APPENDIX C.1: Biological Technical Report



Biological Technical Report
for the
Fairview Development Center Project

Orange County, California

Prepared For:

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May 2026

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	degrees Fahrenheit
ACE	Areas of Conservation Emphasis
CBB	Crotch's bumble bee
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Costa Mesa
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
COV	County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan–Covered
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DDS	California Department of Developmental Services
ECORP	ECORP Consulting, Inc.
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FDC	Fairview Development Center
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation

Term	Definition
MBTA	Migratory Bird Treaty Act
mph	miles per hour
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OC NCCP/HCP	County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan
OCC	Occurrence
OHWM	Ordinary High Water Mark
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
Project	Fairview Development Center Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SB	Senate Bill
SR	State Route
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

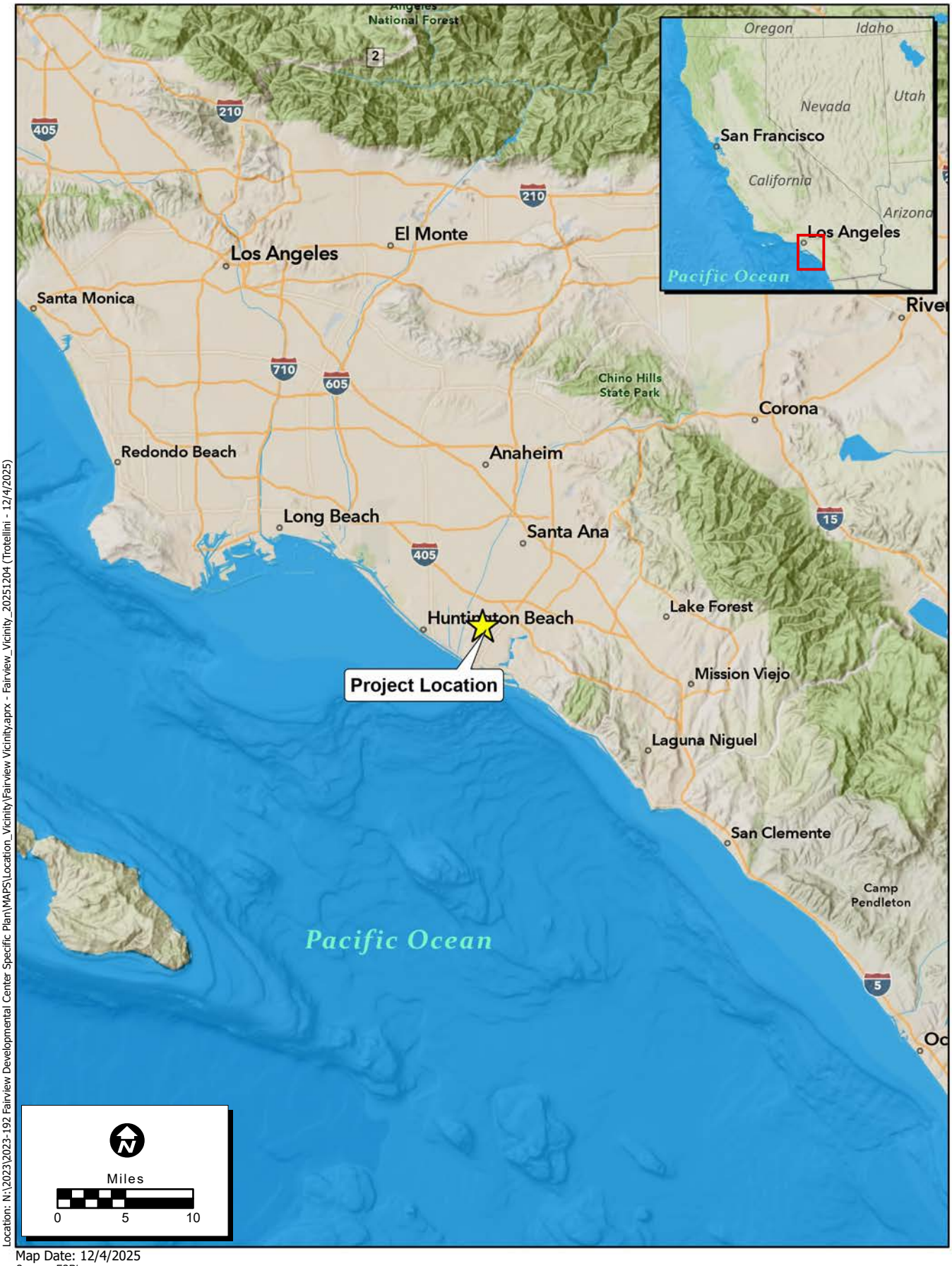
In October 2023 ECORP Consulting, Inc. (ECORP) conducted a biological reconnaissance survey for the Fairview Development Center (FDC) Project (Project) located in the City of Costa Mesa (City), Orange County, California and thereafter prepared a Biological Resources Existing Conditions Report (January 2024 [revised April 2024]) for the Project. Due to changes in the FDC boundaries and the addition of a portion of the Costa Mesa Country Club golf course and the Offsite Improvement Area (Shelley Circle Trail), ECORP conducted an updated biological reconnaissance survey to document current conditions and survey the additional areas. ECORP conducted this survey pursuant to the terms of the California Environmental Quality Act (CEQA) and for the purpose of identifying any biological constraints that would affect the Proposed Project. The Project would be subject to county, state, and federal regulations regarding compliance with the Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), Clean Water Act (CWA) regulations, and California Fish and Game Code.

1.1 Project Location

The Project Site is located to the west of Harbor Boulevard and bordered by the Costa Mesa Country Club to the northwest, west, and south, and by residential communities and commercial development to the north, east, and southeast in the City of Costa Mesa, Orange County, California (Figure 1). The Project Site comprises the 95-acre FDC, a portion of the Costa Mesa Country Club golf course, and the Offsite Improvement Area (Shelley Circle Trail) and a 30-foot buffer around the Offsite Improvement Area (Figure 2). The California Department of Developmental Services (DDS) Emergency Operations Center (EOC) is located to the southwest of and is not included within the Project Site. The Project Site is located to the south of Interstate 405, to the west of State Route (SR) 55, to the north of SR-1, and to the southwest of SR-73. The Project Site is located within Section 9 of Township 6 South, Range 10 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute Newport Beach, California quadrangle. The elevation of the Project Site is approximately 70 to 100 feet (approximately 21-30 meters) above mean sea level.

1.2 Project Description

The Proposed Project is a specific plan, the Fairview Developmental Center Specific Plan (FDCSP)—that would allow for a mixed-use community within the Project Site, which is intended to provide a significant portion of the City's Regional Housing Needs Allocation obligation while also integrating commercial services, open space amenities, and public safety infrastructure. DDS would continue to operate the EOC, which is located to the southwest of the Project Site, but the EOC is not a part of the Proposed Project. The Project would include two primary access points: one at Fairview Drive in the northeast portion of the Project Site (existing) and a second at Harbor Boulevard in the southeast portion (proposed). An emergency-only access point would also be provided from Merrimac Way, which is a privately maintained road.



Location: N:\2023\2023-192 Fairview Developmental Center Specific Plan\MAPS\Location_Vicinity\Fairview Vicinity.aprx - Fairview_Vicinity_20251204 (Trotellini - 12/4/2025)

Map Date: 12/4/2025

Sources: ESRI

Figure 1. Project Vicinity

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2023-192 Fairview Development Center Project



Location: N:\2023\2023-192 Fairview Developmental Center Specific Plan\MAPS\Location_Vicinity\Fairview Vicinity.aprx - Fairview_Location_20251103 (Trotellini - 12/15/2025)

Map Date: 12/12/2025

Sources: ESRI, Vantor (2023)

Figure 2. Project Location

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1.2.1 Residential and Commercial Development

The Proposed Project would include a minimum of 2,300 dwelling units, with the potential for up to 4,000 dwelling units. Housing would include a variety of product types ranging from two- and three-story townhomes and courtyard-style units to buildings up to 12 stories. The development would also accommodate senior living options (independent and assisted living), as well as neighborhood-serving amenities, recreational uses, and daycare facilities.

In addition, the Proposed Project would include up to 35,000 square feet of commercial space. This space may be developed in a standalone or mixed-use configuration, offering flexibility to respond to market demand and community needs.

1.2.2 Open Space and Recreation

At least 14 acres of publicly accessible open space would be provided, supporting a range of potential uses, including:

- neighborhood parks and plazas;
- trails for walking and biking;
- recreation centers and cultural amenities; and
- pocket parks and informal gathering areas.

This open space would be in addition to FDCSP-required private and common open space for residential uses. The FDCSP would provide flexibility in the ultimate configuration and location of these spaces.

1.2.3 Offsite Improvement Area

The Offsite Improvement Area would include the Shelley Circle Trail, which would begin within and along the west side of the Project Site and extend from the Project Site's perimeter to connect with Tanager Drive offsite (Figure 2). The offsite portion of the trail, which runs along the Project Site and connects to the existing Tanager bike trail, would be approximately 4,650 linear feet in length and constructed as an 8- to 10-foot-wide, two-way multiuse path that would accommodate pedestrians, strollers, bicycles, and similar uses.

2.0 FEDERAL, STATE, AND LOCAL REGULATIONS

ECORP conducted the biological reconnaissance survey to identify potential biological resource constraints on the Project and ensure compliance with federal, state, and local regulations regarding listed, protected, and special-status species and resources. The following subsections detail the applicable regulations.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538).

Under Section 7 of the ESA, federal agencies are required to consult with USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

2.1.2 Migratory Bird Treaty Act

The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities including hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits.

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act Protection Act (16 U.S. Code 668-668d) is a U.S. federal statute that prohibits the take of bald and golden eagles, including pursuing, shooting, poisoning, wounding, capturing, or disturbing the eagles, their nests, or eggs, unless expressly authorized by a USFWS-issued permit.

2.1.4 Federal Clean Water Act

Under Section 404 of the CWA, potential Waters of the U.S., including wetlands, may be regulated by the U.S. Army Corps of Engineers (USACE). The limit of USACE jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.4(c)(1) as the *Ordinary High Water Mark* (OHWM).

The OHWM is defined as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as 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. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

Jurisdictional Waters of the U.S. are delineated in accordance with the "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register in 2022 and which became final on January 18, 2023. This rule, set forth by the U.S. Environmental Protection Agency (EPA) and USACE, was consistent with the pre-2015 regulatory definition as all waters that are currently used, or were used in the past, or may be susceptible to use in interstate commerce, including all waters subject to the ebb and flow of the tide. This definition also includes all interstate waters, including interstate wetlands, interstate lakes, rivers, streams (including all intermittent and ephemeral streams), mudflats, sand flats, sloughs, and prairie potholes, wet meadows, playa lakes, or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce. Under this rule, Waters of the U.S. do not include prior converted cropland.

The definition of Waters of the U.S. in accordance with this rule (40 CFR 230.3[s]), is summarized below.

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
2. All interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as Waters of the U.S. under the definition.
5. Tributaries of waters identified in paragraphs (s)(1)-(4) of this section.
6. The territorial sea.
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds

or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11[m] which also meet the criteria of this definition) are not Waters of the U.S.

On May 25, 2023, the U.S. Supreme Court adopted a narrower definition of Waters of the U.S. in the case *Sackett v. Environmental Protection Agency*. Under the majority opinion, Waters of the U.S. refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection." On August 29, 2023, the agencies issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule to conform the definition of "Waters of the United States" to the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*.

Parts of the January 2023 Rule are invalid under the U.S. Supreme Court's interpretation of the CWA in the *Sackett* decision. Therefore, the agencies have amended key aspects of the regulatory text to conform to the Court's decision. Key changes under the amendment include the following:

- The definition of "adjacent" is now "having a continuous surface connection."
- Only tributaries that are relatively permanent, standing or continuously flowing bodies of water (or tributaries with a continuous surface connection to those) are considered jurisdictional.
- Interstate wetlands are no longer jurisdictional just by virtue of being interstate.
- Significant nexus test is eliminated.

Where areas jurisdictional to USACE are present, and will be impacted by a project, the project proponent must usually apply for permitting with the agency, which generally consists of the submittal of a Pre-construction Notification under Section 404 of the CWA. As of the writing of this report, we do not know the details of how the individual USACE offices will implement the conforming rule for permitting purposes.

2.2 State Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as *Fully Protected* prior to the creation of the federal and California ESAs. Lists of Fully Protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most Fully Protected species have since been listed as threatened or endangered under the federal and/or California ESA. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that Fully Protected species may not be taken or possessed at any time. However, as of July 10, 2023, Senate Bill (SB) 147 was signed into law, authorizing CDFW to issue take permits under the California ESA for Fully Protected species for qualifying projects through 2033. As stated in section 2081.15 of SB 147, qualifying projects include:

- a maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources;
- a maintenance, repair, or improvement project to critical regional or local water agency infrastructure;
- a transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency, which does not increase highway or street capacity for automobile or truck travel;
- a wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California based balancing authority; and
- a solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California-based balancing authority.

2.2.3 California Fish and Game Code

2.2.3.1 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to *preserve, protect and enhance rare and endangered plants in this State*. The NPPA is administered by CDFW. The California Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.3.2 Streambed Alteration Agreement

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CDFW 2021). In Title 14 of the

California Code of Regulations (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 a surface or subsurface flow that supports or has supported riparian vegetation."

In Chapter 9, Section 2785 of the Fish and Game Code, *riparian habitat* is defined as "lands which contain habitat which grows close to, and which depends upon, soil moisture from a nearby freshwater source."

CDFW's jurisdiction includes drainages with a definable bed, bank, or channel and areas associated with a drainage channel that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. If warranted, the CDFW will issue an SAA that includes measures to protect affected fish and wildlife resources; this SAA is the final proposal agreed upon by CDFW and the applicant.

2.2.3.3 Migratory Birds

CDFW enforces the protection of nongame native birds in §§ 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are also protected from "take" pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.3.4 Bats and Bat Roosts

Bats in California are currently protected directly and indirectly by the California Fish and Game Code, Sections 86, 1600, 2000, 2014, 3007, and 4150; California Public Resources Code, Division 14, Section 21000 et seq.; and CCR, Title 14 including, but not limited to Section 251.1, CEQA regulations (Section 15000 et seq.), and Section 15382 – Significant Effect on the Environment.

Regulations of particular relevance to the protection of bats and bat roosts include Title 14, Section 251.1 of the CCR, which prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits *take* or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered *take* as defined in Section 86 of the California Fish and Game Code. In addition, impacts to bat maternity colonies, which are considered native wildlife nursery sites, could be considered significant under CEQA.

2.2.4 Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the Regional Water Quality Control Board (RWQCB) through *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) (CCR, Title 23, § 3855; State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code § 13050[e]). Pollution is defined as an alteration of the quality of the waters of the state by waste to a degree that unreasonably affects its beneficial uses (California Water Code § 13050) and includes filling in waters of the State. Note that CCR, Title 23, § 3855 applies only to individual water quality certifications, but the new Procedures extend the application of § 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State of California would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, RWQCB considers whether project activities could impact the quality of Waters of the State.

On September 27, 2023, the EPA published its final 2023 CWA Section 401 Quarter Quality Certification Improvement Rule (88 Federal Register 66558.) The final 2023 Rule revises and replaces the 2020 Rule's regulatory requirements for water quality certification that were adopted by the prior federal administration. The updates realign the scope of the Section 401 certification process with established practices, while also restoring the roles of states, territories, and authorized Tribes as certifying agencies.

2.2.5 California Environmental Quality Act Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the CEQA checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if a project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish or result in the loss of an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.3 Regional Policies and Regulations

The County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (OC NCCP/HCP; County of Orange 1996) has a 75-year permit issued on July 17, 1996. The geographic area of the OC NCCP/HCP encompasses 208,000 acres. It provides coverage for 39 species, including six federally listed species. This plan has a reserve system totaling 37,378 acres that consists primarily of coastal sage scrub. The Project Site is located in the northwestern portion of the OC NCCP/HCP plan boundaries; however, the City is not signatory to the Implementation Agreement.

2.4 Local Ordinances and Policies

2.4.1 City of Costa Mesa General Plan

2.4.1.1 Chapter 6, Conservation Element

Chapter 6, Conservation Element of the City of Costa Mesa General Plan describes goals and policies to protect biotic resources (wildlife and vegetation) within Costa Mesa (City of Costa Mesa 2015). The Chapter 6 conservation goal, objective, and policies that are applicable to this analysis are as follows:

- *Goal CON-1*: Preserved and Restored Natural Coastal Habitat and Landforms.
    - *Objective CON-1.A*: Evaluate existing biotic resources and preserve them in ecologically viable and natural conditions, where possible; and/or restore and integrate these resources into the urban environment, where feasible.
        - *Policy CON-1.A.1:* Natural habitat is essential to ensuring biodiversity and protecting sensitive biological resources. Protect these areas and consult with the California Department of Fish and Wildlife, Orange County Water District, Orange County Parks, and other regional agencies to identify areas for special protection, and establish appropriate protection measures for these areas.

- *Policy CON-1.A.2:* Contribute to regional biodiversity and the preservation of rare, unique, and sensitive biological resources by maintaining functional wildlife corridors and habitat linkages.
- *Policy CON-1.A.3:* Coordinate with the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and other regulatory agencies to mitigate project impacts affecting open and natural spaces.
- *Policy CON-1.A.4:* Promote and protect native plant species within Fairview Park, and remove and control the spread of invasive species, including plants, animals, and fungi.
- *Policy CON-1.A.5:* Ensure that all future development is reviewed with regard to protecting natural topography and bluffs to preserve and enhance Costa Mesa's natural beauty.
- *Policy CON-1.A.6:* Minimize soil depletion and erosion in development projects. Prevent erosion caused by construction activities and encourage preservation of natural vegetation and topography.

2.4.1.2 Chapter 10, Open Space and Recreation Element

Chapter 10, Open Space and Recreation Element of the City of Costa Mesa General Plan describes goals and policies to conserve open space for supporting biological communities and providing sanctuary for future generations (City of Costa Mesa 2015). The Open Space and Recreation Element identifies the Fairview Development Center as a major potential location for parkland if it is acquired. The following Chapter 10 open space conservation goal, objective, and policy that are applicable to this analysis are as follows:

- *Goal OSR-3:* Conserved Open Space.
  - *Objective OSR-3A*: Preserve the City's open space lands and provide additional community and neighborhood parkland in underserved areas.
    - *Policy OSR-3.3*: Identify current open space areas for protection, management, and potential enhancement to maintain and, if possible, increase its value as wildlife habitat.

2.4.1.3 Chapter 2, Land Use Element

Chapter 2, Land Use Element of the City of Costa Mesa General Plan unifies the other elements by providing an overall policy context for future physical change within Costa Mesa (City of Costa Mesa2015). The following Chapter 2 land use goal and policy that are applicable to this analysis are as follows:

- *Goal LU-8*: Promote a Range of Multiple Uses at the Fairview Developmental Center Site

- *Policy LU-8.1:* In anticipation of the potential closure or repurposing of the Fairview Development Center site, the City will work with appropriate State agencies or private entity (if the property is sold) to plan for a complementary mix of low-scale residential, institutional, public facilities, open spaces, and recreational uses within a campus setting.

2.4.2 City of Costa Mesa Municipal Code

Title 3 of the City of Costa Mesa Municipal Code establishes planning, zoning, and development standards for the City. Chapter 7 of Title 13 establishes landscaping standards for the maintenance, pruning, irrigation, and removal of trees within the City. Municipal Code ORD 13-108 protects and preserves trees planted within the City, and details acceptable tree pruning, irrigation, and removal methods. Specifically, topping or heading back cannot be used in-lieu of pruning or thinning, and trees cannot be destroyed or removed without prior City approval. Site plans that identify existing and replacement trees must be submitted to the Planning Division for review, along with written request and justification for the removal. Additionally, the Planning Division may require a report prepared by a California licensed arborist. Where possible, and under the direction of the Planning Division, replacement trees must be of a size consistent with that to be removed. Trees may be replaced upon approval of plans by the planning division.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using CDFW's California Natural Diversity Database (CNDDB) (CDFW 2025a) and the California Native Plant Society's (CNPS's) Electronic Inventory (CNPSEI) (CNPS 2025a) to determine the special-status plant and wildlife species that have been documented near the Project Site. ECORP searched CNDDB and CNPSEI records within the Project Site boundaries, as depicted on the USGS 7.5-minute Newport Beach, California quadrangle, and the surrounding six quadrangles, which include Seal Beach, Los Alamitos, Anaheim, Orange, Tustin, and Laguna Beach, California. The CNDDB and CNPSEI contain records of reported occurrences of federally and/or state-listed Endangered, Threatened, Proposed Endangered or Threatened species, CDFW Species of Special Concern (SSC), CDFW Fully Protected species, California Rare Plant Rank (CRPR) designated species, or other special-status species or habitat that may occur within or near the Project Site. ECORP gathered additional information from other sources, including but not limited to the following:

- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2025b)
- *Special Animals List* (CDFW 2025c)
- USFWS Information Planning and Consultation (IPaC) System (USFWS 2025a)
- *The Jepson Manual: Vascular Plants of California*, Second Edition (Baldwin et al. 2012)
- *Jepson eFlora* (Jepson Flora Project [eds.] 2025)

- *A Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009)
- National Wetlands Inventory (NWI) Mapper (USFWS 2025b)
- various online websites (e.g., Calflora 2025)

Additionally, ECORP reviewed the previous report for this Project (ECORP 2024) to ensure necessary information was updated and incorporated into this report.

Using the above-referenced information and observations in the field, ECORP generated a list of special-status plant and wildlife species that have the potential to occur within or near the Project Site. For the purposes of this assessment, *special-status species* are defined as plants or animals that:

- have been designated as either Rare, Threatened, or Endangered by CDFW, CNPS, or USFWS, or are protected under either the ESA or California ESA;
- are candidate species being considered or proposed for listing under these same acts;
- are Fully Protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; or
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

ECORP assessed special-status plant and wildlife species reported for the region in the literature review or for which suitable habitat occurs within the Project Site for their potential to occur within the Project Site based on the following guidelines:

- *Present:* the species was observed within the Project Site during the biological reconnaissance survey.
- *High:* Habitat (including soils and elevation factors) for the species occurs within the Project Site, and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the Project Site.
- *Moderate:* habitat (including soils and elevation factors) for the species occurs within the Project Site, and a documented observation occurs within the database search, but not within 5 miles of the Project Site; or a recently documented observation occurs within 5 miles of the Project Site, and marginal or limited amounts of habitat occur within the Project Site.
- *Low:* limited or marginal habitat for the species occurs within the Project Site, and a recently documented observation occurs within the database search, but not within five miles of the Project Site; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Site; or suitable habitat strongly associated with the species occurs within the Project Site, but no records or only historic records were found within the database search.
- *Presumed Absent:* the species was not observed during the biological reconnaissance survey; habitat (including soils and elevation factors) does not exist within the Project Site; or the known geographic range of the species does not include the Project Site.

Location information for some special-status species may be of questionable accuracy or unavailable; therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, the absence of a record of a species in the databases does not mean that species does not occur; in many cases, records may not be present in the databases because an area has not been surveyed for that species.

ECORP additionally reviewed the USFWS IPaC database (USFWS 2025a), the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2025a), the NRCS Hydric Soils List (NRCS 2025b), the NWI Mapper (USFWS 2025a), and the USGS National Hydrography Dataset (USGS 2025) to determine if any blue line streams or drainages that potentially fall under the jurisdiction of either federal or state agencies are present within the Project Site.

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

ECORP biologists conducted the biological reconnaissance survey by walking the entirety of the Project Site, where accessible, to identify the vegetation communities and wildlife habitat present. The biologists documented the plant and wildlife species and vegetation communities observed within the Project Site and assessed the location and condition of the Project Site for its potential to provide habitat for special-status plant and wildlife species. Additionally, the biologists documented features within the Project Site with the potential to be jurisdictional to USACE, RWQCB, and/or CDFW; however, ECORP did not perform a formal aquatic resources delineation as part of this survey due to the unknown extent of earthwork activities associated with the golf course reconfiguration at this time. The biologists recorded data in the field utilizing ArcGIS™ Field Maps on a device (smartphone or tablet) connected to a GPS unit, field notebooks, and/or maps and took photographs during the survey to provide visual representation of the conditions within the Project Site.

ECORP also assessed the Project Site for its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. The biologists documented the vegetation communities present within the Project Site and mapped them in accordance with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). ECORP classified vegetation communities to the alliance level following *A Manual of California Vegetation*, Online Edition (CNPS 2025b). Any deviations from standard vegetation classifications were made with professional judgment when areas did not fit into a specific habitat description provided by *A Manual of California Vegetation*, Online Edition. The biologists mapped vegetation communities using field observations and aerial imagery.

ECORP additionally recorded plant and wildlife species, including any special-status species or protected species that the biologists observed during the survey. Plant nomenclature follows that of the *Jepson eFlora* (Jepson Flora Project [eds.] 2025) and *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows *Scientific and Standard English Names of Amphibians and Reptiles of North American North of Mexico, With Comments Regarding Confidence in our Understanding* (Society

for the Study of Amphibians and Reptiles 2025), *Checklist of North American Birds* (Chesser et al. 20253), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). In instances where biologists observed a special-status or protected species, ECORP recorded the date, species, location, habitat, and GPS coordinates.

3.2.2 Survey Limitations

ECORP conducted the biological reconnaissance survey outside of the plant blooming period for special-status plants that were included in the literature review; however, based on the existing site conditions and by identifying plants by their vegetative characteristics, ECORP presumed these species absent. Additionally, ECORP conducted the survey outside of the Crotch's bumble bee (CBB; *Bombus crotchii*) flight season and nesting bird season; therefore, ECORP determined these protected species to have potential for occurrence based on the habitat present within the Project Site and literature review observations of the species.

Due to the unknown extent of earthwork activities associated with the golf course reconfiguration at this time, ECORP did not conduct a formal aquatic resources delineation during the biological reconnaissance survey. While conducting the survey within the Project Site, the biologists briefly looked for potential jurisdictional features; however, the aquatic resources section of this report (Section 4.3) primarily uses data from the desktop review of the National Wetland Inventory Mapper. As such, ECORP recommends that an aquatic resources delineation survey be conducted prior to Project initiation.

4.0 RESULTS

ECORP biologists Verity Richardson, Carter Warwick, and Amber Francis conducted the biological reconnaissance survey on November 19, 2025. The following subsections summarize the results of the literature review and field survey, including site characteristics, vegetation communities, plants, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Table 1 summarizes the weather conditions during the survey.

Table 1. Weather Conditions during the Biological Reconnaissance Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
11/19/2025	0700	1200	50.4	72.2	0	20	0-1	0-2

Notes: °F = degrees Fahrenheit; mph = miles per hour

4.1 Site Characteristics

The Project Site comprises the 95-acre FDC, a portion of the Costa Mesa Country Club golf course, and the Offsite Improvement Area (Shelley Circle Trail), including a 30-foot buffer around the Offsite Improvement Area. The FDC property includes a mix of residential, commercial, and educational uses, some of which are still in use. The FDC is almost entirely developed with buildings, concrete, asphalt, secondary structures, and roadways associated with the FDC. Active construction with heavy machinery is

occurring within the southeast portion of the FDC and a portion of this area was vegetated at time of survey, consisting of non-native grasslands and a stand of eucalyptus trees (*Eucalyptus* sp.) (not at a density to form a closed-canopy woodland). A maintained (recently mowed) sports field occurs in the eastern portion of the Project Site, and landscaped areas occur throughout. The biologists observed mature trees as part of landscaping along streets and between buildings throughout the FDC, within residential areas, and scattered between fairways within the Costa Mesa Country Club golf course and along its border. The Costa Mesa Country Club golf course comprises landscaped grass, with scattered ornamental tree clusters and non-native, landscaped planters, and a compacted trail along the perimeter. Appendix A provides representative photographs of the Project Site

4.2 Soils

ECORP identified soils within the Project Site using the NRCS Web Soil Survey (NRCS 2025a; Table 2; Figure 3). Soils within the Project Site primarily consist of Myford sandy loam, 0 to 2 percent slopes, Myford sandy loam, 9 to 15 percent slopes, and Omni clay, drained. The desktop review of the NRCS Hydric Soils List did not identify the soils present within the Project Site as hydric soils (NRCS 2025b).

Table 2. Natural Resources Conservation Service Soils

Soil	Soil Description
Myford sandy loam, 0 to 2 percent slopes	Parent material: Alluvium derived from mixed Drainage class: Moderately well drained
Myford sandy loam, 9 to 15 percent slopes	Parent material: Alluvium derived from mixed Drainage class: Moderately well drained
Omni Clay, drained	Parent material: Mixed alluvium Drainage class: Poorly drained

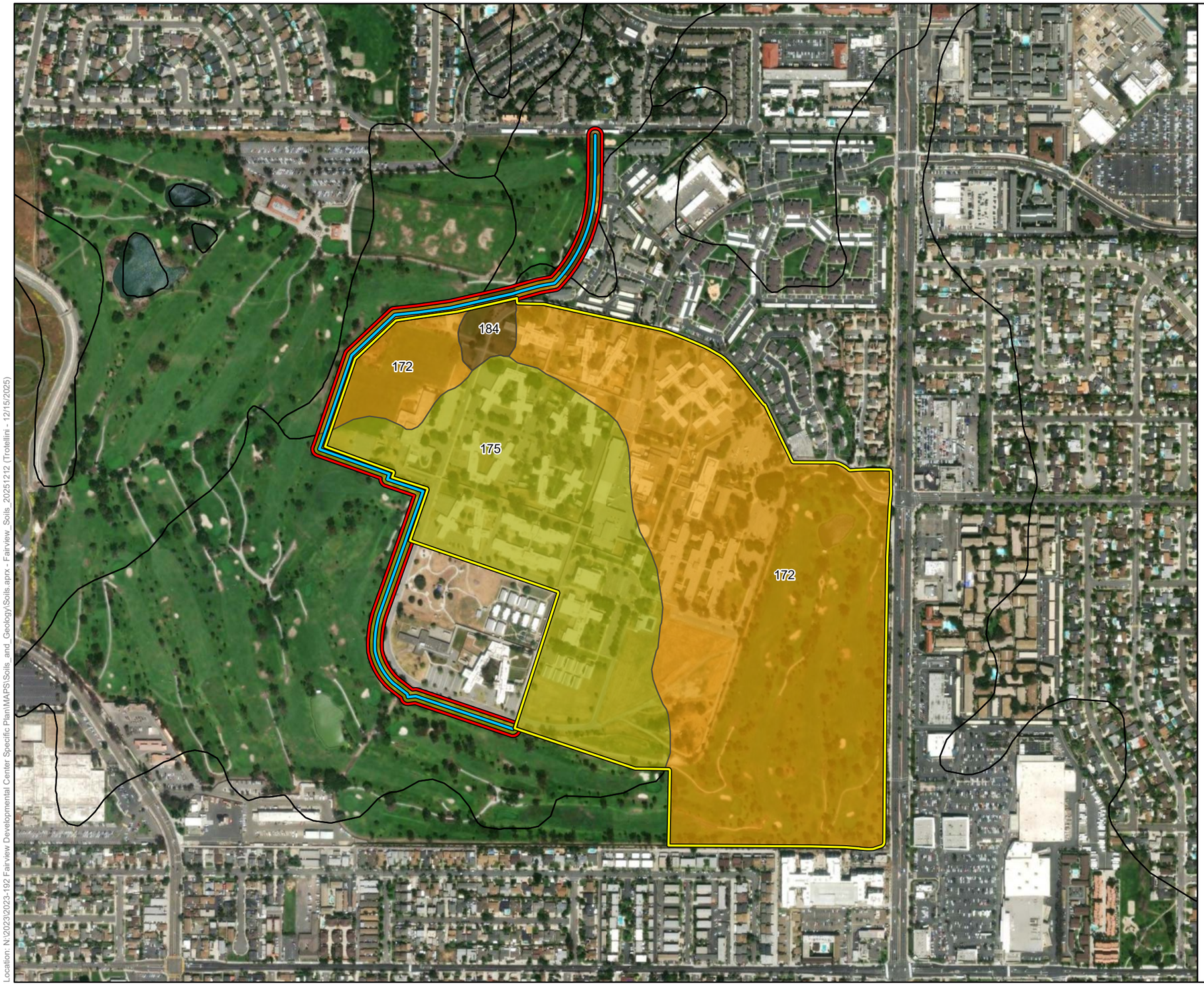
4.3 Aquatic Resources

As detailed in Section 4.2, the desktop review of the NRCS Hydric Soils List did not identify hydric soils within the Project Site (NRCS 2025b). The desktop review of the NWI Mapper (USFWS 2025b) identified one freshwater pond feature within the Project Site. This pond is a human-made concrete lined and irrigated feature located within the Costa Mesa Country Club golf course property. As detailed in Section 3.2.2, ECORP did not conduct a formal aquatic resources delineation during the biological reconnaissance survey.

4.4 Vegetation Communities and Land Cover Types

ECORP biologists characterized and mapped one vegetation community during the biological reconnaissance survey, Annual Brome Grassland (*Bromus spp*. Herbaceous Semi-Natural Alliance). The biologists characterized and mapped four land cover types within the Project Site: disturbed, developed, open water, and landscaped. Figure 4 shows the vegetation community and land cover types within the Project Site. Table 3 lists the acreage for the vegetation community and land cover types that occur within

the Project Site. The following sections summarize the vegetation community and land cover type that occurs within the Project Site.



Map Features

- Project Site (134.28 Acres)
- Shelley Circle Trail 30-ft Buffer (6.33 Acres)
- Shelley Circle Trail

Series Number - Series Name

- 172 - Myford sandy loam, 0 to 2 percent slopes
- 175 - Myford sandy loam, 9 to 15 percent slopes
- 184 - Omni clay, drained

Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Orange County, CA

Sources: ESRI, Vantor (2023)



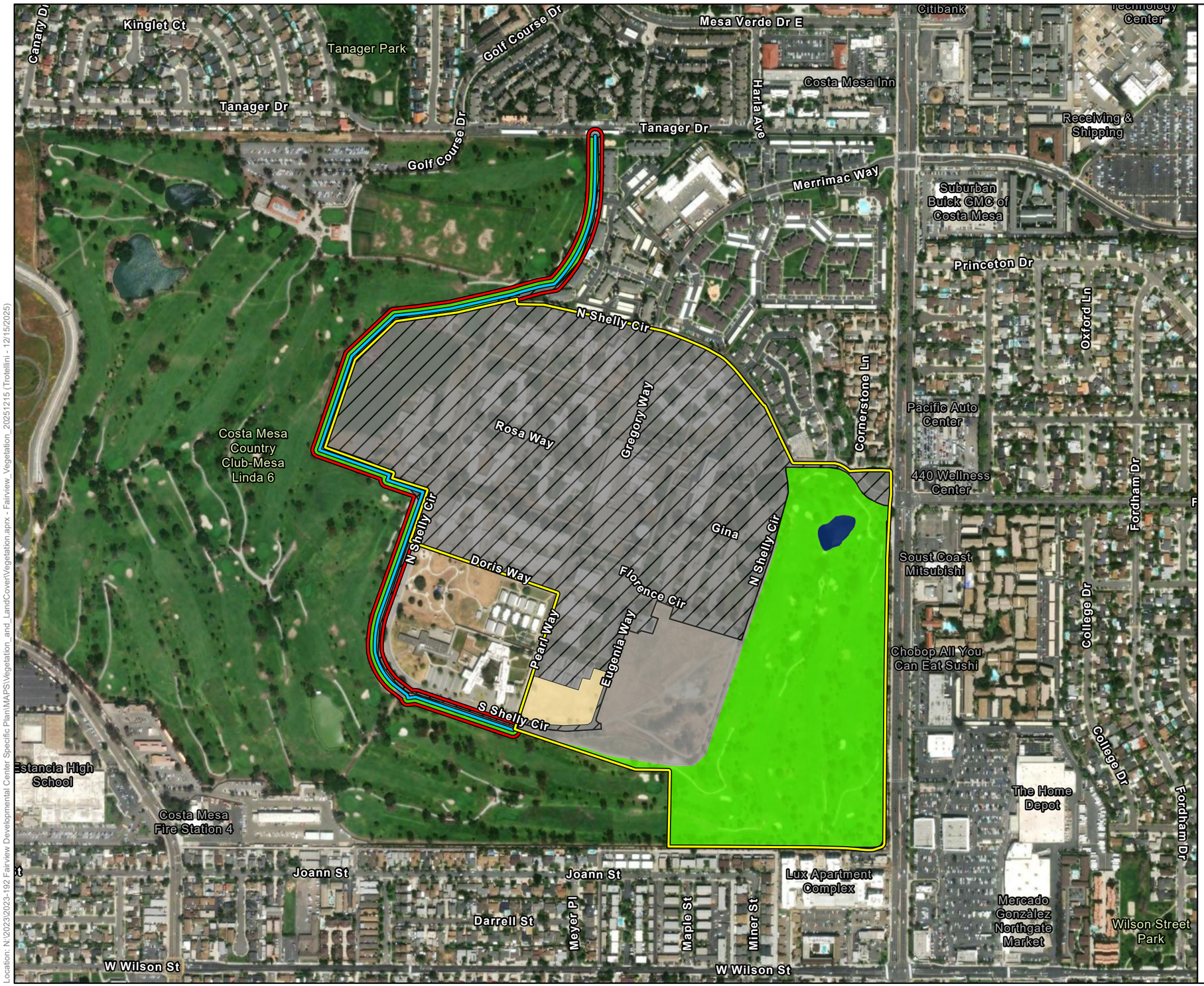
Location: N:\2023\2023-192 Fairview Developmental Center Specific Plan\MAPS\Soils_and_Geology\Soils aprx - Fairview_Soils_20251212 (Trotellini - 12/15/2025)

Map Date: 12/15/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 550

Figure 3. Natural Resources Conservation Service Soils
2023-192 Fairview Development Center Project



Map Contents

- Project Site (134.28 Acres)
- Shelley Circle Trail 30-ft Buffer (6.33 Acres)
- Shelley Circle Trail

Vegetation Communities

- Annual Brome Grassland

Land Cover Types

- Developed
- Disturbed
- Landscaped
- Open Water

Sources: ESRI, Vantor (2023)



Location: N:\2023\2023-192 Fairview Developmental Center Specific Plan\MAPS\Vegetation_and_LandCover\Vegetation.aprx - Fairview_Vegetation_20251215 (Trotellini - 12/15/2025)

Map Date: 12/15/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 550

Figure 4. Vegetation Communities and Land Cover Types

2023-192 Fairview Development Center Project

Table 3. Vegetation Community and Land Cover Acreages	
Vegetation Community/Land Cover Type	**Project Site Acreages**
Annual Brome Grassland	2.13
Disturbed	13.35
Developed	81.31
Open Water	0.58
Landscaped	43.24
Total	**140.61**

4.4.1 Annual Brome Grassland

ECORP biologists observed one vegetation community within the Project Site: annual brome grassland (*Bromus* spp. Semi-Natural Herbaceous Stands). The areas mapped as annual brome grassland within the Project Site are largely devoid of native vegetation due to maintained (mowed) conditions; as such, the biologists classified them as disturbed. The annual grassland is present in the southern portion of the Project Site and is primarily dominated by brome grasses (*Bromus* spp.). Other plants observed in this community include Russian thistle (*Salsola tragus*), Bermuda grass (*Cynodon dactylon*), blue foxtail (*Hordeum murinum* ssp. *glaucum*), and short podded mustard (*Hirschfeldia incana*). Non-native, landscaped trees are scattered within the annual brome grasslands, including a stand of eucalyptus in the southeastern portion of the Project Site. The eucalyptus stand does not meet the minimum mapping unit criteria (1-acre; CDFW 2025f) to be mapped independently. CDFW considers annual brome grassland a semi-natural stand, and a global and state rarity rank is not applicable (CDFW 2025f).

4.4.2 Disturbed

The classification *disturbed* is a land cover type, not a vegetation community, and is not restricted by elevation. Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions—such as grading, trash dumping, equipment staging, and off-highway vehicle use—that lack infrastructure associated with development. Disturbed areas may be actively maintained to be free of vegetation or may have been compacted or disked to such a degree that they are mostly or completely devoid of vegetation. During the survey, the southeastern corner of the FDC was part of an active construction site, where much of the ground had been cleared of vegetation and graded; as such, ECORP classified this area as disturbed. ECORP also classified the southern portion of Shelley Circle Trail as disturbed because it is a compact, dirt road used as a corridor for maintenance carts and other vehicles associated with Costa Mesa Country Club golf course operations.

4.4.3 Developed

The classification *developed* is a land cover type, not a vegetation community. Developed lands are those that are heavily affected by human use, including residential homes, commercial or industrial buildings and associated infrastructure, transportation corridors, and associated landscaping. Within developed areas, naturalized vegetation is often relatively sparse and largely consists of ornamental, non-native

species. ECORP classified the FDC, along with the commercial and residential areas, as developed. Some of the areas within the FDC include previously landscaped areas that are now vegetated with a mix of native and non-native herbaceous plant and grass species.

4.4.4 Open Water

The classification *open water* is a land cover type, not a vegetation community, and is not restricted by elevation. Open water areas are those that have surface water present in the form of a river, lake, or other body of water. Within open water areas, vegetation is relatively sparse and limited to species that can tolerate long periods of inundation. A human-made freshwater pond that is concrete lined and supplied by irrigation lines is located in the northeastern portion of the Project Site within the Costa Mesa Country Club golf course.

4.4.5 Landscaped

Landscaped is a land cover type, not a vegetation community, and is not restricted by elevation. The landscaped classification includes areas where the main vegetation is continuous to non-continuous landscaped vegetation, such as ornamental trees, lawn shrubs, and grass; moreover, landscaped areas have little to no vegetation aside from landscaped vegetation. ECORP classified the portion of the Project Site within the Costa Mesa Country Club golf course as landscaped. This area consists mostly of landscaped grass with clusters of ornamental trees and some non-native shrubs in planter areas. ECORP additionally identified landscaped areas within the FDC property and along the Shelley Circle Trail, which has low growing grass cover over the compact dirt road.

4.5 Plants

Plant species observed within the Project Site are generally characteristic of areas disturbed by anthropogenic factors. Within many of the developed and landscaped areas, ECORP observed ornamental shrubs and trees including junipers (*Juniperus* spp), pines (*Pinus* spp), Peruvian pepper tree (*Schinus molle*), eucalyptus, Brazilian pepper tree (*Schinus terebinthifolius*), fan palm (*Washingtonia* spp.), and Chinese elm (*Ulmus parvifolia*).

Due to the disturbed nature of the Project Site, the Project Site represents relatively low-quality habitat for most native plant species, including those that are common. Appendix B provides a full list of plant species observed within the Project Site.

4.6 Wildlife

Wildlife species observed during the survey are generally characteristic of species that have adapted to urban areas. ECORP observed three mammals: California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), and desert cottontail (scat) (*Sylvilagus audubonii*); one reptile: red-eared slider (*Trachemys scripta elegans*); one fish: mosquitofish (*Gambusia affinis*); one butterfly species: monarch (*Danaus plexippus*); and 22 bird species, including northern mockingbird (*Mimus polyglottus*), black phoebe (*Sayornis nigricans*), and mourning dove (*Zenaida macroura*). Appendix C provides a full list of wildlife species observed within and immediately adjacent to the Project Site.

4.7 Special-Status Plants and Wildlife

This section provides details regarding the potential for any special-status plant or wildlife species to occur within the Project Site. The literature review and database search identified 38 special-status plant species and 45 special-status wildlife species that have been previously documented in the vicinity of the Project Site. ECORP generated a list from the results of the literature review and evaluated the Project Site for suitable habitat that could support any of the special-status plant or wildlife species on the list. The Project Site is not located within or adjacent to any USFWS-designated Critical Habitat (USFWS 2025c).

4.7.1 Special-Status Plants

Thirty-eight special-status plant species appeared in the literature review and database searches for the Project Site (CDFW 2025a; CNPS 2025a). Of those 38 species, eight are federally and/or state listed, and four are covered (COV) within the OC NCCP/HCP. ECORP generated a list from the results of the literature review and evaluated the Project Site for suitable habitat that could support any of the special-status plant species on the list. ECORP removed species with a CRPR Plant Rank of 3 or 4 from this analysis because these rankings are considered a review list and a watch list, respectively. As a result of the analysis, ECORP presumes all 38 species absent from the Project Site due to a lack of suitable habitat, and the high level of anthropogenic disturbance within the Project Site. Appendix D provides a table outlining each species, their designations, and the potential for these species to occur within the Project Site.

For the purposes of this study, ECORP limited the results of the literature review to special-status plant species occurring within a seven-quadrangle search of the Project Site. With various habitat types occurring within the seven-quadrangle search—including Fairview Park, the lower Santa Ana River, and coastal dunes and estuaries—several species appeared in the literature review results that have no potential to occur within or near the Project Site. Special-status plant species included in this study are those that are federally and/or state listed and/or those that have been assigned a CRPR by CNPS. Table 4 provides descriptions of the CRPR designations.

Table 4. California Rare Plant Rank Status Designations

List Designation	Definition
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common 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
CBR	Considered but rejected
List Extensions	
.1	Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)

Table 4. California Rare Plant Rank Status Designations	
List Designation	**Definition**
.2	Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Notes: According to the California Native Plant Society (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10, of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

4.7.1.1 Plant Species Presumed Absent

ECORP presumed the following 38 special-status plant species to be absent from the Project Site due to lack of suitable habitat (including elevation and soil), the Project Site being outside the known geographic range for a species, the fragmented nature of the Project Site, and the high level of anthropogenic disturbance present within the Project Site:

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*) – CRPR 1B.1
- Aphanisma (*Aphanisma blitoides*) – CRPR 1B.2
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*) – CRPR 1B.1
- Ventura Marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*) – state and federally listed (Endangered), CRPR 1B.1
- Coulter's saltbush (*Atriplex coulteri*) – CRPR 1B.2
- South coast saltscale (*Atriplex pacifica*) – CRPR 1B.2
- Parish's brittlescale (*Atriplex parishii*) – CRPR 1B.1
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) – CRPR 1B.2
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*) – COV, CRPR 1B.1
- Lucky morning-glory (*Calystegia felix*) – CRPR 1B.1
- Southern tarplant (*Centromadia parryi* ssp. *australis*) – CRPR 1B.1
- Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*) – CRPR 1B.1
- Salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*) – state and federally listed (Endangered), CRPR 1B.1
- Summer holly (*Comarostaphylis diversifolia* ssp. d*iversifolia*) – CRPR 1B.2
- Many-stemmed dudleya (*Dudleya multicaulis*) – CRPR 1B.2

- Laguna Beach dudleya (*Dudleya stolonifera*) – state and federally listed (Threatened), COV, CRPR 1B.2
- Santa Ana River woollystar (*Eryngium aristaulatum* var. *parishii*) – state and federally listed (Endangered), CRPR 1B.1
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*) – state and federally listed (Endangered), CRPR 1B.1
- Cliff spurge (*Euphorbia misera*) – COV, CRPR 2B.2
- Los Angeles sunflower (*Helianthus nuttallii* ssp. p*arishii*) – CRPR 1A
- Mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR 1B.1
- Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*) – CRPR 1B.2
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) – CRPR 1B.1
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) – CRPR 1B.1
- Mud nama (*Nama stenocarpa*) – CRPR 2B.2
- Gambel's water cress (*Nasturtium gambelii*) – state listed (Threatened), federally listed (Endangered), CRPR 1B.1
- Prostrate vernal pool navarretia (*Navarretia prostrata*) – CRPR 1B.2
- Coast woolly-heads (*Nemacaulis denudata* var. *denudata*) – CRPR 1B.2
- California Orcutt grass (*Orcuttia californica*) – state and federally listed (Endangered), CRPR 1B.1
- Allen's pentachaeta (*Pentachaeta aurea* ssp. *allenii*) – CRPR 1B.1
- Brand's star phacelia (*Phacelia stellaris*) – CRPR 1B.1
- Nuttall's scrub oak (*Quercus dumosa*) – COV, CRPR 1B.1
- Sanford's arrowhead (*Sagittaria sanfordii*) – CRPR 1B.2
- Chaparral ragwort (*Senecio aphanactis*) – CRPR 2B.2
- Salt spring checkerbloom (*Sidalcea neomexicana*) – CRPR 2B.2
- Estuary seablite (*Suaeda esteroa*) – CRPR 1B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR 1B.2
- Big-leaved crownbeard (*Verbsina dissita*) – state and federally listed (Threatened), CRPR 1B.1

4.7.2 Special-Status Wildlife

Forty-four special-status wildlife species appeared in the literature review and database searches for the Project Site. Of those 44, 14 are federally and/or state-listed, and two are candidates for State or federal listing. Of the 44 wildlife species identified in the literature review, ECORP observed one species during the biological reconnaissance survey: monarch butterfly (*Danaus plexippus*: pop. 1). Three species have a high potential to occur, two species have a moderate potential to occur, three species have a low potential to occur, and the remaining 35 species are presumed absent from the Project Site. The impact of previous mechanical disturbances, proximity to residential and commercial development, presence of anthropogenic influences, and lack of suitable habitat within the Project Site preclude many of these species from occurring. Appendix E provides a complete list of the 44 wildlife species with details regarding habitat requirements and potential for occurrence designations.

4.7.2.1 Wildlife Species Present within the Project Site

Monarch Butterfly

The California overwintering population of monarch butterfly is federally proposed as threatened. A decision on the listing status is delayed due to other federal priority species; however, on December 12, 2024, USFWS proposed listing the monarch as threatened with a 4(d) rule, meaning the proposed threatened species would receive the same protection under the ESA as an endangered species (USFWS 2024). This species is highly associated with its larval host plant (milkweed [*Asclepias* spp.]) for breeding habitat and as a generalist forager, nectars on a variety of flowering plants and annuals. Most of the monarch overwintering sites in California are located within approximately 1.5 miles of the coast and provide very specific microclimate conditions that include dappled sunlight, fresh water, high humidity, and absence of freezing temperatures (Pelton et.al. 2016). ECORP observed two monarch individuals in flight during the biological reconnaissance survey (Figure 5). Additionally, ECORP identified suitable roosting habitat for the species in the stands of eucalyptus trees observed within the Project Site.

4.7.2.2 Wildlife Species with a High Potential to Occur

Three special-status wildlife species have a high potential to occur within the Project Site. Although ECORP did not observe them within the Project Site during the biological reconnaissance survey, habitat for these species occurs within the Project Site, and known occurrences have been reported in the database within 5 miles of the Project Site.

Crotch's Bumble Bee

CBB is a state candidate for listing as Endangered under the California ESA. (CDFW 2025b). Crotch's bumble bee inhabits open grassland and scrub habitats and occurs primarily in California (Williams et al. 2014). Crotch's bumble bee primarily nests underground, though colony sizes have not been well documented (Williams et al. 2014). This species is a generalist forager and reportedly visits a variety of flowering plants including those in the family Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (Hatfield et al. 2018; Richardson 2017).



Map Contents

- Project Site (134.28 Acres)
- Shelley Circle Trail 30-ft Buffer (6.33 Acres)
- Shelley Circle Trail

Survey Results

- Monarch Butterfly
- Vermilion Flycatcher

Sources: ESRI, Vantor (2023)



Location: N:\2023\2023-192 Fairview Developmental Center Specific Plan\MAPS\Biological_Resources\Biological Resources aprx - Fairview_Bioresults_20251215 (Trotellini - 12/15/2025)

Map Date: 12/12/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 550

Figure 5. Biological Reconnaissance Survey Results

2023-192 Fairview Development Center Project

ECORP observed marginally suitable habitat for CBB in the annual brome grassland habitat within the Project Site. Rodent burrows and a large mulch pile in the grassland provide potential nesting and overwintering habitat for the species; however, most burrows are occupied by members of a very large and active California ground squirrel colony. Non-native plants in the landscaped planters within the Costa Mesa Country Club golf course provide foraging habitat for CBB. ECORP identified two CNDDB records of CBB within 5 miles of the Project Site: the closest record (Occurrence [OCC] #194) was documented in June 1941 and located approximately 1.9 miles south of the Project Site; the most recent record (OCC #392) was documented in June 2020 and located approximately 4.5 miles northwest of the Project Site.

Cooper's Hawk

Cooper's hawk (*Astur cooperii*) is designated as a CDFW Watch List species. (CDFW 2025b). Cooper's hawks are commonly found in deciduous and mixed forests, where they can hunt smaller birds and find suitable nesting sites. Cooper's hawks have adapted to urban environments, often seen in parks, gardens, and residential neighborhoods. They typically build their nests in the forks of tall trees such as pines, oaks, and spruces (Zeiner 1990). During the biological reconnaissance survey, ECORP observed one individual in the parking lot of the Costa Mesa Country Club golf course, approximately 0.16 mile from the Project Site. The tall ornamental trees present within the Project Site provide potential nesting habitat, and the open landscaped and annual brome grassland habitats provide open space for hunting.

Western Burrowing Owl

Western burrowing owl (*Athene cunicularia hypugeaea*) is a state candidate for listing as Endangered under the California ESA and is a CDFW SSC (CDFW 2025b). Western burrowing owls utilize various natural and modified habitats, typically characterized by low-growing vegetation. Suitable western burrowing owl habitat includes, but is not limited to, abandoned and active agricultural use areas, native and non-native grassland, shrub lands with low-density shrub cover, drainage ditches, earthen berms, and disturbed open habitats including vacant lots in close proximity to human habitation. Western burrowing owls use uninhabited mammal burrows from species such as California ground squirrels and will also use natural rock cavities and human-made structures such as debris piles, earthen berms, openings beneath cement or asphalt pavement, or drainage culverts for shelter or nesting sites (Rosenberg et al. 1998).

ECORP observed suitable breeding, foraging, and wintering habitat for western burrowing owl in the annual brome grassland habitat within the Project Site. The grassland habitat is characterized by low-growing, non-native species with a very active colony of California ground squirrels, which provide potential western burrowing owl burrows and an abundance of prey. ECORP identified four CNDDB records of western burrowing owl within 5 miles of the Project Site: the closest record (OCC #874) was documented in 2006 and located approximately 0.4 mile west of the Project Site; the most recent record (OCC #2015) was documented in 2017 and located approximately 2.9 miles west of the Project Site.

4.7.2.3 Wildlife Species with a Moderate Potential to Occur

Two special-status wildlife species have a moderate potential to occur within the Project Site. Although ECORP did not observe them during the biological reconnaissance survey, habitat for these species occurs within the Project Site, and a known occurrence has been reported in the database, but not within 5 miles of the Project Site; or a recently documented observation occurs within 5 miles of the Project Site, and marginal or limited amounts of habitat occurs within the Project Site.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species. This species generally occurs in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. It requires open grasslands, meadows, or marshes for foraging in proximity to isolated, dense-topped trees for nesting and perching.

Marginally suitable nesting habitat is present in the mature trees scattered in the annual brome grassland habitat and in the landscaped areas within the Project Site. The active colony of California ground squirrels provides an abundance of prey. ECORP identified five recent CNDDB records of white-tailed kite within 5 miles of the Project Site: the closest record (OCC #125) was an active nest at Newport Back Bay that was documented in 2007 and located approximately 2.7 miles southeast of the Project Site.

Western Yellow Bat

Western yellow bat (*Lasiurus xanthinus*) is a CDFW SSC (CDFW 2025b). This species occurs in riparian woodlands in arid regions, oak or pinyon-juniper woodlands, and human developed areas. Western yellow bat roost in trees, especially in fan palms with dead fronds.

Suitable roosting habitat is present in the palm trees (with intact skirts) distributed throughout the Project Site. Despite a lack of recent nearby records, habitat strongly associated with this species is present within the Project Site.

4.7.2.4 Wildlife Species with a Low Potential to Occur

The following three species have a low potential to occur within the Project Site, as indicated by one or more of the following: habitat for the species occurs within the Project Site, and a known occurrence has been reported in the database, but not within 5 miles of the Project Site; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Site; or suitable habitat strongly associated with the species occurs, but no records or historic records were found within the database search.

- Riverside fairy shrimp (*Streptocephalus woottoni*) – federally listed (Endangered), COV
- San Diego fairy shrimp (*Branchinecta sandiegonensis*) – federally listed (Endangered), COV
- Western spadefoot (*Spea hammondii*) – Proposed for federal listing (Threatened), CDFW SSC, COV

4.7.2.5 Wildlife Species Presumed Absent

Thirty-five wildlife species were not present within the Project Site during the biological reconnaissance survey, and/or habitat within the Project Site was not present or suitable. Some species had historic or recent sightings; however, due to the lack of suitable habitat within the Project Site, the fragmented nature, and the high level of anthropogenic disturbance present within the Project Site, ECORP presumes these species absent:

- American badger (*Taxidea taxus*) – CDFW SSC
- American peregrine falcon (*Falco peregrinus anatum*) – state and federally listed (Delisted), COV
- Bank swallow (*Riparia riparia*) (nesting) – federally listed (Threatened)
- Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) – state listed (Endangered)
- Big free-tailed bat (*Nyctinomops macrotis*) – CDFW SSC
- Black skimmer (*Rynchops niger*) – CDFW SSC
- California black rail (*Laterallus jamaicensis coturniculus*) – state listed (Threatened) and CDFW Fully Protected)
- California least tern (*Sternula antillarum browni*) – state and federally listed (Endangered) and CDFW Fully Protected
- Coast horned lizard (*Phrynosoma blainvillii*) – CDFW SSC, COV
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) – CDFW SSC, COV
- Coastal California gnatcatcher (*Polioptila californica californica*) – federally listed (Threatened), CDFW SSC, COV
- Grasshopper sparrow (*Ammodramus savannarum*) – CDFW SSC
- Green sea turtle (*Chelonia mydas*) – federally listed (Threatened)
- Least Bell's vireo (*Vireo bellii pusillus*) – state and federally listened (Endangered), COV
- Light-footed Ridgeway's rail (*Rallus longirostris levipes*) – state and federally listed (Endangered) and CDFW Fully Protected
- Mexican long-tongued bat (*Choeronycteris mexicana*) – CDFW SSC
- Pacific pocket mouse (*Perognathus longimembris pacificus*) – federally listed (Endangered), CDFW SSC, COV
- Quino checkerspot butterfly (*Euphydryas editha quino*) – federally listed (Threatened), COV
- Red-diamond rattlesnake (*Crotalus ruber*) – CDFW SSC, COV
- Santa Ana sucker (*Catostomus santaanae*) – federally listed (Threatened) and CDFW SSC

- South coast marsh vole (*Microtus californicus stephensi*) – CDFW SSC
- Southern California legless lizard (*Anniella pallida*) – CDFW SSC
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) – CDFW Watch List, COV
- Southern California saltmarsh shrew (*Sorex ornatus salicornicus*) – CDFW SSC
- Southwestern pond turtle (*Actinemys pallida*) – proposed for federal listing (Threatened) and CDFW SSC
- Steelhead – southern California distinct population segment (*Onchorhynchus mykiss irideus*) – state and federally listed (Endangered)
- Swainson's hawk (*Buteo swainsoni*) – state listed (Threatened)
- Tidewater goby (*Eucyclogobius newberryi*) – federally listed (Endangered) and CDFW SSC
- Tricolored blackbird (*Agelaius tricolor*) (nesting colony)– state listed (Threatened) and CDFW SSC
- Western mastiff bat (*Eumops perotis californicus*) – CDFW SSC
- Western snowy plover (*Anarhynchus nivosus nivosus*) – federally listed (Threatened) and CDFW SSC
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) (nesting)– state listed (Endangered) and federally listed (Threatened)
- Yellow-breasted chat (*Icteria virens*) – CDFW SSC
- Yellow rail (*Coturnicops noveboracensis*) – CDFW SSC
- Yellow warbler (*Setophaga petechia*) – CDFW SSC

4.8 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code occurs throughout the Project Site in the form of landscaped, ornamental, and mature trees of various heights, landscaped shrubs, and buildings. Suitable nesting habitat for ground-nesting bird species, such as mourning doves, also occurs within the Project Site. Due to the presence of suitable nesting habitat, nesting native and migratory birds and raptors could use the Project Site during the nesting bird season (typically February 1 through August 31).

4.9 Wildlife Movement Corridors, Linkages, and Native Wildlife Nursery Sites

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor varies, but corridors may include such areas as greenbelts, refuge systems, channels and flood

control, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat embedded in a dissimilar matrix that connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby supporting genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor usage and wildlife movement patterns vary greatly among species.

ECORP assessed the Project Site for its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. According to CDFW's Biogeographic Information and Observation System online database (CDFW 2025c), the Project Site is located 1.2 miles northeast of Talbert Regional Park, less than 1.0 mile east of Fairview Park, approximately 1.5 miles from the channelized Santa Ana River, and 2.5 miles northwest of Newport Back Bay. CDFW's terrestrial connectivity dataset Areas of Conservation Emphasis (ACE) ranking system ranks the hexagon the Project Site falls in as *ACE Rank 1*. ACE Rank 1 areas have limited connectivity opportunity (CDFW 2025d). A southwestern section of the Project Site falls into a neighboring hexagon with Ace Rank 2. Ace Rank 2 areas are "large blocks of natural habitat where connectivity is generally intact" (CDFW 2025d). The portion of the hexagon that covers the Project Site, however, is part of the Costa Mesa County Golf Club and bordered by residential development; therefore, because the Project Site is bound by physical barriers (roadways) and surrounded by development, it is considered unsuitable to function as a corridor between natural habitat areas. Although the Project Site does allow for the movement of local wildlife, it most likely does not facilitate the regional movement of wildlife because the roadways and surrounding development create a physical barrier. As such, ECORP does not expect impacts to these resources to occur during the development of the Project.

ECORP additionally assessed the Project Site for its ability to function as a native wildlife nursery site and as bat roosting habitat. The biologists documented suitable nesting habitat for bird species within the Project Site. Although ECORP did not conduct a focused bat habitat assessment during the biological reconnaissance survey, buildings observed within the Project Site are mostly active/currently in use, sealed, or not otherwise suitable as bat-roosting habitat. Mature trees scattered throughout the Project Site (including intact palm tree skirts), however, may provide bat roosting habitat. Although the biologists noted no evidence of bat roosting during the biological reconnaissance survey, there is potential for the buildings and trees observed to serve as bat maternity roost sites during the bat maternity season (March 1 through August 31). Maternity roosts are considered protected as native wildlife nursery sites under CEQA.

5.0 IMPACT ANALYSIS

This section discusses the potential impacts to biological resources that could result from implementation of the Proposed Project. Section 6.0 discusses the recommended Avoidance, Minimization, and Mitigation Measures for the Proposed Project.

5.1 Special-Status Species

The literature review and database search identified 38 special-status plant species and 45 special-status wildlife species that could occur within or near the Project Site.

5.1.1 Special-Status Plants

ECORP presumes all 35 plant species identified in the literature review absent due to lack of suitable habitat (including elevation and soil), the Project Site being outside the known geographic range for a species, the fragmented nature of the Project Site, and/or the high level of anthropogenic disturbance present within the Project Site.

5.1.2 Special-Status Wildlife

Of the 44 special-status wildlife species identified in the literature review, ECORP observed one species during the biological reconnaissance survey, determined two species to have a high potential to occur, determined four species to have a moderate potential to occur, determined two species to have a low potential to occur, and presumed the remaining 35 species absent from the Project Site.

5.1.2.1 Wildlife Species Present within the Project Site

ECORP observed one special-status wildlife species (monarch butterfly) within the Project Site during the biological reconnaissance survey.

Monarch Butterfly

The two special-status wildlife species observed during the biological reconnaissance include monarch butterfly, which is federally proposed as Threatened. Suitable habitat for monarch is present within the Project Site; a cluster of eucalyptus trees could provide suitable roosting habitat. As such, additional surveys would be required in order to determine if the species is roosting within the Project Site. Impacts to monarch butterfly would be less than significant with the implementation of focused roost surveys (BIO-1).

5.1.2.2 Wildlife Species with a High Potential to Occur

Three special-status wildlife species have a high potential to occur within the Project Site: CBB, Cooper's hawk and western burrowing owl.

Crotch's Bumble Bee

Suitable habitat for CBB is present throughout the Project Site. As such, additional surveys for this species would be required in order to determine presence/absence of the species within the Project Site. Impacts to CBB would be less than significant with the implementation of focused CBB surveys (BIO-2).

Cooper's Hawk

ECORP observed one Cooper's hawk individual in the parking lot of the Costa Mesa Country Club golf course, approximately 0.16 mile from the Project Site. The tall ornamental trees present within the Project Site provide potential nesting habitat, and the open landscaped and annual brome grassland habitats provide open space for hunting. Impacts to Cooper's hawk would be less than significant with the implementation of pre-construction surveys for nesting birds (BIO-3).

Western Burrowing Owl

Suitable habitat for western burrowing owl is present within the Project Site in the annual brome grassland habitat. California ground squirrel colonies provide suitable burrows and adequate forage for the species. As such, additional surveys for this species would be required in order to determine presence/absence of the species within the Project Site due to the presence of suitable habitat. Impacts to western burrowing owl would be less than significant with the implementation of focused western burrowing owl surveys (BIO-4).

5.1.2.3 Wildlife Species with a Moderate Potential to Occur

Two species have a moderate potential to occur within the Project Site: white-tailed kite and western yellow bat.

White-Tailed Kite

Suitable nesting habitat for white tailed kite is present in the tall ornamental trees within the Project Site. Impacts to white-tailed kite would be less than significant with the implementation of pre-construction surveys for nesting birds (BIO-3).

Western Yellow Bat

Suitable roosting habitat for western yellow bat is present in the palm trees (with intact skirts) scattered throughout the Project Site. Impacts to western yellow bat would be less than significant with the implementation of the bat habitat assessment and bat management plan (BIO-5).

5.1.2.4 Wildlife Species with a Low Potential to Occur or Presumed Absent

ECORP determined the remaining special-status wildlife species analyzed to have a low potential to occur or presumed them absent due to the lack of suitable habitat occurring within the Project Site; as such, these species are not expected to occur within the Project Site, and ECORP does not anticipate impacts to these species to occur as a result of the Proposed Project.

The vegetation located within or near the Project Site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. Ground-disturbing construction activities could directly affect nesting birds and other birds protected by the MBTA and their nests through habitat removal within the Project Site, and indirectly through increased noise, vibrations, and increased human activity if any tree or vegetation removal needs to occur during the bird breeding season. Impacts to sensitive bird species and/or nesting birds would be less than significant with the implementation of preconstruction surveys for nesting birds (BIO-3) as described in Section 7.0.

5.2 Sensitive Natural Communities

ECORP did not observe sensitive natural communities within the Project Site during the biological reconnaissance survey; therefore, ECORP does not anticipate impacts to sensitive natural communities to result from the Proposed Project.

5.3 State or Federally Protected Wetlands and Waters of the United States

The desktop review of the NRCS Hydric Soils List identified no hydric soils within the Project Site (NRCS 2025b). ECORP identified one freshwater pond feature within the Project Site during the desktop review of the NWI Mapper (USFWS 2025b). This pond is a human-made feature on the Costa Mesa Country Club golf course that is concrete lined and irrigated. A formal aquatic resources delineation for the Project Site has not been conducted. Impacts to jurisdictional aquatic resources would be less than significant with the implementation of BIO-6.

5.4 Wildlife Movement Corridors and Native Wildlife Nursery Sites

The Project Site is bound by the Costa Mesa Country Club golf course to the northwest, south, west, and east, and residential and commercial development to the northeast and east along Harbor Boulevard. Although the Project Site does allow for the movement of local wildlife, it most likely does not facilitate the regional movement of wildlife because the roadways and surrounding development create a physical barrier. As such, ECORP does not anticipate impacts to these resources to occur during the development of the Project.

The Project Site was not determined to be a location of a potential wildlife nursery site. No impacts to native wildlife nursery sites are expected to occur as a result of the Project.

5.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Project Site is located in the northwestern portion of the OC NCCP/HCP boundaries. The Project Site is not located within any area designated as Reserve, Conservation Easement, Special Linkage, Existing Use, or Non-Reserve Open Space. The City of Costa Mesa is not a signatory of the OC NCCP/HCP.

6.0 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

This section provides recommendations and/or avoidance, minimization, and mitigation measures that would reduce Proposed Project–related impacts to sensitive biological resources to a less than significant level:

BIO-1 **Overwintering Monarch Monitoring Surveys and Habitat Management Plan.** A minimum of three overwintering surveys shall be conducted by a biologist familiar with the identification of monarchs and overwintering roosts in order to optimize detection of an overwintering grove; one early-season count between mid-October and mid-November; one mid-season count between mid-November and mid-December; and one late-season count between mid-December and mid-January. The survey shall be conducted early in the morning when temperatures are below 55˚F and continue beyond cool morning temperatures in order to detect monarchs as they begin to warm and leave the roost. The number of monarchs and the location at each cluster, as well as the number of monarchs observed in flight,. shall be recorded in addition to start and end time and conditions. Surveys shall not be conducted during inclement conditions (i.e., heavy precipitation, strong winds, and fog).

If the Project Site is determined to support an overwintering monarch colony (defined as greater than or equal to three adult monarch butterflies perched in a single tree during the overwintering season or greater than or equal to five adult monarch butterflies observed in the immediate vicinity of a grove of trees during the overwintering season for purposes of this analysis), a qualified biologist shall prepare a long-term Monarch Butterfly Overwintering Habitat Management Plan in consultation with a qualified monarch biologist. At a minimum, the Monarch Butterfly Overwintering Habitat Management Plan shall include Project-specific protection measures, management, enhancement, and restoration elements, as well as restrictions for pesticide use and restrictions for future plantings of tropical milkweed to reduce pathogens.

BIO-2 **Focused CBB Surveys.** If CBB are still a candidate for listing or have become a listed species, a minimum of three focused CBB surveys shall be conducted within areas identified as potential CBB nectaring and nesting habitat following the timing and methods described in CDFW's *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* (CDFW 2023). Surveys shall be conducted during the colony active period (April through August) the season prior to Project implementation within the Project Site and a 50-foot buffer during appropriate survey conditions to maximize aboveground detection (daylight hours at least 1 hour after sunrise and two hours before sunset when ambient temperatures are between 60°F to 90°F, sustained winds are less than 8 miles per hour, and when the surveyor's shadow can be seen). Surveys shall focus on detection of CBB at foraging patches and shall be at a level to detect CBB nests. Detection of CBB shall be reported to CDFW prior to start of construction, and, if avoidance cannot be achieved, a CBB Avoidance Plan shall be prepared by a qualified biologist, and an application for an Incidental Take Permit would be necessary.

BIO-3 **Pre-Construction Nesting Bird Surveys.** Whenever feasible, any ground-disturbing activities shall be conducted outside of the breeding season for birds (approximately January 15 through August 31 for raptors and February 1 through September 15 for songbirds). This shall avoid violations of the MBTA and California Fish and Game Code Sections 3503, 3503.5, and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the breeding season, a pre-construction survey for nesting birds shall be conducted by a qualified avian biologist who is knowledgeable of the bird species occurring in the region and is experienced surveying for and identifying the common and special-status bird species with potential to occur.

The survey shall occur no more than 3 days prior to the start of ground-disturbing activities. The nesting bird survey shall include the Project Site and adjacent areas (500-foot buffer) where Project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors), are found to be present, avoidance or minimization measures shall be undertaken to avoid potential Project-related impacts. Measures may include seasonal work restrictions or establishment of a non-disturbance buffer around each active nest until nesting has been completed, as determined through periodic nest monitoring by the qualified avian biologist. The size of the non-disturbance buffer shall be determined by the qualified avian biologist. Typically, this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for listed species and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. Once nesting is deemed complete by the qualified avian biologist, work may resume within the buffer.

Multiple pre-construction nesting bird surveys may need to be conducted to account for different Project activities commencing in various areas of the Project Site or to account for any lapse in Project activities during the breeding season.

BIO-4 **Focused Western Burrowing Owl Breeding Season and Pre-Construction Surveys.** Prior to the start of construction, four breeding season surveys for western burrowing owl shall be conducted within areas identified as potential western burrowing owl habitat (the annual brome grassland habitat in the southern portion of the Project Site) following the timing and methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). In accordance with these guidelines, one survey shall be conducted between February 15 and April 15, a minimum of three survey visits, at least three weeks apart, shall be performed between April 15 and July 15, and at least one visit shall be completed after June 15. The surveys shall be conducted by a qualified biologist or team of qualified biologists familiar with the identification of western burrowing owls and owl sign. Pedestrian transects spaced 7 to 20 meters apart shall be walked throughout the annual brome grassland habitat in the southern portion of the Project Site. The qualified biologist(s) shall scan for owls at the start of each transect and every 100 meters. Surveys shall be conducted under suitable weather conditions and at times that provide the highest opportunity for detection for this species

(e.g., between morning civil twilight and 10:00 a.m. or between two hours before sunset until evening civil twilight). Suitable burrows and cavities (e.g., rock cavities, pipes, culverts, and debris piles) 4 inches or greater in diameter detected during surveys shall be examined for western burrowing owl sign (i.e., owl pellets, prints, molting feathers, and abundant insect remains). The locations of all western burrowing owl(s), potentially active burrows, and sign shall be recorded using a GPS device. The results of the survey shall be summarized in a survey report as outlined by CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) and submitted to the City, and owl detections shall be reported directly to CDFW through submittal of CNDDB field survey forms within 45 days of completion of all four surveys and prior to Project implementation.

In addition to focused breeding season surveys, pre-construction surveys for western burrowing owl shall be conducted prior to work beginning within all areas of suitable and marginal habitat identified within the Project Site, regardless of the time of year that construction is scheduled to begin. Survey methods shall follow those outlined within CDFG's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). The surveys shall be conducted by qualified western burrowing owl biologists who are experienced in surveying for and identifying western burrowing owl individuals and their sign. CDFW recommends that two pre-construction surveys take place: one within 14 to 30 days and the second within 24 hours of the start of ground-disturbing activities (including vegetation removal, clearing and grubbing, and grading, etc.). If western burrowing owl have colonized the Project Site prior to the initiation of construction, CDFW shall immediately be informed, and consultation with CDFW shall be required prior to initiating ground disturbance. If unavoidable impacts to the species will occur from the Project, additional avoidance and minimization measures may need to be implemented, such as seasonal restrictions to work activities, and the appropriate permission from CDFW may need to be obtained prior to the start of Project activities. If no western burrowing owl or occupied burrows (with sign) are observed during the pre-construction survey, Project activities may commence, and no additional protection measures would be necessary.

BIO-5 **Bat Habitat Assessment and Bat Management Plan**. Prior to the start of construction, a qualified biologist shall conduct a bat habitat assessment for suitable bat roosting habitat prior to any building demolition or tree-removal activities. The habitat assessment shall be conducted at least one year prior to the initiation of removal/demolition activities. If no suitable roosting habitat is identified, no further measures shall be necessary. If suitable roosting habitat and/or signs of bat use are identified during the assessment, the roosting habitat shall be avoided and consultation with CDFW shall be initiated prior to the commencement of construction activities. A Bat Management Plan shall be prepared and include specific avoidance and minimization measures to reduce impacts to roosting bats. The Project-specific Bat Management Plan may include any of the following, as necessary and appropriate to the findings of the habitat assessment: emergence and/or pre-construction surveys for roosting bats including acoustic monitoring, roost removal timing

and methodology, no-disturbance buffers, passive exclusion of bats, and/or species-specific replacement mitigation habitat.

If trees scheduled for removal/modification (i.e., trimming) or structures (i.e., culverts) are determined to be suitable for bat roosting, or if work is expected to occur within 100 feet of these areas, these activities shall be scheduled outside of the bat maternity season (generally April 1 through August 31) to the greatest extent feasible. Work activities shall occur between September 1 and February 28/29 or when evening temperatures are not below 45°F and rain is not more than 0.50 inch within 24 hours. If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to bat habitat may continue without additional survey efforts. If trees with suitable bat roosting habitat are scheduled for removal during this time frame, removal using the two-step method shall be conducted:

- Vegetation and trees within the area that are not suitable for roosting bats shall be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.
- Two-step tree removal shall occur over 2 consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist, shall be removed first, using chainsaws only (i.e., no dozers or backhoes). The following day (Day 2), the remainder of the tree shall be felled/removed. The intention of this method is to disturb the tree with noise, vibration, and branch removal on Day 1, which should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.
- If tree removal/modification or work within 100 feet of suitable trees or suitable structures must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost shall remain undisturbed until after the maternity season or a qualified biological monitor has determined that the roost is no longer active.

BIO-6 Aquatic Resources Delineation. If construction within the Costa Mesa Country Club golf course would disturb the freshwater pond, prior to the start of construction, a formal aquatic resources delineation shall be conducted by a qualified biologist to delineate the boundaries of all aquatic features present within the Project Site. The aquatic resources delineation shall be conducted in accordance with the methodology outlined in the USACE *Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Ordinary High Water Mark in the Arid West Region of the Western United States* (USACE 2008b). The delineation shall also comply with the standards required by CDFW and RWQCB. If it is determined that potentially regulated aquatic resources are absent from the Project Site, no other measures shall be recommended.

If there are any planned Project-related impacts to potential jurisdictional aquatic features, coordination with the agencies (USACE, RWQCB, and/or CDFW) by the permittee shall be initiated. Depending on the nature of Project activities, authorization for Project impacts may be required, including USACE Section 404, RWQCB Section 401, and/or CDFW Section 1600 permitting. Regulatory agencies may require compensatory mitigation for Project impacts through the permit process. Mitigation could take the form of payment of an in-lieu fee, participation in a mitigation banking program, or some form of onsite or offsite restoration. The exact details of mitigation, such as type, location, and mitigation ratio, shall be determined through consultation with the regulatory agencies during the permitting process.

7.0 BEST MANAGEMENT PRACTICES

The following recommended practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to species that have potential to occur within the Project Site:

- Confine all work activities to a predetermined work area.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater shall be capped while stored within the Project Site.
- Minimize light spillover onto adjacent properties and open space areas and avoid light pollution resulting from the Project by limiting the amount of new exterior light fixtures; specifying that new exterior lighting directs all light downward through use of shielded or full cut-off fixtures;

selecting light fixtures with longer wavelengths (i.e. amber-colored); and/or using motion sensors so that exterior lights turn on and off as needed.

- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the Project Site.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities, including but not limited to the applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Use of rodenticides and herbicides within the Project Site shall be implemented in a manner that reduces the potential for primary or secondary poisoning of non-target species. This is necessary to prevent poisoning of non-target species, including special-status species, and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the EPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide shall be used due to its proven lower risk to predatory wildlife.

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the Project applicant or the applicant's representative and that I have no financial interest in the Project.

Signed: Carter Warwick Date: May 5, 2026

Carter Warwick
Staff Biologist

Signed:  Date: May 5, 2026

Verity Richardson
Staff Biologist

9.0 LITERATURE CITED

Baldwin, B. G., G. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, Eds. 2012. *The Jepson Manual; Vascular Plants of California*, Second Edition. University of California Press. Berkeley.

Bradley, R. D., L. K. Ammerman, R. J. Baker, L. C. Bradley, J. A Cook, R. C. Dowler, C. Jones, D. J Schmidly, F. B. Stangl, Jr., R. A. Van Den Bussche, B. Wursig. 2014. *Revised Checklist of North American Mammals North of Mexico*. Museum of Texas Tech University. https://www.depts.ttu.edu/nsrl/publications/downloads/OP327.pdf. Accessed November 20, 2025.

Calflora. 2025. *Calflora: Information on California plants for education, research and conservation* (web application). The Calflora Database (a non-profit organization). Berkeley, California. https://www.calflora.org/. Accessed November 2025.

California Department of Fish and Game (CDFG). 2012. *Staff Report on Burrowing Owl Mitigation*. March 7.

_____. 1984. *California Endangered Species Act*. Fish and Game Code Section 2050-2085.

California Department of Fish and Wildlife (CDFW). 2025a. *RareFind California Department of Fish and Game Natural Diversity Database* (CNDDB). California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento. Accessed November 11, 2025.

_____. 2025b. *State and Federally Listed Endangered And Threatened Animals of California*. October. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline. Accessed November 11, 2025.

_____. 2025c. *Special Animals List*. October. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed November 11, 2025.

_____. 2025d. *Biogeographic Information and Observation System*. https://wildlife.ca.gov/Data/BIOS. Accessed November 11, 2025.

_____. 2025e. *ACE DATASET FACT SHEET. Terrestrial Connectivity*. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835&inline. Accessed November 11, 2025.

_____. 2025f. *Vegetation Classification and Mapping Program (VegCamp) 2025*. https://wildlife.ca.gov/Data/VegCAMP/. Accessed November 11, 2025.

_____. 2023. *Survey and Considerations for California Endangered Species Act (California ESA) Candidate Bumble Bee Species*. State of California, Natural Resources Agency, Department of Fish and Wildlife. Published June 2023.

_____. 2021. *Lake and Streambed Alteration Program*. https://wildlife.ca.gov/Conservation/Environmental-Review/LSA. Accessed November 20, 2025.

_____. 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline.

California Fish and Game Commission. 2019. *California Fish and Game Commission Notice of Findings for Crotch Bumble Bee (Bombus crotchii), Franklin's Bumble Bee (Bombus franklini), Suckley Cuckoo Bumble Bee (Bombus suckleyi), and Western Bumble Bee (Bombus occidentalis occidentalis)*. June 18. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=170351&inline.

California Native Plant Society (CNPS). 2025a. *Inventory of Rare and Endangered Plants of California* (online edition, v9.5). Sacramento. http://www.rareplants.cnps.org. Accessed November 11, 2025.

_____. 2025b. *A Manual of California Vegetation*, Online Edition. http://www.cnps.org/cnps/vegetation/. Sacramento. Accessed November 11, 2025.

Chesser, R. T., S. M. Billerman, K. J. Burns, C. Cicero, J. L. Dunn, B. E. Hernández-Baños, R. A. Jiménez, O. Johnson, N. A. Mason, P. C. Rasmussen. 2025. *Check-list of North American Birds* (online). American Ornithological Society. https://doi.org/10.1093/ornithology/ukaf015. Accessed November 20, 2025.

City of Costa Mesa. 2015. *2015–2035 General Plan*. City of Costa Mesa, Development Services Department. Accessed November 2023. https://www.costamesaca.gov/government/departments-and-divisions/economic-and-development-services/planning/general-plan/2015-2035-general-plan.

County of Orange. 1996. *Natural Community Conservation Plan & Habitat Conservation Plan, County of Orange, Central & Coastal Subregion Parts I &II: NCCP/HCP*. https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans/Orange-Coastal.

ECORP Consulting, Inc. (ECORP). 2024. *Biological Resources Existing Conditions Report for the Fairview Development Center,* Orange County, *California*. January (revised April).

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.

Hatfield, R., S. Jepsen, S. F. Jordan, M. Blackburn, A. Code. 2018. *Petition to List Four Species of Bumble Bees as Endangered Species under the California Endangered Species Act.* Submitted by The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety.

Jepson Flora Project (eds.). 2025. *Jepson eFlora*. https://ucjeps.berkeley.edu/eflora/. Accessed November 11, 2025.

Natural Resources Conservation Service (NRCS). 2025a. *Web Soil Survey*. http://websoilsurvey.nrcs.usda.gov. Accessed November 11, 2025.

_____. 2025b. *Soil Data Access Hydric Soils List*. https://www.nrcs.usda.gov/publications/query-by-ssa.html. Accessed November 11, 2025.

Pelton, E., S. Jepsen, C. Schultz, C. Fallon, and S. H. Black. 2016. *State of the Monarch Butterfly Overwintering Sites in California*. 40+vi pp. The Xerces Society for Invertebrate Conservation. Portland, Oregon.

Richardson, L. 2017. *Bumble Bees of North America: an Identification Guide*. Unpublished database. Information on database and data contributors. http://www.leifrichardson.org/bbna.html. Accessed November 11, 2025.

Rosenberg, D. K., J. A. Gervais, H. Ober, and D. F. DeSante. 1998. *An adaptive management plan for the burrowing owl population at Naval Air Station Lemoore, California, USA*. Publication 95, Institute for Bird Populations, P.O. Box 1346, Pt. Reyes Station, CA 94956.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation*, 2nd ed. California Native Plant Society, Sacramento.

Skinner, M. W., and B. M. Pavlik, eds. 1994. *California Native Plant Society's inventory of rare and endangered vascular plants of California*. Fifth edition. Spec. Publ. No. 1, California Native Plant Society, Sacramento, 338 pp.

Society for the Study of Amphibians and Reptiles. 2025. *Scientific and Standard English Names of Amphibians and Reptiles of North American North of Mexico, With Comments Regarding Confidence in our Understanding*. Eighth Edition. Committee on Standard English and Scientific Names. https://webapps.fhsu.edu/ksHerp/bibFiles/32018.pdf. Accessed November 6, 2025.

State Water Resources Control Board. 2021. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.* April.

U.S. Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. U.S. Army Engineer Research and Development Center. Vicksburg, Mississippi.

_____. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. R. W. Lichvar and S. M McColley. ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center. Hanover, New Hampshire.

U.S. Fish and Wildlife Service (USFWS). 2025a. *Information for Planning and Consultation* (IPaC). https://ipac.ecosphere.fws.gov/. Accessed October 17, 2025.

_____. 2025b. *National Wetlands Inventory Mapper*. https://www.fws.gov/wetlands/data/mapper.html. Accessed November 11, 2025.

_____. 2025c. *Critical Habitat Mapper*. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed November 3, 2025.

_____. 2024. *Fish and Wildlife Service Proposes Endangered Species Act Protection for Monarch Butterfly; Urges Increased Public Engagement to Help Save the Species*. December 10.

https://www.fws.gov/press-release/2024-12/monarch-butterfly-proposed-endangered-species-act-protection. Accessed November 11, 2025.

_____. 1918. *Migratory Bird Treaty Act*. Section 16 of the U.S. Code (703-712), as amended 1989.

U.S. Geological Survey (USGS). 2025. *National Hydrology Dataset*. https://www.arcgis.com/home/webmap/viewer.html?url=https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlus_HR/MapServer&source=sd. Accessed November 11, 2025.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. 2014. *The Bumble Bees of North America: An Identification Guide*. Princeton University Press, Princeton.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White, eds. 1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento.

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Appendix D – Special-Status Plant Species Potential for Occurrence

Appendix E – Special-Status Wildlife Species Potential for Occurrence

APPENDIX A

Representative Photographs



Photo 1. Representative Photo of Trees and Buildings in Developed Areas within the Project Site (facing north).



Photo 2. Disturbed Grassland Habitat with active California Ground Squirrel Colony in the Southeastern Portion of the Project Site and to the West of Eugenia Way (facing south).



Photo 3. Landscaped Grass and Ornamental Trees on Costa Mesa Country Club Golf Course in the Southeastern Portion of the Project Site (facing east).



Photo 4. Developed Field in the Western Portion of the Project Site and to the West of N Shelley Circle (facing northeast).



Photo 5. Disturbed Area with Active Construction in the Southeastern Corner of the Project Site (facing north).



Photo 6. Representative Photo of Shelley Circle Trail in the Northern Portion of the Project Site (facing east).



Photo 7. Pond Feature on the Costa Mesa Country Club Golf Course in the Eastern Portion of the Project Site (facing southwest).



Photo 8. Developed Area with Non-Native Grasses within the Project Site at the Eastern Project Site Boundary (facing northeast).

APPENDIX B

Plant Species Observed

Scientific Name	Common Name
GYMNOSPERMS	
CUPRESSACEAE	**CYPRESS FAMILY**
Juniperus sp.	Juniper species
PINACEAE	**PINE FAMILY**
Pinus spp.	Pine species
ANGIOSPERMS (DICOTYLEDONS)	
AIZOACEAE	**ICEPLANT FAMILY**
Carpobrotus spp.*	Iceplant species
ALTINGIACEAE	**SWEET GUM FAMILY**
*Liquidambar styraciflua**	Sweetgum
ANACARDIACEAE	**CASHEW FAMILY**
*Schinus molle**	Peruvian pepper tree
*Schinus terebinthifolius**	Brazilian pepper tree
ARECACEAE	**PALM FAMILY**
Washingtonia spp.	Fan palm
ASTERACEAE	**SUNFLOWER FAMILY**
*Erigeron bonariensis**	Flax-leaved horseweed
BIGNONIACEAE	**BIGNONIA FAMILY**
*Tecoma capensis**	Cape honeysuckle
CACTACEAE	**CACTUS FAMILY**
Opuntia spp.	Cactus species
CHENOPODIACEAE	**CHENOPOD FAMILY**
*Salsola tragus**	Russian thistle
MAGNOLIACEAE	**MAGNOLIA FAMILY**
*Magnolia grandiflora**	Southern magnolia
Eucalyptus spp.*	Eucalyptus species
SIMAROUBACEAE	**QUASSIA FAMILY**
Ailanthus altissima*	Tree of heaven
ULMACEAE	**ELM FAMILY**
*Ulmus parvifolia**	Chinese elm

Scientific Name	Common Name
ANGIOSPERMS (MONOCOTYLEDONS)	
POACEAE	**GRASS FAMILY**
Bromus sp.*	Brome species
Distichlis spicata	Salt grass
*Stipa miliacea**	Smilo grass

Notes: * = not native to California

APPENDIX C

Wildlife Species Observed

Scientific Name	Common Name
INSECTS	
Danaus plexippus [FPT]	Monarch butterfly
FISH	
*Gambusia affinis**	Mosquitofish
REPTILES	
*Trachemys scripta elegans**	Red-eared slider
BIRDS	
*Alopochen aegyptiaca**	Egyptian goose
Anas platyrhynchos	Mallard
Anthus rubescens	American pipit
Astur cooperii	Cooper's hawk
Branta canadensis	Canada goose
Buteo jamaicensis	Red-tailed hawk
Corvus brachyrhynchos	American crow
Fulica americana	American coot
Haemorhous mexicanus	House finch
Junco hyemalis	Dark-eyed junco
Mimus polyglottus	Northern mockingbird
Oxyura jamaicensis	Ruddy duck
*Passer domesticus**	House sparrow
Pyrocephalus obscurus	Vermilion flycatcher
Sayornis nigricans	Black phoebe
Sayorna saya	Say's phoebe
Selasphorus sasin	Allen's hummingbird
Setophaga coronata	Yellow-rumped warbler
Spinus psaltria	Lesser goldfinch
Tyrannus vociferans	Cassin's kingbird
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow
MAMMALS	
Canis latrans	Coyote
Otospermophilus beecheyi	California ground squirrel

Scientific Name	Common Name
Sylvilagus audubonii	Desert cottontail

Notes: * = not native to California

Conservation Status

FPT Federally proposed (threatened)

APPENDIX D

Special-Status Plant Species Potential for Occurrence

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Abronia villosa var. *aurita* chaparral sand-verbena	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Jan-Sep (75-1600)	Occurs in various types of chaparral habitat, coastal scrub, and desert dunes in sandy soils.	*Presumed Absent*. No chaparral, coastal scrub, or desert dune habitat, or suitable sandy soils were present within the Project Site.
Aphanisma blitoides aphanisma	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Feb-Jun (1-305)	Occurs in coastal bluff scrub, coastal dunes, and coastal scrub in sandy or gravelly soils.	*Presumed Absent*. No coastal bluff scrub or coastal scrub habitat, or suitable sandy or gravelly soils were present within the Project Site.
Astragalus hornii var. *hornii* Horn's milk-vetch	Fed: CA: CRPR: NCCP:	none none 1B.1 none	May-Oct (60-850)	Occurs in meadows and seeps and playas. Often found along lake margins in alkaline soils.	*Presumed Absent*. No meadow, seep, playa, or lake margin habitats were present within the Project Site.
Astragalus pycnostachyus var. *lanosissimus* Ventura Marsh milk-vetch	Fed: CA: CRPR: NCCP:	END END 1B.1 none	Jun-Oct (1-35)	Occurs in coastal dunes, coastal scrub, and coastal salt marshes or brackish marshes and swamps along edges. Known from only one natural occurrence.	*Presumed Absent*. No coastal dune, coastal scrub, marsh, or swamp habitats were present within the Project Site.
Atriplex coulteri Coulter's saltbush	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Mar-Oct (3-460)	Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland in alkaline and clay soils.	*Presumed Absent*. No coastal bluff scrub, coastal dune, coastal scrub, or valley and foothill grassland habitats were present within the Project Site.
Atriplex pacifica south coast saltscale	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Mar-Oct (0-140)	Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and playas.	*Presumed Absent*. No coastal bluff scrub, coastal dune, coastal scrub, or playa habitats were present within the Project Site.
Atriplex parishii Parish's brittlescale	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Jun-Oct (25-1900)	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	*Presumed Absent*. No chenopod scrub, playa, or vernal pool habitats were present within the Project Site.
Atriplex serenana var. *davidsonii* Davidson's saltscale	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Oct (10-200)	Occurs in coastal bluff scrub and coastal scrub in alkaline soils.	*Presumed Absent*. No coastal bluff scrub or coastal scrub was present within the Project Site.

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Calochortus weedii var. *intermedius* intermediate mariposa lily	Fed: CA: CRPR: NCCP:	none none 1B.2 COV	May-Jul (105-855)	Occurs in chaparral, coastal scrub, and valley and foothill grassland in rocky, calcareous soils.	*Presumed Absent*. No chaparral, coastal scrub, valley and foothill grassland habitats or rocky calcareous soils were present within the Project Site. Additionally, the Project Site is outside the known elevational range for this species.
Calystegia felix Lucky morning-glory	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Mar-Sep (30-215)	Occurs in meadows, seeps, and riparian scrub.	*Presumed Absent*. No meadow, seep, or riparian scrub habitats were present within the Project Site.
Centromadia parryi ssp. *australis* southern tarplant	Fed: CA: CRPR: NCCP:	none none 1B.1 none	May-Nov (0-480)	Occurs in margins of marshes and swamps, in vernal mesic valley and foothill grassland, and vernal pools.	*Presumed Absent*. No marsh, swamp, vernal mesic valley and foothill grassland, or vernal pool habitats were present within the Project Site.
Chaenactis glabriuscula var. *orcuttiana* Orcutt's pincushion	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Jan-Aug (0-100)	Occurs in sandy soils in coastal bluff scrub and in coastal dunes.	*Presumed Absent*. No coastal bluff scrub or coastal dune habitats were present within the Project Site.
Chloropyron maritimum ssp. *maritimum* salt marsh bird's-beak	Fed: CA: CRPR: NCCP:	END END 1B.2 none	May-Oct (0-30)	Occurs in coastal dunes and in coastal salt marshes and swamps.	*Presumed Absent*. No coastal dune or coastal salt marsh/swamp habitats were present within the Project Site.
Comarostaphylis diversifolia ssp. *diversifolia* summer holly	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Jun (30-790)	Occurs in chaparral or cismontane woodland.	*Presumed Absent*. No chaparral or cismontane woodland habitats were present within the Project Site.
Dudleya multicaulis many-stemmed dudleya	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Jul (15-790)	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in clay soils.	*Presumed Absent*. No chaparral, coastal scrub, or valley and foothill grassland habitats were present within the Project Site.

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Dudleya stolonifera Laguna Beach dudleya	Fed: CA: CRPR: NCCP:	THR THR 1B.1 COV	May-Jul (10-260)	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland in rocky soils. Known from fewer than 10 occurrences near Laguna Beach.	*Presumed Absent*. No chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats or rocky soils were present within the Project Site.
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	Fed: CA: CRPR: NCCP:	END END 1B.1 none	Apr-Sep (91-610)	Occurs in chaparral and alluvial fan coastal scrub in sandy or gravelly soils.	*Presumed Absent*. No chaparral or alluvial fan coastal scrub habitats were present within the Project Site. Additionally, soils within the Project Site were disturbed and compacted due to development.
Eryngium aristulatum var. *parishii* San Diego button-celery	Fed: CA: CRPR: NCCP:	END END 1B.1 none	Apr-Jun (20-620)	Occurs in coastal scrub, valley and foothill grassland, and vernal pools in mesic soils.	*Presumed Absent*. No coastal scrub, valley and foothill grassland, or vernal pool habitats were present within the Project Site.
Euphorbia misera cliff spurge	Fed: CA: CRPR: NCCP:	none none 2B.2 COV	Dec-Oct (10-500)	Occurs in coastal bluff scrub, coastal scrub, and Mojavean desert scrub in rocky soils.	*Presumed Absent*. No coastal bluff scrub, coastal scrub, or Mojavean desert scrub habitats or rocky soils were present within the Project Site.
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	Fed: CA: CRPR: NCCP:	none none 1A none	Aug-Oct (10-1675)	Occurs in coastal salt and freshwater marshes and swamps. Last seen in 1937.	*Presumed Absent*. No coastal marsh or swamp habitat was present within the Project Site.
Horkelia cuneata var. *puberula* mesa horkelia	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Feb-Sep (70-810)	Occurs in maritime chaparral, cismontane woodland, and coastal scrub in sandy or gravelly soils.	*Presumed Absent*. No maritime chaparral, cismontane woodland, or coastal scrub habitats were present within the Project Site. No suitable sandy or gravelly soils were present within the Project Site due to disturbed and compacted soils associated with development.

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Isocoma menziesii var. *decumbens* decumbent goldenbush	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Nov (10-135)	Occurs in chaparral and coastal scrub in sandy, often disturbed areas.	*Presumed Absent*. No chaparral or coastal scrub habitats were present within the Project Site. Additionally, no recent CNDDB records of the species were identified within 5 miles of the Project Site.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Feb-Jun (1-1220)	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	*Presumed Absent*. No coastal salt marsh and swamp, playa, or vernal pool habitats were present within the Project Site.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	Fed: CA: CRPR: NCCP:	none none 4.3 none	Jan-Jul (1-885)	Occurs in chaparral and coastal scrub habitats.	*Presumed Absent*. No chaparral or coastal scrub habitats were present within the Project Site.
Nama stenocarpa mud nama	Fed: CA: CRPR: NCCP:	none none 2B.2 none	Mar-Oct (5-500)	Occurs in wetland-riparian, freshwater wetlands, swamps and marshes.	*Presumed Absent*. One historic CNDDB record (Occ #17) was identified 0.3 mile west of the Project Site, however, no suitable wetland riparian, wetland, or swamp and marsh habitats were present within the Project Site.
Nasturtium gambelii Gambel's water cress	Fed: CA: CRPR: NCCP:	END THR 1B.1 none	Apr-Oct (5-330)	Occurs in marshes and swamps (brackish, freshwater).	*Presumed Absent*. Two historic CNDDB records (Occ # 13 and 17) were identified during the database search within 5 miles of the Project Site, however, no suitable marsh and swamp habitats were present within the Project Site.
Navarretia prostrata prostrate vernal pool navarretia	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Jul (3-1210)	Occurs in coastal sage scrub, wetland-riparian, meadows and seeps, valley and foothill grassland, and vernal pools.	*Presumed Absent*. No coastal sage scrub, wetland-riparian, meadow and seep, valley and foothill grassland, or vernal pool habitats were present within the Project Site.

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Nemacaulis denudata var. *denudata* coast woolly-heads	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Apr-Sep (0-100)	Occurs in coastal dunes and coastal strand.	*Presumed Absent*. No coastal dune or coastal strand habitats were present within the Project Site.
Orcuttia californica California Orcutt grass	Fed: CA: CRPR: NCCP:	END END 1B.1 none	Apr-Aug (15-660)	Occurs in vernal pools, valley grassland, and wetland-riparian.	*Presumed Absent*. No vernal pool, valley grassland, or wetland-riparian habitats were present within the Project Site.
Pentachaeta aurea ssp. *allenii* Allen's pentachaeta	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Mar-Jun (75-529)	Occurs in openings of coastal scrub and valley and foothill grasslands.	*Presumed Absent*. No coastal scrub or valley and foothill grassland habitats were present within the Project Site.
Phacelia stellaris Brand's star phacelia	Fed: CA: CRPR: NCCP:	none none 1B.1 none	Mar-Jun (0-400)	Occurs in coastal dunes, coastal strand, and coastal sage scrub.	*Presumed Absent*. No coastal dune, coastal strand, or coastal sage scrub habitats were present within the Project Site.
Quercus dumosa Nuttall's scrub oak	Fed: CA: CRPR: NCCP:	none none 1B.1 COV	Feb-Apr (15-400)	Occurs in sandy, clay loam soils within closed cone coniferous forest, chaparral, and coastal sage scrub.	*Presumed Absent*. No coniferous forest, chaparral, or coastal sage scrub habitats were present within the Project Site.
Sagittaria sanfordii Sanford's arrowhead	Fed: CA: CRPR: NCCP:	none none 1B.2 none	May-Oct (0-650)	Occurs in shallow freshwater marshes and swamps.	*Presumed Absent*. No suitable marsh or swamp habitats were present within the Project Site.
Senecio aphanactis chaparral ragwort	Fed: CA: CRPR: NCCP:	none none 2B.2 none	Jan-Apr (15-800)	Occurs in northern coastal scrub, coastal sage scrub, foothill woodland, and chaparral.	*Presumed Absent*. No coastal scrub, coastal sage scrub, foothill woodland, or chaparral habitats were present within the Project Site.
Sidalcea neomexicana salt spring checkerbloom	Fed: CA: CRPR: NCCP:	none none 2B.2 none	Mar-Jun (15-1530)	Occurs in alkaline and mesic soils within chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	*Presumed Absent*. No chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, or playa habitats were present within the Project Site.

Scientific Name Common Name	Status		Blooming Period/ Elevation Range (meters)	Habitat Requirements	Potential for Occurrence
Suaeda esteroa estuary seablite	Fed: CA: CRPR: NCCP:	none none 1B.2 none	May-Oct (0-5)	Occurs in coastal salt marsh, and wetland-riparian.	*Presumed Absent*. The Project Site is outside the known elevational range for this species. No coastal salt marsh or wetland riparian habitats were present within the Project Site.
Symphyotrichum defoliatum San Bernardino aster	Fed: CA: CRPR: NCCP:	none none 1B.2 none	Jul-Nov (2-2040)	Occurs near ditches, streams, and springs in cismontane woodland, coastal sage scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland.	*Presumed Absent*. No cismontane woodland, coastal sage scrub, lower montane coniferous forest, meadow and seeps, marsh and swamp, or valley and foothill grassland habitats were present within the Project Site.
Verbesina dissita big-leaved crownbeard	Fed: CA: CRPR: NCCP:	THR THR 1B.1 none	Apr-Jul (45-205)	Occurs in maritime chaparral and coastal sage scrub.	*Presumed Absent*. No maritime chaparral or coastal sage scrub habitats were present within the Project Site.

Notes: CDFW = California Department of Fish and Wildlife; CNDDB = California Natural Diversity Database; CNPS = California Native Plant Society; CRPR = California Rare Plant Rank; NCCP = County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan; USFWS = U.S. Fish and Wildlife Service

Federal Designations
(Federal Endangered Species Act, USFWS)
- END Federally-listed, Endangered
- THR Federally-listed, Threatened
- FC Federal Candidate Species
- FSC Federal Species of Concern
- FPD Federal Proposed for Delisting
- DL: Federally-delisted

State Designations
(California Endangered Species Act, CDFW)
- END State-listed, Endangered
- THR State-listed, Threatened
- RAR State-listed, Rare
- SC State Candidate Species
- SSC California Species of Special Concern
- FP Fully Protected Species

Other Designations:
- COV County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan–Covered

CRPR Designations:

1A Plants presumed extinct in California.
1B Plants rare and endangered in CA and throughout their range.
2 Plants rare, threatened, or endangered in CA but more common elsewhere in their range.
3 Plants about which need more information; a review list.
4 Plants of limited distribution; a watch list.

CRPR List Extensions:

.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Fairly endangered in California (20-80% occurrences threatened)
.3 Not very endangered in CA (<20% of occurrences threatened or no current threats known)

*According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.)

Sources: Calflora. 2025. *Calflora: Information on California plants for education, research and conservation* (web application). The Calflora Database (a non-profit organization). Berkeley, California. https://www.calflora.org/. Accessed November 2025.

California Department of Fish and Wildlife (CDFW). 2025. *RareFind California Department of Fish and Game Natural Diversity Database* (CNDDB). California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento. Accessed November 11, 2025.

California Native Plant Society (CNPS). 2025. *Inventory of Rare and Endangered Plants of California* (online edition, v9.5). Sacramento. http://www.rareplants.cnps.org. Accessed November 11, 2025.

Skinner, M. W., and B. M. Pavlik, eds. 1994. *California Native Plant Society's inventory of rare and endangered vascular plants of California*. Fifth edition. Spec. Publ. No. 1, California Native Plant Society, Sacramento, 338 pp.

U.S. Fish and Wildlife Service (USFWS). 2025a. *Information for Planning and Consultation*. https://ipac.ecosphere.fws.gov/. Accessed October 17, 2025.

APPENDIX E

Special-Status Wildlife Species Potential for Occurrence

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
CRUSTACEANS					
Branchinecta sandiegonensis San Diego fairy shrimp	Fed: CA: NCCP:	END none COV	Restricted to vernal and shallow ephemeral basins in Orange and San Diego Counties.	Yes	*Low*. Ruts in dirt roads and depressions throughout the Plan area were observed holding water during the survey. Two occurrences (OCC# 69 and #11) were documented within one mile of the Project Site, with the most recent recorded in 2017.
Streptocephalus woottoni Riverside fairy shrimp	Fed: CA: NCCP:	END none COV	Occurs in vernal pools, tectonic swales, and earth slump basins in western Riverside, Orange, and San Diego counties in grassland and coastal sage scrub.	Yes	*Low*. Ruts in dirt roads and depressions throughout the Plan area were observed holding water during the survey. One record (OCC# 84) occurred approximately 0.67 miles from the Project Site in 2017.
INSECTS					
Bombus crotchii Crotch's bumble bee	Fed: CA: NCCP:	none CAN none	Occurs in grasslands and shrublands. Nests and overwinters underground, often in abandoned rodent dens, but also rock piles, thatch, fallen logs, and brush piles. Generalist forager but reported food plants include Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia.	Yes	*High*. Marginally suitable habitat was observed within the disturbed (mowed) Annual Brome Grassland habitat in the southern portion of the Project Site. Rodent burrows and a large mulch pile in the grassland provide potential nesting and overwintering habitat for the species. Non-native plants in the landscaped planters on the golf course provide foraging habitat. Two CNDDB records were identified within 5 miles of the Project Site: the closest record (OCC #194) was from June 1941 and located approximately 1.9 miles south of the Project Site. The most recent record (OCC #392) was from June 2020 and located approximately 4.5 miles northwest of the Project Site. Four Bumble Bee Watch records were identified in 2024, approximately 0.5 miles east of the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Danaus plexippus pop. 1 monarch (overwintering population)	Fed: CA: NCCP:	Prop THR none none	Roosts in wind-protected tree groves (coastal California conifer, eucalyptus) from northern Mendocino to Baja California.	Yes	*Present*. Two individuals were observed in flight within the Project Site during the biological reconnaissance. Two recent CNDDB records (OCC #304 and 387) were identified within 5 miles of the Project Site in January 2022: the closest record (OCC #387) was recorded approximately 1.2 miles southwest of the Project Site. One individual was documented by ECORP Consulting, Inc. biologists during the initial site survey in 2023. No CFWO records were identified during the database search. Multiple Western Monarch Milkweed Mapper records were identified within 5 miles of the Project Site, the closest record was of two adults flying and perching in a suburban backyard approximately 0.4 miles northwest of the Project Site on May 2017.
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA: NCCP:	END none COV	Occurs in sunny openings within chaparral and coastal sage scrub in parts of Riverside and San Diego counties. Occurs on hills and mesas along the coast. Requires high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	No	*Presumed Absent*. The Project Site is located in Orange County, and therefore is outside the current known range of the species. Additionally, no chaparral or coastal sage scrub habitat is present within the Project Site.
FISH					
Catostomus santaanae Santa Ana Sucker	Fed: CA: NCCP:	THR SSC none	Pools and runs of creeks and small to medium rivers with cool, shallow, clear, and unpolluted water.	No	*Presumed Absent*. No suitable water features (i.e., rivers, creeks, and drainages) were present within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Eucyclogobius newberryi tidewater goby	Fed: CA: NCCP:	END SSC none	*Low*er reaches of streams, upper portions of large bays, and small coastal lagoons. Occurs in fresh to brackish water.	No	*Presumed Absent*. No suitable water features including bays and lagoons were present within the Project Site.
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	Fed: CA: NCCP:	END END none	Freshwater lagoons, river mouths/tidal rivers, bays/sounds, rivers, and creeks for breeding. Spawning streams are relatively warm. Migrate between freshwater breeding and marine non-breeding habitats. Marine habitat is pelagic and near shore.	No	*Presumed Absent*. No suitable water features (i.e., lagoons, rivers, bays, and creeks) were present within the Project Site.
AMPHIBIANS					
Spea hammondii western spadefoot	Fed: CA: NCCP:	Prop THR SSC COV	Open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, alluvial fans, and grasslands.	Yes	*Low*. Marginally suitable habitat present within the sandy soils within the Project Site. However, soils within the Project Site are mostly disturbed and compacted. Most of the Project Site is developed and regularly of disturbed (regular vegetation removal, vehicle and foot traffic). No CNDDB or CFWO observations recorded within 5 miles of the Project Site.
REPTILES					
Actinemys pallida southwestern pond turtle	Fed: CA: NCCP:	Prop THR SSC none	Ponds, lakes, rivers, streams, marshes, and other water sources with rocky or muddy substrate. Basks on logs, rocks, and exposed banks. Uses upland habitat less than 0.3 miles away for egg laying. Below 6,000' elevation	Yes	*Presumed Absent*. One marginally suitable pond is present within the Project Site located within the golf course. The pond includes exposed banks and accessible upland habitat, though the pond is surrounded by compact, landscaped grass with regular disturbance (mowing, foot and vehicle traffic). Furthermore, the pond is isolated from other water sources within a heavily developed area. The most recent record (OCC #832) was from 1987, 3.6 miles from the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Anniella stebbinsi southern California legless lizard	Fed: CA: NCCP:	none SSC none	Occurs in moist warm loose sandy soil with plant cover. Can occur in sparsely vegetated areas of coastal sand dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, alluvial fans, and stream terraces with sycamores, cottonwoods, or oaks.	No	*Presumed Absent*. No loose sandy soils within the Project Site. Soils within the Project Site are compacted. No suitable sand dune, washes, scrub, chaparral, alluvial fan, stream terraces, or pine-oak woodland habitat was present within the Project Site.
Chelonia mydas green sea turtle	Fed: CA: NCCP:	THR none none	Occur in shallow bays, protected shores, coral reefs, salt marshes, and nearshore seagrass beds.	No	*Presumed Absent*. No suitable water features (i.e., shores or bays) or marshes were present within the Project Site.
Crotalus ruber red-diamond rattlesnake	Fed: CA: NCCP:	none SSC COV	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats.	No	*Presumed Absent*. No suitable chaparral, scrub, or grassland, woodland, or desert habitat was present within the Project Site. The disturbed grassland habitat, in the southern portion of the Project Site is not rocky and the high level of disturbance due to vegetation removal (i.e., mowing), prevalence of nonnative vegetation, and proximity to development make this unsuitable for the species.
Phrynosoma blainvillii Blainville's (coast) horned lizard	Fed: CA: NCCP:	none SSC COV	Open areas of valleys, foothills, and semiarid mountains with sandy soil and low vegetation including chaparral, woodlands, and grasslands.	No	*Presumed Absent*. No sandy soils were present within the Project Site. Soils are disturbed and previously compacted. No suitable chaparral, woodland, or grassland habitat were present within the Project Site.
BIRDS					
Agelaius tricolor tri-color blackbird (nesting colony)	Fed: CA: NCCP:	none THR; SSC none	Freshwater marshes with dense cattails, bulrushes, sedges, and tule. Forages in open habitat such as cultivated fields and pastures.	No	*Presumed Absent*. No suitable marsh habitat was present within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: CA: NCCP:	none none COV	Coastal sage scrub, dominated by California sagebrush, or in coastal bluff scrub with low scattered scrub and moderate to steep, dry, and rocky slopes. Nests on ground or within 1 meter of ground in shrubs or trees. This species thrives in areas that have been recently burned and will stay in such habitats for years.	No	*Presumed Absent*. No suitable sage scrub, bluff scrub, or rocky slope habitat was present within the Project Site.
Ammodramus savannarum grasshopper sparrow	Fed: CA: NCCP:	none SSC none	Grasslands and prairies of moderate height with clusters of scattered shrubs among patches of bare ground.	No	*Presumed Absent*. Grassland habitat is extremely disturbed as it is dominated by low-growing nonnative species and shows evidence of regular mowing activities. Additionally, the vegetation in the disturbed grassland is too short to provide suitable foraging and nesting habitat.
Anarhynchus nivosus nivosus western snowy plover	Fed: CA: NCCP:	THR SSC none	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting. Known protected population in the Tiajuana Estuary.	No	*Presumed Absent*. No beach, pond, or lake habitat was present within the Project Site.
Astur cooperii Cooper's hawk	Fed: CA: NCCP:	none WL none	Occurs within forests and woodlands. Also occurs in neighborhoods and parks. Nests are typically built-in pines, oaks, Douglas-fir, birches, spruces, and other taller trees that occur on flat ground and in dense woods.	Yes	*High*. One individual observed approximately 350 feet from the Project Site. Suitable nesting and foraging habitat present within the Project Site in the ornamental tree clusters and open fields.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA: NCCP:	none CAN/SSC none	Open grasslands including prairies, plains, and savannah, or vacant lots and airports. Nests in abandoned dirt burrows.	Yes	*High*. Suitable breeding, foraging, and wintering habitat was observed within the annual brome grassland habitat within the Project Site. California ground squirrel colonies were observed which provide potential burrowing owl burrows and an abundance of prey. Four recent CNDDB records were identified within 5 miles of the Project Site: the closest record (OCC #874) was from November 2006 and located approximately 0.4 mile west of the Project Site. The most recent record (OCC #2015) was documented in February 2017 and located approximately 2.9 miles west of the Project Site.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA: NCCP:	none THR none	Open pine-oak woodland, savannah, and agricultural fields with scattered trees. Nests in solitary bush or tree, or in small groves. Nesting trees can include willow, black locust, oak, aspen, cottonwood, and conifers.	No	*Presumed Absent*. No suitable woodland, savannah or agricultural field habitat is present within the Project Site. The Project Site is disturbed and developed. Although trees, associated with landscaping, were observed within the Project Site, the proximity to development, and lack of perennial streams within the Project Site likely preclude the species from nesting. Additionally, the breeding population is considered extirpated in Southern California. This species is likely to occur only as a migrant within the Project Site.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	Fed: CA: NCCP:	none SSC COV	The cactus wren is restricted to cactus-dominated stands of coastal sage scrub below 457 meters in elevation on mesas and lower slopes of the coast ranges. They often inhabit areas with cholla, saguaro, and prickly-pear cacti, catclaw acacia, mesquite, whitethorn, desert willow, yucca, palo verde, and other desert shrubs.	No	*Presumed Absent*. No suitable coastal cactus scrub habitat observed within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Coccyzus americanus occidentalis western yellow-billed cuckoo (nesting)	Fed: CA: NCCP:	THR END none	Occur in wooded habitats with dense cover and nearby water. These can be woodlands with low, scrubby vegetation, or dense thickets along streams and marshes. Breed in riparian woodlands of willows, cottonwoods, and mesquite that occur in dense stands. Nests are often placed in willows located along streams with cottonwoods nearby for foraging.	No	*Presumed Absent*. No suitable riparian woodland habitat is present within the Project Site.
Coturnicops noveboracensis yellow rail	Fed: CA: NCCP:	none SSC none	Occurs in grassy freshwater marshlands and meadows. Not found in deeper areas with tall vegetation, such as cattail marshes.	No	*Presumed Absent*. No suitable marsh or meadow habitat present within the Project Site.
Elanus leucurus white-tailed kite	Fed: CA: NCCP:	none FP none	Generally occurs in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Requires open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Yes	*Moderate*. Marginally suitable nesting habitat is present in the form of isolated, mature trees scattered within the disturbed grassland within the Project Site. The active colony of California ground squirrels provides an abundance of prey. Five recent CNDDB records were identified within 5 miles of the Project Site: the closest record (OCC #125) was an active nest at Newport Back Bay from 2007 located approximately 2.7 miles southeast of the Project Site.
Falco peregrinus anatum American peregrine falcon	Fed: CA: NCCP:	DL DL COV	Open habitat such as mountain chains, mudflats, coastlines, and lake edges. Nests on a cliff ledge and sometimes man-made structures or abandoned stick nests.	No	*Presumed Absent*. No suitable nesting habitat (i.e., tall buildings or cliffs) was observed within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Icteria virens yellow-breasted chat	Fed: CA: NCCP:	none SSC none	Riparian and upland thickets, and dry overgrown pastures. Prefers to nest in dense scrub along streams or at the edges of ponds or swamps.	No	*Presumed Absent*. No suitable riparian woodland habitat observed was present within the Project Site.
Laterallus jamaicensis coturniculus California black rail	Fed: CA: NCCP:	none THR/FP none	Coastal and estuarine saltmarshes especially dominated by pickleweed and matted salt grass. Freshwater marshes with shallow and stable water levels and flat shorelines.	No	*Presumed Absent*. No suitable marsh habitat observed was present within the Project Site.
Passerculus sandwichensis beldingi Belding's savannah sparrow	Fed: CA: NCCP:	none END none	Salt marshes especially with pickleweed. Nests on ground at higher levels of marsh, out of the reach of high tides.	No	*Presumed Absent*. No suitable marsh habitat was present within the Project Site.
Polioptila californica californica coastal California gnatcatcher	Fed: CA: NCCP:	THR SSC COV	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub.	No	*Presumed Absent*. No suitable coastal sage scrub habitat was present within the Project Site.
Rallus longirostris levipes light-footed Ridgway's rail	Fed: CA: NCCP:	END END/FP none	Inhabits salt and brackish marshes.	No	*Presumed Absent*. No suitable marsh habitat was present within the Project Site.
Riparia riparia bank swallow	Fed: CA: NCCP:	none THR none	Open and semi-open habitats, such as fields or marshes, often near flowing water. Nests in colonies in vertical banks of sand or dirt along a water body.	No	*Presumed Absent*. No fields or marshes near flowing water was present within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Rynchops niger black skimmer	Fed: CA: NCCP:	none SSC none	Occur in coastal areas with sandy beaches. Nesting birds use open sandy areas, gravel, or shell bars with sparse vegetation, or broad mats of wrack in saltmarsh. Foraging birds frequent tidal waters of bays, estuaries, lagoons, creeks, rivers, ditches, and saltmarsh pools.	No	*Presumed Absent*. No suitable beach or marsh habitat present within the Project Site.
Setophaga petechia yellow warbler	Fed: CA: NCCP:	none SSC none	In southern California, this species breeds in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland.	No	*Presumed Absent*. No suitable riparian woodland habitat present within the Project Site.
Sternula antillarum browni California least tern	Fed: CA: NCCP:	END END/FP none	Inhabits beaches, mudflats, and sand dunes, typically near lagoons or shallow estuaries near the ocean. They roost on the ground in unprotected areas of the coastal environment.	No	*Presumed Absent*. No suitable beach, mudflat, or dun habitat present within the Project Site.
Vireo bellii pusillus least Bell's vireo	Fed: CA: NCCP:	END END COV	Occurs in dense riparian habitats often below 2,000 feet but can also occur up to 4,270 feet. Breeds in low riparian vegetation with a dense understory and stratified canopy along water or dry intermittent streams often composed of southern willow scrub, cottonwood forest, mule fat scrub, alluvial woodland, coast live oak riparian forest, and arroyo willow riparian forest. Forages in adjacent upland habitats.	No	*Presumed Absent*. No riparian habitat present within the Project Site.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
MAMMALS					
Choeronycteris Mexicana mexican long-tongued bat	Fed: CA: NCCP:	none SSC none	Roosts in caves, rock fissures, old mines, and rarely in buildings. Found in desert shrublands, tropical deciduous forests, deep mountain canyons with riparian vegetation, oak-conifer woodlands and forests.	No	*Presumed Absent*. The Specific Plan Area is outside of the known range for the species. No suitable foraging or roosting habitat for the species is present.
Eumops perotis californicus western mastiff bat	Fed: CA: NCCP:	none SSC none	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	No	*Presumed Absent*. No suitable roosting habitat for this species is present within the Project Site. Although buildings are present, they are of insufficient height and the surrounding habitat is not suitable for this species.
Lasiurus xanthius western yellow bat	Fed: CA: NCCP:	none SSC none	Roosts in trees, especially in fan palms with dead fronds. Found in riparian woodlands in arid regions, oak or pinyon-juniper woodlands, and human developed areas.	Yes	*Moderate*. Despite a lack of recent nearby records, habitat strongly associated with this species is present therefore there is a moderate potential to occur.
Microtus californicus stephensi south coast marsh vole	Fed: CA: NCCP:	none SSC none	Occurs in tidal marshes in Los Angeles, Orange and southern Ventura counties.	No	*Presumed Absent*. No suitable marsh habitat is present within the Project Site.
Nyctinomops macrotis big free-tailed bat	Fed: CA: NCCP:	none SSC none	Roosts in cliff crevices, and less often in buildings, caves, and tree cavities. Occurs in rocky areas of rugged and hilly country including woodlands, evergreen forests, river floodplain-arroyo habitats, and desert scrub.	No	*Presumed Absent*. No suitable habitat for this species is present within the Project Site. Although trees and buildings are present, the surrounding habitat is not suitable for this species, and it would be unlikely to utilize these features for roosting.

Scientific Name Common Name	Status		Habitat Requirements	Habitat Present within Project Site	Potential for Occurrence
Perognathus longimembris pacificus pacific pocket mouse	Fed: CA: NCCP:	END SSC COV	Inhabits sandy substrates of coastal sage scrub, coastal dunes, and alluvial plains of marine terraces.	No	*Presumed Absent*. No sage scrub, dunes, or marine terraces within the Project Site.
Sorex ornatus salicornicus southern California saltmarsh shrew	Fed: CA: NCCP:	none SSC none	Dense vegetative ground cover typically in coastal protected nesting sites above mean high tide which are free from inundation, and moist surroundings.	No	*Presumed Absent*. No suitable marsh habitat present within the Project Site.
Taxidea taxus American badger	Fed: CA: NCCP:	none SSC none	Open habitats with friable soil such as grasslands, brushlands with sparse ground cover, open chaparral, and sometimes riparian zones.	No	*Presumed Absent*. No suitable habitat was present within the Project Site. Although friable soil and disturbed grassland habitat with an active ground squirrel colony was present, the Project Site is surrounded by development and regular disturbances (vegetation removal and landscaping activities) likely preclude this species from occurring.

Notes: CCR = California Code of Regulations; CDFW = California Department of Fish and Wildlife; CNDDB = California Natural Diversity Database; DPS = Distinct Population Segment; NCCP = County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan; OCC = Occurrence; USFWS = U.S. Fish and Wildlife Service

Federal Designations:
(Federal Endangered Species Act, USFWS)
- END Federally-listed, Endangered
- THR Federally-listed, Threatened
- FC Federal Candidate Species
- FSC Federal Species of Concern
- FPD Federal Proposed for Delisting
- DL Federally-delisted

State Designations
(California Endangered Species Act, CDFW)
- END State-listed, Endangered
- THR State-listed, Threatened
- CAN State Candidate Species
- SSC California Species of Special Concern
- FP Fully Protected Species (CCR Title 14 Chapter 5 § 460 Furbearing Mammals)
- WL Watch List

Other Designations:
- COV County of Orange Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan–Covered