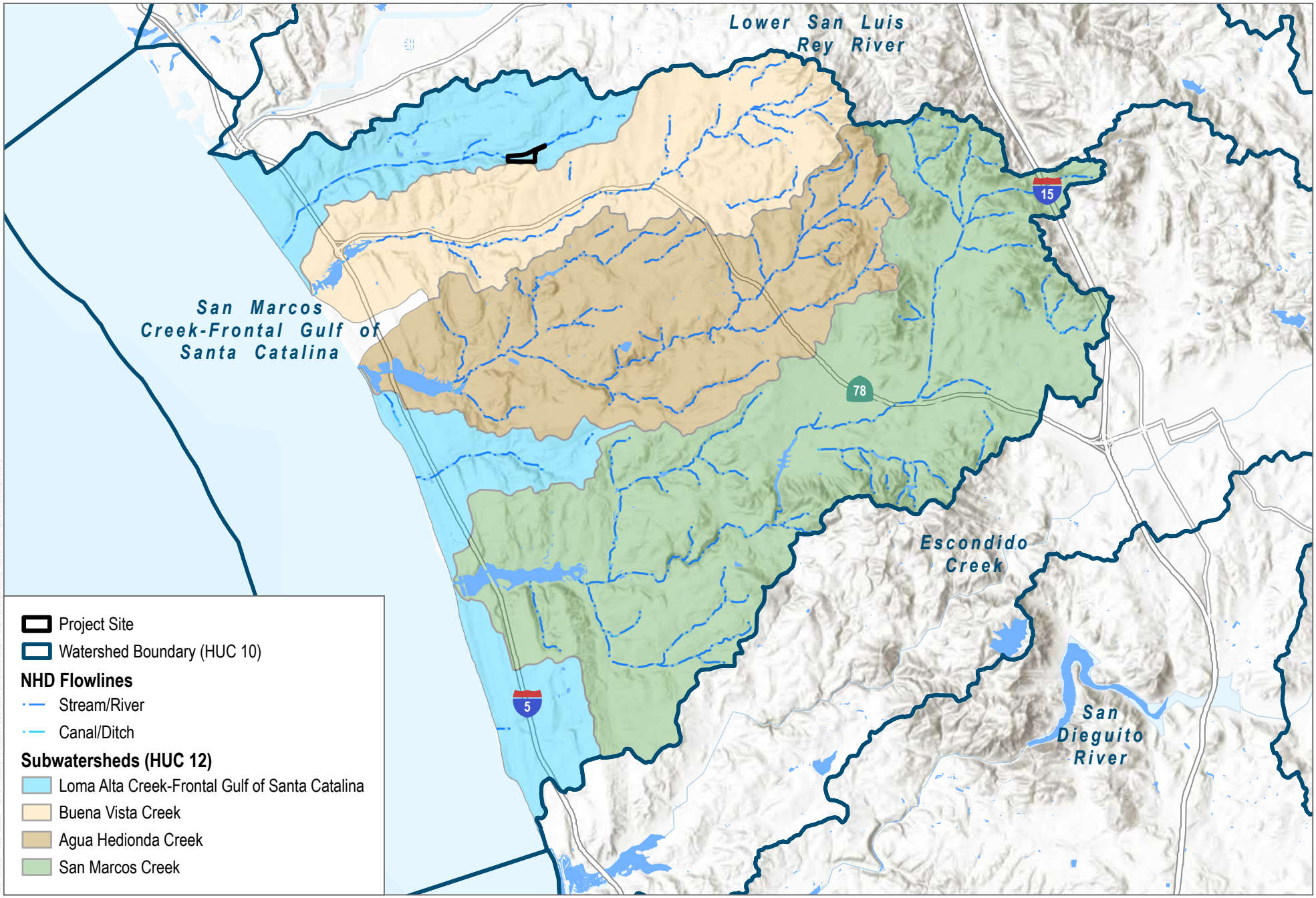

SOURCE: USGS WBD, USGS NHD

DUDEK

0 1 2 Miles

FIGURE 3

Hydrologic Setting

Olive Park Apartments

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SOURCE: SanGIS 2023

DUDEK

0 110 220 Feet

FIGURE 4

Biological Resources

Olive Park Apartments

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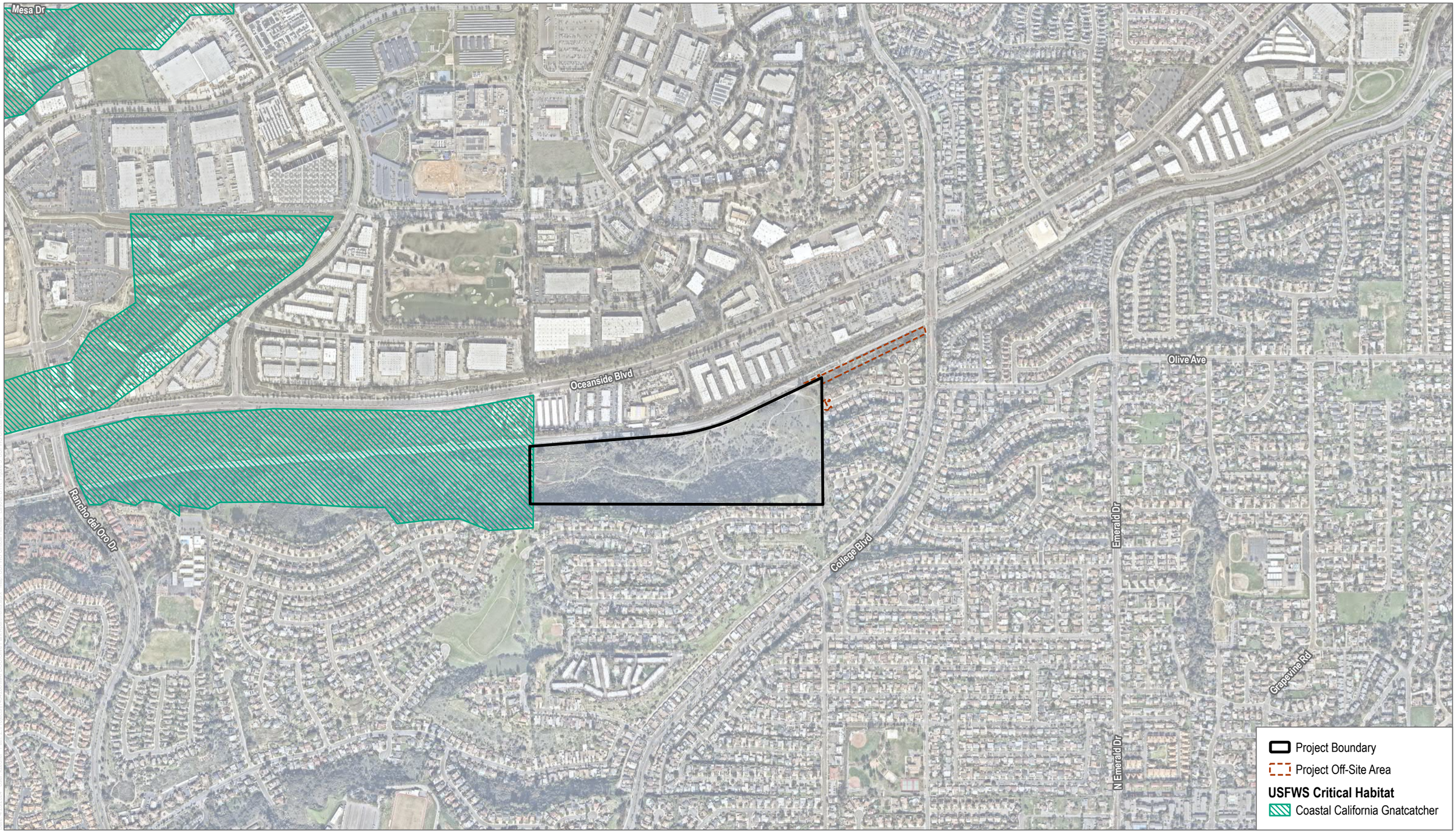

SOURCE: SANGIS 2023

DUDEK

0 400 800 Feet

FIGURE 5

USFWS Critical Habitat

Olive Park Apartments

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SOURCE: SanGIS 2023

DUDEK

0 110 220 Feet

FIGURE 6

Impacts to Biological Resources

Olive Park Apartments

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SOURCE: SanGIS 2023

DUDEK

0 115 230 Feet

FIGURE 7

Proposed Open Space Easement

Olive Park Apartments

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Appendix A
Plant Species List

Vascular Species

Eudicots

AIZOACEAE – FIG-MARIGOLD FAMILY

* *Carpobrotus edulis* – hottentot fig
* *Malephora crocea* – coppery mesemb
* *Tetragonia tetragonoides* – New Zealand spinach

ANACARDIACEAE – SUMAC OR CASHEW FAMILY

Malosma laurina – laurel sumac
Rhus integrifolia – lemonade berry
* *Schinus terebinthifolius* – Brazilian peppertree
Toxicodendron diversilobum – poison oak

APIACEAE – CARROT FAMILY

* *Conium maculatum* – poison hemlock
Daucus pusillus – American wild carrot
* *Foeniculum vulgare* – fennel
Sanicula bipinnatifida – purple sanicle
Sanicula crassicaulis – Pacific blacksnakeroot

APOCYNACEAE – DOGBANE FAMILY

Asclepias fascicularis – Mexican whorled milkweed

ARALIACEAE – GINSENG FAMILY

* *Hedera helix* – English ivy

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed
* *Anthemis cotula* – stinking chamomile
Artemisia californica – California sagebrush
Artemisia douglasiana – Douglas' sagewort
Baccharis pilularis ssp. *consanguinea* – coyotebrush
Baccharis salicifolia ssp. *salicifolia* – mulefat
Bidens frondosa – devil's beggartick
* *Carduus pycnocephalus* ssp. *pycnocephalus* – Italian plumeless thistle
* *Centaurea melitensis* – Maltese star-thistle
Corethrogyne filaginifolia – sand-aster
* *Cynara cardunculus* ssp. *cardunculus* – globe artichoke
Deinandra fasciculata – clustered tarweed

* *Erigeron bonariensis* – asthmaweed
  Erigeron canadensis – Canadian horseweed
  Eriophyllum confertiflorum var. *confertiflorum* – golden-yarrow
* *Gazania linearis* – treasureflower
* *Glebionis coronaria* – crowndaisy
  Grindelia camporum – Great Valley gumweed
  Hazardia squarrosa var. *grindelioides* – sawtooth bristleweed
* *Hedypnois rhagadioloides* – crete weed
* *Helminthotheca echioides* – bristly oxtongue
  Heterotheca grandiflora – telegraphweed
* *Hypochaeris glabra* – smooth cat's ear
  Isocoma menziesii var. *vernonioides* – Menzies' goldenbush
  Iva hayesiana – San Diego marsh-elder
* *Lactuca serriola – prickly lettuce*
* *Logfia gallica* – narrowleaf cottonrose
  Osmadenia tenella – false rosinweed
  Pseudognaphalium beneolens – Wright's cudweed
  Pseudognaphalium biolettii – two-color rabbit-tobacco
  Pseudognaphalium californicum – ladies' tobacco
  Pseudognaphalium canescens – Wright's cudweed
* *Pseudognaphalium luteoalbum* – Jersey cudweed
  Pseudognaphalium microcephalum – Wright's cudweed
  Pseudognaphalium stramineum – cottonbatting plant
  Psilocarphus brevissimus var. *brevissimus* – short woollyheads
* *Silybum marianum* – blessed milkthistle
* *Sonchus asper* ssp. *asper* – spiny sowthistle
* *Sonchus oleraceus* – common sowthistle
  Stylocline gnaphaloides – mountain neststraw

BORAGINACEAE – BORAGE FAMILY

Heliotropium curassavicum var. *oculatum* – seaside heliotrope

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard
* *Hirschfeldia incana* – shortpod mustard
* *Lepidium didymum* – lesser swinecress
  Nasturtium officinale – watercress
* *Raphanus sativus* – cultivated radish

CACTACEAE – CACTUS FAMILY

* *Opuntia ficus-indica* – Barbary fig
  Opuntia littoralis – coast prickly pear

CARYOPHYLLACEAE – PINK FAMILY

* *Cerastium glomeratum* – sticky chickweed
* *Silene gallica* – common catchfly

CHENOPODIACEAE – GOOSEFOOT FAMILY

  Arthrocnemum subterminale – Parish's glasswort
* *Chenopodium album* – lambsquarters
  Chenopodium californicum – California goosefoot
* *Chenopodium murale* – nettleleaf goosefoot
* *Dysphania ambrosioides* – Mexican tea
  Salicornia pacifica – Pacific swampfire
* *Salsola tragus* – prickly Russian thistle

CONVOLVULACEAE – MORNING-GLORY FAMILY

  Calystegia macrostegia – island false bindweed

CRASSULACEAE – STONECROP FAMILY

* *Crassula ovata* – jade plant

CUCURBITACEAE – GOURD FAMILY

  Marah macrocarpa – Cucamonga manroot

EUPHORBIACEAE – SPURGE FAMILY

  Croton setiger – dove weed
* *Euphorbia lathyris* – moleplant
* *Euphorbia maculata* – spotted sandmat
* *Euphorbia peplus* – petty spurge
* *Ricinus communis* – castorbean

FABACEAE – LEGUME FAMILY

  Acmispon glaber var. *glaber* – common deerweed
  Acmispon maritimus var. *maritimus* – coastal bird's-foot trefoil
  Lupinus bicolor – miniature lupine
* *Medicago polymorpha* – burclover
* *Melilotus indicus* – annual yellow sweetclover

FAGACEAE – OAK FAMILY

  Quercus agrifolia – coast live oak

GENTIANACEAE – GENTIAN FAMILY

Zeltnera venusta – charming centaury

GERANIACEAE – GERANIUM FAMILY

* *Erodium botrys* – longbeak stork's bill
* *Erodium cicutarium* – redstem stork's bill

Geranium carolinianum – Carolina geranium

* *Geranium dissectum* – cutleaf geranium

HYDROPHYLLACEAE – WATERLEAF FAMILY

Eucrypta chrysanthemifolia – spotted hideseed

LAMIACEAE – MINT FAMILY

* *Marrubium vulgare* – horehound

Salvia apiana – white sage

Salvia leucophylla – purple sage

Salvia mellifera – black sage

Stachys ajugoides – bugle hedgenettle

Stachys rigida – rough hedgenettle

LYTHRACEAE – LOOSESTRIFE FAMILY

* *Lythrum hyssopifolia* – hyssop loosestrife

MYRSINACEAE – MYRSINE FAMILY

* *Lysimachia arvensis* – scarlet pimpernel

MYRTACEAE – MYRTLE FAMILY

* *Eucalyptus camaldulensis* – river redgum

OLEACEAE – OLIVE FAMILY

* *Fraxinus uhdei* – evergreen ash

ONAGRACEAE – EVENING PRIMROSE FAMILY

Clarkia purpurea – winecup clarkia

Oenothera elata ssp. *hirsutissima* – Hooker's evening primrose

Oenothera suffrutescens – scarlet beeblossom

* *Oenothera xenogaura* – Drummond's beeblossom

OXALIDACEAE – OXALIS FAMILY

* *Oxalis pes-caprae* – Bermuda buttercup

PHRYMACEAE – LOPSEED FAMILY

Diplacus aurantiacus – bush monkeyflower

Diplacus puniceus – red bush monkeyflower

PLANTAGINACEAE – PLANTAIN FAMILY

* *Kickxia elatine* – sharpleaf cancerwort

Plantago erecta – dwarf plantain

POLEMONIACEAE – PHLOX FAMILY

Navarretia hamata – hooked pincushionplant

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum – California buckwheat

* *Rumex crispus* – curly dock

ROSACEAE – ROSE FAMILY

Heteromeles arbutifolia – toyon

Rubus ursinus – California blackberry

RUBIACEAE – MADDER FAMILY

Galium angustifolium ssp. *angustifolium* – narrowleaf bedstraw

Galium aparine – stickywilly

SALICACEAE – WILLOW FAMILY

Populus fremontii ssp. *fremontii* – Fremont cottonwood

Salix gooddingii – Goodding's willow

Salix lasiolepis – arroyo willow

SCROPHULARIACEAE – FIGWORT FAMILY

* *Myoporum laetum* – myoporum

SIMAROUBACEAE – QUASSIA OR SIMAROUBA FAMILY

* *Ailanthus altissima* – tree of heaven

SOLANACEAE – NIGHTSHADE FAMILY

* *Nicotiana glauca* – tree tobacco

Solanum douglasii – greenspot nightshade

VERBENACEAE – VERVAIN FAMILY

Verbena lasiostachys – western vervain

VIBURNACEAE – MUSKROOT FAMILY

Sambucus mexicana – blue elderberry

FERNS AND FERN ALLIES

SELAGINELLACEAE – SPIKE-MOSS FAMILY

Selaginella cinerascens – ashy spike-moss

Gymnosperms and Gnetophytes

PINACEAE – PINE FAMILY

* *Pinus halepensis* – aleppo pine

Monocots

AGAVACEAE – AGAVE FAMILY

* *Agave americana* – American century plant

ARECACEAE – PALM FAMILY

* *Phoenix canariensis* – Canary Island date palm

Washingtonia filifera – California fan palm

* *Washingtonia robusta* – Washington fan palm

ASPARAGACEAE – ASPARAGUS FAMILY

* *Asparagus asparagoides* – African asparagus fern
* *Asparagus officinalis* ssp. *officinalis* – garden asparagus

CYPERACEAE – SEDGE FAMILY

* *Cyperus involucratus* – umbrella plant

Schoenoplectus californicus – California bulrush

IRIDACEAE – IRIS FAMILY

Sisyrinchium bellum – western blue-eyed grass

JUNCACEAE – RUSH FAMILY

Juncus bufonius – toad rush

Juncus dubius – questionable rush

Juncus mexicanus – Mexican rush

POACEAE – GRASS FAMILY

* *Arundo donax* – giant reed
* *Avena barbata* – slender oat
* *Brachypodium distachyon* – purple false brome
* *Bromus diandrus* – ripgut brome
* *Bromus hordeaceus* – soft brome

* *Bromus rubens* – red brome
* *Cortaderia selloana* – Uruguayan pampas grass
* *Cynodon dactylon* – Bermudagrass
  Distichlis spicata – salt grass
* *Ehrharta erecta* – panic veldtgrass
  Elymus elymoides – squirreltail
  Elymus triticoides – creeping ryegrass
  Festuca microstachys – small fescue
* *Festuca myuros* – rat-tail fescue
* *Festuca perennis* – perennial rye grass
* *Gastridium phleoides* – nit grass
* *Hordeum murinum* – mouse barley
  Melica imperfecta – smallflower melicgrass
* *Polypogon monspeliensis* – annual rabbitsfoot grass
* *Schismus barbatus* – common Mediterranean grass
  Stipa lepida – foothill needlegrass
  Stipa pulchra – purple needlegrass

THEMIDACEAE – BRODIAEA FAMILY

Bloomeria crocea – common goldenstar

TYPHACEAE – CATTAIL FAMILY

Typha domingensis – southern cattail

* signifies introduced (non-native) species

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Appendix B
Wildlife Species List

Birds

Blackbirds, Orioles and Allies

ICTERIDAE – BLACKBIRDS

* *Molothrus ater* – brown-headed cowbird

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Cardinals, Grosbeaks and Allies

CARDINALIDAE – CARDINALS AND ALLIES

Pheucticus melanocephalus – black-headed grosbeak

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

S*pinus tristis* – American goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Empidonax difficilis – western flycatcher

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo lineatus – red-shouldered hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Selasphorus sasin – Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Aphelocoma californica – California scrub-jay
Corvus brachyrhynchos – American crow
Corvus corax – common raven

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird
Toxostoma redivivum – California thrasher

New World Quail

ODONTOPHORIDAE – NEW WORLD QUAIL

Callipepla californica – California quail

Old World Warblers and Gnatcatchers

POLIOPTILIDAE – GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove
* *Streptopelia decaocto* – Eurasian collared-dove

Terns and Gulls

LARIDAE – GULLS, TERNS, AND SKIMMERS

Larus occidentalis – western gull

Wood Warblers and Allies

PARULIDAE – WOOD-WARBLERS

Geothlypis trichas – common yellowthroat
Setophaga coronata – yellow-rumped warbler
Setophaga petechia – yellow warbler
Leiothlypis celata – orange-crowned warbler

Woodpeckers

PICIDAE – WOODPECKERS AND ALLIES

Dryobates nuttallii – Nuttall's woodpecker

Wrens

TROGLODYTIDAE – WRENS

Thryomanes bewickii – Bewick's wren

Waxbills

ESTRILDIDAE – WAXBILLS

* *Lonchura punctulata* – scaly-breasted munia

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow

Melozone crissalis – California towhee

Pipilo maculatus – spotted towhee

Zonotrichia leucophrys – white-crowned sparrow

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE – SYLVIID WARBLERS

Chamaea fasciata – wrentit

Invertebrates

Butterflies

LYCAENIDAE – BLUES, HAIRSTREAKS, AND COPPERS

Leptotes marina – marine blue

Strymon melinus – gray hairstreak

NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Danaus plexippus – monarch

Junonia coenia – common buckeye

Nymphalis antiopa – mourning cloak

PIERIDAE – WHITES AND SULFURS

Pieris rapae – cabbage white

Pontia sisymbrii – spring white

Bees

APIDAE – BEES

Bombus vosnesenskii – Vosnesensky bumble bee

Mammals

Hares and Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus audubonii – desert cottontail

Squirrels

SCIURIDAE – SQUIRRELS

Otospermophilus beecheyi – California ground squirrel

Raccoons

PROCYONIDAE – RACCOONS AND RELATIVES

Procyon lotor – northern raccoon

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

* signifies introduced (non-native) species

Appendix C1

Special-Status Plant Species Detected or Potentially Occurring within the Biological Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	Covered	Marshes and swamps, Playas/ perennial herb/Apr–Oct/ 0–1,640	San Diego marsh-elder occurs along the northern boundary of the Parcel Area near Loma Alta Creek, in the northwestern part of the Parcel Area. The occurrences are located within the 100-foot wetland buffer surrounding Loma Alta Creek and are not near the proposed project impact limits.
Selaginella cinerascens	ashy spike-moss	None/None/4.1	None	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Ashy spike-moss was detected and mapped during focused rare plant surveys. Multiple small patches of ashy spike-moss are located near the southern boundary of the proposed impact area, and two additional patches are located more than 300 feet southwest of the proposed impact area. Of the small patches located near the southern proposed impact area boundary, one patch overlaps the southern impact area boundary, and the remainder are located outside of the impact area. Plant species with a CRPR of 4 (i.e., ashy spike-moss) are considered limited distribution or watchlist species and less sensitive/rare than plant species with a CRPR of 1 through 3 (CNPS 2024).

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

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Appendix C2

Special-Status Plant Species Not Expected to Occur within the Biological Study Area

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Abronia villosa var. *aurita*	chaparral sand-verbena	None/None/1B.1	None	Chaparral, Coastal scrub, Desert dunes; Sandy/annual herb/(Jan)Mar–Sep/ 245–5,250	Not expected to occur as chaparral sand-verbena is more likely to be found in sandy washes and sandy floodplains, which are not present within the study area. This species was not detected during focused rare plant surveys.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, Openings/annual herb/ Apr–June/35–3,150	Not expected to occur. This species was not detected during focused rare plant surveys. San Diego thorn-mint does not tolerate high levels of disturbance. Although there is suitable scrub and grassland habitat present, annuals like thorn-mint do not persist well with heavy foot traffic, garbage, and non-native annual grasses. San Diego thorn-mint also requires unique cracked or broken clay soils that are not present. The closest known California Natural Diversity Database (CNDDB) occurrence is approximately 2 miles northeast of the study area (CDFW 2024).
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/ Mar–June(July)/0–35	Not expected to occur. The site is outside of this species' known elevation range. This species occurs nearer to the coast.
Adolphia californica	California adolphia	None/None/2B.1	None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/35–2,430	Not expected to occur. This shrub was not detected during focused rare plant surveys. Areas mapped with clay soils in the study area

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					(USDA 2024) which overlap the impact area have been heavily disturbed and/or previously cleared.
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1	None	Coastal bluff scrub, Coastal scrub/perennial leaf/ Sep–May/10–395	Not expected to occur. Shaw's agave has a limited distribution near the U.S./Mexico border and up to Torrey Pines along the bluffs. Shaw's agave is more likely to be found in maritime succulent scrub or coastal bluff scrub, which are not present within the study area.
Allium marvinii	Yucaipa onion	None/None/1B.2	None	Chaparral (clay, openings)/ perennial bulbiferous herb/ Apr–May/2,495–3,495	Not expected to occur. The study area is outside of the species' known elevation range and is west of its known geographic range.
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Alkaline (sometimes), Clay (sometimes), Disturbed areas (often), Loam (sometimes), Sandy (sometimes)/perennial rhizomatous herb/Apr–Oct/ 65–1,360	Not expected to occur. There is coastal scrub, grassland, and disturbed habitat present in the study area with suitable soil types (USDA 2024). However, frequent foot traffic throughout openings in the study area limits the chance of the species occurring and persisting, and this species was not detected during focused rare plant surveys. The closest known California Natural Diversity Database (CNDDB) occurrences that are not known to be extirpated are approximately 2.5 miles northeast and northwest of the study area (CDFW 2024).

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Aphanisma blitoides	aphanisma	None/None/1B.2	None	Coastal bluff scrub, Coastal dunes, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/annual herb/ Feb–June/5–1,000	Not expected to occur. This species is typically found in coastal habitats unlike what is present in the study area. This species was not detected during focused rare plant surveys.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1	None	Chaparral (maritime, sandy)/ perennial evergreen shrub/ June–Apr/0–1,200	Not expected to occur. This shrub species was not detected during focused rare plant surveys. While there is chaparral present on the site, this species is typically found in sandy maritime habitat and all known occurrences are to the south of the study area. The closest known CNDDB occurrence is approximately 4 miles south of the study area (CDFW 2024).
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/1B.1	None	Chaparral/perennial evergreen shrub/ Dec–Mar/675–2,200	Not expected to occur. The site is outside of the species' known elevation range.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1	None	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); Mesic (often), Vernally Mesic	Not expected to occur. This species was not detected during focused rare plant surveys. No coastal dunes are present in the study area.

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				(often)/annual herb/ Mar–May/5–165	There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/perennial herb/Mar–Oct/10–1,510	Not expected to occur. There is suitable coastal scrub and grassland present and soil may be suitable to support this species in some areas. However, this shrub species was not detected during focused rare plant surveys.
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 is suitable coastal scrub present in the study area; however, there is no coastal bluff scrub or playa habitat present, and this species was not detected during focused rare plant surveys. The nearest known CNDDB occurrence is approximately 2 miles northwest of the study area (CDFW 2024).
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1	None	Chaparral (maritime), Cismontane woodland; Sandstone/perennial deciduous shrub/ Aug–Nov/195–2,360	Not expected to occur. This species was not detected during focused rare plant surveys. The composition of habitats in the study area are not suitable to support this species. Additionally, there are no known occurrences within 5 miles of the study area (CDFW 2024).
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	None	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay/perennial	Not expected to occur. There is suitable coastal scrub, chaparral, and non-native grassland with small

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				bulbiferous herb/Apr–May/ 165–1,525	patches of clay soil mapped in the study area. However, frequent foot traffic and disturbance throughout openings in the study area limits the chance of the species occurring and persisting, and this species was not detected during focused rare plant surveys. The nearest known CNDDB occurrence is approximately 5 miles southeast of the study area (CDFW 2024).
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1	Covered	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; Clay (often)/perennial bulbiferous herb/Mar–June/80–3,675	Not expected to occur. There is suitable coastal scrub, chaparral, and grassland present in the study area, and clay soil is mapped in parts of the western and eastern sides of the study area (USDA 2024). However, frequent foot traffic throughout openings in the study area limits the chance of the species occurring and persisting, and this species was not detected during focused rare plant surveys. The closest known CNDDB occurrence is approximately 1 mile southeast of the study area, but it is considered possibly extirpated (CDFW 2024). Another occurrence approximately 1.5 miles southwest of the study area is presumed extant (CDFW 2024).
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1	None	Chaparral, Cismontane woodland, Closed-cone	Not expected to occur. There is chaparral and grassland present in

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools; Clay, Mesic/perennial bulbiferous herb/ May–July/100–5,550	the study area, and clay soil is mapped in parts of the western and eastern sides of the study area (USDA 2024). However, this species is associated with wetlands with clay soil and vernal pools which are not present in the study area. Additionally, frequent foot traffic throughout openings in the study area limits the chance of the species occurring and persisting. The closest known CNDDB occurrence is approximately 5 miles from the study area but is from 1936 and is considered possibly extirpated (CDFW 2024). This species was not detected during focused rare plant surveys.
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3	None	Cismontane woodland, Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Clay (sometimes), Sandy (sometimes)/annual herb/Mar–May(June)/0–985	Not expected to occur. There is suitable coastal scrub and non-native grassland present, and suitable soil areas. However, there are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024), and this species was not detected during focused rare plant surveys.
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.

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	None	Chaparral/perennial evergreen shrub/Dec–May/5–1,245	Not expected to occur. There is suitable chaparral habitat within the study area, and there are multiple occurrences within 5 miles of the study area (CDFW 2024). However, this shrub species was not detected during focused rare plant surveys.
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. Suitable substrate is present in the northwestern portion of the study area where there is marsh habitat. However, this species was not detected during focused rare plant surveys. Southern tarplant is more likely to be found in foothill grassland that is vernally mesic. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
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 typically occurs in alkaline foothill grasslands. There is riparian woodland which could potentially support this species primarily in the northwestern part of the study area. However, this species was not detected during focused rare plant surveys. The only two CNDDB occurrences of the species within 5 miles of the study area are

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					considered possibly extirpated (CDFW 2024).
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 coastal bluff scrub or dune habitat is present to support this species.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1	None	Chaparral (maritime), Closed-cone coniferous forest, Coastal scrub; Openings, Sandy/annual herb/Mar–May/10–410	Not expected to occur. There is suitable coastal scrub present. However, frequent foot traffic throughout openings in the study area limits the chance of the species occurring and persisting and there are no known occurrences within 5 miles of the study area (CDFW 2024). This species was not detected during focused rare plant surveys.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2	None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; Clay (often)/annual herb/ Apr–July/100–5,020	Not expected to occur. There is suitable coastal scrub and non-native grassland present. However, frequent foot traffic throughout openings in the study area limits the chance of the species occurring and persisting and there are no known occurrences within 5 miles of the study area (CDFW 2024). This species was not detected during focused rare plant surveys.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2	None	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/100–2,590	Not expected to occur. There is suitable chaparral habitat within the study area, and there are multiple occurrences within 5 miles of the study area (CDFW 2024). However,

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					this shrub species was not detected during focused rare plant surveys.
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	None/None/1B.1	None	Chaparral (maritime, openings), Coastal bluff scrub, Coastal scrub; Sandy/perennial herb/ May–Sep/15–490	Not expected to occur. This species was not detected during focused rare plant surveys. While there is suitable coastal scrub habitat present, this species is typically found in the Del Mar immediate area. The nearest CNDDB occurrence is an outlier location approximately 5 miles south of the study area (CDFW 2024).
Cryptantha wigginsii	Wiggins' cryptantha	None/None/1B.2	None	Coastal scrub; Clay (often)/ annual herb/Feb–June/65–900	Not expected to occur. There is suitable coastal sage scrub and patches of the study area are mapped as having clay soil. However, this species was not detected during focused rare plant surveys. The nearest CNDDB occurrence is approximately 3 miles south of the study area (CDFW 2024).
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1	Covered	Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Clay (often), Rocky, Serpentinite/perennial herb/ Apr–June/15–1,475	Not expected to occur. There is suitable coastal sage scrub, chaparral, and grassland habitat present, and patches of the study area are mapped as having clay soil. There are multiple CNDDB occurrences of this species within 5 miles of the study area (CDFW 2024). However, frequent foot traffic and disturbance throughout

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					openings in the study area limits the chance of the species occurring and persisting, and this species was not detected during focused rare plant surveys.
Dudleya multicaulis	many-stemmed dudleya	None/None/1B.2	None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay (often)/perennial herb/ Apr–July/50–2,590	Not expected to occur. There is suitable coastal sage scrub, chaparral, and grassland habitat present, and patches of the study area are mapped as having clay soil. However, frequent foot traffic and disturbance throughout openings in the study area limits the chance of the species occurring and persisting and there are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024). This species was not detected during focused rare plant surveys.
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/10–1,905	Not expected to occur. There is suitable coastal sage scrub, chaparral, and grassland habitat present, and patches of the study area are mapped as having clay soil. However, frequent foot traffic and disturbance throughout openings in the study area limits the chance of the species occurring and persisting, and there are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024). This species was not

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					detected during focused rare plant surveys.
Dudleya viscida	sticky dudleya	None/None/1B.2	Covered	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub; Rocky/perennial herb/ May–June/35–1,805	Not expected to occur. There is suitable coastal sage scrub and chaparral present in the study area. However, the study area lacks suitable rocky substrate, and this species was not detected during focused rare plant surveys. There are multiple CNDDB occurrences of this species within 5 miles of the study area (CDFW 2024).
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1	None	Chaparral, Coastal scrub; Mesic/perennial evergreen shrub/(July)Sep–Nov/ 100–1,970	Not expected to occur. This shrub species occurs in mesic coastal scrub or chaparral and was not detected during focused rare plant surveys. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
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. This species is typically associated with vernal pools and there are none present in the study area. The closest known CNDDB occurrences are on Camp Pendleton (CDFW 2024).
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)/50–360	Not expected to occur. The study area is outside of the species' known geographic range and there are no vernal pools present in the study area. There are no known

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					occurrences within 5 miles of the study area (CDFW 2024).
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2	None	Chaparral (maritime), Coastal dunes, Coastal scrub; Openings, Sandy/perennial herb/ Feb–June(July–Aug)/0–195	Not expected to occur. There is suitable coastal sage scrub present in the study area. However, this species was not detected during focused rare plant surveys.
Euphorbia misera	cliff spurge	None/None/2B.2	None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; Rocky/perennial shrub/ (Oct)Dec–Aug/35–1,640	Not expected to occur. There is suitable coastal scrub present in the study area. However, this perennial species was not detected during focused rare plant surveys. Part of a CNDDB occurrence overlaps the study area and is mapped along a long section of the railroad up to the coast, but the exact location and the occurrence date are unknown (CDFW 2024).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem/ May–June/10–1,475	Not expected to occur. There is suitable chaparral, coastal scrub, and non-native grassland habitat within the study area. There are multiple occurrences within 5 miles of the study area (CDFW 2024). However, this species was not detected during focused rare plant surveys.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/3.1	None	Chaparral (disturbed areas, mesic)/annual herb/ Apr–June/1,475–2,295	Not expected to occur. The site is outside of the species' known elevation range.
Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1	Covered	Chaparral (maritime), Coastal scrub; Clay	Not expected to occur. There is suitable coastal scrub and patches

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				(often)/perennial evergreen shrub/Aug–Oct/260–280	of clay soil mapped in the study area. However, there are no known natural occurrences of the species (one transplant) within 5 miles of the study area (CDFW 2024). Additionally, this species was not detected during focused rare plant surveys.
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 is suitable coastal scrub present. However, this perennial species is typically associated with beaches and there are no known occurrences within 5 miles of the study area (CDFW 2024). This species was not detected during focused rare plant surveys.
Hordeum intercedens	vernal barley	None/None/3.2	None	Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools/ annual herb/Mar–June/ 15–3,280	Not expected to occur. There is coastal scrub and grassland vegetation present, but there are no vernal pools present, openings in the study area are frequently disturbed, and there are no known occurrences within five miles of the study area (CDFW 2024). This species was not detected during focused rare plant surveys.
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. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	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 (often disturbed areas, sandy)/ perennial shrub/Apr–Nov/ 35–820	Not expected to occur. There is suitable coastal scrub and chaparral present in the study area, and the nearest CNDDB occurrence is approximately 2 miles south of the study area (CDFW 2024). However, this species was not detected during focused rare plant surveys.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1	None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/ Feb–June/5–4,005	Not expected to occur. No suitable salt marsh, playa, or vernal pool habitat present in the study area to support this species. There are no known occurrences within 5 miles of the study area (CDFW 2024).
Leptosyne maritima	sea dahlia	None/None/2B.2	None	Coastal bluff scrub, Coastal scrub/perennial herb/ Mar–May/15–490	Not expected to occur. There is coastal scrub vegetation present on the site. However, this species of often associated with coastal bluff scrub which is not present in the study area. Additionally, this species was not detected during focused rare plant surveys.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2	None	Chaparral, Cismontane woodland/perennial rhizomatous herb/ June–Aug/985–5,170	Not expected to occur. The site is outside of the species' known elevation range.
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. This species was not detected during focused rare plant surveys. This species is typically associated with vernal pools and there are none present in

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					the study area. There are no known occurrences within 5 miles of the study area (CDFW 2024).
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. There is suitable marsh habitat in the northwestern part of the study area. However, this species was not detected during focused rare plant surveys.
Navarretia fossalis	spreading navarretia	FT/None/1B.1	None	Chenopod scrub, Marshes and swamps (shallow freshwater), Playas, Vernal pools/annual herb/ Apr–June/100–2,150	Not expected to occur. This species was not detected during focused rare plant surveys. No vernal pools occur in the study area and spreading navarretia is associated with vernal pools. There are two known occurrences within 5 miles of the study area, within the Camp Pendleton area (CDFW 2024).
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 coastal dunes are present to support this species.
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2	None	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/ (Mar)Apr–May/-165–1,310	Not expected to occur. No coastal dunes, desert dunes, or Sonoran Desert scrub are present in the study area to support this species.
Nolina cismontana	chaparral nolina	None/None/1B.2	None	Chaparral, Coastal scrub; Gabbroic (sometimes), Sandstone (sometimes)/ perennial evergreen shrub/ (Mar)May–July/460–4,185	Not expected to occur. There is coastal scrub vegetation and chaparral present, however there are no known occurrences of this perennial within 5 miles of the study area (CDFW 2024). Additionally, this

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					species was not detected during focused rare plant surveys.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	None	Vernal pools/annual herb/ Apr–Aug/50–2,165	Not expected to occur. There are no vernal pools present in the study area. There are no known occurrences of this species within 5 miles of the study area (CDFW 2024).
Phacelia stellaris	Brand's star phacelia	None/None/1B.1	None	Coastal dunes, Coastal scrub/annual herb/ Mar–June/5–1310	Not expected to occur. Brand's star phacelia occurs in coastal dunes near the beach. There are no known occurrences of this species within 5 miles of the study area (CDFW 2024).
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2	None	Chaparral, Closed-cone coniferous forest; Sandstone/ perennial evergreen tree/N.A./100–525	Not expected to occur. The study area is outside of the known geographic range of the species, and this tree likely would have been observed during the surveys conducted if present. There are no known occurrences of this species within 5 miles of the study area (CDFW 2024).
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1	None	Vernal pools/annual herb/ Mar–July/295–655	Not expected to occur. This species was not detected during focused rare plant surveys, and there are no vernal pools present in the study area. There are no known occurrences of this species within 5 miles of the study area (CDFW 2024).

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2	None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; Gravelly, Sandy/perennial herb/ (July)Aug–Nov(Dec)/ 0–6,890	Not expected to occur in the study area. There is suitable coastal scrub and chaparral present. However, this species was not detected during focused rare plant surveys, and there are no known occurrences within 5 miles of the study area (CDFW 2024).
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1	Covered	Chaparral, Closed-cone coniferous forest, Coastal scrub; Clay, Loam, Sandy/perennial evergreen shrub/ Feb–Apr(May–Aug)/50–1,310	Not expected to occur. There is suitable coastal scrub and chaparral present, and there are multiple CNDDB occurrences within 5 miles of the study area (CDFW 2024). However, this species was not detected during focused rare plant surveys.
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 in the study area. There is suitable coastal scrub and chaparral present. However, this species was not detected during focused rare plant surveys, and there are no known occurrences within 5 miles of the study area (CDFW 2024).
Senecio aphanactis	chaparral ragwort	None/None/2B.2	None	Chaparral, Cismontane woodland, Coastal scrub; Alkaline (sometimes)/annual herb/Jan–Apr(May)/ 50–2,625	Not expected to occur in the study area. There is coastal scrub and chaparral present. However, this species was not detected during focused rare plant surveys, and there are no known occurrences within 5 miles of the study area (CDFW 2024).

Scientific Name	Common Name	Status (Federal/State/ CRPR)	Oceanside Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
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/50–5,020	Not expected to occur. This shrub species was not observed during focused rare plant surveys. There is one known CNDDB occurrence of the species within 5 miles of the study area (CDFW 2024).
Sphaerocarpos drewiae	bottle liverwort	None/None/1B.1	None	Chaparral, Coastal scrub; Openings/ephemeral liverwort/N.A./ 295–1,970	Not expected to occur in the study area. There is suitable coastal scrub and chaparral present. However, this species was not detected during focused rare plant surveys, and there are no known occurrences within 5 miles of the study area (CDFW 2024).
Sphenopholis interrupta ssp. *californica*	prairie false oat	None/None/1B.1	None	Chaparral (coastal); Clay/ annual herb/Apr/50–50	Not expected to occur. The site is outside of the species' known elevation range.
Stemodia durantifolia	purple stemodia	None/None/2B.1	None	Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr–Dec/ 590–985	Not expected to occur. The site is outside of the species' known elevation range.
Suaeda esteroa	estuary seablite	None/None/1B.2	None	Marshes and swamps (coastal salt)/perennial herb/ (Jan–May)July–Oct/0–15	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	None	Chaparral, Coastal scrub/ perennial deciduous shrub/ Apr–May/540–3,280	Not expected to occur. There is suitable coastal scrub and chaparral present. However, this species was not detected during focused rare plant surveys.

Notes: N.A. = not applicable.

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

References

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City of Oceanside. 2010. *Final Oceanside Subarea Plan*. Accessed March 2024. https://www.ci.oceanside.ca.us/government/development-services/planning/codes-regulations-maps/subarea-plan.

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Appendix D

2023–2024 Focused Coastal California Gnatcatcher Survey Report

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

May 13, 2024 14942

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

Subject: Focused California Gnatcatcher Survey Report for the Olive Park Apartments Project, City of Oceanside, California

Dear Recovery Permit Coordinator:

This report documents the results of a protocol-level presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The focused survey was conducted in suitable habitat within and immediately surrounding the proposed Olive Park Apartments Project (Project), City of Oceanside, California (Figure 1).

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

Location and Existing Conditions

The approximately 45.36-acre study area is located in the eastern section of the City of Oceanside, California (Figures 1 and 2). The Project site is located south of Oceanside Boulevard and west of College Boulevard; more specifically, it is west of the terminus of Olive Drive and south of the North County Transit District (NCTD) rail line and the College Boulevard Sprinter Station.

Topography on site is steeply to moderately sloped and ranges from approximately 185 feet above mean sea level (AMSL) to 450 feet AMSL. The study area is comprised of native and non-native upland and riparian habitats, as well as disturbed habitat from human activity.

Vegetation Communities

The vegetation community that potentially supports gnatcatchers within the study area includes Diegan coastal sage scrub. Within the Olive Park Apartments project study area, there is a total of approximately 18.81 acres of Diegan coastal sage scrub (including disturbed form), which is described in further detail below.

Diegan Coastal Sage Scrub (Including Disturbed Forms)

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub vegetation within the Olive Park Apartments project study area totals 16.82 acres, with an additional 1.99 acres of disturbed Diegan coastal sage scrub.

Methods

Because the City of Oceanside is not signatory to the U.S. Fish & Wildlife Service (USFWS) approved San Diego County Multi Species Conservation Plan ("MSCP") adopted pursuant to Section 10(a)(1)(B)(B) of the federal Endangered Species Act and the State of California Natural Communities Conservation Planning (NCCP) Act, the protocol for conducting a focused California gnatcatcher survey must follow the methods for areas not enrolled in an approved NCCP. Therefore, nine focused gnatcatcher surveys were conducted during the non-breeding season (and a portion of the breeding season) at a minimum of 14-day intervals. During each visit, all potentially suitable habitat was surveyed by Dudek wildlife biologist Paul Lemons (Recovery Permit No ES051248-7). Details and conditions for each survey visit are summarized in Table 1.

Table 1. Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
12/21/2023	P. Lemons	0900-1100	57-67 Degrees Fahrenheit (°F), 90-80% cloud cover (cc), 0-2 mile per hour (mph) winds
1/5/2024	P. Lemons	0830-1040	55-57 °F, 80-60%cc, 0-2 mph winds
1/19/2024	P. Lemons	0830-1030	54-57 °F, 90%cc, 0-2 mph winds
2/18/2024	P. Lemons	0900-1100	57-59 °F, 40%cc, 0-3 mph winds
3/3/2024	P. Lemons	0900-1100	55-58 °F, 100-90%cc, 1-4 mph winds
3/17/2024	P. Lemons	0830-1030	55-64 °F, 60-30%cc, 0-4 mph winds
3/31/2024	P. Lemons	0830-1030	55-56 °F, 100%cc, 2-7 mph winds
4/14/2024	P. Lemons	1000-1200	63-70 °F, 0-10%cc, 1-4 mph winds
4/28/2024	P. Lemons	1000-1200	67-70 °F, 0%cc, 1-4 mph winds

All suitable habitat within the study area was covered on-foot during each survey visit for 100% visual and audible coverage of the site; routes of the survey are illustrated on Figure 2. Survey visits were conducted at minimum one week intervals (i.e., 7-day) and were performed in conformance with the currently accepted protocol of the USFWS *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol* (USFWS 1997).

A tape of recorded gnatcatcher vocalizations was played approximately every 75-100 feet to induce responses from potentially present gnatcatchers. Tape-playback would have been terminated immediately upon detection of any

gnatcatchers to minimize the potential for harassment. A 200-scale (1 inch = 200 feet) digital aerial photograph of the site and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10x50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers.

Results

No California gnatcatchers were detected during this focused survey effort. A total of 39 species of wildlife were detected during the surveys, which is provided in Appendix A. No brown-headed cowbirds were detected within the study area during this survey effort. Please feel free to contact me at plemons@dudek.com with questions or if you require additional information.

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

Sincerely,

Paul Lemons
Permit # ES051248-7

Att: *Figure 1, Vicinity Map*
Figure 2, Biological Resources
A, List of Wildlife Species Observed or Detected

Literature Cited

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

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References for Latin and Common Names

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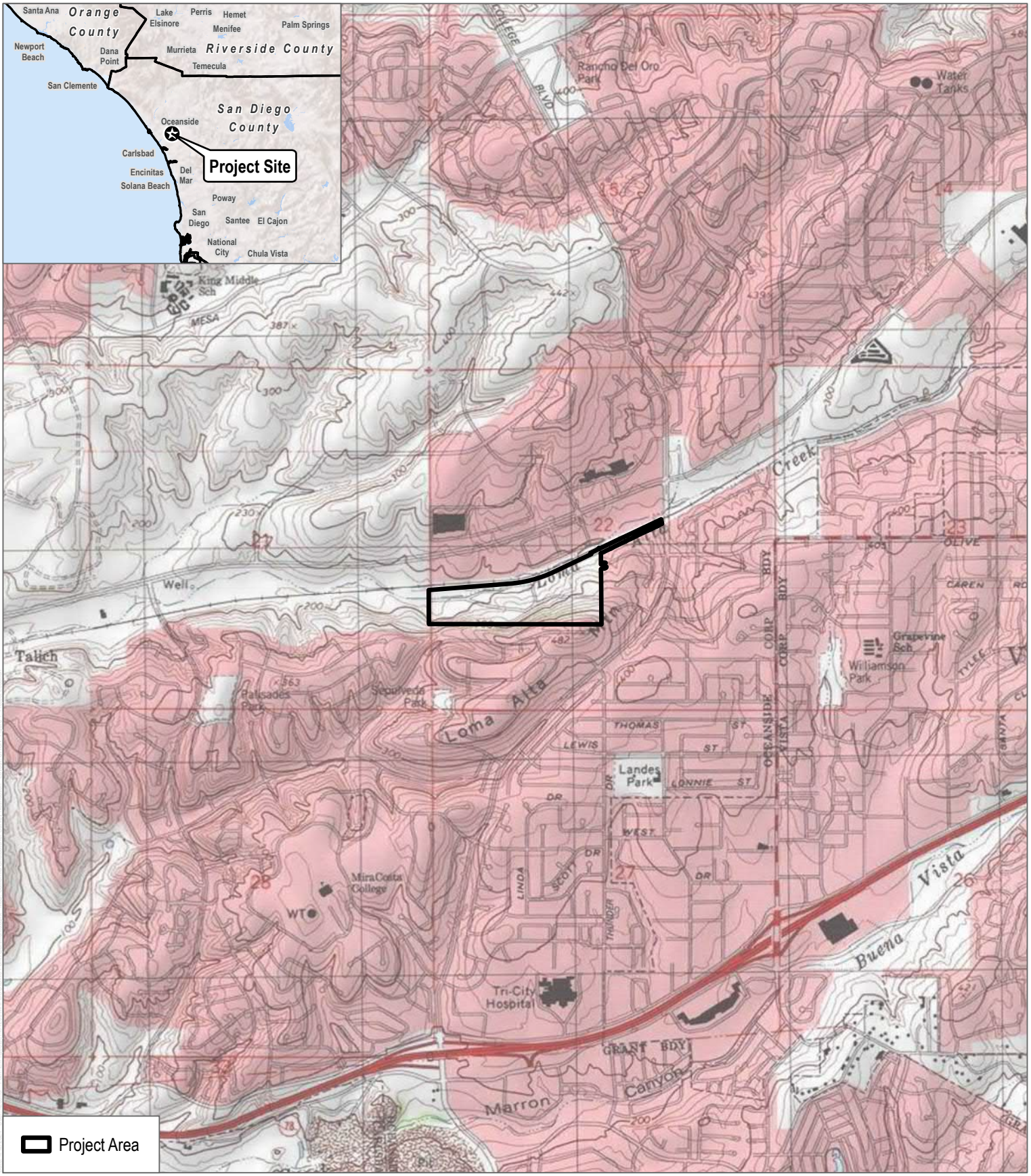
Jones, J.K., Jr., D.C. Carter, H.H. Genoways, R.S. Hoffman, and D.W. Rice. 1992. Revised Checklist of North American Mammals North of Mexico. Occasional Papers of the Museum of Texas Tech University, no. 146.



SOURCE: USGS 7.5-Minute Series San Luis Rey Quadrangle - Township 11S Range 4W Section 22

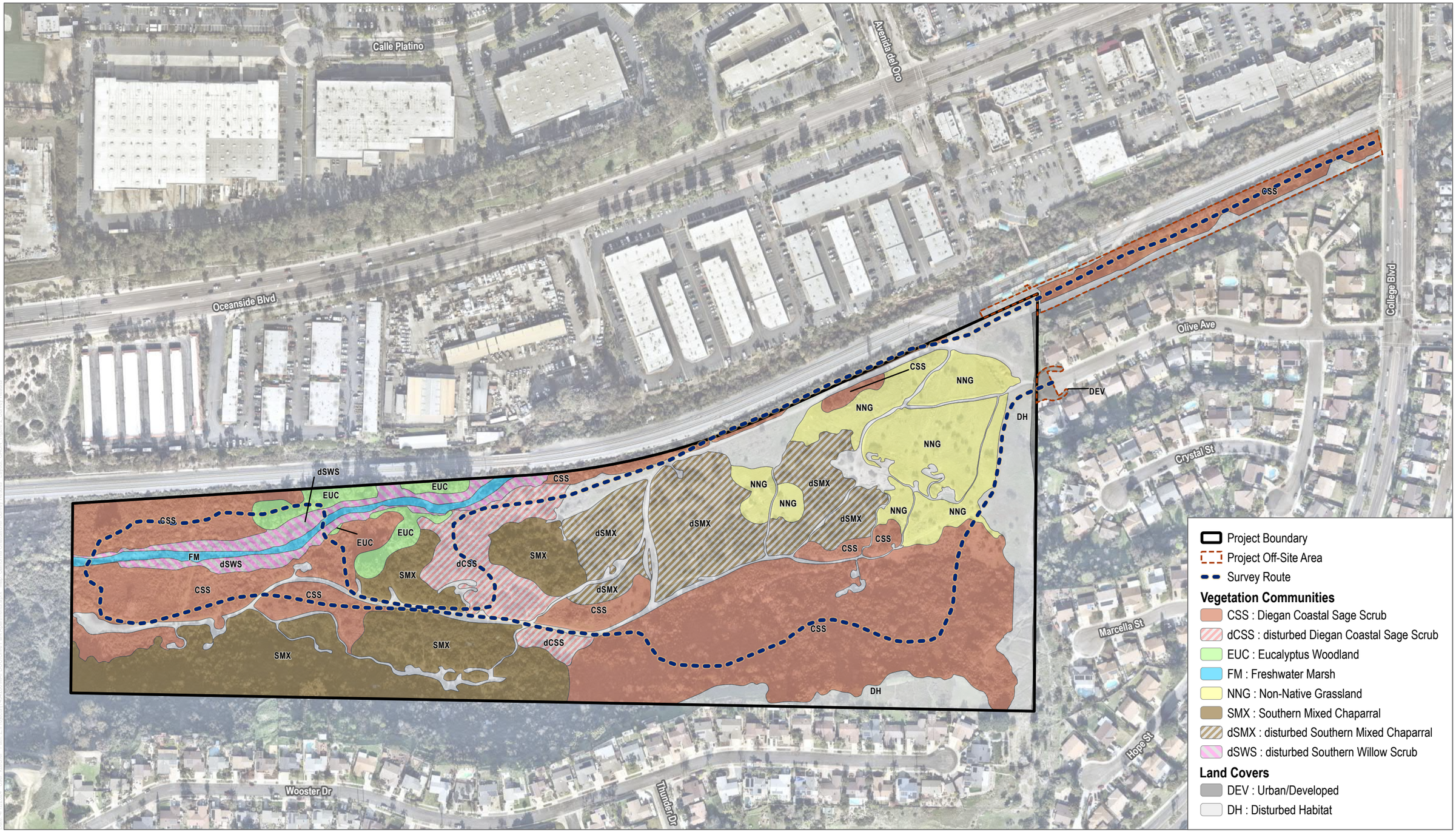
FIGURE 1

Vicinity Map

DUDEK

0 500 1,000 Feet

Focused California Gnatcatcher Survey Report, Olive Park Apartments Project, City of Oceanside, CA



SOURCE: SanGIS 2023

DUDEK

N

0 120 240 Feet

FIGURE 2

Biological Resources

Focused California Gnatcatcher Survey Report for the Olive Park Apartments Project, City of Oceanside, California

Appendix A

List of Wildlife Species Observed or Detected

Birds

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Empidonax difficilis – Pacific-slope flycatcher

Sayornis nigricans – black phoebe

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo jamaicensis – red-tailed hawk

Buteo lineatus – red-shouldered hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Selasphorus sasin – Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Aphelocoma californica – California scrub-jay

Corvus brachyrhynchos – American crow

Corvus corax – common raven

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Toxostoma redivivum – California thrasher

New World Quail

ODONTOPHORIDAE – NEW WORLD QUAIL

Callipepla californica – California quail

Old World Sparrows

PASSERIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Old World Warblers and Gnatcatchers

POLIOPTILIDAE – GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

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

Swallows

HIRUNDINIDAE – SWALLOWS

Petrochelidon pyrrhonota – cliff swallow

Terns and Gulls

LARIDAE – GULLS, TERNS, AND SKIMMERS

Larus occidentalis – western gull

Wood Warblers and Allies

PARULIDAE – WOOD-WARBLERS

Geothlypis trichas – common yellowthroat

Setophaga coronata – yellow-rumped warbler

Leiothlypis celata – orange-crowned warbler

Woodpeckers

PICIDAE – WOODPECKERS AND ALLIES

Dryobates nuttallii – Nuttall's woodpecker

Wrens

TROGLODYTIDAE – WRENS

Troglodytes aedon – house wren

Thryomanes bewickii – Bewick's wren

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow

Melozone crissalis – California towhee

Pipilo maculatus – spotted towhee

Zonotrichia leucophrys – white-crowned sparrow

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE – SYLVIID WARBLERS

Chamaea fasciata – wrentit

Invertebrates

Butterflies

NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Junonia coenia – common buckeye

PAPILIONIDAE – SWALLOWTAILS

Papilio rutulus – western tiger swallowtail

PIERIDAE – WHITES AND SULFURS

Pontia sisymbrii – spring white

Mammals

Domestic

CANIDAE – WOLVES AND FOXES

* *Canis familiaris* – domestic dog

Hares and Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus bachmani – brush rabbit

Pocket Gophers

GEOMYIDAE – POCKET GOPHERS

Thomomys bottae – Botta's pocket gopher

Squirrels

SCIURIDAE – SQUIRRELS

Otospermophilus beecheyi – California ground squirrel

Raccoons

PROCYONIDAE – RACCOONS AND RELATIVES

Procyon lotor – northern raccoon

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

* signifies introduced (non-native) species

Appendix E

2024 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report

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

July 25, 2024 14942

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

Subject: Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Olive Park Apartments Project, City of Oceanside, California

Dear Recovery Permit Coordinator:

This report documents the results of eight protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus*), and five protocol-level presence/absence surveys for the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*). The surveys were conducted in all areas of suitable least Bell's vireo and southwestern willow flycatcher habitat.

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

1 Project Location and Existing Conditions

The approximately 45.36-acre study area is located in the eastern section of the City of Oceanside, California (Figures 1 and 2). The Project site is located to south of Oceanside Boulevard and west of College Boulevard; more specifically, it is west of the terminus of Olive Drive and south of the North County Transit District (NCTD) rail line and the College Boulevard Sprinter Station.

Topography on site is steeply to moderately sloped and ranges from approximately 185 feet above mean sea level (AMSL) to 450 feet AMSL. The study area is comprised of native and non-native upland and riparian habitats, as well as disturbed habitat from human activity.

2 Vegetation Communities

Within the project study area, southern willow scrub occurs along the northern boundary of the site and is potentially suitable habitat for the southwestern willow flycatcher and least Bell's vireo.

Southern Willow Scrub (Disturbed)

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species (*Salix* spp.), with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*). This community was formerly extensive along the major rivers of coastal Southern California, but currently occupies a smaller area (Oberbauer et al. 2008).

Disturbed southern willow scrub is present along the edges of most of the segment of Loma Alta Creek that passes through the study area, except in the westernmost part of the study area. This vegetation community is dominated by small to medium-sized willows with associated non-native Pampas grass (*Cortaderia selloana*). It is considered a "disturbed" form of southern willow scrub based on the high percent cover of non-native species combined with the low percent cover of native riparian species. Encampments are scattered throughout the study area and contribute to the amount of site disturbance.

3 Methods

Suitable habitat areas within the study area were surveyed eight times for vireo and five times for flycatcher. Flycatcher-permitted biologist Paul Lemons (Recovery Permit number ES051248-7) conducted all flycatcher only and sequential flycatcher/vireo surveys. Survey conditions during each focused survey are shown in Table 1. Focused surveys for these species were initiated on April 14, 2024, and continued through July 5, 2024.

Table 1. Least Bell's Vireo and Southwestern Willow Flycatcher Survey Results

Survey Pass-Focus	Date	Biologist	Hours	Conditions (temperature, cloud cover, wind speed)
1-LBVI	4-14-2024	Paul Lemons	8:00 AM–10:00 AM	55–63°F; 0% cc; 0–2 mph wind
2-LBVI	4-28-2024	Paul Lemons	8:00 AM–10:00 AM	59–67°F; 0% cc; 0–2 mph wind
3-LBVI	5-8-2024	Paul Lemons	8:00 AM–10:00 AM	60–68°F; 100–10% cc; 0–3 mph wind
1-SWFL 4-LBVI	5-19-2024	Paul Lemons	8:00 AM–11:00 AM	61–68°F; 90–40% cc; 1–3 mph wind
5-LBVI	5-29-2024	Paul Lemons	8:00 AM–10:20 AM	63–69°F; 100–20% cc; 0–3 mph wind
2-SWFL 6-LBVI	6-8-2024	Paul Lemons	6:40 AM–10:00 AM	63–66°F; 100% cc; 0–4 mph wind
3-SWFL 7-LBVI	6-19-2024	Paul Lemons	7:00 AM–10:30 AM	62–68°F; 100–90% cc; 0–3 mph wind
4-SWFL 8-LBVI	6-29-2024	Paul Lemons	7:00 AM–10:30 AM	64–74°F; 100–10% cc; 1–4 mph wind
5-SWFL	7-5-2024	Paul Lemons	7:00 AM–10:30 AM	67–75°F; 0% cc; 1–3 mph wind

Notes: LBVI = least Bell's vireo; SWFL = southwestern willow flycatcher; cc = cloud cover; mph = miles per hour; °F = degrees Fahrenheit.

As directed by Stacey Love, United States Fish and Wildlife Service (USFWS) Recovery Permit Coordinator (via email sent on April 27, 2016), surveys for vireo and flycatcher were not conducted concurrently. Due to differences in detectability, surveys were conducted sequentially, with surveys for the flycatcher first (i.e., first thing in the morning) and surveys for the vireo conducted afterwards. Additionally, for linear survey routes within a riparian corridor,

flycatchers were surveyed from the starting point to the end, and vireos were surveyed on the way back. The route was arranged to cover all suitable habitat on site (as depicted on Figure 2). A vegetation map (1:2,400 scale; 1 inch=200 feet) of the study area was available to record any detected vireo or flycatcher. Binoculars (10×42) were used to aid in detecting and identifying wildlife species.

The five surveys conducted for flycatcher followed the currently accepted protocol (*A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* [Sogge et al. 2010]), which states that a minimum of five survey visits is needed to evaluate project effects on flycatchers. It is recommended that one survey is made between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Surveys during the final two periods (June 1 to June 24, and June 25 and July 17) were separated by at least five days. A tape of recorded flycatcher vocalizations was used, approximately every 50 to 100 feet within suitable habitat, to induce flycatcher responses. If a flycatcher had been detected, playing of the tape would have ceased to avoid harassment.

A Section 10(a)(1)(A) permit is not required to conduct presence/absence surveys for vireo. The eight surveys for vireo followed the currently accepted *Least Bell's Vireo Survey Guidelines* (USFWS, 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential vireo habitats between April 10 and July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations were not used during the surveys. Surveys were conducted between dawn and noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

Weather conditions, time of day, and season were appropriate for the detection of flycatcher and vireo (Table 1).

4 Results

No southwestern willow flycatchers or least Bell's vireos were detected during this focused survey effort. No brown-headed cowbirds were detected during this focused survey effort. A total of 37 wildlife species were detected in the study area during focused surveys of the site (Appendix A). A completed Willow Flycatcher Survey and Detection Form is included as Appendix B. Overview photos of the habitat surveyed are included as Appendix C.

Please feel free to contact me at 858.336.4030 with questions or if you require additional information.

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

Sincerely,

Paul Lemons
Permit # ES051248-7

Att: *Figure 1, Project Location*
Figure 2, Biological Resources and Survey Route
Appendix A, Wildlife Species Observed on the Project Site
Appendix B, Willow Flycatcher Survey and Detection Form
Appendix C, Overview Photos of Habitat Surveyed
cc: Olivia Koziel, Dudek

5 References

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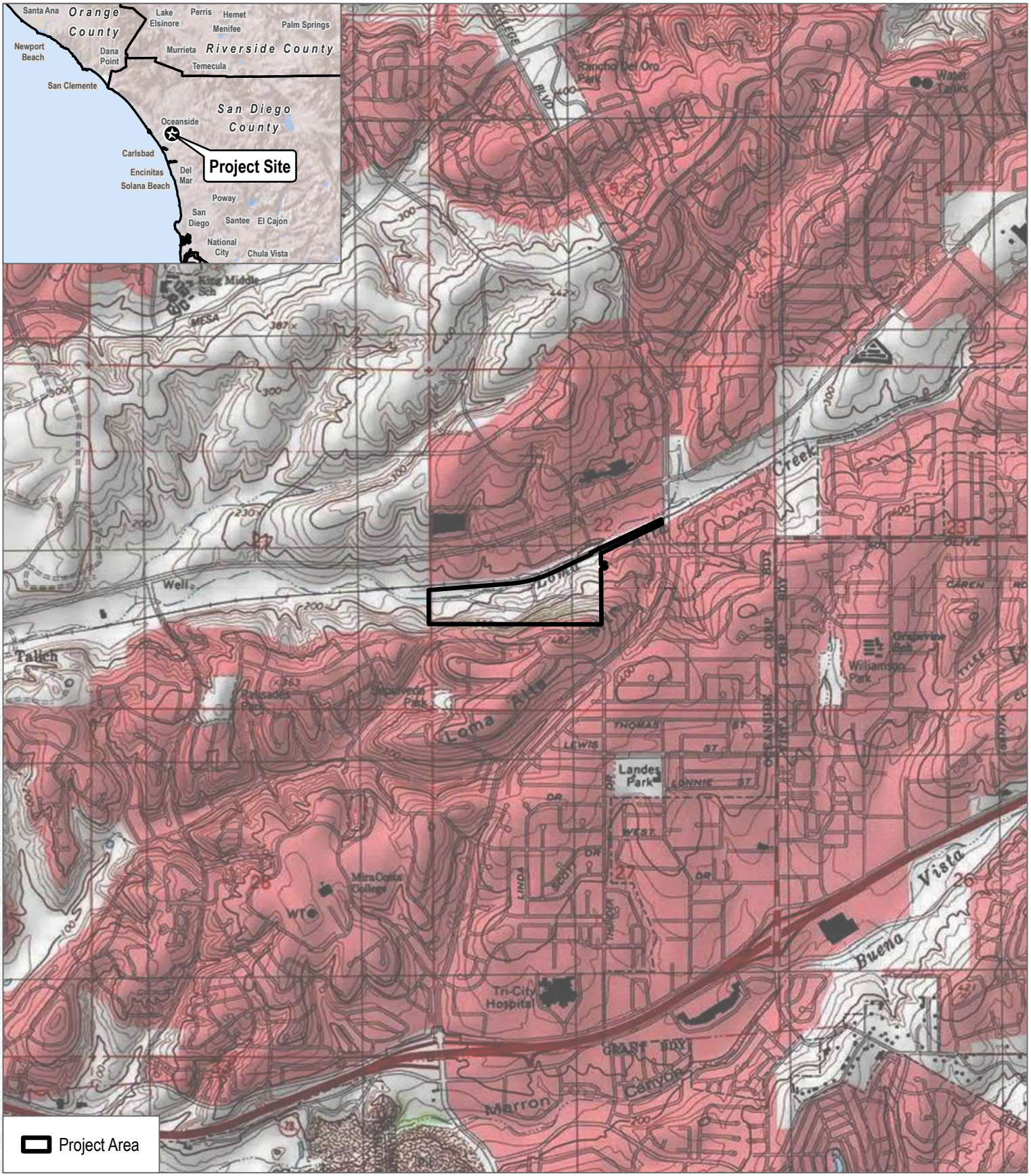

SOURCE: USGS 7.5-Minute Series San Luis Rey Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Olive Park Apartments Project, City of Oceanside, California

SOURCE: SanGIS 2023

DUDEK

N

0 115 230 Feet

FIGURE 2

Survey Results

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Olive Park Apartments Project, City of Oceanside, California

Appendix A

Wildlife Species Observed on the Project Site

Wildlife Species

Birds

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Cardinals, Grosbeaks and Allies

CARDINALIDAE – CARDINALS AND ALLIES

Pheucticus melanocephalus – black-headed grosbeak

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Empidonax difficilis – western flycatcher

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo lineatus – red-shouldered hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Calypte costae – Costa's hummingbird

Selasphorus sasin – Allen's hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow

Corvus corax – common raven

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

Toxostoma redivivum – California thrasher

New World Quail

ODONTOPHORIDAE – NEW WORLD QUAIL

Callipepla californica – California quail

Old World Sparrows

PASSERIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

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

Wood Warblers and Allies

PARULIDAE – WOOD-WARBLERS

Geothlypis trichas – common yellowthroat

Setophaga petechia – yellow warbler

Leiothlypis celata – orange-crowned warbler

Woodpeckers

PICIDAE – WOODPECKERS AND ALLIES

Dryobates nuttallii – Nuttall's woodpecker

Wrens

TROGLODYTIDAE – WRENS

Thryomanes bewickii – Bewick's wren

Waxbills

ESTRILDIDAE – WAXBILLS

* *Lonchura punctulata* – scaly-breasted munia

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melozone crissalis – California towhee

Pipilo maculatus – spotted towhee

Typical Warblers, Parrotbills, Wrentit

SYLVIIDAE – SYLVIID WARBLERS

Chamaea fasciata – wrentit

Invertebrates

Butterflies

LYCAENIDAE – BLUES, HAIRSTREAKS, AND COPPERS

Leptotes marina – marine blue

NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Danaus plexippus – monarch

Nymphalis antiopa – mourning cloak

Vanessa cardui – painted lady

HESPERIIDAE – SKIPPERS

Erynnis funeralis – funereal duskywing

PAPILIONIDAE – SWALLOWTAILS

Papilio rutulus – western tiger swallowtail

PIERIDAE – WHITES AND SULFURS

Pieris rapae – cabbage white

Bees

APIDAE – BEES

Bombus californicus – California bumble bee

Mammals

Domestic

CANIDAE – WOLVES AND FOXES

* *Canis familiaris* – domestic dog

* signifies introduced (non-native) species

Appendix B

Willow Flycatcher Survey and Detection Form

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site ( ) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Olive Park Apartments State CA County San Diego
USGS Quad Name San Luis Rey Elevation 526 (meters)
Creek, River, Wetland, or Lake Name Lomas Alta Creek
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? N/A *Yes*___ *No*___

Survey Coordinates: Start: E 473425 N 3674098 UTM Datum NAD83 (See instructions)
Stop: E 473365 N 3673750 UTM Zone 11S
If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.
*** Fill in additional site information on back of this page ****

Survey # / Observer(s) (Full Name)	Date (m/d/y) Survey time 2024	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N / If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1 Observer(s) Paul Lemons	Date 5/19 Start 0800 Stop 1100 Total hrs 3	0	0	0	N/A					
Survey # 2 Observer(s) Paul Lemons	Date 6/3 Start 0640 Stop 1000 Total hrs 3.3	0	0	0	N/A					
Survey # 3 Observer(s) Paul Lemons	Date 6/19 Start 0700 Stop 1030 Total hrs 3.5	0	0	0	N/A					
Survey # 4 Observer(s) Paul Lemons	Date 6/29 Start 0700 Stop 1030 Total hrs 3.5	0	0	0	N/A					
Survey # 5 Observer(s) Paul Lemons	Date 7/5 Start 0700 Stop 1030 Total hrs ___	0	0	0	N/A					

Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs	Total Adult Residents	Total Pairs	Total Territories	Total Nests	
	0	0	0	0	Were any Willow Flycatchers color-banded? Yes___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS. N/A

Reporting Individual Paul Lemons Date Report Completed July 2024
US Fish and Wildlife Service Permit # ES051248-7 State Wildlife Agency Permit # SC10080

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Paul Lemons Phone # 858-336-4030
Affiliation Consultant - Dudek E-mail plemons@dudek.com
Site Name Olive Park Apartments Date Report Completed July 2024

Did you verify that this site name is consistent with that used in previous years? Yes X No ____ Not Applicable ___
If site name is different, what name(s) was used in the past? Trolley Place
If site was surveyed last year, did you survey the same general area this year? Yes ___ No ___ If no, summarize below. N/A
Did you survey the same general area during each visit to this site this year? Yes X No ___ If no, summarize below.

Management Authority for Survey Area : Federal___ Municipal/County ___ State ___ Tribal ___ Private X
Name of Management Entity or Owner (e.g., Tonto National Forest) Capstone Equities

Length of area surveyed: 1160 (meters)

Vegetation Characteristics: Mark the category that best describes the predominant tree/shrub foliar layer at this site (check one):

____ Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

X Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix sp, Cortaderia selloana

Average height of canopy (Do not include a range): 3 (meters)

Attach copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections.
Attach sketch or aerial photo showing site location, patch shape, survey route, location of any WIFLs or WIFL nests detected.
Attach photos of the interior of the patch, exterior of the patch, and overall site; describe any unique habitat features.

Comments (attach additional sheets if necessary)

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM N	UTM E	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Appendix C

Overview Photos of Habitat Surveyed

Appendix F1

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

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
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	Present in the study area, with a high potential to nest near the proposed project area in tall mature trees. During wildlife surveys conducted in 2024, an active Cooper's hawk nest was observed in a tree located between Olive Drive and the offsite project area, immediately adjacent to a private residence and located on private property. The nest location is approximately 75 feet south of the offsite impact area, and 180 feet east of the onsite impact area. Once a nesting location is established, Cooper's hawks often nest in the same area annually. Cooper's hawks that nest in this particular location are likely adapted to a relatively loud environment from nearby road traffic, the trolley, and human presence.
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	Yellow warbler was observed just north of the eastern part of the Parcel Area during focused wildlife surveys conducted in 2024. This species has a moderate potential to nest in

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					riparian habitat in the northwestern part of the Parcel Area away from the impact area of the proposed project, and a low potential to nest in trees in or adjacent to the proposed project.
Reptiles					
Anniella stebbinsi	southern California legless lizard	None/SSC	None	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 in or near the proposed project area due to lack of suitable shady habitat with moist and friable soil. Moderate potential to occur west of the impact area nearer to or within wetland habitat where moist and friable sandy or loamy soil is present. In general, the ground in the proposed project area and in open habitat throughout the study area appears compacted.
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 study area contains chaparral and riparian habitat, however the overall cover of vegetation is only suitably sparse in some parts of the study area. Openings and open areas which could be utilized by this species tend to be highly subject to human

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					disturbance throughout the site. The only known CNDDB occurrence of the species is approximately 4 miles northeast of the study area, from an unknown date (CDFW 2024).
Crotalus ruber	red diamondback rattlesnake	None/SSC	None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. There is suitable coastal scrub and chaparral habitat present in the study area. Frequent human disturbance lowers the potential for this species to occur in the study area. The species was not observed during surveys conducted for other species in suitable habitat for this species, however the species can be difficult to detect. There is only one known occurrence of the species within 5 miles of the study area, nearly 5 miles west of the study area from 1993 (CDFW 2024).
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC	None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Moderate potential to occur. More likely to occur where small mammal burrows are present in shrubby habitat in the study area. In general, the ground in the proposed project area and open habitat throughout the study area

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					appears compacted and supports few small mammal burrows. The species was not observed during surveys conducted for other species in suitable habitat for this species, however the species can be difficult to detect. Frequent human disturbance also lowers the potential for this species to occur in the study area. There is only one known occurrence of the species within 5 miles of the study area, nearly 5 miles southeast of the study area from 2000 (CDFW 2024).
Thamnophis sirtalis ssp.	south coast garter snake	None/SSC	None	Marsh and upland habitats near permanent water and riparian vegetation	Low potential to occur in or adjacent to the proposed project area which lacks marsh habitat. Moderate potential to occur in the northwestern part of the study area in and near present marsh habitat. There is only one known occurrence of this species within 5 miles of the study area, approximately 3.5 miles northwest of the study area (CDFW 2024).
Invertebrates					

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
Bombus crotchii	Crotch's bumble bee	None/SCE	None	Open grassland and scrub communities supporting suitable floral resources	Moderate potential to forage in the study area. Suitable floral resources are present in the Parcel Area. The Parcel Area contains nectar source species such as deerweed (*Acmispon glaber*). Low potential to nest in the Parcel Area. This species typically nests in small mammal burrows from February through October. In general, the ground in the proposed project area and open habitat throughout the study area appears compacted and supports few small mammal burrows. Known occurrences of the species within 5 miles of the study area are close to the coast, and near Lake Calavera (CDFW 2024; Richardson 2024).
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC/None	None	Wind-protected tree groves with nectar sources and nearby water sources	A monarch was observed passing through the Parcel Area during a wildlife survey. There is a low potential for the species to overwinter in Eucalyptus trees in the study area. There is a high potential for the species to forage in the study area when nectar sources are present and pass through the study area on occasion. In this region,

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					monarchs typically overwinter in specific well-known locations in Eucalyptus trees most often closer to the coast, and overwintering monarchs were not observed in the study area during site visits conducted in winter. There are no known wintering sites in or adjacent to the study area (Xerces 2024).

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 Multiple Habitat Conservation Program (MHCP) Subarea Plan
Covered: Species covered under the Subarea Plan

References

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Appendix F2

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

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	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. This species is associated with braided third-order stream habitat with benches comprised of sandy substrate. The creek habitat present in the study area is not suitable for this species. There are no known California Natural Diversity Database (CNDDB) occurrences of this species within 5 miles of the study area (CDFW 2024).
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	Low potential to occur west of the impact area nearer to or within wetland habitat. The study area lacks vernal pools and suitable ephemeral pooling habitat to support this species. Even lower potential to occur in the impact area due to lack of suitable breeding habitat. The two known occurrences of the species within 5 miles of the study area are in the Camp Pendleton area from 2004, and a non-specific location in the Bonsall area from 1927 (CDFW 2024).
Reptiles					
Arizona elegans occidentalis	California glossy snake	None/SSC	None	Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil	Not expected to occur. The high levels of disturbance within open areas which would be suitable to support this species limit the potential for the species to occur. In general, the ground in the impact area and open habitat throughout the study area appears compacted and supports few small mammal burrows. Additionally, the closest known CNDDB occurrence from the 20th

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					century is roughly 4.5 miles east of the study area where a specimen was collected in 1967 (CDFW 2024). Based on level of urbanization, that occurrence likely no longer exists. The only other occurrence within 5 miles of the study area is roughly 4.5 miles west of the study area from the 1890s (CDFW 2024).
Aspidoscelis hyperythra	orange-throated whiptail	None/WL	Covered	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Low potential to occur. There is suitable coastal scrub and chaparral habitat present in the study area, however the species is more typically found in rocky areas with looser soil. This species was not observed during other surveys which were conducted within scrub habitat. Frequent human disturbance and presence of domestic dogs also lowers the potential for this species to occur in the study area. There is only one known occurrence of the species within 5 miles of the study area from the 21st century, approximately 4.5 miles south of the study area from 2017 (CDFW 2024). There are no other recent known occurrences of the species within 5 miles of the study area (CDFW 2024).
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. There is coastal scrub, chaparral, and grassland habitat present in the study area. However, openings and open areas which could be utilized by this species tend to be highly subject to human disturbance throughout the site. The nearest known occurrence of the species is a non-specific location approximately 3-4 miles east of the study

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					area from 1931, in an area which is now mostly developed and likely no longer supports a population (CDFW 2024). The only other occurrence of the species within 5 miles of the study area is nearly 5 miles southeast of the study area from 1997 (CDFW 2024).
Thamnophis hammondii	two-striped gartersnake	None/SSC	None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Low potential to occur. While a creek passes through the northwestern part of the study area, the habitat lacks suitable rocky streambed conditions favored by this species, and other suitable habitat types are absent from the study area. Additionally, there are no known occurrences of this species within 5 miles of the study area (CDFW 2024).
Actinemys pallida	southwestern pond turtle	FPT/SSC	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 wetland habitat present in the northwestern part of the study area lacks suitable features such as suitable open basking sites to support this species. Additionally, there are no known occurrences of this species within 5 miles of the study area (CDFW 2024).
Birds					
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	None	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Not expected to occur in the impact area due to a lack of suitable habitat. Low potential to forage in the northwestern part of the study area where a small amount of emergent wetland vegetation is present. The habitat present in the study area is not expected to support a breeding colony of this species. The nearest known occurrence of this species, and the only occurrence

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					within 5 miles of the study area that is still presumed extant, is over 4 miles northwest of the study area (CDFW 2024).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL	Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. While there is coastal sage scrub and chaparral habitat present that could potentially support this species, but this conspicuous species has not been observed in the study area during focused wildlife surveys. The nearest known CNDDB occurrences of this species are more than 3 miles from the study area (CDFW 2024).
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. The study area is located in a highly urbanized and developed area, and the species typically occurs in less developed areas with extensive open habitat for foraging. There are no known CNDDB occurrences within 5 miles of the study area (CDFW 2024).
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	Not expected to occur. While there is chaparral habitat mapped in the study area, the study area lacks large and unfragmented areas of chamise with which the species is associated.

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
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. This species is not recently known to nest in this region. The species only migrates through San Diego and generally east of the mountains. There are two known historic occurrences of the species within 5 miles of the study area from the early 1900s (CDFW 2024).
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	None/SSC	None	Southern cactus scrub patches	Not expected to occur. There is no cactus scrub habitat present in the study area to support this species. This species is strongly associated with cactus patches.
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. There is no suitable habitat present in the study area to support nesting of this species. Any disturbed/barren areas and trails throughout the study area are frequently disturbed by humans passing in and out of the study area; some of which live within the study area in encampments. There is one known and presumed extant CNDDB occurrence of this species within 5 miles of the study area, located along the Carlsbad coast from 1978 (CDFW 2024).
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	Not expected to occur. Although there is some wetland habitat present in the study area, the study area does not contain flat and open foraging or nesting habitat that is suitable to support nesting of this species. Additionally, the species has not yet been observed during focused wildlife surveys and is a relatively conspicuous species. There is one known occurrence of the

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
				wetlands, and other open habitats	species within 5 miles of the study area from 1982 (CDFW 2024).
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. This species is typically found in more extensive and denser riparian habitat than is found in the study area, and has become increasingly rare in the region. There are no known CNDDB occurrences within 5 miles of the study area (CDFW 2024).
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	Low potential to occur in the study area. Not expected to nest in the impact area. Suitable riparian habitat is present in the northwestern part of the study area to support nesting. However, this conspicuous raptor species has not been observed during focused wildlife surveys. There are no known CNDDB occurrences within 1 mile of the study area, but there are multiple occurrences within 5 miles of the study area (CDFW 2024).
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. This species was not detected during focused surveys for this species which were conducted in 2024. Some riparian habitat is present in the northwestern part of the study area. This species is typically found in more extensive and denser riparian habitat than is found in the study area and it has become increasingly rare in the region. Due to the presence of riparian habitat in the study area, focused surveys were conducted. There are no known California Natural Diversity Database (CNDDB) occurrences

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					within 1 mile of the study area, but there are multiple occurrences within 5 miles of the study area (CDFW 2024).
Falco peregrinus anatum (nesting)	American peregrine falcon	FPD/SCD	Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to occur. There is a low potential for the species to forage occasionally in the study area, but there is no suitable habitat present to support nesting of this species. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
Haliaeetus leucocephalus (nesting and wintering)	bald eagle	FPD/FP, SE	None	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to nest or winter. There is no suitable forested habitat near a large body of water present in or adjacent to the study area. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
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	Low potential to occur. This species is typically found in wider and denser riparian habitat than is found in the study area. There are multiple known occurrences within 5 miles of the study area (CDFW 2024).
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 in the impact area. Low potential to occur in the northwestern part of the study area in marsh habitat.
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	Not expected to occur. Marginal suitable wetland habitat is present in the northwestern part of the study area to support this species. The only known occurrence of this species within 5 miles of

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
				by canal leakage in Sierra Nevada foothill populations	the study area is from 1938 and is considered possibly extirpated (CDFW 2024). This species was last observed in San Diego County in 1983 (Unitt 2012).
Pandion haliaetus (nesting)	osprey	BCC/WL	Covered	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to nest and low potential to forage in the study area. There are no suitably large bodies of water present in or adjacent to the study area to support this species.
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. There is no saltmarsh habitat present in the study area to support this species.
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. There is no saltmarsh habitat present in the study area to support this species.
Pelecanus occidentalis californicus (nesting colonies and communal roosts)	California brown pelican	FPD/SCD	Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. The study area is inland of the coast and there is no suitable nesting or roosting habitat present to support this species.
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,	Not expected to nest in the study area. The extent of human disturbance and relatively small amount of marsh habitat present in the study area is unlikely to support a nesting colony of this species. The species could forage occasionally in marsh habitat outside of the impact area.

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
				rivers, flooded fields, and estuaries	
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	Not expected to occur. Suitable coastal sage scrub habitat is present in and adjacent to the study area. However, the species was not detected during focused surveys for this species which were conducted in 2024. There is a large, non-specific CDNNB occurrence which overlaps the study area and extends outside of it, also overlapping areas of development in which the species would not be expected to occur (CDFW 2024).
Rallus obsoletus levipes	Ridgway's rail	FE/FP, SE	Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur in the impact area due to a lack of suitable habitat. There is a small amount of emergent wetland habitat present in the northwestern part of the study area. However, the species has a distinct call and has not yet been detected during focused wildlife surveys. Known CNDDB occurrences of this species within 5 miles of the study area are from Buena Vista lagoon, Agua Hedionda lagoon, and Guajome Lake, the last of which is considered extirpated (CNDDB 2024).
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 in the study area. The study area lacks suitable vertical banks, bluffs, or cliffs to support nesting of this species.

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
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. There is no suitable habitat present in or adjacent to the study area to support a nesting colony of this species, and no suitable foraging habitat is present. The nearest known occurrence of this species is approximately 3 miles north of the study area, at Guajome Lake (CDFW 2024).
Thalasseus elegans (nesting colony)	elegant tern	BCC/WL	Covered	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. There is no suitable habitat present in or adjacent to the study area to support a nesting colony of this species.
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. Potentially suitable riparian habitat is present in the stusy area. However, this species was not detected during focused surveys for this species which were conducted in 2024. This species is typically found in more extensive and denser riparian habitat than is found in the study area. There is one known CNDDB occurrence of this species roughly a quarter of a mile to the west of the study area from 2001 (CDFW 2024).
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. The aquatic habitat present in the study area is not suitable to support this species. The only known CNDDB occurrences of the species within 5 miles of the study area are historic and considered possibly extirpated (CDFW 2024).

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
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 aquatic habitat present in the study area is not suitable to support this species.
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 man-made structures and trees	Low potential to roost in trees and forage in the study area. This species typically avoids urbanization, and the area surrounding the study area is highly urbanized (Tremor et al. 2017).
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/None	Covered	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Low potential to occur in coastal scrub and grassland habitat in the study area, wherever small rodent burrows are present. In general, the ground in the impact area and open habitat throughout the study area appears compacted and supports few small mammal burrows. Openings, which provide the most suitable habitat for the species, occur primarily in the flat areas which appear to have been periodically cleared on several occasions since at least the 1930s, which would have negatively impacted any populations in the study area. There is one known CNDDB occurrence of the species within 5 miles of the site from Carlsbad in 2002 (CDFW 2024).
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC	None	Desert and montane riparian, desert succulent	Not expected to occur. The study area is outside of the species' known geographic

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
				scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	range and there is no suitable roosting habitat in the study area.
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, man-made structures, and tunnels	Low potential to occur. Suitable riparian habitat is present within the study area; however, this species is highly sensitive to human disturbance, and the site lacks suitable undisturbed caves or mines that could provide roosting opportunities. This species is presumed absent from coastal San Diego (Tremor et al. 2017).
Dasypterus 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 in the riparian habitat located in the northwestern part of the study area and outside of the impact area, where there are few fan palms present. This species primarily roosts in fan palms (Tremor et al. 2017).
Dipodomys stephensi	Stephens' kangaroo rat	FT/ST	Covered	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. While there is annual grassland habitat present in the study area, overall shrub cover in the study area is high and open areas are relatively small to support this species. In general, the ground in the impact area and open habitat throughout the study area appears compacted and supports few small mammal burrows. The flat and open portions of the site, which could provide the most suitable area for the species, appear to have been periodically cleared on several occasions since at least the 1930s, which

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					would have negatively impacted if not extirpated any populations in the study area. Additionally, the study area is in a highly urbanized area with adjacent development, and there is frequent human disturbance due to trespassing. There is one known CNDDB occurrence of this species within 1 mile of the study area, but it is a historic occurrence, and the population has since been extirpated (CDFW 2024).
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 in the study area. The study area contains riparian habitat; however, suitable habitat for this species includes vertical canyon walls or cliffs, which are not present in the study area. Tremor et al. (2017) describes the species as rarely roosting in palm trees.
Leptonycteris yerbabuenae	lesser long-nosed bat	FPD/SSC	None	Sonoran desert scrub, semi-desert grasslands, lower oak woodlands	Not expected to occur. Not expected to occur on site. The single occurrence of this species in San Diego County is from Oceanside in 1996 (CDFW 2024); it likely occurs only as a rare visitor to the area (Tremor et al. 2017).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/None	Covered	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. There is coastal scrub, grassland, and disturbed habitat present in the study area. However, the general area is highly urbanized, there is frequent human disturbance in the study area, and this conspicuous species has not

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
					been observed during focused wildlife surveys.
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC	None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Low potential to occur. There is coastal scrub and chaparral present in the study area, however, this species is often found in areas with boulders and rocky outcrops, and in more arid areas with less disturbance. It is not often found in habitat fragments (Tremor et al. 2017).
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	Low potential to occur. The study area does not contain suitable vertical cliff faces or rocky outcrop habitat that would support roosting of this species (Tremor et al. 2017).
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 east of the species' current known geographic range. 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 (Tremor et al. 2017). The study area is isolated from those known populations by development.
Puma concolor	mountain lion - Southern California/	None/SC	None	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges	Not expected to occur. While there is riparian, chaparral, and scrub habitat present in the study area, it is in a highly urbanized area with adjacent development.

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
	Central Coast ESU			that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	There is also frequent human disturbance due to trespassing throughout much of the study area. Thus, the study area is unlikely to support a mountain lion.
Taxidea taxus	American badger	None/SSC	None	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. This species is typically associated with expansive undeveloped areas and avoids urbanization, and the study area is in a highly urbanized area with frequent human disturbance. In general, the ground in the impact area and open habitat throughout the study area appears compacted and is not suitably friable to support this species' digging and burrowing habits.
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. There is no suitable habitat (i.e. vernal pools) present in the study area. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None	None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. There is no suitable habitat (i.e. vernal pools) present in the study area. The only known occurrences of this species within 5 miles of the study area are in the Camp Pendleton area (CDFW 2024).
Panoquina errans	wandering skipper	None/None	Covered	Saltmarsh	Not expected to occur. There is no saltmarsh habitat present in the study area to support this species. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).

Scientific Name	Common Name	Status (Federal/ State)	San Diego MHCP Oceanside Subarea Plan	Habitat	Potential to Occur*
Streptocephalus woottoni	Riverside fairy shrimp	FE/None	None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. There is no suitable habitat (i.e. vernal pools) present in the study area. There are no known CNDDB occurrences of the species within 5 miles of the study area (CDFW 2024).

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 Multiple Habitat Conservation Program (MHCP) Subarea Plan
Covered: Species covered under the Subarea Plan

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Appendix G

Aquatic Resources Delineation Report

DRAFT

Aquatic Resources Delineation Report

Trolley Place Project

MARCH 2024

Prepared for:

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Table of Contents

SECTION **PAGE NO.**

APPENDICES

FIGURES

TABLES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APT	Antecedent Precipitation Tool
ARC	antecedent runoff condition
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
OHWM	ordinary high-water mark
PDSI	Palmer Drought Severity Index
project	Trolley Place Project
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1 Introduction

This aquatic resources delineation report was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). This report and supporting appendices provide the 20 items listed in the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports. This report presents the results of the jurisdictional aquatic resource delineation conducted by Dudek for the proposed Trolley Place Project (project) located in San Diego County, California. The delineation was conducted to identify and map existing aquatic resources potentially subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA) (33 USC 1344), waters of the state potentially subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and stream and riparian habitats potentially subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code (collectively defined as jurisdictional aquatic resources).

1.1 Disclaimer Statement

This report presents Dudek's best effort to quantify the extent of aquatic resources potentially regulated by USACE, RWQCB, and CDFW (i.e., regulatory agencies) within the identified review areas using the current regulations, written policies, and guidance from these regulatory agencies. The potential jurisdictional boundaries described in this report are subject to verification by the regulatory agencies. Only the regulatory agencies can make a final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulation. A request for a USACE Approved Jurisdictional Determination is provided in Appendix A.[1]

1.2 Contact Information

Contact information for the project applicant and agent are provided in Table 1.[2] Access to the review area is not restricted, but if a site visit is requested, the project applicant or agent will accompany regulatory staff to the review area.[3] Capstone Equities is the project applicant and landowner.

Table 1. Contact Information

Project Applicant	Capstone Equities	**Agent**	Dudek
Contact Name	Brian Mikail	**Contact Name**	Callie Amoaku
Address	5455 Wilshire Blvd. Suite No. 1012 Los Angeles, California 90036	**Address**	605 Third Street Encinitas, California 92024
Phone	310.666.6860	**Phone**	760.479.4293
Email	bmikail@capstoneequities.com	**Email**	cford@dudek.com

1 Minimum Standards Item 1 (Request for Jurisdictional Determination)
2 Minimum Standards Item 2 (Contact Information)
3 Minimum Standards Item 3 (Site Access Statement)

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2 Review Area Description and Landscape Setting[4]

The approximately 15.92-acre review area for the proposed project is located in Oceanside, California. The review area is generally located south of Oceanside Boulevard and west of College Boulevard; more specifically, west of the terminus of Olive Drive and south of the North County Transit District rail line and College Boulevard Station. The review area is located approximately 1.5 miles north of State Route 78. The review area is located near the southeastern boundary of the City of Oceanside and is adjacent to the City of Vista (Figure 1, Project Vicinity). The review area consists of a portion of Assessor's Parcel No. 162-111-04.[5] The site is at Township 11S, Range 4W, Section 22 of the U.S. Geological Survey (USGS) 7.5-minute San Luis Rey, California, topographic quadrangle.

The review area is located south of Oceanside Boulevard and west of College Avenue. It is accessed from Olive Drive (Figure 2, Review Area).[6]

2.1 Geology and Topography

The USGS 7.5-minute San Luis Rey, California, topographic map (USGS 2015) was reviewed to identify natural and human-made features occurring within the vicinity of the review area. The San Luis Rey topographic map is based on National Agriculture Imagery Program imagery from May 2012 and National Elevation Dataset contours from 1999. According to the USGS topographic map San Luis Rey, California, quadrangle, the finished elevation near the center of the review area was approximately 230 feet above mean sea level and the general topography varied by location but generally sloped to the north-northwest. Generally, the south half of the review area is a steep wooded area sloping to the northwest, representing the northwest side of Loma Alta Mountain. The north side of the review area is more level, gently sloping down to the west, following the flow of Loma Alta Creek.

2.2 Soils[7]

The U.S. Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey for San Diego County Area, California (USDA 2024a), was consulted. Four soil types are mapped in the review area: Corralitos loamy sand, 0% to 5% slopes; Diablo clay, 15% to 30% slopes, eroded; Gaviota fine sandy loam, 30% to 50% slopes; and Las Flores loamy fine sand, 9% to 15% slopes, eroded. Corralitos loamy sand has a partial hydric rating (USDA 2024b).

Soil types within the review area are shown in Table 2 and on Figure 3, Soils.

Table 2. Soils within the Review Area

Soil Description	Hydric Rating	Acreage
Corralitos loamy sand, 0% to 5% slopes	Partially Hydric	4.60
Diablo clay, 15% to 30% slopes, eroded	Not Hydric	0.98

4 Minimum Standards Item 10 (Description of Existing Field Conditions)
5 Minimum Standard Item 14 (Site Location Map)
6 Minimum Standards Item 4 (Directions)
7 Minimum Standards Item 13 (Soil Descriptions)

Table 2. Soils within the Review Area

Soil Description	Hydric Rating	Acreage
Gaviota fine sandy loam, 30% to 50% slopes	Not Hydric	1.37
Las Flores loamy fine sand, 9% to 15% slopes, eroded	Not Hydric	8.97
	Total	**15.92**

Sources: USDA 2024a, 2024b.

2.3 Vegetation

Vegetation communities and land covers mapped within the review area include Diegan coastal sage scrub, non-native grassland, disturbed southern mixed chaparral, urban/developed, and disturbed habitat (Figure 4, Vegetation Communities and Land Cover Types).

2.4 Watershed and Hydrology

The review area is located within the San Luis Rey-Escondido Hydrologic Unit, within the San Marcos Creek-Frontal Gulf of Santa Catalina Hydrologic Area, and within the Loma Alta Creek-Frontal Gulf of Santa Catalina Hydrologic Sub-Area of the Water Quality Control Plan for the San Diego Basin (Figure 5, Hydrologic Setting). The major surface waterbody in the vicinity of the project is Loma Alta Creek, which flows east to west. Loma Alta Creek flows directly west of the review area approximately 5 miles until its confluence with the Pacific Ocean. Within this hydrologic sub-area, downstream impaired Section 303(d) listed water bodies include the Pacific Ocean Shoreline and San Luis Rey River Mouth. There no features mapped within the review area by the National Wetland Inventory through the center of the site (USFWS 2024). Sources of hydrology in the review area include annual precipitation and runoff from surrounding areas.

2.5 Review Area Alterations, Current and Past Land Use

The existing review area shows signs of disturbances related to previous clearing, illegal trials, human activity, evidence of illegal dumping, and evidence of encampment activities. The review area is currently disturbed, vacant land. The review area does not feature any existing legal uses. Uses in the vicinity of the review area primarily include residential development, open space, and commercial use. The review area abuts existing residential developments to the east and commercials uses to the west. Areas surrounding the review area are zoned commercial (north and west of the review area) and residential (south and east of the review area). The North County Transit District College Boulevard Station is located 50 feet north of the review area.

3 Precipitation Data and Analysis[8]

The Antecedent Precipitation Tool (APT), developed by USACE, was used to assess whether the delineation date occurred in a drier, average, or wetter than normal period (USACE 2024). The APT is used to determine what constitutes a "typical year." The information generated from the APT can help to determine whether normal hydrologic and/or climatic conditions were present during the site visit and assist with completing the Wetland Determination Data Form.

The APT provides three climatological parameters: Palmer Drought Severity Index (PDSI), season, and antecedent precipitation condition. The PDSI is a standardized index calculated on a monthly basis with PDSI value outputs ranging from −4 (extreme drought) to +4 (very wet) (NOAA 2024a) to assess drought conditions (i.e., PDSI Class). The APT determines wet vs. dry season based on related procedures provided in the applicable regional supplement for the review area (in this case, the Arid West Supplement). If the antecedent runoff condition (ARC) score is less than 10, then the antecedent precipitation condition is classified as drier than normal; normal conditions are present with an ARC score of 10 to 14; conditions are wetter than normal when an ARC score is greater than 14 (USACE 2024).

Table 3 summarizes the key data extrapolated from the APT output: estimated drought conditions (PDSI Class), wet or dry season determination, ARC score, and antecedent precipitation condition. Based on the APT output provided in Appendix B and summarized in Table 3, the precipitation and climatic conditions for the review area were within the normal range during the time of the delineation.

Table 3. Antecedent Precipitation Tool Data for the Review Area

Main Field Survey Date	PDSI Class	Season	ARC Score	Antecedent Precipitation Condition
2024-01-19	Incipient wetness	Wet season	11	Normal conditions

Notes: PDSI = Palmer Drought Severity Index; ARC = antecedent runoff condition

The review area is located in the South Coast geographic subdivision of the California Floristic Province (Jepson Herbarium 2024). Average annual temperatures in the review area region range from 54°F to 63.7°F, and the average annual precipitation is 10.93 inches (NOAA 2024b).

8 Minimum Standards Item 11 (Discussion of Hydrology)

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4 Investigation Methods[9]

The jurisdictional delineation was conducted by Dudek senior biologists and wetland scientists Callie Amoaku and Katie Dayton. The jurisdictional delineation was conducted on January 19, 2024 (Table 4). Prior to conducting the jurisdictional delineation, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory data (USFWS 2024) and the USGS National Hydrography Dataset (USGS 2024) were reviewed to determine if the review area contained any features mapped by these agencies. Site-specific topographical data were reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device. Several areas supporting hydrophytic vegetation were also assessed for the presence of wetland hydrology and hydric soils to determine whether they were three-parameter wetlands. Jurisdictional boundaries were mapped in the field using ESRI Collector on a mobile device and refined on desktop using project-specific topographic contours. Remote sensing was not used for the delineation.

Table 4. Schedule of the Aquatic Resources Delineation

Date	Hours	Personnel	Conditions
2024-01-19	10:00 a.m.–2:45 p.m.	Callie Amoaku, Katie Dayton	62°F–70°F; 50%–80% cloud cover; 0–1 mph wind

4.1 U.S. Army Corps of Engineers

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on topographical maps in conjunction with ESRI Collector on a mobile device. The widths of each potential non-wetland water were determined in the field according to the OHWM manual.

During the jurisdictional delineation surveys, the review area was walked and evaluated for evidence of an OHWM, surface water, saturation, wetland vegetation, and connection to a traditional navigable water of the United States. The extent of any identified jurisdictional areas was determined by mapping the areas with similar vegetation and topography to the sampled locations. Wetland Determination Forms were not taken because no hydrophytic vegetation associated with a feature is present within the review area. To determine if non-wetland waters within the study area are "relatively permanent waters," Dudek utilized the Beta Streamflow Duration Assessment Method for the Arid West (Mazor et al. 2021) stream duration assessment method to determine if the features within the project are ephemeral or intermittent. The data form can be found in Appendix C.

[9] Minimum Standards Item 8 (Dates of Field Work), Item 5 (Use of 1987 Manual, Regional Supplement, and OHWM guide), Item 12 (Statement Regarding Use of Remote Sensing), Item 18 (Data Forms) and Item 19 (Methods)

4.2 Regional Water Quality Control Board

Potential waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in USACE's 2008 A Field Guide to Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b).

4.3 California Department of Fish and Wildlife

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

5 Description of Observed Potential Aquatic Resources[10]

The following descriptions of observed potential aquatic resources within the review area document the presence or absence of aquatic resource indicators within the review area per the methodologies discussed in Chapter 4, Investigation Methods. These indicators are discussed in further detail below.

No areas within the review area contained hydrophytic vegetation; therefore, no wetland sampling points were taken. Dudek utilized the Beta Streamflow Duration Assessment Method for the Arid West (Mazor et al. 2021) stream duration assessment method to support the "relatively permanent" standard. Representative photographs of these resources are provided in Appendix D. The ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is included in Appendix E.[11] Geographic information system (GIS) data[12] will be provided separately (Appendix F).

On August 29, 2023, the U.S. Environmental Protection Agency and USACE issued a final rule to amend the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004–3144; published in the Federal Register on January 18, 2023, and effective on March 20, 2023) to conform with the *Sackett v. U.S. Environmental Protection Agency* decision. Some of the key changes to the Rule included the removal of the significant nexus test from consideration when identifying tributaries and other waters as federally protected and the revision of the adjacency test when identifying federally jurisdictional wetlands. Under the U.S. Environmental Protection Agency's new definition, a water of the United States is a relatively permanent, standing, or continuously flowing body of water that has an apparent surface connection to a "traditionally navigable water."

5.1 Waters of the United States (USACE)

This section describes the aquatic resources that occur in the review area.[13] There are two isolated features within the review area that exhibited topographical relief or bed and bank. Both of these features originate and terminate within the review area and do not have a surface connection to any features, including a traditionally navigable water. These features are shown on Figure 6, Potential Jurisdictional Aquatic Resources.[14] Table 5 provides a detailed summary of aquatic resources delineated within the review area. Table 5 also includes descriptions of the features identified within the review area; Cowardin type, if available (Cowardin et al. 1979; USACE 2024); any OHWM indicators present; location; and acreage/linear feet.[15] A copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is provide in Appendix E.[16]

Photos of the potential aquatic features delineated within the review area and additional areas reviewed for the presence of these resources are provided in Appendix D.[17] The locations of these photos are shown in Figure 6.

10 Minimum Standards Item 6 (Aquatic Resource Narrative)
11 Minimum Standards Item 15 (ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet)
12 Minimum Standards Item 20 (Digital Data)
13 Minimum Standards Item 6 (Aquatic Resource Narrative)
14 Minimum Standards Item 7 and Item 16 (Delineation Maps)
15 Minimum Standards Item 9 (Table Listing All Aquatic Resources)
16 Minimum Standards Item 15 (ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet)
17 Minimum Standards Item 17 (Ground Photos)

Feature 1 - Swale

Feature 1 is an isolated swale that is entirely within the review area and does not connect to any feature either directly or through a culvert. The swale develops in the eastern portion of the review area where the hillslope becomes steeper and terminates at the road along the northern portion of the review area. The swale has a gentle topographic relief with grasses and some forbs. There is no break in bank. Dudek collected data using the Stream Duration Assessment Method, and the swale lacks relatively permanent water characteristics, such as surface water, hydrophytic vegetation, algal cover, or aquatic invertebrates.

Feature 1 would not be considered jurisdictional by USACE under an exclusion in the conforming Rule. The feature did not meet the parameters to be considered a federal wetland or have consistent flows. As such, Feature 1 would be considered a swale "characterized by low volume, infrequent, or short duration flow" per 33 CFR 328.3(b)(8).

Feature 2 – Erosional Feature

Feature 2 is an isolated erosional feature that is entirely within the review area and does not connect to any feature either directly or through a culvert. The erosional feature develops in the eastern portion of the review area where the hillslope becomes steeper and terminates at the road along the northern portion of the review area. There is sudden break in bank at the southern road and based on aerial review, this erosional feature developed around the mid-1990's (Google Earth 2024). The erosional feature lacks relatively permanent water characteristics, such as surface water, hydrophytic vegetation, algal cover, or aquatic invertebrates.

Feature 2 would not be considered jurisdictional by the USACE under an exclusion in the conforming Rule. The feature did not meet the parameters to be considered a federal wetland or have consistent flows. As such, Feature 2 would be considered an erosional feature: "characterized by low volume, infrequent, or short duration flow" per 33 CFR 328.3(b)(8).

Table 5 provides a summary of the presence or absence of indicators at each potential aquatic resource described further above.

Table 5. USACE Aquatic Resource Summary for the Review Area

Feature Name	Strahler Stream Order	Cowardin Code	Observed OHWM Indicators[1]	Observed Wetland Parameters	Location (Latitude/ Longitude; Decimal Degrees)	Acres/Linear Feet[2]
Non-Wetland Waters						
Feature 1	1	R6 (Ephemeral)	None	None	33.203716, −117.288533	0.007/286
Feature 2	1	R6 (Ephemeral)	BBS	None	33.203464, −117.289705	0.003/114
					Grand Total	**0.01/400**

Source: Cowardin et al. 1979.
Notes: R6 = Riverine, Ephemeral
See Appendix C for additional details.
1 Ordinary high water mark (OHWM) indicators: BBS = break in bank slope
2 Acreages are rounded to the nearest hundredth; therefore, totals may not sum precisely.

5.2 Waters of the State (RWQCB)

Features 1 and 2 described above may be subject to regulation by the RWQCB under the Porter-Cologne Water Quality Control Act.

5.3 CDFW Jurisdiction

The potential CDFW features within the review area are the same as those described above in Section 5.1; however, Feature 1 lacks a bed and bank and therefore would not be considered a streambed and Feature 2 is an erosional feature; neither of these are typically regulated under Section 1600 of the California Fish and Game Code.

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6 National Wetlands Inventory and National Hydrography Dataset

The USFWS National Wetlands Inventory and USGS National Hydrography Dataset do not identify any features within the review area (USFWS 2024; USGS 2024).

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7 Results and Conclusions

The purpose of this report is to identify and delineate all jurisdictional aquatic resources regulated by USACE, RWQCB, and CDFW within the review area. Based on a review of historical imagery and the field delineation, the features lack relatively permanent and connectivity to waters of the United States, are not features typically regulated by CDFW, but maybe regulated by RWQCB.

This report can be used by those agencies to determine if they would regulate the features described herein. The GIS data for the delineation is provided digitally.[18]

[18] Minimum Standards Item 20 (Digital Data)

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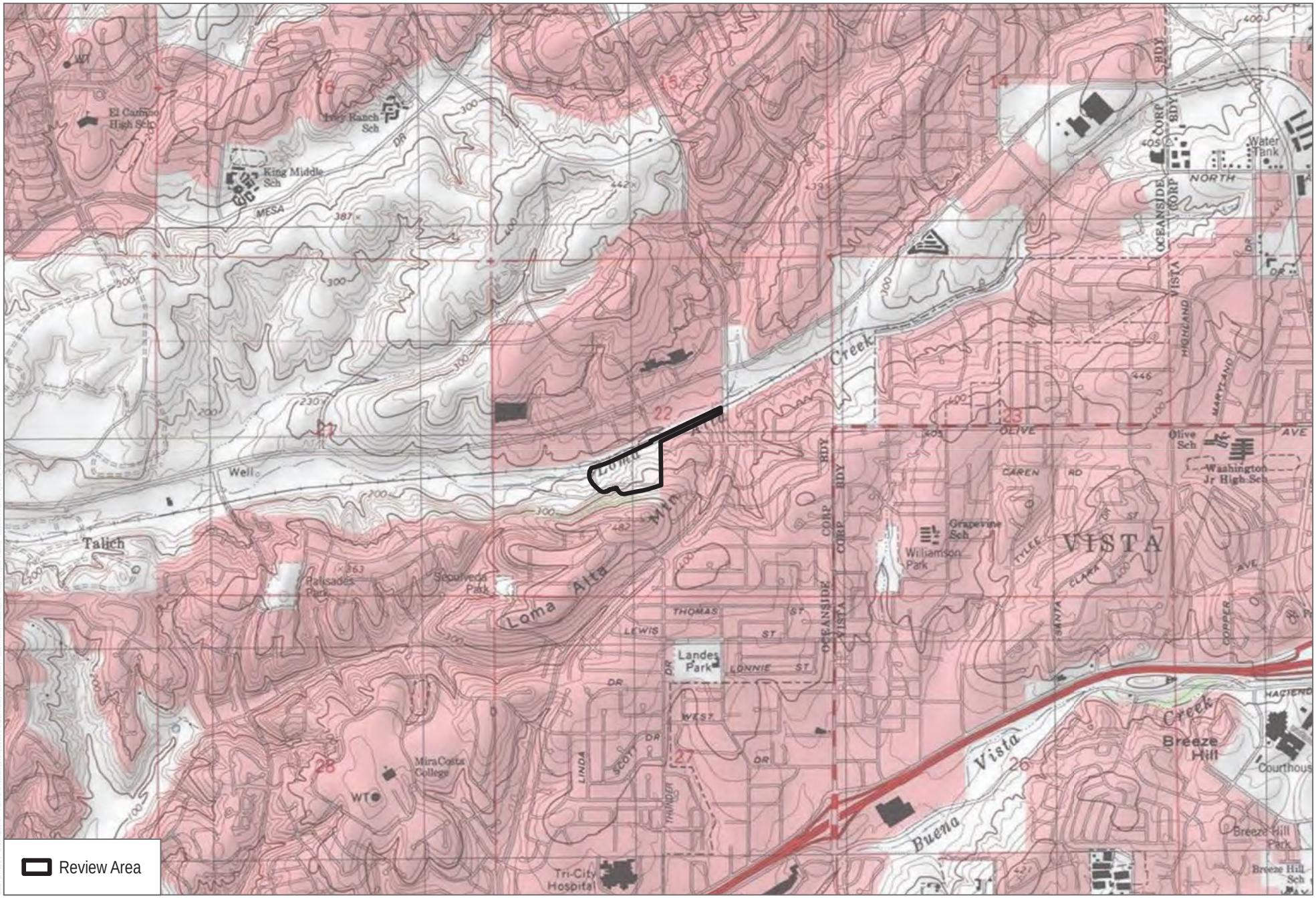

SOURCE: USGS Topo 7.5-minute Series
San Luis Rey Quadrangle - Township 11S Range 4W Section 22

DUDEK

FIGURE 1

Project Vicinity

Trolley Place Project Aquatic Resources Delineation Report

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SOURCE: USGS Topo 7.5-minute Series
San Luis Rey Quadrangle - Township 11S Range 4W Section 22

DUDEK

0 115 230 Feet

FIGURE 2

Review Area

Trolley Place Project Aquatic Resources Delineation Report

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SOURCE: SanGIS 2023

DUDEK

0 115 230 Feet

FIGURE 3

Soils

Trolley Place Project Aquatic Resources Delineation Report

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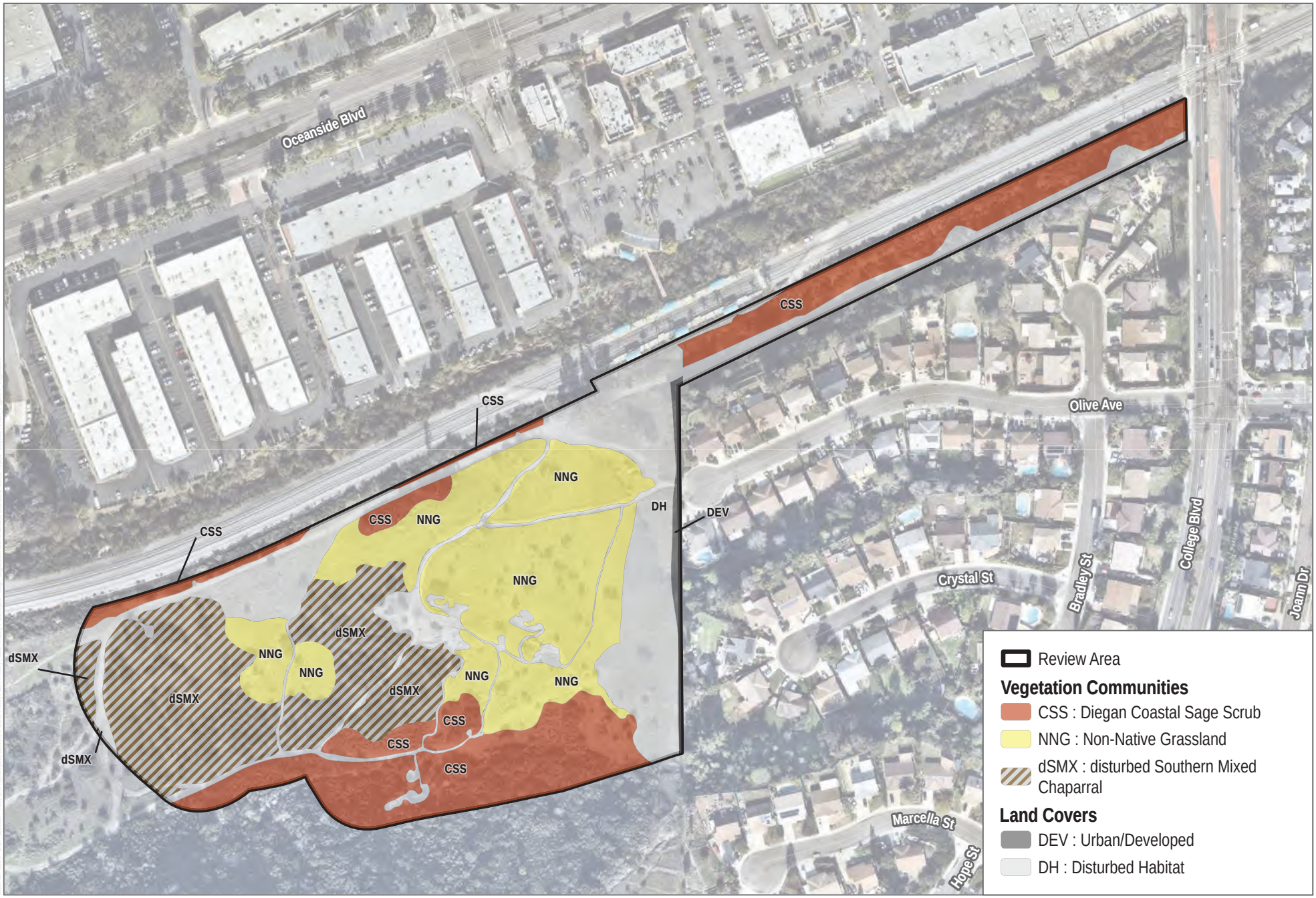

SOURCE: SanGIS 2023

DUDEK

0 115 230 Feet

FIGURE 4

Vegetation Communities and Land Cover Types

Trolley Place Project Aquatic Resources Delineation Report

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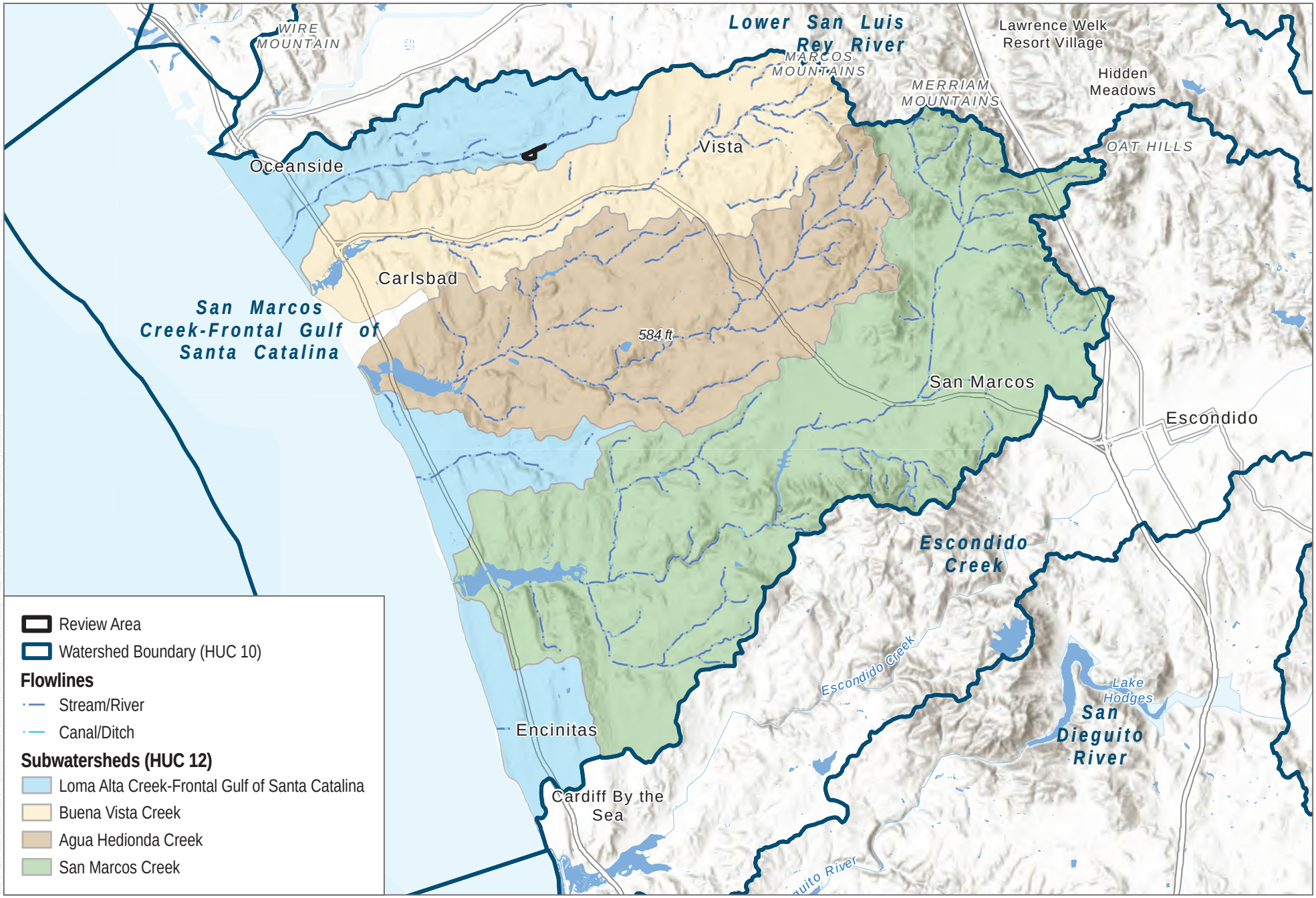

SOURCE:

FIGURE 5

Hydrologic Setting

Trolley Place Project Aquatic Resources Delineation Report

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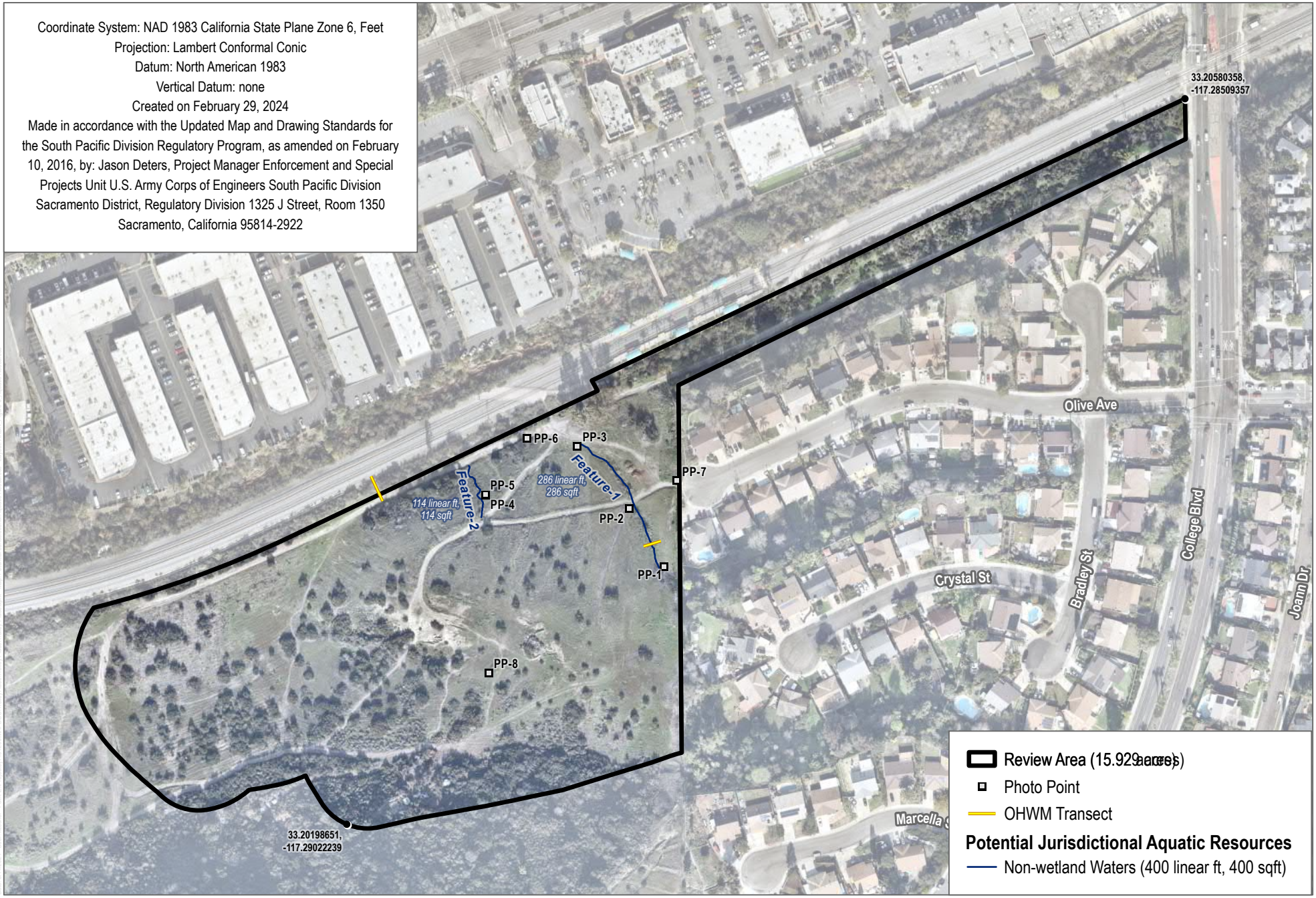

SOURCE: SanGIS 2023

DUDEK

0 115 230 Feet

FIGURE 6

Potential Jurisdictional Aquatic Resources

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Appendix A

Request for a Jurisdictional Determination

U.S. Army Corps of Engineers (USACE)

REQUEST FOR JURISDICTIONAL DETERMINATION (JD)

For use of this form, see Sec 404 CWA, Sec 10 RHA, Sec 103 MPRSA; the proponent agency is CECW-COR.

Form Approved - OMB No. 0710-0024 Expires 2024-04-30

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the review area that are or that may be subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice or FOIA request as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in any approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure Submission of requested information is voluntary, however, if the information is not provided there may be some delay in processing your request. Failure to provide this information will not result in an adverse action.
System of Record Notice (SORN): The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website:
http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. To (*District Name*): Los Angeles District

2. I am requesting a JD on property located at (*Street Address*): Vacant property, west end of Olive Drive

City/Township/Parish: Oceanside County: San Diego State: California

Acreage of Parcel/Review Area for JD: 15.92

Section: 22 Township: 11S Range: 4W

Latitude (*decimal degrees*): 33.202926 ° Longitude (*decimal degrees*): 117.289721 °

(*For linear projects, please include the center point of the proposed alignment.*)

3. Please attach a survey/plat map and vicinity map identifying location and review area for the JD.

4. ☐ I currently own this property. ☐ I plan to purchase this property.

☒ I am an agent/consultant acting on behalf of the requester.

☐ Other (*please explain*):

5. Reason for request: (*check as many as applicable*)

- [ ] I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
- [x] I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- [ ] I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- [ ] I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- [ ] I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
- [ ] A Corps JD is required in order to obtain my local/state authorization.
- [ ] I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
- [x] I believe that the site may be comprised entirely of dry land.
- [ ] Other:

6. Type of determination being requested:

- [x] I am requesting an approved JD.
- [ ] I am requesting a preliminary JD.
- [ ] I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
- [ ] I am unclear as to which JD I would like to request and require additional information to inform my decision.

7. Typed or Printed Name: Callie Amoaku

Daytime Phone No.: 760.479.4293

Company Name: Dudek

Email Address: cford@dudek.com

Address: 605 Third Street, Encinitas, CA 92024

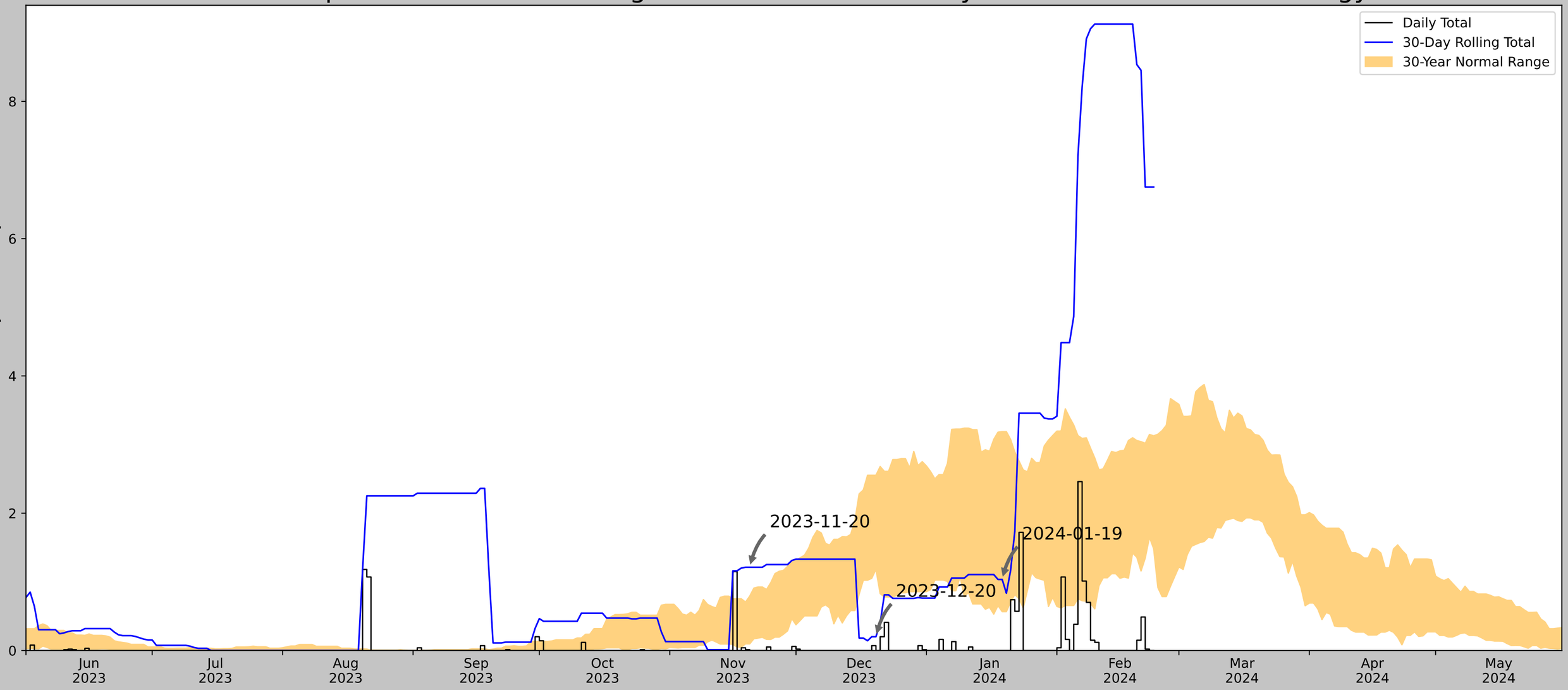
By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

Signature:	Date: 3-7-2024

Appendix B

Antecedent Precipitation Tool Output

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.20291267, -117.2925585
Observation Date	2024-01-19
Elevation (ft)	201.337
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-01-19	0.565748	3.188976	1.035433	Normal	2	3	6
2023-12-20	1.183858	2.55315	0.200787	Dry	1	2	2
2023-11-20	0.096457	0.792126	1.212598	Wet	3	1	3
Result							Normal Conditions - 11

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
VISTA	33.2353, -117.2322	430.118	4.145	228.781	2.813	10997	71
VISTA 1.5NNW	33.2192, -117.2536	416.995	1.664	13.123	0.771	66	0
OCEANSIDE 8.1ENE	33.2499, -117.2559	188.976	1.701	241.142	1.176	0	18
VISTA 1.2SE	33.1862, -117.2311	504.921	3.393	74.803	1.781	4	1
OCEANSIDE 8.4NE	33.27, -117.2663	251.969	3.103	178.149	1.949	12	0
OCEANSIDE 2.3 WNW	33.233, -117.3498	259.843	6.798	170.275	4.217	2	0
CARLSBAD MCCLELLAN PALOMAR AP	33.13, -117.2764	312.992	7.711	117.126	4.373	147	0
CAMP PENDLETON MCAS	33.3042, -117.355	69.882	8.543	360.236	6.922	124	0

Appendix C
Data Forms

SDAM-02

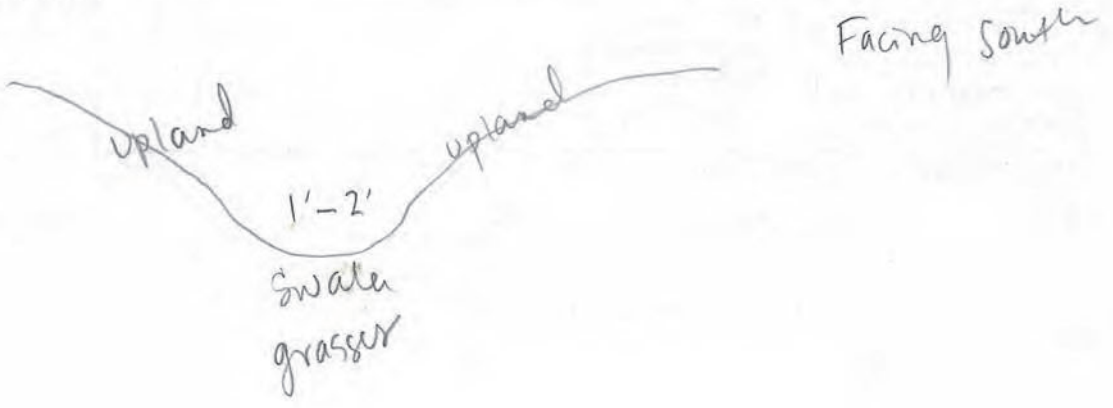
Field form for the beta Arid Streamflow Duration Assessment Method
Revision Date December 8, 2020

Beta Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Trolley Place		
Site code or identifier: 14942	Assessor(s): Callie Amoaku, Katie Dayton	
Waterway name: N/A SDAM-02		Visit date: 1-19-24
Current weather conditions (check one) ☐ Storm/heavy rain ☐ Steady rain ☐ Intermittent rain ☐ Snowing ☑ Cloudy (80% cover) ☐ Clear/Sunny	Notes on current or recent weather conditions (e.g., precipitation in previous week): Rain predicted on 1/20/24	Coordinates at downstream end (decimal degrees): Lat (N): 33.203390 N Long (W): −117.288331 W Datum:
Surrounding land-use within 100 m (check one or two): ☑ Urban/industrial/residential ☐ Agricultural (farmland, crops, vineyards, pasture) ☐ Developed open-space (e.g., golf course) ☐ Forested ☑ Other natural ☐ Other:	Describe reach boundaries: Swale on east side of project boundary that starts at top of slope from rainfall.	
Mean channel width (m): 41 m	Reach length (m): 40x width; min 40 m, max 200 m. 40 m	Enter photo ID, or check if completed Top down: ✓ Mid down: ✓ Mid up: ✓ Bottom up:
Disturbed or difficult conditions (check all that apply): ☐ Recent flood or debris flow ☐ Stream modifications (e.g., channelization) ☐ Diversions ☐ Discharges ☐ Drought ☐ Vegetation removal/limitations ☐ Other (explain in notes) ☐ None	Notes on disturbances or difficult site conditions: Trails created on site may have increased runoff in certain areas creating swale.	
Observed hydrology: 0 % of reach with surface flow 0 % of reach with sub-surface or surface flow 0 # of isolated pools	Comments on observed hydrology: Dry. Very minor hydrological indicators.	

Site sketch:



1. Hydrophytic plant species

Record up to 5 hydrophytic plant species (FACW or OBL in the **Arid West** regional wetland plant list) within the assessment area: **within the channel or up to one half-channel width**. Explain in notes if species has an odd distribution (e.g., covers less than 2% of assessment area, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID, or check if photo is taken.

Check if applicable: ☐ No vegetation in assessment area ☑ No hydrophytes in assessment area

Species	Odd distribution?	Notes	Photo ID

Notes on hydrophytic vegetation:

2 and 3. Aquatic invertebrates

2. How many aquatic invertebrates are quantified in a 15-minute search?

Number of individuals quantified:
☑ None
☐ 1 to 19
☐ 20 +

(Do not count mosquitos)

Photo ID:_____

3. Is there evidence of aquatic stages of EPT (Ephemeroptera, Plecoptera and Trichoptera)?

Yes / No

Ephemeroptera larva
Image credit: Dieter Tracey

Plecoptera larva
Tracey Saxby

Trichoptera larva
Tracey Saxby

Notes on aquatic invertebrates:

4. Algal Cover

Are algae found on the streambed? ☐ Check if *all* observed algae appear to be deposited from an upstream source.	☑ Not detected ☐ Yes, < 10% cover ☐ Yes, ≥ 10% (check Yes in single indicator below)	Notes on algae cover:	Photo ID:

5. Are single indicators observed?

Indicator	Present	Notes	Photo ID
Fish	☐ Yes ☑ No, no fish ☐ No, only non-native mosquitofish		
Algae cover ≥ 10%	☐ Yes ☑ No		

Supplemental information E.g., aquatic or semi-aquatic amphibians, snakes, or turtles; iron-oxidizing bacteria and fungi; etc.

Photo log

Indicate if any other photos taken during the assessment

Photo ID	Description
Solocator	

Additional notes about the assessment:

Swale, vegetated. Dry.

Classification: Ephemeral

1. Hydrophytic plant species	2. Aquatic invertebrates	3. EPT taxa	4. Algae	5. Single indicators • fish present • algae cover ≥ 10%	Classification
None	None	Absent	Absent	Absent	**Ephemeral**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
	Few (1-19)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
Few (1-2)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present	Absent		**At least intermittent**
			Present		**Intermittent**
Many (3+)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent			**At least intermittent**
		Present			**Perennial**
	Many (20+)	Absent			**At least intermittent**
		Present			**Perennial**

Shading provided to enhance readability by increasing the contrast between neighboring cells; empty cells indicate the classification will not change with additional information however it is recommended that all five indicators be measured and recorded during every assessment.

Appendix D
Review Area Photos

Photo 1. SDAM Transect SDAM-02, at the top/origin of the swale looking north.

Photo 2. SDAM Transect SDAM-02, at the middle of the swale looking south.

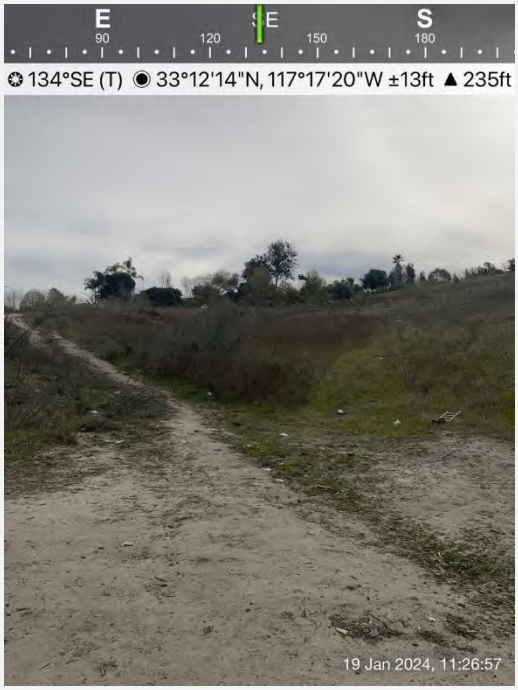


Photo 3. SDAM Transect SDAM-02, at the bottom/end of the swale looking southeast.

Photo 4. Erosional feature looking south.

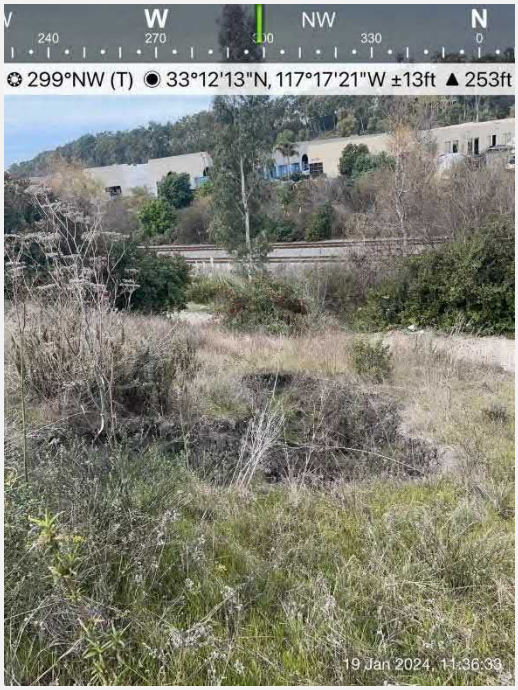


Photo 5. Erosional feature looking west/northwest.

Photo 6. Northern side of site facing east with swale feature in background.

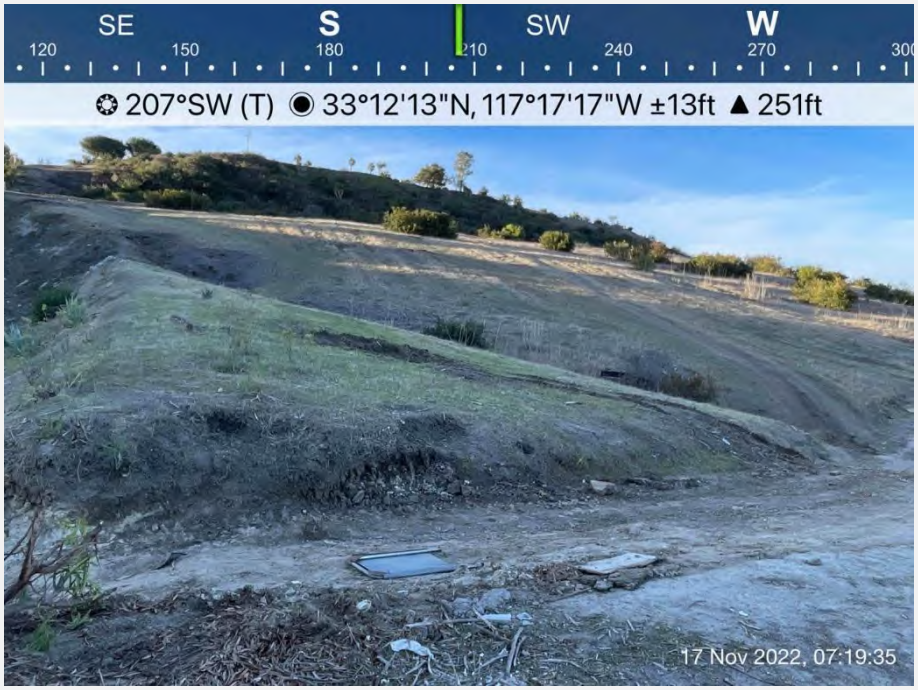


Photo 7. View facing southwest at the eastern entrance of the site.

Photo 8. View facing west/northwest from eastern edge of site.

Appendix E

ORM Bulk Upload Aquatic Resources or Consolidated Excel Spreadsheet

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_ Waterway
Feature 1	CALIFORNIA	R6		Area	0.002	ACRE	B8-EXCL-SWAL.EROS	33.20371600	117.28853300	
Feature 2	CALIFORNIA	R6		Area	0.003	ACRE	B8-EXCL-SWAL.EROS	33.20346400	117.28970500	

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Appendix F

GIS Data (provided separately)

Appendix H

Wetland and Stream Assessment Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Trolley Place | City/County: Oceanside/San Diego | Sampling Date: 01/19/2024
Applicant/Owner: Capstone Equities | State: California | Sampling Point: SP-01
Investigator(s): Callie Amoaku, Katie Dayton | Section, Township, Range:
Landform (hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave | Slope (%): 0
Subregion (LRR): LRR C | Lat: 33.20291267 | Long: -117.2925585 | Datum: NAD83
Soil Map Unit Name: Corralitos loamy sand, 0 to 5 percent slopes (CsB) | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30-ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft)			
1. *Baccharis pilularis* / Coyote brush	5	Yes	NI
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5-ft)			
1. *Distichlis spicata* / Salt grass	95	Yes	FAC
2. *Carpobrotus edulis* / Iceplant, Freeway iceplant	5	No	NI
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	105 (A)		335 (B)

Prevalence Index = B/A = 3.19

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP-01

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1								Organic matter
1-4	10YR 2/1	100					Sandy Loam	
4-14	10YR 4/2	99	10YR 5/8	1	C	PL	Sndy Clay Lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Trolley Place | City/County: Oceanside/San Diego | Sampling Date: 01/19/2024
Applicant/Owner: Capstone Equities | State: California | Sampling Point: SP-02
Investigator(s): Callie Amoaku, Katie Dayton | Section, Township, Range:
Landform (hillslope, terrace, etc): Creek terrace | Local relief (concave, convex, none): none | Slope (%): 0
Subregion (LRR): LRR C | Lat: 33.20227317 | Long: -117.29580717 | Datum: NAD83
Soil Map Unit Name: Salinas clay loam, 0 to 2 percent slopes, warm MAAT, MLRA 19 (SbA) | NWI classification: Freshwater Forested/Shrub Wet
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Sample taken below the OHWM in Loma Alta Creek.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30-ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis* / Arroyo willow	50	Yes	FACW
2.			
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5-ft)			
1. *Typha domingensis* / Cattail, Southern cattail	40	Yes	OBL
2. *Bromus rubens* / Red brome	15	Yes	NI
3. *Asparagus asparagoides* / African asparagus fern	2	No	NI
4.			
5.			
6.			
7.			
8.			
	57	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	17	x 5 =	85
Column Totals:	107 (A)		225 (B)

Prevalence Index = B/A = 2.1

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP-02

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	70					Loamy Sand	
0-12	10YR 5/2	30					Loamy Sand	
12-14	2.5Y 4/1	100					Sandy Loam	Positive dipyridyl test - reduced iron presen

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

No redox concentrations or depletions observed; however, the dipyridyl strips indicated the presence of reduced iron.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 4

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Trolley Place | City/County: Oceanside/San Diego | Sampling Date: 01/19/2024
Applicant/Owner: Capstone Equities | State: California | Sampling Point: SP-03
Investigator(s): Callie Amoaku, Katie Dayton | Section, Township, Range:
Landform (hillslope, terrace, etc): Top of bank | Local relief (concave, convex, none): none | Slope (%): 0
Subregion (LRR): LRR C | Lat: 33.20227167 | Long: -117.29595217 | Datum:
Soil Map Unit Name: Salinas clay loam, 0 to 2 percent slopes, warm MAAT, MLRA 19 (SbA) | NWI classification: Freshwater Forested/Shrub Wet
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? Yes No X

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30-ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis* / Arroyo willow	70	Yes	FACW
2.			
3.			
4.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15-ft)			
1. *Artemisia californica* / Coastal sage brush, California sagebru	5	Yes	NI
2.			
3.			
4.			
5.			
	5	= Total Cover	

Herb Stratum (Plot size: 5-ft)			
1. *Cortaderia selloana* / Pampas grass	40	Yes	FACU
2. *Distichlis spicata* / Salt grass	15	Yes	FAC
3. *Cynodon dactylon* / Bermuda grass	5	No	FACU
4. *Asparagus asparagoides* / African asparagus fern	2	No	NI
5.			
6.			
7.			
8.			
	62	= Total Cover	

Woody Vine Stratum (Plot size: 30-ft)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum | % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	15	x 3 =	45
FACU species	45	x 4 =	180
UPL species	7	x 5 =	35
Column Totals:	137 (A)		400 (B)

Prevalence Index = B/A = 2.92

Hydrophytic Vegetation Indicators:
- ___ Dominance Test is >50%
- X Prevalence Index ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

Remarks:

SOIL

Sampling Point: SP-03

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	100					Sndy Clay Lm	
10-14	10YR 5/2	100					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

SDAM-01

Field form for the beta Arid Streamflow Duration Assessment Method
Revision Date December 8, 2020

Beta Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Trolley Place		
Site code or identifier: 14942	Assessor(s): Callie Amoaku, Katie Dayton	
Waterway name: Loma Alta Creek		Visit date: 1-19-24

Current weather conditions (check one)
- ☐ Storm/heavy rain
- ☐ Steady rain
- ☐ Intermittent rain
- ☐ Snowing
- ☑ Cloudy (80% cover)
- ☐ Clear/Sunny

Notes on current or recent weather conditions (e.g., precipitation in previous week): Rain forecasted for 1/20/24

Coordinates at downstream end (decimal degrees):
Lat (N): 33.202795 N
Long (W): −117.293832 W
Datum:

Surrounding land-use within 100 m (check one or two):
- ☑ Urban/industrial/residential
- ☐ Agricultural (farmland, crops, vineyards, pasture)
- ☐ Developed open-space (e.g., golf course)
- ☐ Forested
- ☑ Other natural
- ☐ Other: _____

Describe reach boundaries: Within project boundary, upstream portion closer to bridge/tracks. Water flows west, but quite stagnant here.

Mean channel width (m)	Reach length (m): 40x width; min 40 m; max 200 m	Enter photo ID, or check if completed
3 m	40 m	Top down: _____ Mid down: ✓ Mid up: ✓ Bottom up: ✓

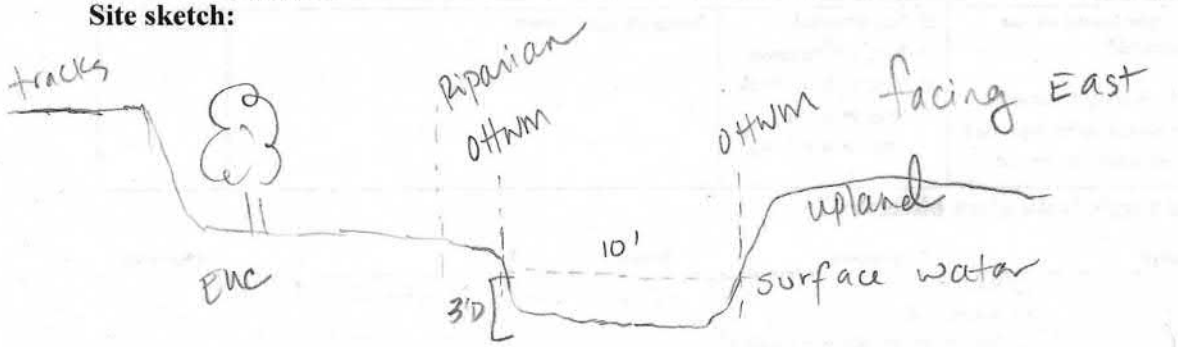
Disturbed or difficult conditions (check all that apply):
- ☐ Recent flood or debris flow
- ☐ Stream modifications (e.g., channelization)
- ☐ Diversions
- ☐ Discharges
- ☐ Drought
- ☐ Vegetation removal/limitations
- ☐ Other (explain in notes)
- ☐ None

Notes on disturbances or difficult site conditions: Primarily fed by discharge. Very disturbed with non-native plant species and trash from large unhoused population on site.

Observed hydrology:
100 % of reach with surface flow
_____ % of reach with sub-surface or surface flow
_____ # of isolated pools

Comments on observed hydrology:

Site sketch:



1. Hydrophytic plant species

Record up to 5 hydrophytic plant species (FACW or OBL in the **Arid West** regional wetland plant list) within the assessment area: **within the channel or up to one half-channel width**. Explain in notes if species has an odd distribution (e.g., covers less than 2% of assessment area, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID, or check if photo is taken.

Check if applicable: ☐ No vegetation in assessment area ☐ No hydrophytes in assessment area

Species	Odd distribution?	Notes	Photo ID
Salix lasiolepis			
Bac sal			
was fil			
Arundo donax			

Notes on hydrophytic vegetation:

2 and 3. Aquatic invertebrates

2. How many aquatic invertebrates are quantified in a 15-minute search?

Number of individuals quantified:
- ☐ None
- ☑ 1 to 19
- ☐ 20 +

(Do not count mosquitos)

Photo ID:_____

3. Is there evidence of aquatic stages of EPT (Ephemeroptera, Plecoptera and Trichoptera)?

Yes / No

Ephemeroptera larva
Image credit: Dieter Tracey

Plecoptera larva
Tracey Saxby

Trichoptera larva
Tracey Saxby

Notes on aquatic invertebrates:

4. Algal Cover

Are algae found on the streambed? ☐ Check if *all* observed algae appear to be deposited from an upstream source.	☑ Not detected ☐ Yes, < 10% cover ☐ Yes, ≥ 10% (check Yes in single indicator below)	Notes on algae cover:	Photo ID:

5. Are single indicators observed?

Indicator	Present	Notes	Photo ID
Fish	☑ Yes ☐ No, no fish ☐ No, only non-native mosquitofish	minnows + small fish	
Algae cover ≥ 10%	☐ Yes ☑ No		

Supplemental information E.g., aquatic or semi-aquatic amphibians, snakes, or turtles; iron-oxidizing bacteria and fungi; etc.

Photo log

Indicate if any other photos taken during the assessment

Photo ID	Description
All in solocator	

Additional notes about the assessment:

Classification: Intermittent

1. Hydrophytic plant species	2. Aquatic invertebrates	3. EPT taxa	4. Algae	5. Single indicators • fish present • algae cover ≥ 10%	Classification
None	None	Absent	Absent	Absent	Ephemeral
				Present	At least intermittent
			Present		Intermittent
	Few (1-19)	Absent	Absent	Absent	Less than Perennial
				Present	At least intermittent
			Present		At least intermittent
		Present	Absent		Intermittent
			Present		Perennial
	Many (20+)	Absent	Absent	Absent	Ephemeral
				Present	At least intermittent
			Present	Absent	Ephemeral
				Present	At least intermittent
		Present			Intermittent
Few (1-2)	None				Intermittent
	Few (1-19)	Absent			Intermittent
		Present	Absent		Intermittent
			Present		Perennial
	Many (20+)	Absent			Intermittent
		Present	Absent		Perennial
			Present		Intermittent
Many (3+)	None				Intermittent
	Few (1-19)	Absent	Absent		Intermittent
			Present		Perennial
		Present			Perennial
	Many (20+)				Perennial

Shading provided to enhance readability by increasing the contrast between neighboring cells; empty cells indicate the classification will not change with additional information however it is recommended that all five indicators be measured and recorded during every assessment.

SDAM-02

Beta Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Trolley Place

Site code or identifier: 14942 | Assessor(s): Callie Amoaku, Katie Dayton

Waterway name: N/A SDAM-02 | Visit date: 1-19-24

Current weather conditions (check one)
- ☐ Storm/heavy rain
- ☐ Steady rain
- ☐ Intermittent rain
- ☐ Snowing
- ☑ Cloudy (80% cover)
- ☐ Clear/Sunny

Notes on current or recent weather conditions (e.g., precipitation in previous week): Rain predicted on 1/20/24

Coordinates at downstream end (decimal degrees):
Lat (N): 33.203390 N
Long (W): −117.288331 W
Datum:

Surrounding land-use within 100 m (check one or two):
- ☑ Urban/industrial/residential
- ☐ Agricultural (farmland, crops, vineyards, pasture)
- ☐ Developed open-space (e.g., golf course)
- ☐ Forested
- ☑ Other natural
- ☐ Other: _____

Describe reach boundaries: Swale on east side of project boundary that starts at top of slope from rainfall.

Mean channel width (m): <1 m

Reach length (m): 40x width, min 40 m, max 200 m. 40 m

Enter photo ID, or check if completed
Top down: ✓ Mid down: ✓
Mid up: ✓ Bottom up: _____

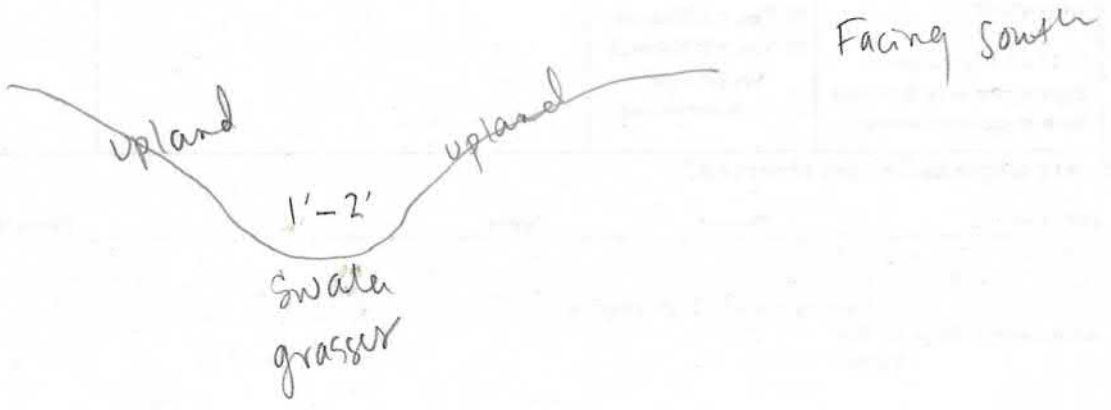
Disturbed or difficult conditions (check all that apply):
- ☐ Recent flood or debris flow
- ☐ Stream modifications (e.g., channelization)
- ☐ Diversions
- ☐ Discharges
- ☐ Drought
- ☐ Vegetation removal/limitations
- ☐ Other (explain in notes)
- ☐ None

Notes on disturbances or difficult site conditions: Trails created on site may have increased runoff in certain areas creating swale.

Observed hydrology:
0 % of reach with surface flow
0 % of reach with sub-surface or surface flow
0 # of isolated pools

Comments on observed hydrology: Dry. Very minor hydrological indicators.

Site sketch:



1. Hydrophytic plant species

Record up to 5 hydrophytic plant species (FACW or OBL in the **Arid West** regional wetland plant list) within the assessment area: **within the channel or up to one half-channel width**. Explain in notes if species has an odd distribution (e.g., covers less than 2% of assessment area, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID, or check if photo is taken.

Check if applicable: ☐ No vegetation in assessment area ☑ No hydrophytes in assessment area

Species	Odd distribution?	Notes	Photo ID

Notes on hydrophytic vegetation:

2 and 3. Aquatic invertebrates

2. How many aquatic invertebrates are quantified in a 15-minute search?

Number of individuals quantified:
☑ None
☐ 1 to 19
☐ 20 +

(Do not count mosquitos)

Photo ID:_____

3. Is there evidence of aquatic stages of EPT (Ephemeroptera, Plecoptera and Trichoptera)?

Yes / No

Ephemeroptera larva
Image credit: Dieter Tracey

Plecoptera larva
Tracey Saxby

Trichoptera larva
Tracey Saxby

Notes on aquatic invertebrates:

4. Algal Cover

Are algae found on the streambed?		Notes on algae cover:	Photo ID:
☐ Check if *all* observed algae appear to be deposited from an upstream source.	☑ Not detected ☐ Yes, < 10% cover ☐ Yes, ≥ 10% (check Yes in single indicator below)		

5. Are single indicators observed?

Indicator	Present	Notes	Photo ID
Fish	☐ Yes ☑ No, no fish ☐ No, only non-native mosquitofish		
Algae cover ≥ 10%	☐ Yes ☑ No		

Supplemental information E.g., aquatic or semi-aquatic amphibians, snakes, or turtles; iron-oxidizing bacteria and fungi; etc.

Photo log

Indicate if any other photos taken during the assessment

Photo ID	Description
Solocator	

Additional notes about the assessment:

Swale, vegetated. Dry.

Classification: Ephemeral

1. Hydrophytic plant species	2. Aquatic invertebrates	3. EPT taxa	4. Algae	5. Single indicators • fish present • algae cover ≥ 10%	Classification
None	None	Absent	Absent	Absent	**Ephemeral**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
	Few (1-19)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
Few (1-2)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present	Absent		**At least intermittent**
			Present		**Intermittent**
Many (3+)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent			**At least intermittent**
		Present			**Perennial**
	Many (20+)	Absent			**At least intermittent**
		Present			**Perennial**

Shading provided to enhance readability by increasing the contrast between neighboring cells; empty cells indicate the classification will not change with additional information however it is recommended that all five indicators be measured and recorded during every assessment.