Appendix 3

Biological Technical Report and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

Biological Technical Report and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis for the Ronald Reagan Park Project

Riverside County, California

Assessor's Parcel Numbers: 376-350-009 and 376-350-017

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
APN	Assessor Parcel Number
BMP	Best Management Practice
BUOW	Burrowing Owl
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DPS	Distinct Population Segment
ECORP	ECORP Consulting, Inc.
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IA	Implementing Agreement
LBVI	Least Bell's vireo
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PQP	Public Quasi-Public
Project	Ronald Reagan Park Project
RCA	Riverside Conservation Authority
RCHCA	Riverside County Habitat Conservation Agency
RCTLMA	Riverside County Transportation and Land Management Agency
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSC	California Species of Special Concern
SWWF	Southwestern Willow Flycatcher
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
YBCU	Yellow-Billed Cuckoo

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey at an approximately 27-acre property for the proposed Ronald Reagan Park Project (Project) in the City of Wildomar in Riverside County. The Project also includes offsite improvement areas. The survey was conducted to identify any potential biological resources that could be affected by the Proposed Project, pursuant to the terms of the California Environmental Quality Act (CEQA) and for the purposes of identifying any biological constraints that would affect the proposed site plan for the Project. The surveys were conducted in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside and outlines goals for their conservation. Information on the MSHCP can be found at www.rctlma.org (Riverside County Transportation and Land Management Agency [RCTLMA] 2023). The Project will be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code.

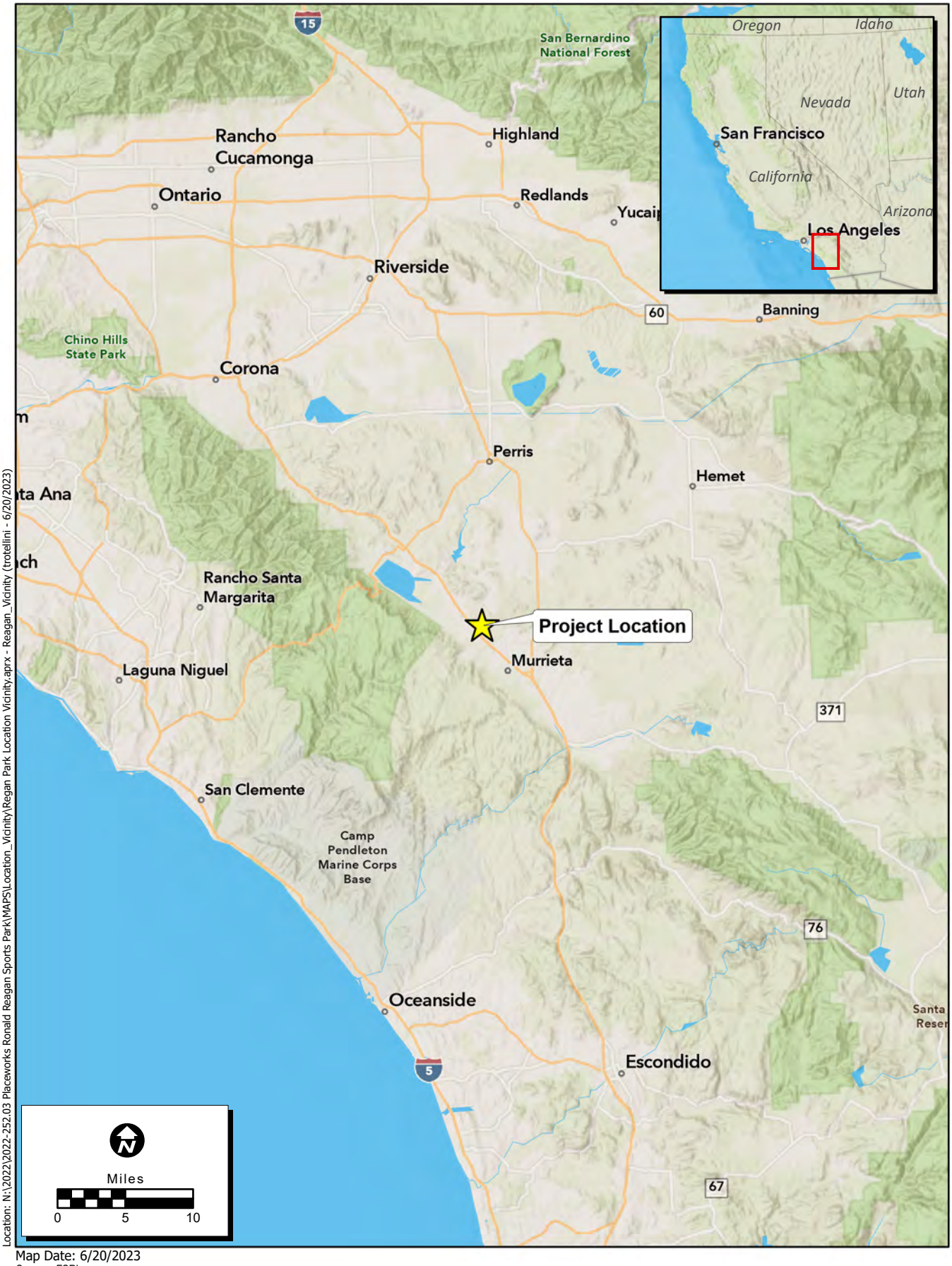
1.1 Project Location

The Project is generally located east of Interstate 15 and north of Clinton Keith Road. The Project Area is located west of Wildomar Trail, north of La Estrella Street, and east of Susan Drive, in the City of Wildomar, Riverside County, California (Figures 1 and 2). The Project Area measures approximately 27 acres and comprises Assessor Parcel Numbers (APNs) 376-350-009 and 376-350-017.

The Project, as depicted on the U.S. Geological Survey (USGS) Murrieta, California 7.5-minute topographic quadrangle map, is located within Section 36 of Township 6 South, Range 4 West. The Project Area is gently sloped with higher elevations in the northeastern corner and lower elevations in the southwestern corner. Elevations range from approximately 1,390 to 1,500 feet (424 to 457 meters) above mean sea level. The Project Area is currently vacant land covered primarily with California buckwheat (*Eriogonum fasciculatum*) scrub within the northern portions, and a mix of non-native black mustard (*Brassica nigra*) and other non-native forbs within the southern portions. Disturbances onsite include several dirt roads used by pedestrians and off-highway vehicles and the presence of off-leash dogs and trash.

1.2 Project Description

The Project proposes to construct a 27-acre park with 221 parking spaces; five driveways (two along Wildomar Trail, one along La Estrella Street, and two along Susan Drive); and amenities, including bike trails and a bike plaza, a fitness plaza, a fire station, a splash pad, playgrounds, volleyball courts, gardens, a community green area, a community center, an amphitheater, shade structures, lookout points, trails, bridge crossings, interpretive signs, bioretention/biofiltration areas, and a connection to Ronald Reagan Elementary School.



Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Location_Vicinity\Regan Park Location Vicinity.aprx - Reagan_Vicinity (trotellini - 6/20/2023)

Map Date: 6/20/2023

Sources: ESRI

Figure 1. Project Vicinity

Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Location_Vicinity\Regan Park Location Vicinity.aprx - Reagan_Location (trotellini - 6/21/2023)

Map Date: 6/21/2023

Sources: ESRI

Figure 2. Project Location

Offsite improvements would include full frontage improvements on La Estrella Street, Susan Drive, and Wildomar Trail, including curb, gutter, sidewalk, and street lighting improvements, as well as pavement widening. The Project would also include sewer and potable water main extensions along both La Estrella Street and Susan Drive. The areas of offsite roadway improvements are not addressed in this Biological Technical Report.

1.3 Terms

The following terms will be used throughout this document and are defined as follows:

- ***Project Area:*** the approximately 27-acre property, comprising APNs 376-350-009 and 376-350-017, assessed during the general biological assessment that will be permanently impacted to construct the park and associated amenities.
- ***Burrowing Owl Study Area:*** includes the Project Area and a 500-foot survey buffer.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

ECORP conducted the biological reconnaissance survey to identify potential constraints to development and to ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The regulations are detailed below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal 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 federal 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 federal ESA, federal agencies are required to consult with the 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, the 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 federal ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The federal MBTA implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As

authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (i.e., 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. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and reviews USACE permit applications.

The USACE regulates *fill* or dredging of fill material within its jurisdictional features. *Fill material* means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Quality Control Board, administered by each of nine California Regional Water Quality Control Boards (RWQCB).

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the federal ESA; however, 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 and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 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 Fish and Wildlife 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 Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 California Fish and Game Code

2.2.4.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW 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." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

2.2.4.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in Sections 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 make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code Section 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.5 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multijurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP identified 146 species, referred to as *Covered Species*, for which the federal and California ESAs *take* authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be *adequately conserved*. The remaining 28 Covered Species will be considered adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in an efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue *take* authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a development mitigation fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with CEQA, National Environmental Policy Act (NEPA), and the federal and California ESAs, will be granted. The development mitigation fee varies according to project size and description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

2.2.6 Stephens' Kangaroo Rat (*Dipodomys stephensi*) Habitat Conservation Plan

The Project Area is located within the Long-Term Stephens' kangaroo rat HCP area. The plan is administered by the Riverside County Habitat Conservation Agency (RCHCA) and aims to conserve 15,000 acres of occupied Stephens' kangaroo rat habitat. To date, more than 46,000 acres have been assembled in western Riverside County for this species. The RCHCA has a Section 10A permit granted by USFWS that allows for take of Stephens' kangaroo rat as part of development activity. The federal ESA defines *take* as any attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct as it relates to Stephens' kangaroo rat. As individual projects are proposed and approved in the Stephens' kangaroo rat HCP area, public and private land developers are required to pay a Stephens' kangaroo rat mitigation fee for land that is developed and removes Stephens' kangaroo rat habitat. This streamlined process benefits developers in the Stephens' kangaroo rat HCP Area because projects within this area do not require individual review and approval by the wildlife agencies.

Developers benefit from the streamlined process in the Stephens' kangaroo rat HCP area because projects within this area do not require individual review and approval by the wildlife agencies. The activities covered by the plan fall into three categories:

1. Actions by private landowners, local and regional public agencies, public and private utilities, and farmers that are otherwise lawful but constitute incidental take of Stephens' kangaroo rat as defined by the federal and California ESA;

2. Establishment and management of permanent Stephens' kangaroo rat reserves by the RCHCA in cooperation with other public agencies and individual landowners; and

3. Implementation by the RCHCA and its member agencies of the conservation, mitigation, and monitoring measures specified in this plan.

The Mitigation Fee is $500 per gross acre of the parcels proposed for development within the Stephens' kangaroo rat HCP Area.

2.2.7 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 expanded Initial Study 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 the 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;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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; and
- conflict with the provisions of an adopted 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 because 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.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2023a) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI; CNPS 2023) to determine the documented special-status plant and wildlife species in the vicinity of the Project Area. ECORP searched CNDDB records within 5 miles of the Project and searched CNPSEI records within the USGS Murrieta, California 7.5-minute topographic quadrangle map. Because the Project lies within the northwest corner of the Murrieta Quadrangle, the adjacent three topographic quadrangles (Lake Elsinore, Romoland, and Wildomar) were also included in the CNPSEI records search. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project. Additional information was gathered from the following sources and includes, but is not limited to:

- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2023);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2023b);
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2023c);
- Special Animals List (CDFW 2023d);
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2023e);
- Information for Planning and Consultation (IPaC) (USFWS 2023a);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (MCV; Sawyer et al. 2009); and
- Various online websites (e.g., CalFlora 2023).

Using this information and field observations, ECORP biologists generated a list of special-status plant and wildlife species that have potential to occur within the Project Area. 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 the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;

- are fully protected by the California Fish and Game Code, Sections 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are covered species under the MSHCP.

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

- **Present:** The species was observed onsite during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Project Area and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs within the Project Area.
- **Low:** Limited or marginal habitat for the species occurs within the Project Area and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.
- **Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist onsite; or the known geographic range of the species does not include the Project Area.

Note: Location information on 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, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

3.2 U.S. Fish and Wildlife Service-Designated Critical Habitat

Biologists reviewed the USFWS online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California to determine if the Project is within any species' designated Critical Habitat (USFWS 2023b).

3.3 Aquatic Resources

ECORP biologists conducted a desktop review of the NRCS Web Soil Survey (NRCS 2023), USFWS National Wetlands Inventory (USFWS 2023c), and the corresponding USGS topographic maps to determine if there were any blue line streams or drainages that might potentially fall under the jurisdiction of either federal or state agencies within the Project Area.

3.4 Western Riverside County MSHCP Consistency Analysis

ECORP reviewed Project data to determine consistency with the MSHCP. Biologists queried the Riverside Conservation Authority (RCA) MSHCP Information Map to determine requirements for habitat assessment(s), potential focused survey(s), or other issues related to biological resources that could exist within the Project Area (RCA 2023a).

Section 6.0 of the MSHCP also requires that an assessment of the Project be completed to identify any potential applicable Project-related effects on biological resources, including riparian/riverine areas, vernal pools, and fairy shrimp. In addition, the MSHCP requires that an Urban/Wildlands Interface analysis be conducted to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas.

3.5 Field Survey

3.5.1 Biological Reconnaissance Survey

Biologists conducted a reconnaissance survey by walking the entire Project Area paying special attention to those areas that could host sensitive vegetation communities or had the potential to provide suitable habitat for special-status species. The biologists documented the plant and wildlife species present within the Project Area and assessed the location and condition of the Project for the potential to provide habitat for special-status plant and wildlife species. The data was recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were taken during the survey to provide visual representation of the various vegetation communities within the Project Area. The biologists examined the Project Area to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. In addition, the biologists mapped the vegetation communities and land cover types present within the Project Area and the 500-foot survey buffer surrounding the Project Area. The following minimum mapping units were used during vegetation mapping: 0.25 acre for sensitive vegetation communities and 1.0 acre for non-sensitive vegetation communities.

ECORP inspected the vegetation communities and habitat conditions to confirm presence and habitat quality of the vegetation found onsite. Where appropriate, biologists utilized descriptions of vegetation communities from the MCV second edition (Sawyer et al. 2009). Any deviations from standard vegetation classifications were made on best professional judgment when areas did not fit into a specific habitat description provided by the MCV. Biologists mapped vegetation communities using field observations and aerial imagery.

ECORP recorded plant and wildlife species including any special-status species that were observed during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (2017), *Check-list of North American Birds* (Chesser et al. 2019), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). ECORP recorded GPS coordinates, the species, location, and habitat in instances where a special-status species was observed.

3.5.2 Burrowing Owl Habitat Assessment and Focused Burrow Survey

The Project is located within the MSHCP Burrowing Owl (BUOW; *Athene cunicularia*) Survey Area (Figure 3) and is subject to the MSHCP burrowing owl survey requirements (RCA 2023a). ECORP conducted a BUOW habitat assessment concurrently with the biological reconnaissance survey to determine the presence of suitable habitat. Biologists walked the Project Area and a 500-foot buffer (Figure 3) to identify the presence of owl habitat, scanning for suitable habitat using binoculars in areas that were inaccessible by foot. ECORP biologists determined that suitable burrowing owl habitat occurs onsite, therefore, a focused burrow survey was performed concurrently with the habitat assessment. All encountered suitable burrows were marked during the May 30 habitat assessment and focused burrow survey.

4.0 RESULTS

The results of the literature review and field survey, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

ECORP conducted the CNDDB, CNPSEI, and IPaC searches on May 22, 2023. The database searches identified 48 special-status plant species and 32 special-status wildlife species that could occur within or near the Project Area. Biologists generated a list from the results of the literature review and evaluated the Project Area for suitable habitat that could support any of the special-status plant or wildlife species on the list.

4.1.2 U.S. Fish and Wildlife Service-Designated Critical Habitat

The Project is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for coastal California gnatcatcher (*Polioptila californica californica*), approximately 0.5 mile northeast of the Project Area (USFWS 2023b).

Map Contents

- Project Area
- 500-ft Buffer
- Potential Burrowing Owl Burrow (No Sign)

Sources: ESRI
Other Related Info if Needed

Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Biological_Resources\Biological Resources.aprx - Reagan_BUOW_Results (trotellini - 6/21/2023)

Map Date: 6/21/2023

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Scale in Feet
0 250

Figure 3. Burrowing Owl Study Area and Potential Burrows

2022-252.03 Placeworks Ronald Reagan Sports Park

4.2 Biological Reconnaissance Survey

ECORP biologists Carley Adams and Verity Richardson conducted the biological reconnaissance survey of the Project Area on May 30, 2023. The results of the biological reconnaissance survey, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below. The biologists surveyed areas of unknown property ownership within the 500-foot buffer surrounding the Project Area from a distance by using binoculars. Table 1 provides summarized weather conditions during the survey.

Table 1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
5/30/2023	0700	1205	57.3	72.4	95	95	0-3	2-5

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

4.2.1 Site Characteristics and Land Use

The Project Area is currently vacant, and the vegetation observed is primarily composed of native scrub and non-native forbs. Dirt roads transect the Project Area and are used by pedestrians and off-highway vehicles. The biologists also observed scattered trash and off-leash dogs within the Project Area. Additionally, areas along the perimeter of the Project Area showed evidence of mechanical disturbance, likely associated with annual weed and fire abatement procedures.

The NRCS Web Soil Survey (2023) identified seven soil types within the Project Area:

- Cieneba sandy loam, 5 to 8 percent slopes
- Cieneba sandy loam, 15 to 50 percent slopes, eroded
- Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- Hanford coarse sandy loam, 2 to 8 percent slopes
- Monserate sandy loam, 0 to 5 percent slopes
- Placentia fine sandy loam, 5 to 15 percent slopes

The Project Area is bounded by Ronald Reagan Elementary School and residential development to the east, an open lot to the north, an open lot and residential development to the south, and low-density rural residences to the west. Representative site photographs are included in Appendix A.

4.2.2 Vegetation Communities and Land Cover Types

ECORP identified two vegetation alliances and one additional land cover type within the Project Area and the 500-foot survey buffer surrounding the Project Area. Detailed descriptions of each of these vegetation/land cover types are described below and depicted on Figure 4. A full list of plant species observed within the Project Area and 500-foot survey buffer is included in Appendix B.

4.2.2.1 California Buckwheat Scrub (Eriogonum fasciculatum Shrubland Alliance)

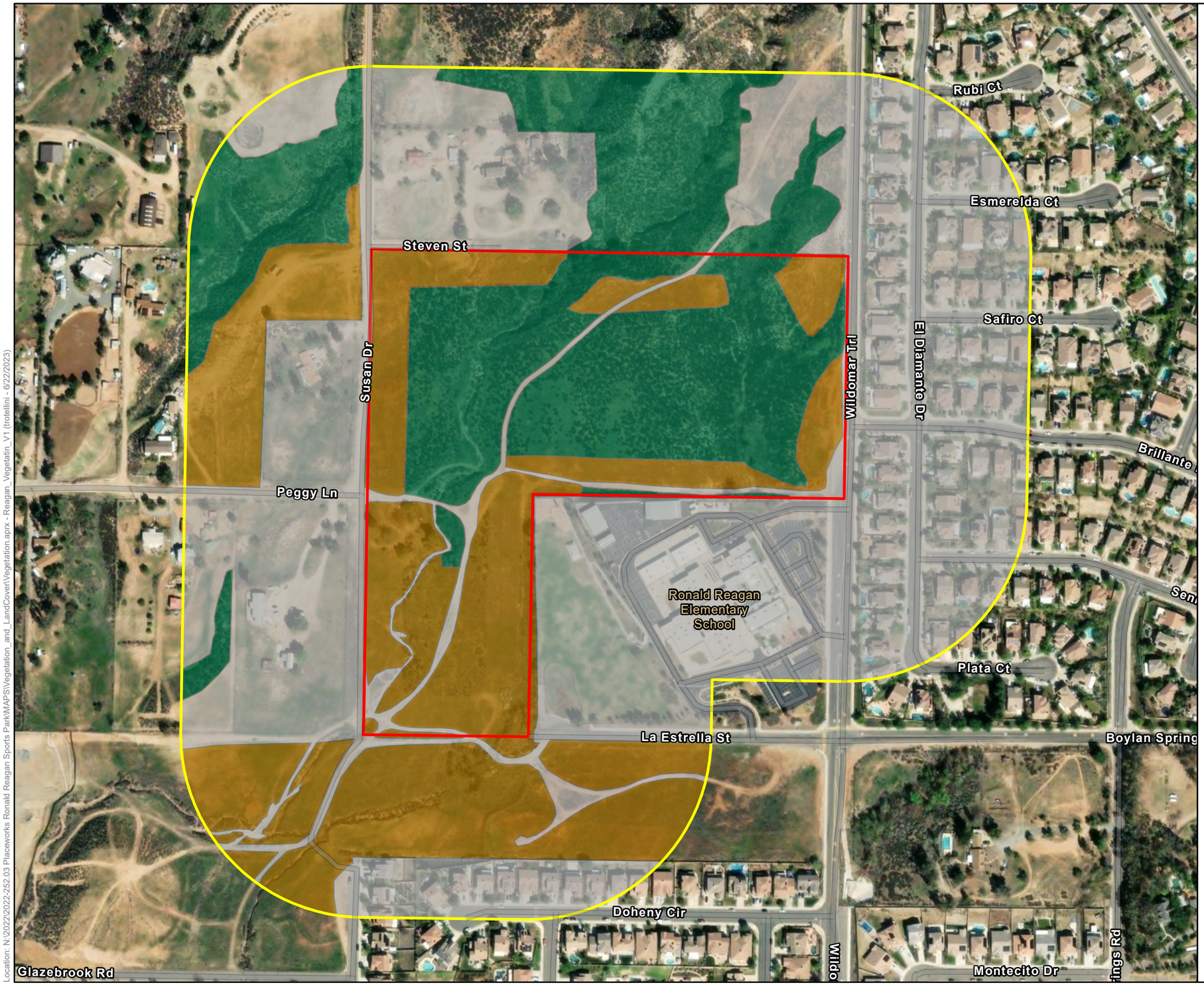
California buckwheat scrub occurs within the northern portions of the Project Area and 500-foot survey buffer. California buckwheat scrub is typically dominated or co-dominated by California buckwheat and consists primarily of shrubs less than 2 meters in height with a continuous to intermittent canopy and the herbaceous layer is variable and may be grassy. The areas mapped as this community type were dominated by California buckwheat, California sagebrush (*Artemisia californica*), deerweed (*Acmispon glaber*), and purple sage (*Salvia leucophylla*). Non-native black mustard was also present in some areas classified as California buckwheat scrub. A small stand of coast live oak (*Quercus agrifolia*) trees is present within this mapped community near the northern boundary of the Project Area; this small area did not meet the minimum mapping unit (described in Section 3.5.1) and was therefore included in this vegetation community type.

4.2.2.2 Upland Mustards (Brassica nigra Herbaceous Semi-Natural Alliance)

Upland mustards occurs throughout the Project Area and along the perimeter of the Project Area. This vegetation community was dominated by a mix of non-native forbs and grasses, including black mustard, stinknet (*Oncosiphon pilulifer*), and foxtail brome (*Bromus madritensis*). Some areas classified as this community type included native species present to a lesser extent such as rod wirelettuce (*Stephanomeria virgata*), giant wildrye (*Elymus condensatus*), deerweed, and turkey-mullein (*Croton setiger*). A few areas of non-native and native trees/shrubs are included in this mapped community because they are too small to meet the minimum mapping unit (described in Section 3.5.1). This includes a small area of non-native Peruvian peppertree (*Schinus molle*) and eucalyptus (*Eucalyptus* sp.) along the western boundary of the Project Area and non-native saltcedar (*Tamarix ramosissima*) along the eastern boundary. Also included is an area of mixed riparian scrub within the southeastern corner of the Project Area extending southward into the 500-foot survey buffer area; this area is dominated primarily by mulefat (*Baccharis salicifolia*), coyote brush (*Baccharis pilularis*), and saltcedar with sparse cover of Fremont cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), and narrowleaf willow (*Salix exigua*).

4.2.2.3 Disturbed/Developed

The disturbed/developed classification includes: (1) areas where the Project Area has been heavily influenced by human actions, such as off-road use, but lacks development, and (2) areas where anthropogenic disturbance has resulted in permanent impacts such as roads, buildings, and other development. Disturbed/developed areas within the Project Area primarily include dirt roads that lack vegetation cover due to their use by vehicles. Disturbed/developed areas outside of the Project Area but within the 500-foot survey buffer include existing residences, a school, and surface streets.



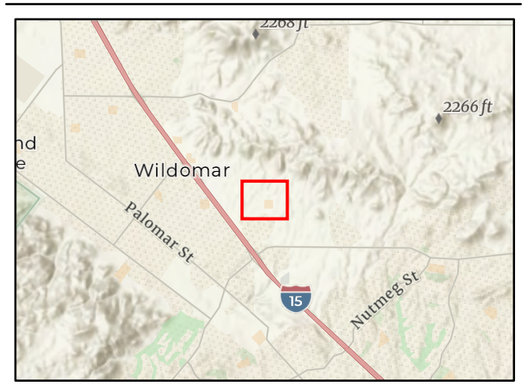
Map Contents

- Project Area
- 500-ft Buffer

Vegetation Communities and Land Cover Types

- California Buckwheat Scrub
- Disturbed/Developed
- Upland Mustards

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Vegetation_and_LandCover\Vegetation.aprx - Reagan_Vegetatin_V1 (frotellini - 6/22/2023)

Map Date: 6/22/2023

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Scale in Feet
0 275

Figure 4. Vegetation Communities and Land Cover Types

2022-252.03 Placeworks Ronald Reagan Sports Park

Disturbed/developed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation.

4.2.3 Plants

Plant species observed within the Project Area were composed of both native and non-native species. Native plant species observed included California buckwheat, California sagebrush, purple sage, coast live oak, and deerweed. Non-native plant species observed included black mustard, foxtail brome, stinknet, saltcedar, and Peruvian peppertree. Appendix B provides a full list of plant species observed on or adjacent to the Project Area.

4.2.4 Wildlife

ECORP biologists observed wildlife species within the Project Area typical of the region. Bird species observed during the reconnaissance survey included red-tailed hawk (*Buteo jamaicensis*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis nigricans*), and mourning dove (*Zenaida macroura*). ECORP observed the following mammal species: desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), and coyote (*Canis latrans*) scat. Appendix C provides a full list of wildlife species observed on or adjacent to the Project Area.

4.2.5 Potential for Special-Status Species to Occur within the Project Area

4.2.5.1 Special-Status Plants

There were 48 special-status plant species that appeared in the literature review and database searches for the Project Area (CDFW 2023a; CNPS 2023). ECORP generated a list from the results of the literature review and evaluated the Project for suitable habitat that could support any of the special-status plant species on the list.

Several species appeared in the literature review results that had no potential to occur on or near the Project Area due to elevational or habitat requirements. Additionally, biologists eliminated CNPS Rare Plant Rank 3 or 4 species from the analysis (unless they are characterized as MSHCP Covered Species) because these rankings are considered a review list and a watch list, respectively. Table 2 provides descriptions of the CNPS designations. Appendix D consists of a table outlining each plant species, designation, and potential for occurrence within the Project Area.

Table 2. CNPS Status Designations

List Designation	Meaning
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

Table 2. CNPS Status Designations	
List Designation	**Meaning**
2B	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Note: 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 (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

4.2.5.2 Plant Species Present within the Project Area

One special-status plant species, paniculate tarplant (*Deinandra paniculata*), was observed in one area of the Project Area during the biological reconnaissance survey. However, paniculate tarplant is a California Rare Plant Rank (CRPR) 4.2 species (limited distribution in California) and is not a species of concern under the MSHCP and CEQA and does not have the same protections that plant species with a rank of 1B.

4.2.5.3 Plant Species with a Moderate Potential to Occur

One plant species, Coulter's matilija poppy (*Romneya coulteri*; CRPR 4.2, MSHCP Covered Species), was found to have a moderate potential to occur within the Project Area. The site provides suitable disturbed sage scrub and rocky drainage habitat, however, there are no records of the species occurring within 5 miles of the Project Area (Appendix D).

4.2.5.4 Plant Species with a Low Potential to Occur

The following nine (9) species have a low potential to occur within the Project Area because limited habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the Project Area or a historic documented occurrence (more than 20 years old) was recorded within 5 miles of the Project Area.

- chaparral sand-verbena (*Abronia villosa* var. *aurita*), CRPR 1B.1
- Payson's jewelflower (*Caulanthus simulans*), CRPR 4.2, MSHCP Covered Species
- smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1, MSHCP Covered Species

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR 1B.1, MSHCP Covered Species
- long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), CRPR 1B.2, MSHCP Covered Species
- San Miguel savory (*Clinopodium chandleri*), CRPR 1B.2, MSHCP Covered Species
- small-flowering morning-glory (*Convolvulus simulans*), CRPR 4.2, MSHCP Covered Species
- Palmer's grapplinghook (*Harpagonella palmeri*), CRPR 4.2, MSHCP Covered Species
- white rabbit-tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2

4.2.5.5 Plant Species Presumed Absent

A total of 37 plant species were presumed absent from the Project Area due to lack of suitable habitat (including elevation and soils) or because the Project Area is located outside of the known range for the species. A table outlining each species, their designations, and potential for occurrence within the Project Area can be found in Appendix D.

4.2.5.6 Special-Status Wildlife

The literature search documented 32 special-status wildlife species occurrences within 5 miles of the Project Area. ECORP generated a list from the results of the literature review and evaluated the Project for suitable habitat that could support any of the special-status wildlife species on the list. A brief natural history and discussion of the special-status wildlife species found to be present onsite or to have a high/moderate potential to occur within the Project Area is provided below. Appendix E provides a table outlining each species, their designations, and potential for occurrence within the Project Area.

4.2.5.7 Wildlife Species Present within the Project Area

No sensitive wildlife species were observed within the Project Area during the biological reconnaissance survey. However, the following species was observed adjacent to the Project Area (within 500 feet).

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally threatened species, a CDFW Species of Special Concern, and an MSHCP Covered Species. Gnatcatchers are specialists of coastal sage scrub habitat, characterized by low-growing, drought-deciduous, and semi-woody shrubs such as California buckwheat, coast brittlebush (*Encelia californica*), and California sagebrush. This species nests in relatively dense stands of coastal sage scrub between approximately mid-February to mid-August. This species was heard calling on a slope just north of the Project Area within native habitat composed of California buckwheat, white sage (*Salvia apiana*), and purple sage. The literature review returned several recent and historic records of occurrences within 5 miles of the Project. USFWS-designated Critical Habitat for the species is located approximately 0.5 mile to the northeast of the Project Area (USFWS 2023b).

4.2.5.8 Wildlife Species with a High Potential to Occur

Two species were found to have a high potential to occur within the Project Area because habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area. The special-status wildlife species with a high potential to occur are listed below and detailed in Appendix E.

- burrowing owl, CDFW SSC, MSHCP Covered Species
- northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), CDFW SSC, MSHCP Covered Species

4.2.5.9 Wildlife Species with a Moderate Potential to Occur

Seven species were found to have a moderate potential to occur within the Project Area because of one of the following factors:

- Although these species were not observed during the biological reconnaissance survey, somewhat suitable habitat for the species occurs onsite, and a known occurrence has been reported in the database, but not within 5 miles of the Project Area; or
- a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or
- a recently documented observation occurs within 5 miles of the Project Area and marginal or limited amounts of habitat occurs onsite.

The special-status wildlife species with a moderate potential are listed below and detailed in Appendix E.

- Bell's sage sparrow (*Artemisiospiza belli belli*), CDFW Watch List Species, MSHCP Covered Species
- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC
- Crotch bumble bee (*Bombus crotchii*), State-listed (candidate)
- loggerhead shrike (*Lanius ludovicianus),* CDFW SSC, MSHCP Covered Species
- red-diamond rattlesnake (*Crotalus ruber)*, CDFW SSC, MSHCP Covered Species
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), CDFW SSC, MSHCP Covered Species
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), CDFW Watch List Species, MSHCP Covered Species

4.2.5.10 Wildlife Species with a Low Potential to Occur

The following seven species have a low potential to occur within the Project Area because of one of the following factors:

- There is limited habitat for the species onsite and a known occurrence has been reported in the database, but not within 5 miles of the Project Area; or
- a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or
- suitable habitat strongly associated with the species occurs onsite, but no records were found in the database search.

The special-status wildlife species with a low potential to occur are listed below and detailed in Appendix E.

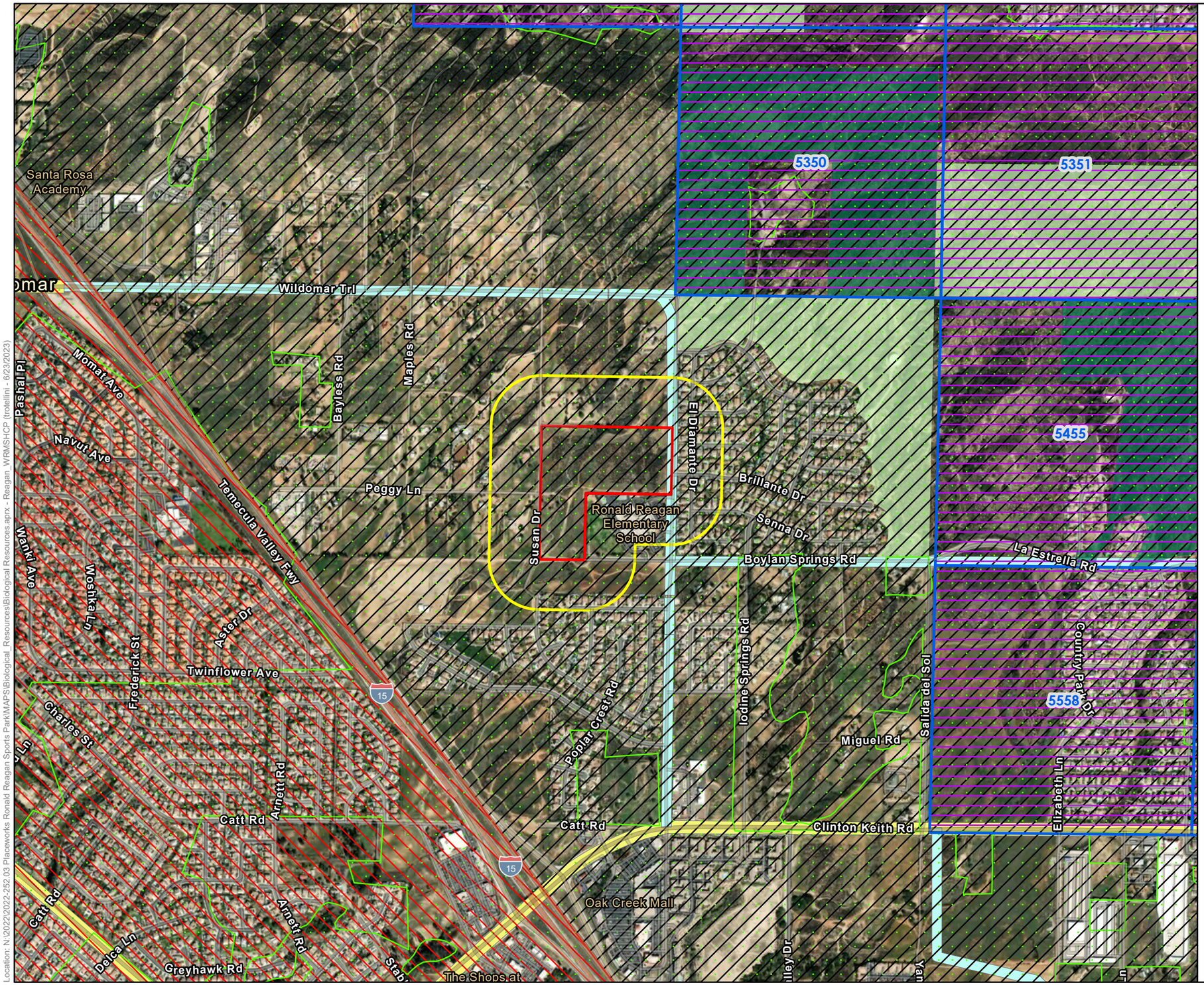
- California horned lark (*Eremophila alpestris actia*), CDFW Watch List species, MSHCP Covered Species
- coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered Species
- coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC, MSHCP Covered Species
- orange-throated whiptail (*Aspidoscelis hyperythra*), CDFW Watch List species, MSHCP Covered Species
- southern California legless lizard (*Anniella stebbinsi*), CDFW SSC
- Stephens' kangaroo rat, federally listed (Endangered), State listed (Threatened), MSHCP Covered Species
- western spadefoot (*Spea hammondii*), CDFW SSC, MSHCP Covered Species

4.2.5.11 Wildlife Species Presumed Absent

A total of 15 species were presumed absent. These species were not present at the Project Area during the biological reconnaissance survey and the habitat present within the Project Area was not suitable to support these species. For some species, there were historic or recent sightings near the Project Area; however, these species are presumed absent due to the lack of suitable habitat within the Project Area. Appendix E outlines each species, their designations, and potential for occurrence within the Project Area.

4.3 Burrowing Owl Habitat Assessment

A BUOW habitat assessment was required because the Project is located within the MSHCP-designated BUOW survey area (Figure 5). ECORP biologists Verity Richardson and Carley Adams conducted the BUOW habitat assessment and focused burrow survey concurrently with the biological reconnaissance survey on May 30, 2023 by within the Burrowing Owl Study Area. Weather conditions during the assessment are summarized in Table 1.



Map Contents

- Project Area
- 500-ft Buffer
- Criteria Cells
- BurrowingOwlSurvey
- Conserved Lands
- Public Quasi-Public (PQP) Conserved Lands

MSHCP Roads Right-of-Way (Covered Road)

- ARTERIAL
- SECONDARY

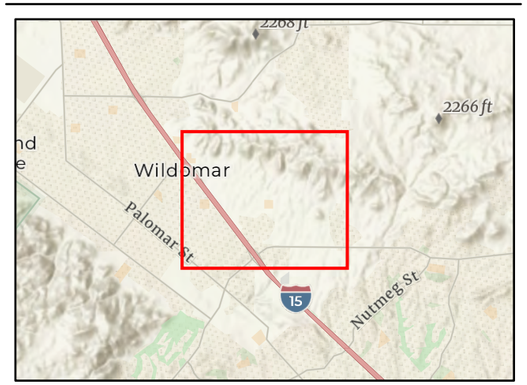
Area Plan Subunits

- SU4 - Sedco Hills

Habitat Managment Unit

- Menifee
- Santa Ana Mountains

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Biological_Resources\Biological Resources aprx - Reagan_WRMSHCP (trotellini - 6/23/2023)

Map Date: 6/23/2023

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Scale in Feet
0 1,000

Figure 5. Western Riverside County MSHCP Designation

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The assessment determined that the Project Area included suitable habitat for BUOW primarily within the southern portions of the Project Area consisting of non-native forbs and grasses on level to gently rolling terrain, with an abundance of active California ground squirrel burrows, a few of which could be suitable for BUOW. Therefore, ECORP conducted a focused burrow survey concurrently with the habitat assessment and recorded potential burrows within the Burrowing Owl Study Area (Figure 3). Protocol-level burrowing owl surveys were not performed by ECORP following the habitat assessment and focused burrow survey.

4.4 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present on and adjacent to the Project Area in some of the larger trees and shrubs. Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. There is potential for nesting to occur within the Project Area due to the presence of suitable nesting habitat.

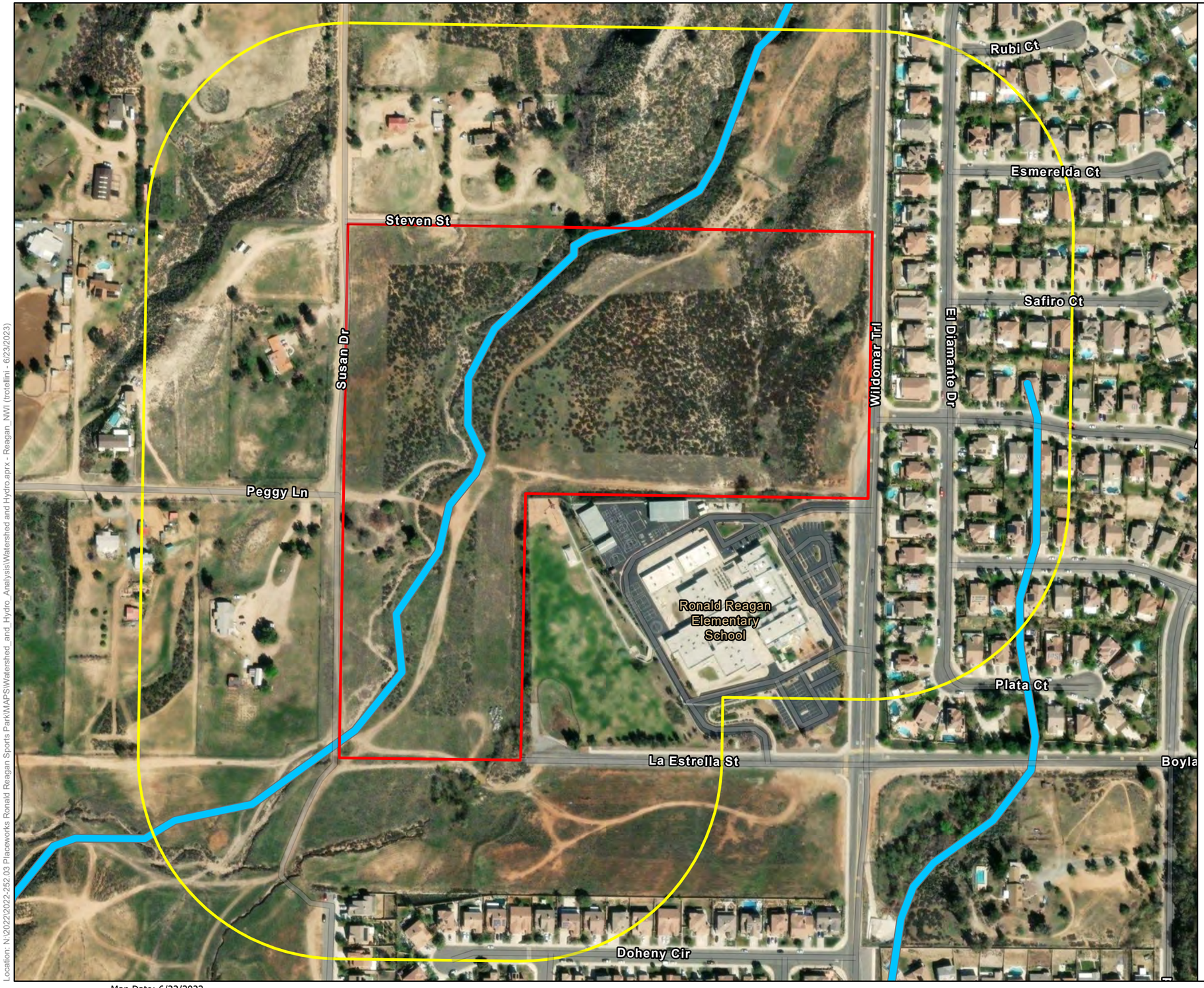
4.5 Aquatic Resources Delineation

ECORP conducted a desktop review to identify potential streams and hydric soils on the property. This entailed examination of the NRCS Web Soil Survey (2023), National Wetland Inventory (NWI) mapping, USGS topographic mapping, and historic and recent aerial imagery of the Project Area to aid in identifying potential biological constraints to the Project due to jurisdictional streams. The NWI identified one drainage feature occurring within the Project Area, which flows into the Project Area from the north and exits near the southwestern corner (Figure 6). Based on the desktop review of topographic mapping and historic and recent aerial imagery, two additional drainage features may occur within the Project Area: (1) a drainage feature appears to occur near the southern boundary of the Project Area beginning at the terminus of La Estrella Street where mulefat thickets occur (refer to Figure 4), and (2) a drainage feature appears to occur within the northeastern portion of the Project Area, flowing in a north to south direction into a culvert.

A formal Aquatic Resources Delineation was not performed by ECORP for the Project.

4.6 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

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 is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which 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.



Map Contents

- Project Area
- 500-ft Buffer

NWI Features

- Riverine

Sources: ESRI

Other Related Info if Needed

Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Watershed_and_Hydro_Analysis\Watershed and Hydro.aprx - Reagan_NWI (trotellini - 6/23/2023)

Map Date: 6/23/2023

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Scale in Feet
0 250

Figure 6. National Wetlands Inventory

2022-252.03 Placeworks Ronald Reagan Sports Park

In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining 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. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

ECORP assessed the Project for its ability to function as a wildlife corridor. The Project likely provides wildlife movement opportunities because it consists of open land and there are undeveloped parcels of land to the north and south of the Project Area. A large open space area occurs north of the Project Area, which includes preserved open space areas managed by the RCA; Wildomar Trail Road and several undeveloped parcels of unknown ownership lie between the Project Area and this large, open space habitat to the north. The Project Area is unlikely to function as a wildlife corridor for this open space habitat as no large open space habitats occur directly south, east, or west of the Project.

The Project Area likely plays a minor role in local wildlife dispersal and foraging. Common wildlife species including coyotes, skunks (*Mephitis mephitis*), opossums (*Didelphis virginiana*), and raccoons (*Procyon lotor*) likely travel through the Project Area and neighboring developed and undeveloped areas, but the Project Area does not provide connectivity between large areas of open space on a local or regional scale.

5.0 IMPACT ANALYSIS

Impacts to sensitive biological resources resulting from construction activities are presented below.

5.1 Limitations of Analysis

This impact analysis is limited to the approximately 27-acre Project Area, comprising APNs 376-350-009 and 376-350-017, which will be permanently impacted to construct the proposed park and associated amenities. Offsite impacts are not addressed.

5.2 Special-Status Species

The literature review and database searches identified 48 special-status plant species. Of these, one species, paniculate tarplant, was observed within the Project Area; however, this species has a CRPR rank of 4.2 (limited distribution in California) and does not have the same protections as plant species with a rank of 1B; therefore, impacts to this species are not considered significant. However, it is recommended, if possible, to avoid impacting the species. In addition, one species, Coulter's matilija poppy, was found to have a moderate potential to occur within the Project Area due to the presence of suitable habitat, however, there are no records of the species occurring within 5 miles of the Project. This species is an MSHCP covered species and a CRPR 4.2 species; thus, additional surveys will not be required. The remaining 46 species were determined to have a low potential to occur onsite or were presumed absent. No additional sensitive plant species were observed during the biological surveys. No impacts to special-status plant or narrow endemic plant species are expected to occur as a result of the Proposed Project within the Project Area.

Of the 32 special-status wildlife species identified in the literature search, one bird species was present during the biological reconnaissance survey just north of the Project Area and within the 500-foot survey buffer: coastal California gnatcatcher (federally listed threatened species and CDFW SSC). Suitable sage scrub habitat for this sensitive bird species occurs within the Project Area. This species is covered under the MSHCP; no additional surveys or mitigation will be required. As the Project Area is not located within a Criteria Area nor within Public Quasi-Public (PQP) lands, there are no seasonal limitations for clearing of suitable gnatcatcher habitat within the Project Area. The Project will be required to conduct a pre-construction nesting bird survey prior to site disturbance, as described in Section 8.0 of this document, to avoid take of any nesting birds.

Two special status wildlife species were determined to have a high potential to occur within the Project Area: BUOW and northwestern San Diego pocket mouse. The San Diego pocket mouse is covered under the MSHCP; no additional surveys or mitigation will be required. The Project is located within a designated survey area under the MSHCP for BUOW and the biological reconnaissance survey and habitat assessment determined that suitable BUOW habitat was present in the BUOW Study Area. If BUOW are present within the Project Area, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Protocol-level surveys for BUOW will need to occur within the Burrowing Owl Study Area to determine presence/absence of the species within and adjacent to the Project Area, as described in Section 8.0 of this document.

Seven special status wildlife species were determined to have moderate potential to occur within the Project Area. Crotch bumble bee has a moderate potential to occur onsite and is listed as a Candidate species under the California ESA. Additional surveys for this species will be required in order to determine presence/absence of the species within the Project Area, as described in Section 8.0 of this document. Five of the special status wildlife species with moderate potential to occur are covered by the MSHCP: Bell's sage sparrow, loggerhead shrike, red-diamond rattlesnake, San Diego black-tailed jackrabbit, and southern California rufous-crowned sparrow. These five species are considered adequately conserved under the MSHCP; no additional surveys or mitigation will be required. California glossy snake has a moderate potential to occur onsite and is a CDFW SSC. Direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur to the species. However, if this species were to be present within the Project Area; they would likely occur in low numbers due to anthropogenic disturbances and lack of connectivity on the Project and Project-related impacts would not contribute to the overall decline of populations of this species. Therefore, no impacts to California glossy snake are anticipated to result from this Project.

The remaining 22 special status wildlife species analyzed were determined to have a low potential to occur or are presumed absent due to the lack of suitable habitat occurring within the Project Area; thus, these species are not expected to occur within the Project Area and impacts to these species are not anticipated as a result of the Proposed Project.

The large eucalyptus trees and other ornamental trees located within or near the Project Area 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 Area, and indirectly

through increased noise, vibrations, and increased human activity if any tree or vegetation removal needs to occur during the bird breeding season (typically January 15 through August 31). Impacts to sensitive bird species and/or nesting birds would be less than significant with the implementation of preconstruction surveys for nesting birds as described in Section 8.0 of this document.

5.3 Sensitive Natural Communities

No sensitive natural communities were observed within the Project Area or surrounding 500-foot survey buffer. No impacts to sensitive natural communities are anticipated to result from the Proposed Project.

5.4 State or Federally Protected Wetlands and Waters of the U.S.

As discussed in Section 4.5 of this document, the NWI identified one drainage within the Project Area and a desktop review of aerial imagery by ECORP identified another two potential drainage features within the Project Area. A formal Aquatic Resources Delineation was not conducted by ECORP as part of this Biological Technical Report. A formal delineation is recommended as further detailed in Section 8.0 of this document.

5.5 Wildlife Corridors and Nursery Sites

The Project likely provides local wildlife movement opportunities because it consists of open land and there are undeveloped parcels of land to the north and south of the Project Area. A large open space area occurs north of the Project Area; however, the Project Area is unlikely to function as a wildlife corridor for this open space habitat because no large open space habitats occur directly south, east, or west of the Project Area. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project Area. No impacts to these resources are expected to occur within the Project Area.

5.6 Habitat Conservation Plans and Natural Community Conservation Plans

The Project is located within the planning area for the Western Riverside MSHCP. The Project is not located within any Conservation Areas. An MSHCP Consistency Analysis is included in Section 6.0, below.

6.0 MSHCP CONSISTENCY ANALYSIS

6.1 Introduction

The purpose of this Consistency Analysis is to summarize the biological data for the Proposed Project and to document the Proposed Project's consistency with the goals and objectives of the MSHCP.

6.1.1 Project Description and Area

The Project is located in the City of Wildomar, Riverside County, California (Figure 1), within APNs 376-350-009 and 376-350-017.

Please refer to Section 1.2 of this document for a Project description. This Consistency Analysis is limited to the approximately 27-acre Project Area composed of the two parcels identified above.

6.1.2 Covered Roads

The Project proposes to widen the following existing streets that surround the two parcels on-site: La Estrella Street, Susan Drive, and Wildomar Trail. The RCA MSHCP Information Map identifies Wildomar Trail as a Covered Road (Secondary) [RCA 2023a]. These offsite roadway improvements were not assessed as part of this Consistency Analysis.

6.1.3 General Setting

The Project is surrounded by a mix of developed and undeveloped land, with residential development and an elementary school to the south and east, undeveloped parcels to the north, and low-density rural residences to the west.

6.2 Reserve Assembly Analysis

The Project is located in the Elsinore Area Plan but not within any Area Plan Subunits with specific target conservation acreages and goals, planning species, biological issues and considerations, or criteria. The Project is not located within any Criteria Cells. The nearest Criteria Cell is 5350 located approximately 0.25 mile north of the northeastern boundary of the Project. The Project is not located within any Linkage that connects Core Areas nor does it function as a Core Area itself.

The entire Project Area lies within the MSHCP Burrowing Owl Survey Area (RCA 2023a). The Project is within the Menifee Habitat Management Unit. The Project Area is not within a Criteria Area Species Survey Area or a Cell Group.

The Proposed Project will be able to contribute to the overall MSHCP Reserve Assembly goals. The Proposed Project would not result in impeding the functionality of the Reserve features that are the focus of the Menifee Habitat Management Unit or the Elsinore Area Plan.

6.2.1 Public Quasi-Public Lands

The Proposed Project is not located within PQP Conserved Lands (RCA 2023a). The nearest PQP Conserved Lands occur approximately 0.2 mile northeast of the Project Area. Furthermore, the Project is not located in an area designated as Rural/Mountainous in the MSHCP Area, American Indian Lands, Lake, Pre-existing Conservation Agreements, or San Jacinto Wildlife Area Additional Acquisitions. Therefore, the Proposed Project would not have impacts on PQP-designated lands.

6.3 Vegetation Mapping and Species Compendia

Vegetation communities within the Project Area were mapped as part of the biological reconnaissance survey conducted by ECORP, as depicted in Figure 4. Please refer to Section 4.2.2 of this report for descriptions of vegetation communities onsite. Plants and wildlife observed within and adjacent to the

Project Area during the biological reconnaissance survey are provided as Appendices B and C, respectively.

6.4 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

6.4.1 Riparian/Riverine

In accordance with Section 6.1.2 of the MSHCP, ECORP performed a habitat assessment for riparian and riverine communities. The MSHCP defines Riparian and Riverine resources as "…areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year" (RCTLMA 2023).

According to the RCA MSHCP Consistency Analysis Report Template, a riverine feature includes:

> "any feature that is natural in origin as well as past natural features that have been heavily modified and/or redirected and can include features indirectly created through man-made manipulation of the landscape, including channelization of a historic riverine feature. If these features connect to nearby downstream resources that are either existing or described conservation lands, they would be considered riverine" (RCA 2023b).

Both vegetated (riparian) and unvegetated (riverine) drainages may be considered MSHCP resources.

6.4.1.1 Methods

Literature Review

Hydrology, soil, and USFWS NWI data were reviewed prior to the habitat assessment. In addition, Google Earth™ aerial imagery was reviewed to locate potential additional riparian/riverine areas within the Project Area.

Habitat Assessment

ECORP biologists visually surveyed the potential riparian/riverine areas of the Project Area. Where riparian/riverine habitat was present, the extent was verified if it had been previously mapped and new areas were mapped using a post-processing-capable GPS device. The extent of riparian habitat was based on the canopy of the riparian community, to the limits of the dripline, within or directly adjacent to the streambed that is likely deriving benefit from the hydrology of the streambed.

6.4.1.2 Existing Conditions and Results

The riparian/riverine habitat assessment was conducted for the Project Area by ECORP biologists Verity Richardson and Carley Adams on May 30, 2023.

The NWI identified one drainage feature occurring within the Project Area, which flows into the Project Area from the north and exits near the southwestern corner (Figure 6). The habitat assessment confirmed

that this drainage feature contains MSHCP riverine resources due to the presence of a bed and bank and its connection to downstream drainage features (Figure 7). This feature does not contain MSHCP riparian resources due to the lack of riparian vegetation.

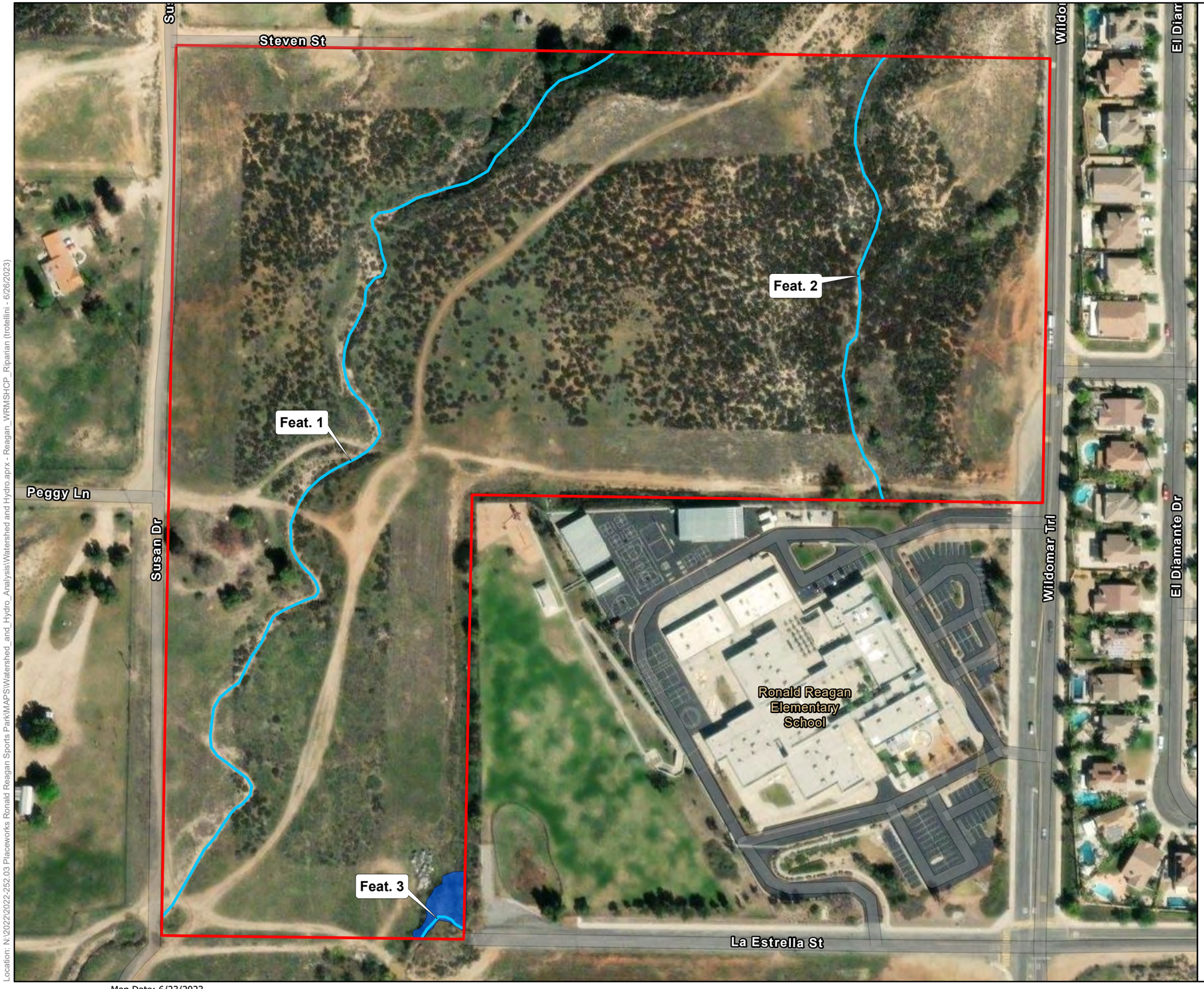
Based on the desktop review of topographic mapping and historic and recent aerial imagery coupled with the on-site habitat assessment, two additional MSHCP riparian/riverine features occur within the Project Area. One drainage feature occurs near the southern boundary of the Project Area, beginning at the terminus of La Estrella Street where runoff from the street flows into the Project Area and continues in a southwestward direction (Figure 7); this feature contains both MSHCP riverine and riparian habitat based on the presence of a bed and bank, its connection to downstream drainage features, and the presence of riparian vegetation located within or directly adjacent to the drainage feature.

The third drainage feature occurs within the northeastern portion of the Project Area, flowing in a north to south direction into a culvert located along the perimeter of the Project Area boundary, north of the elementary school (Figure 7). This feature contains MSHCP riverine resources due to the presence of a bed and bank and its connection to downstream drainage features; this feature does not contain MSHCP riparian resources due to the lack of riparian vegetation.

The NRCS Web Soil Survey (2023) identified seven soil types within the Project Area, as described in Section 4.2.1 of this document. All of the identified soils are well-drained sandy loam soils. None are characterized as hydric, alkaline, or saline. The MSHCP riparian/riverine resources onsite may provide certain physical or chemical functions; however, their functionality is limited by their ephemeral nature, the presence of well-draining soils that prevent onsite retention or ponding, and by the routine habitat disturbance that occurs in some areas for weed/fire abatement. Functions may include nutrient and toxicant trapping, pollutant filtration, and flood flow attenuation.

The two MSHCP riverine features that flow within the Project Area from the north occur within both native California buckwheat scrub and non-native upland mustards vegetation communities. The areas containing non-native upland mustard vegetation contain low-quality habitat because they are disturbed in nature due to annual vegetation management consistent with weed/fire abatement activities. The areas of MSHCP riverine resources within California buckwheat scrub are characterized as moderate to high quality habitat due to the relative lack to disturbance; however, some areas are impacted by trash, off-leash dogs, and dirt roads used by off-highway vehicles. The MSHCP riparian resource located within the Project Area contains low- to moderate-quality riparian habitat due to the abundance of non-native saltcedar that dominates the vegetation community within this area of the Project Area.

The MSHCP riparian/riverine resources within the Project Area provide some biological functions due to the presence of native habitat in some areas; however, low-quality, disturbed habitat dominated by non-native vegetation is also present on-site. Furthermore, the MSHCP riparian/riverine resources do not support or provide habitat for MSHCP Section 6.1.2 species, including amphibians, riparian birds, fairy shrimp, fish, or sensitive plants, as detailed in the following sections of this document.



Map Contents

- Project Area
- MSHCP Riparian
- Drainage Feature

Sources: ESRI
Other Related Info if Needed

Location: N:\2022\2022-252.03 Placeworks Ronald Reagan Sports Park\MAPS\Watershed_and_Hydro_Analysis\Watershed and Hydro.aprx - Reagan_WRMSHCP_Riparian (trotellini - 6/26/2023)

Map Date: 6/23/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 150

Figure 7. MSHCP Riparian/Riverine Resources

2022-252.03 Placeworks Ronald Reagan Sports Park

6.4.1.3 Impacts and Mitigation

The Project proposes to impact MSHCP riparian/riverine resources located within the Project Area. A Determination of Biologically Equivalent or Superior Preservation will be required to address proposed impacts to these resources. Mitigation may include on-site habitat restoration, off-site habitat restoration, the purchase of mitigation credits from an approved mitigation bank, or a combination thereof.

6.4.2 Vernal Pools and Fairy Shrimp

In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was conducted for vernal pools and fairy shrimp species on May 30, 2023 for the Proposed Project.

6.4.2.1 Vernal Pools

The MSHCP defines vernal pools as:

> "…seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records (RCTLMA 2023)."

Vernal pools are seasonal wetlands that alternate between periods of inundation and desiccation on an annual basis, corresponding to California's Mediterranean climate of cool, wet winters and warm, dry summers. Distinct phases in this annual cycle include a wetting phase, an aquatic or inundation phase, a waterlogged-terrestrial phase, and a drought phase (Keeley and Zedler 1998). Keeley and Zedler (1998) define vernal pools as "precipitation-filled seasonal wetlands inundated during periods when temperature is sufficient for plant growth, followed by a brief waterlogged-terrestrial stage and culminating in extreme desiccating soil conditions of extended duration."

California vernal pools host unique communities of plants and animals that have adapted to vernal pool conditions over a long geological timeframe. Vernal pools provide fishless breeding habitat for numerous invertebrates, aquatic insects, and amphibians during the aquatic phase (Zedler 1987). Western spadefoot toads utilize vernal pools for reproductive purposes and as a food source. As stated in Zedler's report: "…because of the brief periods of high productivity of the aquatic and amphibious plants and animals, the vernal pools probably also are a significant source of forage and prey" (Zedler 1987). Snakes may be attracted by the abundance of amphibians to prey upon, and mammals may utilize inundated pools as a source of water. Wading birds and waterfowl are attracted to the pools for food and as migratory

stopovers and are probably a major means by which plant propagules too large for wind dispersal are carried long distances (Zedler 1987). The desiccating soil conditions present during the summer months prevent the establishment of plant species typical of more perennial wetland ecosystems. The growth period of vernal pool plant species typically begins during the wetting or inundation phases. As pools begin to draw down, flowering is initiated for the majority of vernal pool plants. The drawdown process often creates ring-shaped stratification of plant species adapted to drier or wetter conditions around the perimeter of the shrinking inundation zone. Invasive plants such as Italian rye grass (*Festuca perennis*) and wild oat (*Avena barbata* and *A. fatua*) also follow the receding water, often crowding out the native vernal pool plant species.

6.4.2.2 Fairy Shrimp

Riverside Fairy Shrimp (*Streptocephalus woottoni*)

According to the USFWS 5-Year Review, Riverside fairy shrimp was first described in 1985 using specimens collected in Murrieta, California (USFWS 2008). This small crustacean is in the Order Anostraca and is distinguished from other fairy shrimp species due to the shape of their second antennae (males). Riverside fairy shrimp typically occur in vernal pools and other basins that hold water for sufficient periods (i.e., 7 to 8 weeks) to allow for completion of its lifecycle. Riverside fairy shrimp typically occur in vernal pools with depths greater than 12 inches (30 centimeters) and consume algae, bacteria, protozoa, rotifers, and particulate organic matter. Riverside fairy shrimp would not be able to persist in perennial bodies of water because they have evolved to require habitat that dries completely during the summer months, as well as having temperature constraints that cue hatching of cysts during the wet season. Once rainfall fills a vernal pool, cyst hatching, maturity, and reproduction occur within 7 to 8 weeks, and during some years hatch later in the season if late rains occur; typically, Riverside fairy shrimp are observed from January through March. Cysts (eggs) are typically deposited in the water column by females and sink to the bottom of the vernal pool, or if still within the brood sac of the female, will later fall to the floor of the basin when the female dies. Cysts can withstand temperature extremes and prolonged dry periods and not all cysts hatch during each inundation of a vernal pool, thereby producing a cyst bank. This cyst bank is one of the factors contributing to the long-term survival of Riverside fairy shrimp (USFWS 2008).

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)

The vernal pool fairy shrimp are endemic to California and southern Oregon and have the widest geographic range of the federally listed vernal pool crustaceans. They are genetically distinct from other Branchinecta species, distinguished by the morphology of the male's second antenna and the female's third thoracic segment (Belk and Fugate 2000). As with Riverside fairy shrimp, the vernal pool fairy shrimp has an ephemeral life cycle that relies on winter rains to fill pools for sufficient periods of time. Vernal pool fairy shrimp mostly occur in vernal pools and require cool water with temperatures below 50 degrees Fahrenheit for cysts to hatch (Eriksen and Belk 1999; Helm 1998). Vernal pool fairy shrimp are typically associated with smaller, shallow pools (6 inches deep) with relatively short inundation periods (Helm 1998). Their time to reach maturity and reproduction is temperature dependent, ranging from 18 to 147 days, with a mean of 40 days (Helm 1998).

Santa Rosa Plateau Fairy Shrimp (*Linderiella santarosae*)

The Santa Rosa Plateau fairy shrimp is endemic to southern California and has an extremely restricted range. It is only known to occur in a few vernal pools on the Santa Rosa Plateau, which are characterized as southern basalt flow vernal pools that contain cool clear to milky waters (Eriksen and Belk 1999; Thiéry and Fugate 1994). The specific microhabitat used by Santa Rosa Plateau fairy shrimp is only known to occur on the Santa Rosa Plateau, and as such, it is unlikely Santa Rosa Plateau fairy shrimp occur outside this range (Keeler-Wolf et al. 1998).

6.4.2.3 Methods

Literature Review

ECORP performed a literature search prior to the habitat assessments to determine if any fairy shrimp species observations were documented in the Project vicinity. ECORP conducted a review of the (CDFW 2023a), NRCS Web Soil Survey (2023), NWI (USFWS 2023c), and RCA MSHCP Information Map (RCA 2023a) to determine if listed fairy shrimp species are known to occur within the Project Area or vicinity (within 5 miles) prior to the habitat assessment. ECORP performed a review of the USFWS IPaC (USFWS 2023a) to determine if USFWS-designated Critical Habitat is present within the Project Area. Google Earth™ historic aerial imagery was reviewed to locate any wetted depressions that may have the potential to support listed fairy shrimp or could qualify as a vernal pool within the Project Area.

Habitat Assessment

Following completion of the literature review, ECORP biologists Verity Richardson and Carley Adams conducted a habitat assessment survey to evaluate potential vernal pool and branchiopod habitat within the Project Area. The biologists walked the Project Area and areas of the 500-foot surrounding buffer where accessible in search of features that could provide listed branchiopod habitat and/or qualify as vernal pools. Potential habitat for federally listed large branchiopods, per USFWS Guidelines, is defined as any seasonal inundated depression that ponds water at a sufficient depth and duration for a listed large branchiopod to complete its life cycle (USFWS 2017). The presence of water marks, algae mats, drift lines, hydrophytic vegetation (i.e., water-loving plants), slope, contributing watershed, maximum potential ponding depth, and aquatic arthropod (i.e., crustacean and insect) exoskeletons are helpful indicators for evidence of ponding depth and duration. Habitats with swiftly flowing water (e.g., creeks, streams, ephemeral drainages) or semi-permanently to permanently inundated areas that support population of predators (e.g., bullfrogs, fish, crayfish) are generally not considered suitable habitat for listed large branchiopods.

6.4.2.4 Existing Conditions and Results

Literature Review

The review of the CNDDB documented six regional listed fairy shrimp species occurrences within 5 miles of the Project Area. The IPaC review identified no USFWS-designated Critical Habitat within or adjacent to the Project Area.

Riverside Fairy Shrimp

Riverside fairy shrimp is federally listed as Endangered and is an MSHCP Covered Species. There are four CNDDB occurrences within 5 miles of the Project Area. The nearest occurrence (#8) is located approximately 0.9 mile east of the Project Area within the Clayton Ranch mitigation site (FKA Schleuniger Pool). Occurrence #19 is located approximately 1.4 miles southeast of the Project Area, known as the Clayton Ranch site; the site was developed in 2003 and the species is now extirpated for this occurrence. Occurrence #39 is located approximately 1.0 mile southeast of the Project Area and was recorded in 2009; this occurrence documents the species onsite, including gravid females, from vouchers taken in 2008 and 2009. Occurrence #11 is located within the Australia Pool mitigation site within the Lake Elsinore Back Basin, approximately 4.8 miles northwest of the Project Area.

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp is federally listed as Threatened and is an MSHCP Covered Species. There is one CNDDB occurrence within 5 miles of the Project Area, located within the Santa Rosa Plateau Ecological Reserve, approximately 5.0 miles south of the Project Area (Occurrence #641).

Santa Rosa Plateau Fairy Shrimp

Santa Rosa Plateau fairy shrimp is an MSHCP Covered Species. There is one CNDDB occurrence within 5 miles of the Project Area, located within the Santa Rosa Plateau Ecological Reserve, approximately 5.0 miles south of the Project Area (Occurrence #2).

Habitat Assessment

The vernal pool and fairy shrimp habitat assessment was conducted on May 30, 2023 by ECORP biologists Verity Richardson and Carley Adams. The biologists observed no features that could provide listed branchiopod habitat and/or qualify as vernal pools within the Project Area.

6.4.2.5 Impacts and Mitigation

The Project Area lacks suitable fairy shrimp and/or vernal pool habitat; therefore, impacts to these resources are not expected to occur due to implementation of the Proposed Project. Mitigation is not required for fairy shrimp or vernal pool habitat.

6.4.3 Riparian Birds

In accordance with Section 6.1.2 of the MSHCP, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, ECORP assessed areas potentially supporting riparian bird populations during a habitat assessment for special-status riparian bird species conducted on May 30, 2023.

6.4.3.1 Methods

Literature Review

ECORP performed a literature search prior to the habitat assessment to determine if any special-status bird species observations were documented in the Project vicinity. Biologists performed a review of the CNDDB (CDFW 2023a) to determine the special-status bird species that have been documented within 5 miles of the Project Area. ECORP performed a review of the USFWS IPaC (USFWS 2023a) to determine if USFWS-designated Critical Habitat is present on or within the Project vicinity. The literature search results were reviewed prior to the habitat assessment in order to identify the locations of previously documented special-status species. The CNDDB results were then mapped on aerial background for surveyor reference in the field and to aid in data analysis.

Habitat Assessment

Following completion of the literature review, ECORP biologists experienced with special-status riparian bird species habitat, identification, behavior, sign, and vocalizations conducted a habitat assessment. The biologists conducted the assessment by walking throughout the entire Project Area and 500-foot buffer where accessible to characterize and map the suitability of habitat for special-status riparian bird species. The biologists determined habitat suitability based on the natural history, habitat requirements, and the currently documented range boundaries of special-status bird species. Photographs were taken during the assessment to provide visual representation of the various vegetation communities within the Project Area.

6.4.3.2 Existing Conditions and Results

Literature Review

The review of the CNDDB yielded four recent records (within the last 20 years) of special-status riparian bird species occurrences within 5 miles of the Project Area. The IPaC identified no USFWS-designated Critical Habitat within or adjacent to the Project Area. Documented occurrences for special-status riparian bird species are discussed in greater detail below.

Western Yellow-Billed Cuckoo (Coccyzus americanus)

The western Distinct Population Segment (DPS) of the yellow-billed cuckoo (YBCU) is migratory and arrives from its wintering grounds in South America during June and departs from California during September (Small 1994). Breeding activity for the western DPS peaks in July (Halterman et al. 2016). The YBCU is federally listed as threatened, state listed as endangered, a USFWS Bird of Conservation Concern, and a MSHCP Covered Species. Federal Critical Habitat for YBCU was proposed in 2014 (USFWS 2014), revised in 2020 (USFWS 2020), and finalized in 2021 (USFWS 2021). The Project Area is not located within Critical Habitat for the YBCU (USFWS 2023b). No CNDDB records occur within 5 miles of the Project Area for this species.

Least Bell's Vireo (Vireo bellii pusillus)

The least Bell's vireo (LBVI) is endemic to California and Baja California, Mexico. Least Bell's vireos are migratory species in which the males arrive in California between late March to April and establish breeding territories, and the females arrive shortly thereafter (USFWS 1998). The least Bell's vireo usually returns to the wintering grounds between August to September. The LBVI is federally listed as endangered, state listed as endangered, and a MSHCP Covered Species. Critical Habitat for LBVI was designated on March 4, 1994 (USFWS 1994). The Project Area is not located within or adjacent to Critical Habitat for the LBVI (USFWS 2023b). Four recent (within the last 20 years) CNDDB occurrences were recorded within 5 miles of the Project Area (CDFW 2023a).

Southwestern Willow Flycatcher (Empidonax traillii extimus)

The southwestern willow flycatcher (SWWF) is a neotropical migratory bird that winters in Central America and migrates to the U.S. and Canada to breed during summer. Their breeding habitat currently ranges from southern California, through Arizona, New Mexico, southern Nevada, southern Utah, and southwestern Colorado. Overall, individuals only spend three to four months paired with a mate during the breeding season. Individuals then begin their southward migration in early August through September. During their migration, individuals will stop at food-rich stopover locations in order to replenish their energy reserves (USFWS 2013). The SWWF is federally listed as endangered, state listed as endangered, and an MSHCP Covered Species. Critical Habitat for this species was originally designated in 1997, revised in 2005, and revised again in 2013 (USFWS 2013). The Project Area is not located within or adjacent to designated Critical Habitat for the SWWF (USFWS 2023b). No CNDDB occurrences were recorded within 5 miles of the Project Area for this species.

Habitat Assessment

ECORP biologists Verity Richardson and Carley Adams conducted the habitat assessment on May 30, 2023. Habitat suitability for sensitive riparian bird species within the Project Area is discussed in further detail below.

Western Yellow-Billed Cuckoo

Habitat requirements for the YBCU includes fairly large trees and dense vegetation, and the species is typically associated with riparian woodlands along perennial rivers and streams at elevations below 6,600 feet above mean sea level (amsl). The most commonly inhabited communities include species such as Fremont cottonwood and willow (*Salix* spp.); however, saltcedar, mesquite (*Prosopsis* sp.), and other riparian tree communities may also be used. Approximately 2 to 3 weeks prior to breeding, YBCU may occupy upland vegetation including pinyon (*Pinus* spp.), oak (*Quercus* spp.), juniper (*Juniperus* spp.), and manzanita (*Arctostaphylos* spp.) (Hughes 2020). Nesting habitat typically includes large contiguous patches of multilayered riparian habitat with dense understory foliage. YBCU feed primarily on large insects such as caterpillars, katydids, cicadas, grasshoppers, and crickets. Cuckoo populations fluctuate greatly with food availability and increase dramatically in years of highest insect abundance (Heath and Wilkin 1970).

ECORP determined that suitable breeding and foraging habitat for YBCU was not present within the Project Area. Based on the habitat requirements of YBCU, no potential nesting YBCU habitat was found within the Project Area. While small patches of willows, mulefat, and cottonwoods are present, the Project Area lacks the complex old growth structure that the YBCU need for foraging and breeding. Consequently, YBCU individuals are not expected to occur on or near the Project Area.

Least Bell's Vireo

The LBVI is dependent upon riparian habitat during the breeding season and prefers willow-dominated woodland or scrub that typically exists along streams and rivers (Franzreb 1989). Other habitat types used by this species include mulefat scrub, mixed oak/willow woodland, mesquite woodland, and elderberry (*Sambucus* spp.) scrub. In southern California, least Bell's vireos typically occur below 2,000 feet amsl (Zeiner et al. 1990). The species has been documented at extreme elevations in Death Valley (i.e., -175 feet) and in the City of Bishop in Inyo County (i.e., 4,100 feet), although it is uncommon above 4,000 feet amsl in coastal southern California (Grinnell and Miller 1944; Brown 1993). Habitat characteristics that appear to be essential for least Bell's vireo occupation include dense cover from three to six feet in height for nesting and foraging, and a stratified canopy providing both foraging habitat and song perches for territorial advertisement.

ECORP determined that suitable breeding and foraging habitat for LBVI was not present within the Project Area. Based on the habitat requirements of LBVI, no potential nesting habitat was found within the Project Area. While small patches of willows, mulefat, and cottonwoods are present, they are not abundant or continuous enough to provide suitable foraging and breeding habitat for the species. Consequently, LBVI individuals are not expected to occur on or near the Project Area.

Southwestern Willow Flycatcher

Habitat requirements for the SWWF includes dense riparian vegetation near permanent or semipermanent sources of water or saturated soil, such as cottonwood, willow, and salt cedar vegetation communities along rivers and streams below 8,500 feet amsl. SWWF typically breed within dense tree or shrubby riparian vegetation that is equal to or greater than 10 feet tall (Allison et al. 2003). Additional migration habitat occurs along major drainages in the southwest, and may include riparian habitats without an understory, non-riparian areas with high food concentrations, or within linear patches that may typically be considered too small or short (USFWS 2013).

ECORP determined that suitable nesting and foraging habitat for the SWWF was not present within the Project Area. While small patches of willows, mulefat, and cottonwoods are present, they are not abundant or continuous enough to provide suitable foraging and breeding habitat for the species. Consequently, SWWF individuals are not expected to occur on or near the Project Area.

6.4.3.3 Impacts and Mitigation

Impacts are not expected to occur to YBCU, LBVI, or SWWF due to implementation of the Proposed Project. Therefore, mitigation is not required for YBCU, LBVI, or SWWF.

6.4.4 Other Section 6.1.2 Species

ECORP assessed other Section 6.1.2 plant and wildlife species for their potential to occur which are included in Appendices D and E of this document. Please refer to Section 4.2.5 for a discussion of sensitive species with potential to occur onsite.

No impacts are expected to Section 6.1.2 plant and wildlife species provided in Appendices D and E.

Comprehensive plant and wildlife species compendia documenting plant and wildlife species observed within the proposed Project Area are included as Appendices B and C, respectively.

6.5 Protection of Narrow Endemic Plant Species (Section 6.1.3)

The RCA MSHCP Information Map was reviewed to determine whether the Proposed Project is located within a Narrow Endemic Plant Species Survey Area (NEPSSA; RCA 2023a) in accordance with Section 6.1.3 of the MSHCP. The Proposed Project is not located within an NEPSSA, and no further discussion is provided in this document.

6.6 Additional Survey Needs and Procedures (Section 6.3.2)

6.6.1 Criteria Area Plant Species

The proposed Project Area is not located within a mapped survey area for MSHCP Criteria Area plant species (RCA 2023a); therefore, no further discussion is provided in this document.

6.6.2 Amphibians

The proposed Project Area is not located within a mapped survey area for MSHCP amphibian species (RCA 2023a); therefore, no further discussion is provided in this document.

6.6.3 Burrowing Owl

The Proposed Project is located within the MSHCP Survey Area for BUOW (RCA 2023a; Figure 3). A BUOW habitat assessment was conducted within the Burrowing Owl Study Area on May 30, 2023.

6.6.3.1 Methods

Literature Review

ECORP performed a literature search prior to the habitat assessment to determine if any burrowing owl observations were documented in the Project vicinity. Biologists performed a review of the CNDDB (CDFW 2023a) to determine the burrowing owl occurrences that have been documented within 5 miles of the Project Area. The literature search results were reviewed prior to the habitat assessment in order to identify the locations of previously documented species occurrences. The CNDDB results were then mapped on aerial background for surveyor reference in the field and to aid in data analysis.

Habitat Assessment

Following completion of the literature review, ECORP conducted a BUOW habitat assessment concurrently with the biological reconnaissance survey to determine the presence of suitable habitat. Biologists walked the Project Area and a 500-foot buffer (Figure 3) to identify the presence of owl habitat, scanning for suitable habitat using binoculars in areas that were inaccessible by foot. All encountered burrows were marked during the habitat assessment and focused burrow survey.

Photographs were taken during the assessment to provide visual representation of the various vegetation communities within the Burrowing Owl Study Area.

6.6.3.2 Existing Conditions and Results

Literature Review

The review of the CNDDB yielded seven records of burrowing owl occurrences within 5 miles of the Project area, all of which were documented between 2005 and 2008. The nearest occurrence to the Project was documented in 2007 and was located 3.0 miles northwest of the Project (Occurrence #974).

Habitat Assessment

ECORP biologists Verity Richardson and Carley Adams conducted the BUOW habitat assessment and focused burrow survey concurrently with the biological reconnaissance survey on May 30, 2023 within the Burrowing Owl Study Area. Weather conditions during the assessment are summarized in Table 1.

The assessment determined that the Project Area included suitable habitat for BUOW, primarily within the southern portions of the Project Area consisting of non-native forbs and grasses on level to gently rolling terrain, with an abundance of active California ground squirrel burrows, a few of which could be suitable for BUOW. ECORP recorded potential burrows within the Burrowing Owl Study Area (Figure 3). Protocol-level burrowing owl surveys were not performed by ECORP following the habitat assessment and focused burrow survey.

6.6.3.3 Impacts and Mitigation

Direct impacts to habitats that support foraging and nesting habitat for breeding and/or overwintering BUOW habitat may occur as a result of the Project. Other direct impacts that may occur include injury or mortality during construction activities, injury by vehicles and equipment using the roadway, and/or loss of nest or nest occupants if habitat is cleared during the breeding season. Indirect impacts to BUOW foraging, nesting, migratory, or overwintering activities may also occur as a result of Project construction in the form of increased human and vehicular activity, noise, dust, ground vibrations, nighttime lighting, and habitat degradation. These temporary changes in the existing environment during construction of the Project may result in altered adult bird behavior that could lead to lower fitness due to decreased foraging activities, loss of shelter or protective cover, or abandonment of young or a nest with eggs in it. Potential direct and indirect impacts can be avoided or reduced with the implementation of appropriate avoidance and minimization measures.

Suitable burrowing owl habitat exists within the Project Area. Therefore, protocol-level burrowing owl surveys will be required to be performed during the breeding season (March 1 through August 31) as required under Part 2B of the MSHCP Burrowing Owl Survey Instructions, consisting of four separate surveys conducted throughout the Project Area, and within the 500-foot buffer (Burrowing Owl Study Area; RCA 2006), where accessible, to determine if, when, and how the Study Area is being used by BUOW. Additionally, a preconstruction survey will be required within 30 days prior to site disturbance. It is typically recommended by CDFW that two preconstruction 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, grading, etc.).

6.6.4 Mammals

The proposed Project Area is not located within a mapped survey area for MSHCP mammal species (RCA 2023a); therefore, no further discussion is provided in this document.

6.7 Information on Other Species

6.7.1 Delhi Sands Flower Loving Fly

The proposed Project Area is not located within an area with Delhi soils mapped within the MSHCP baseline data (RCA 2023a); no further discussion is provided in this document.

6.7.2 Coastal California Gnatcatcher

Coastal California gnatcatcher was heard calling within native scrub habitat located north of the Project Area, within the 500-foot survey buffer area. As the Project Area is not located within a Criteria Area nor within PQP lands, there are no seasonal limitations for clearing of suitable gnatcatcher habitat within the Project Area. The Project will be required to conduct a pre-construction nesting bird survey prior to site disturbance, as described in Section 8.0 of this document, to avoid take of any nesting birds.

6.7.3 Species Not Adequately Conserved

No MSHCP Table 9-3 species were observed within or adjacent to the Project Area during the May 2023 biological reconnaissance survey. All species listed in MSHCP Table 9-3 were determined to have a low potential or are presumed absent from the Project Area, based on a lack of suitable habitat/soils and/or the Project Area is located outside of the known elevational range or distribution for the species.

6.8 Guidelines Pertaining to the Urban/Wildlands Interface (Section 6.1.4)

The proposed Project Area is not located adjacent to and does not have onsite connection to either existing conservation or land described for conservation. As defined in the MSHCP, Conservation Areas are approximately 500,000 acres composed of roughly 347,000 acres of PQP Lands and 153,000 acres of Additional Reserves Lands within western Riverside County. The Urban/Wildland Interface is defined as a zone (less than 100 feet) between a project site and the MSHCP Conservation Area. Avoidance measures must be implemented if a project is located adjacent to a Conservation Area. The nearest Conservation Area is located 0.25 mile north of the northeast corner of the Project Area, known as Iodine Springs (RCA

2023a). Thus, no further discussion of the guidelines pertaining to the Urban/Wildlands Interface is provided.

7.0 BEST MANAGEMENT PRACTICES

The Project shall comply with the Standard Best Management Practices (BMPs) of the MSHCP (Volume I, Appendix C), as follows:

1. A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
2. Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
4. The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
5. Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian identified in MSHCP Global Species Objective No. 7.
7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing of other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
8. 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 applicable jurisdictional city, [USFWS], and [California Department of

Fish and Game], RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
10. The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
13. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
15. The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

8.0 AVOIDANCE AND MINIMIZATION MEASURES

Avoidance and minimization measures for the Project are included below in order to satisfy federal, state, and local regulations.

- To the greatest extent practicable, ground-disturbing activities, including vegetation removal, shall be conducted outside of the nesting bird season (approximately September 1 through January 14) to avoid direct and indirect impacts to nesting birds. This will avoid violations of the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. If seasonal avoidance cannot be implemented, it is recommended that ground-disturbing activities, including vegetation removal, be conducted outside of suitable habitat during the breeding season to the greatest extent possible. If Project-related activities cannot avoid the nesting bird season then preconstruction surveys, non-disturbance limit buffers, and biological monitoring during Project activities will be necessary to avoid impacts to nesting birds.

- Offsite roadway improvements along La Estrella Street, Susan Drive, and Wildomar Trail were not assessed as part of this Biological Technical Report and MSHCP Consistency Analysis. An analysis of impacts to potential biological resources within these offsite improvement areas is recommended.
- Due to the presence of suitable habitat, a focused survey for Crotch bumble bee, a California ESA Candidate species, is recommended in order to determine presence/absence of the species within the Project Area. If the species is observed within the Project Area, coordination with CDFW will be required.
- A formal Aquatic Resource Delineation is recommended in order to determine if the drainage features within the Project Area contain aquatic resources jurisdictional to the USACE, RWQCB, or CDFW, and to determine the acreage of MSHCP Riparian/Riverine resources present onsite. Impacts to jurisdictional waters require mitigation through habitat creation, restoration, or enhancement as determined by consultation with the regulatory agencies during the permitting process. Any impacts to CDFW jurisdiction would require a Section 1602 SAA from CDFW. Any impacts to Waters of the U.S. would require a Section 404 permit from the USACE. Impacts to Waters of the U.S. or State would also require a 401 Certification or Waste Discharge Requirements from the San Diego RWQCB.
- A Determination of Biologically Equivalent or Superior Preservation is recommended to be prepared, in conjunction with the Aquatic Resource Delineation, to address proposed impacts to MSHCP Riparian/Riverine resources located within the Project Area. Impacts to MSHCP Riparian/Riverine resources will require mitigation to be approved by the Wildlife Agencies (CDFW and USFWS).
- Protocol-level surveys for burrowing owl are recommended in order to demonstrate consistency with the requirements of the MSHCP. Surveys are required to be performed during the breeding season (March 1 through August 31) as required under Part 2B of the MSHCP Burrowing Owl Survey Instructions, consisting of four separate surveys conducted throughout the Project Area, and within a 500-foot buffer surrounding the Project Area (RCTLMA 2006), where accessible, to determine if, when, and how the Study Area is being used by burrowing owl. Additionally, a preconstruction survey will be required within 30 days prior to site disturbance. Recommended mitigation measure language for the preconstruction survey is included below:

  Preconstruction Survey for BUOW: A preconstruction survey for BUOW shall be conducted within the Project Area and adjacent areas within 30 days prior to the start of ground-disturbing activities. The surveys shall follow the methods described in the Western Riverside MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006). If BUOW and/or suitable BUOW burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified within the Project Area during the survey and impacts to those features are unavoidable, consultation with the RCA and CDFW will be required.
- A preconstruction survey for nesting birds is recommended prior to the commencement of ground-disturbing activities within the identified nesting bird season to avoid take of nesting birds. Recommended mitigation measure language is provided below:

Preconstruction Survey for Nesting Birds: All ground-disturbing activities shall be conducted during the nonbreeding season for birds (approximately September 1 through January 14) to the greatest extent possible. This will 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 bird breeding season (January 15 through August 31), a preconstruction survey for nesting birds shall be conducted by a qualified biologist who is experienced in the identification of avian species and conducting nesting bird surveys. The nesting survey shall include the Project Area and adjacent areas where Project activities have the potential to cause nest failure. The preconstruction survey shall be conducted no more than 3 days prior to the start of ground-disturbing activities within the bird breeding season. 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 implemented to avoid potential Project-related impacts. Measures may include establishment of an avoidance buffer until nesting has been completed and periodic nest monitoring by the Project biologist until the juveniles have fledged and there has been no evidence of a second attempt at nesting. The width of the avoidance buffer will be determined by the Project biologist. The monitoring biologist will monitor the nest(s) during construction and document any findings. Once nesting is deemed complete by the Project biologist, work may resume within the avoidance buffer area.

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: _____ DATE: _____

Stacie Tennant
Senior Biologist and Project Manager
ECORP Consulting, Inc.

SIGNED: _____ DATE: _____

Molly Burdick-Whipp
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ECORP Consulting, Inc.

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Appendix B – Plant Species Compendium

Appendix C – Wildlife Species Compendium

Appendix D – Special Status Plant Species Potential to Occur

Appendix E – Special Status Wildlife Species Potential to Occur

APPENDIX A

Representative Site Photographs

Photo 1: Typical View of Nonnative Forbs and Grasses Dominated by Black Mustard within the Southern Portion of the Project Area; facing north.

Photo 2: View of the Southern Boundary of the Project Area and Open Parcel to the South of the Project Area, Dominated by Black Mustard with a Section of Mixed Riparian Scrub Dominated by Mulefat and Saltcedar; facing south.

Photo 3: View of a Dirt Road within the Central Portion of the Project Area; facing north.

Photo 4: View of Nonnative Mustard, Eucalyptus, and Peruvian Peppertree within the Western Portion of the Project Area as well as Susan Drive and Rural Residences located West of the Project Area; facing north.

Photo 5: View of a Drainage Feature Surrounded by California Buckwheat Scrub within the Western Portion of the Project Area; facing north.

Photo 6: View of California Buckwheat Scrub and Coast Live Oak within the Northern Portion of the Project Area; facing east.

Photo 7: View of California Buckwheat Scrub within the Northern Portion of the Project Area and within the Adjacent Open Space Area North of the Project Area; facing north.

Photo 8: View of Elementary School Located South and East of the Project Area; facing south.

APPENDIX B

Plant Species Compendium

SCIENTIFIC NAME	COMMON NAME
ANGIOSPERMS (DICOTYLEDONS)	
ADOXACEAE	**ADOXA FAMILY**
Sambucus nigra	Black elderberry
ANACARDIACEAE	**CASHEW FAMILY**
Malosma laurina	Laurel sumac
*Schinus molle**	Peruvian pepper tree
*Schinus terebinthifolia**	Brazilian pepper tree
ARECACEAE	**PALM FAMILY**
*Washingtonia robusta**	Mexican fan palm
ASTERACEAE	**SUNFLOWER FAMILY**
Ambrosia acanthicarpa	Annual bursage
Ambrosia psilostachya	Western ragweed
Artemisia californica	California sagebrush
Baccharis pilularis	Coyote brush
Baccharis salicifolia	Mulefat
*Carduus pycnocephalus**	Italian thistle
*Centaurea melitensis**	Maltese star thistle
Chaenactis sp.	pincushion
Corethrogyne filaginifolia	Common sandaster
Deinandra fasciculata	Clustered tarweed
Deinandra paniculata CRPR 4.2	Paniculate tarplant
Encelia farinosa	Brittle bush
Erigeron canadensis	Canada horseweed
Erigeron foliosus	Leafy daisy
Eriophyllum confertiflorum	Golden yarrow
Heterotheca grandiflora	Telegraph weed
*Lactuca seriola**	Prickly lettuce
*Oncosiphon pilulifer**	Stinknet
Pseudognaphalium californicum	Ladies' tobacco
Pseudognaphalium sp.	Rabbit-tobacco
Senecio sp.	Butterweed
Stephanomeria virgata	Rod wirelettuce
*Taraxacum officinale**	Common dandelion

SCIENTIFIC NAME	COMMON NAME
BORAGINACEAE	**BORAGE FAMILY**
Cryptantha sp.	Cryptantha
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica nigra**	Black mustard
CACTACEAE	**CACTUS FAMILY**
Cylindropuntia californica	California cholla
CHENOPODIACEAE	**CHENOPOD FAMILY**
*Bassia hyssopifolia**	Five horn bassia
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
Cuscuta sp.	Dodder
CUCURBITACEAE	**GOURD FAMILY**
Cucurbita foetidissima	Calabazilla
Marah macrocarpa	Wild cucumber
CUPRESSACEAE	**CYPRESS FAMILY**
*Cupressus sempervirens**	Italian cypress
EUPHORBIACEAE	**SPURGE FAMILY**
Croton setiger	Turkey-mullein
FABACEAE	**LEGUME FAMILY**
Acmispon americanus	Spanish lotus
Acmispon glaber	Deerweed
Astragalus pomonensis	Pomona milkvetch
*Melilotus indicus**	Sweetclover
*Vicia villosa**	Hairy vetch
FAGACEAE	**OAK FAMILY**
Quercus agrifolia	Coast live oak
FRANKENIACEAE	**FRANKENIA FAMILY**
Zeltnera venusta	charming centaury
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	Redstem filaree
HYDROPHYLLACEAE	**WATERLEAF FAMILY**
Phacelia distans	Distant phacelia
LAMIACEAE	**MINT FAMILY**
Salvia apiana	White sage
Salvia columbariae	Chia sage

SCIENTIFIC NAME	COMMON NAME
Salvia leucophylla	Purple sage
Salvia mellifera	Black sage
MALVACEAE	**MALLOW FAMILY**
Malacothamnus fasciculatus	Chaparral bush mallow
MYRSINACEAE	**MYRSINE FAMILY**
*Lysimachia arvensis**	Scarlet pimpernel
MYRTACEAE	**MYRTLE FAMILY**
*Eucalyptus polyanthemos**	Silver dollar gum
Eucalyptus sp.*	Gum tree
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
Mirabilis laevis	Desert wishbone bush
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Camissonia sp.	primrose
PHRYMACEAE	**POPPY FAMILY**
Erythranthe cardinalis	Cardinal monkey flower
PLANTAGINACEAE	**PLANTAIN FAMILY**
Antirrhinum coulterianum	Coulter snapdragon
Keckiella cordifolia	Heart leaved penstemon
POLEMONIACEAE	**PHLOX FAMILY**
Eriastrum sapphirinum	Sapphire eriastrum
Navarretia atractyloides	Holly leaf navarretia
POLYGONACEAE	**BUCKWHEAT FAMILY**
Chorizanthe fimbriata	Fringed spineflower
Eriogonum fasciculatum var. fasciculatum	California buckwheat
ROSACEAE	**ROSE FAMILY**
Adenostoma fasciculatum	Chamise
Heteromeles arbutifolia	Toyon
SALICACEAE	**WILLOW FAMILY**
Populus fremontii	Fremont cottonwood
Salix exigua	Narrowleaf willow
Salix gooddingii	Black willow
Salix lasiandra	Pacific willow

SCIENTIFIC NAME	COMMON NAME
SOLANACEAE	**NIGHTSHADE FAMILY**
Datura wrightii	Jimsonweed
*Nicotiana glauca**	Tree tobacco
Solanum xanti	Purple nightshade
TAMARICACEAE	**TAMARISK FAMILY**
*Tamarix ramosissima**	Saltcedar
THEMIDACEAE	**BRODIAEA FAMILY**
Dipterostemon capitatus	Blue dicks
ANGIOSPERMS (MONOCOTYLEDONS)	
ASPARAGACEAE	**ASPARAGUS FAMILY**
Hesperoyucca whipplei	Chaparral yucca
CYPERACEAE	**SPIDERWORT FAMILY**
*Cyperus involucratus**	Umbrella papyrus
LILIACEAE	**LILY FAMILY**
Calochortus splendens	Splendid mariposa lily
POACEAE	**GRASS FAMILY**
*Avena fatua**	Wild oat
*Bromus madritensis**	Foxtail brome
Elymus condensatus	Giant wild rye
*Schismus barbatus**	Mediterranean grass
GYMNOSPERMS	
PINACEAE	**PINE FAMILY**
*Pinus halepensis**	Aleppo pine

California Native Plant Society (CNPS) Rare Plant Ranks:

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 common elsewhere
3: Plants about which more information is needed, a review list
4: Plants of limited distribution, a watch list.

CNPS Threat Ranks:

0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2: Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

0.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or current threats known)

* Not native to California.

APPENDIX C

Wildlife Species Compendium

SCIENTIFIC NAME	COMMON NAME
INSECTA	**INSECTS**
Apidae	Cuckoo, Carpenter, Digger, Bumble, and Honey Bees
Apis mellifera	Western honey bee
Bombus sp.	bumble bee
Diadasia sp.	sunflower bee
Formicidae	Ants
Pogonomyrmex sp.	harvester ant
Nymphalidae	Brush-footed Butterflies
Vanessa cardui	painted lady
Pieridae	White and Sulphur Butterflies
Phoebis sennae	sulphur butterfly
Pieris rapae	cabbage white butterfly
Riodinidae	Metalmarks
Apodeme virgulti	Behr's metalmark
REPTILIA	**REPTILES**
Phrynosomatidae	Spiny Lizards
Sceloporus occidentalis	Western fence lizard
AVES	**BIRDS**
Aegithalidae	Bushtits
Psaltriparus minimus	bushtit
Accipitridae	Hawks and Eagles
Buteo jamaicensis	red-tailed hawk
Ardeidae	Herons, Egrets, and Bitterns
Ardea alba	great egret
Cathartidae	Vultures
Cathartes aura COV	turkey vulture
Columbidae	Pigeons and Doves
Streptopelia decaocto *	Eurasian collared-dove
Zenaida macroura	mourning dove
Corvidae	Jays and Crows
Aphelocoma californica	California scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Fringillidae	Finches
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch

SCIENTIFIC NAME	COMMON NAME
Hirundinidae	Swallows
Stelgidopteryx serripennis	Northern rough-winged swallow
Icteridae	New World Blackbirds
Icterus cucullatus	hooded oriole
Odontophoridae	New World Quail
Callipepla californica	California quail
Passerellidae	New World Sparrows
Aimophila ruficeps	rufous-crowned sparrow
Melospiza melodia	song sparrow
Melozone crissalis	California towhee
Pipilo maculatus	spotted towhee
Polioptilidae	Gnatcatchers
Polioptila californica californica FT, SSC	coastal California gnatcatcher
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Calypte costae	Costa's hummingbird
Troglodytidae	Wrens
Thryomanes bewickii	Bewick's wren
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus vociferans	Cassin's kingbird
MAMMALIA	**MAMMALS**
Canidae	Dogs, Wolves, and Foxes
Canis latrans COV	Coyote (scat)
Leporidae	Rabbits and Hares
*Sylvilagus audubo*nii	Desert cottontail rabbit
Sciuridae	Squirrels
Otospermophilus beecheyi	California ground squirrel

FT: Federally-listed (Threatened)
SSC: CDFW Species of Special Concern
COV: MSHCP Covered Species
* Nonnative species

APPENDIX D

Special Status Plant Species Potential to Occur

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Angiosperms					
Abronia villosa* var. *aurita chaparral sand verbena	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	(Jan) Mar-Sept 75-1600	Occurs in sandy places in coastal sage scrub, chaparral.	**Low.** A portion of Project Area supports coastal sage scrub, however, the Project Area lacks suitable soils. There are 2 historic records within 5 miles.
Allium marvinii Yucaipa onion	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-May 760-1065	Dependent on clay openings within chaparral habitat.	**Presumed Absent.** Project Area lacks suitable soils. There are no records within 5 miles.
Allium munzii Munz's onion	Fed: CA: CRPR: MSHCP:	**END** **THR** 1B.1 COV	Mar-May 297-1070	Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grasslands. Associated with clay and cobbly clay soils.	**Presumed Absent.** The Project Area lacks suitable soils. There is 1 historic record within 5 miles.
Almutaster pauciflorus alkali marsh aster	Fed: CA: CRPR: MSHCP:	None None 2B.2 None	June-Oct 240-800	Occurs in meadows and seeps.	**Presumed Absent.** No suitable meadow or seep habitat occurs within the Project Area. There are no records within 5 miles of the Project Area.
Ambrosia pumila San Diego ambrosia	Fed: CA: CRPR: MSHCP:	**END** None 1B.1 COV	Apr-Jul 50-600	Occurs in open floodplain terraces or on in the watershed margins of vernal pools. Often found in sandy loam or clay, often in disturbed areas, sometimes found in alkaline soils.	**Presumed Absent.** No river flood plain terraces, alkali playas or vernal pools occur within the Project Area and there are no records within 5 miles of the Project Area.
Arctostaphylos rainbowensis rainbow manzanita	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Dec-Mar 150-800	Restricted to ultramafic southern mixed chaparral, principally on gabbro soils or related soils rich in ferro-magnesian minerals.	**Presumed Absent.** No suitable chaparral habitat or soils are present within the Project Area. There is 1 recent and 1 historic record within 5 miles of the Project Area.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Atriplex coronata* var. *notatior San Jacinto Valley crownscale	Fed: CA: CRPR: MSHCP:	**END** None 1B.1 COV	Apr-Aug 139-500	Primarily restricted to the alkali floodplains of the San Jacinto River, Mystic Lake and Salt Creek in association with Willows, Domino and Traver soils.	**Presumed Absent.** Suitable alkali habitat and soils are absent from the Project Area. There are no records within 5 miles of the Project.
Atriplex parishii Parish's brittlescale	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Jun-Oct 25-1900	Occurs in chenopod scrub, playas, vernal pools.	**Presumed Absent.** There is no suitable chenopod scrub, playas or vernal pool habitat present in the Project Area. There are no records within 5 miles of the Project.
Ayenia compacta California ayenia	Fed: CA: CRPR: MSHCP:	None None 2B.3 None	Mar-Apr 150-1095	Occurs in Mojavean desert scrub, and Sonoran desert scrub.	**Presumed Absent.** No Mojavean desert scrub, and Sonoran desert scrub is present within the Project Area. There is 1 historic record within 5 miles of the Project.
Brodiaea filifolia thread-leaved brodiaea	Fed: CA: CRPR: MSHCP:	**THR** **END** 1B.1 COV	Mar-June 25-860	Habitat includes floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grassland, mixed native-nonnative grassland, alkali grassland, and alluvial fan sage scrub plant communities in association with clay or alkaline silty-clay soils.	**Presumed Absent.** The Project Area lacks suitable soils for this species. There is 1 historic and 1 recent record within 5 miles of the Project.
Brodiaea santarosae Santa Rosa basalt brodiaea	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	May-June 565-1045	Occurs in valley and foothill grassland, on soils derived from Santa Rosa basalt.	**Presumed Absent.** Although there is one historic and one recent occurrence within 5 miles (located at the Santa Rosa Plateau), the Project Area lacks suitable habitat/soils for this species.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Calochortus weedii* var. *intermedius intermediate mariposa lily	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	May-July 105-855	Occurs in rocky, calcareous soils on dry, rocky open slopes and rock outcrops in coastal scrub and chaparral.	**Presumed Absent.** Although coastal scrub and rocky sandy loam occur on portions of the Project Area, the Project Area lacks rocky open slopes or outcrops. There is 1 occurrence from 2003 recorded within 5 miles of the Project.
Caulanthus simulans Payson's jewelflower	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	Feb-June 90-2200	Occurs in pinyon-juniper woodland, chaparral and coastal sage scrub, typically on north-facing slopes and ridgelines on sandy-granitic soils. This species frequently occurs on rocky steep slopes, in burned areas or in disturbed sites such as streambeds.	**Low.** The Project Area contains marginally suitable sandy loam soils and portions of the area contain coastal scrub; however, the Project Area lacks north-facing slopes/ridgelines and there is only 1 historic record within 5 miles of the Project.
Centromadia pungens* ssp. *laevis smooth tarplant	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Apr-Sep 0-640	Occurs in alkali scrub, alkali playas, riparian woodland, watercourses, and grasslands with alkaline affinities. In Riverside Co., primarily restricted to the alkali floodplains of the San Jacinto River, Mystic Lake and Salt Creek in association with Willows, Domino and Traver soils.	**Low.** Although there is a small amount of scattered riparian scrub within the southern portion of the Project Area, the Project Area lacks suitable alkaline habitat for the species. There are 5 recent and 14 historic records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Chorizanthe leptotheca Peninsular spineflower	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	May-August 300-1900	Occurs in chaparral, coastal scrub, and lower montane coniferous forests in alluvial fan habitats in granitic soils. In Riverside Co., at higher elevations, this species appears to be associated with chaparral, sage scrub and coniferous forest openings and at lower elevations it is typically associated with old formation alluvial benches.	**Presumed Absent.** The Project Area lacks the typical alluvial formations this species is associated with at lower elevations of its range. There is only 1 historic record within 5 miles of the Project, located at the Santa Rosa Plateau.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Apr-Jun 275-1220	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitat. Often found in sandy or rocky openings. In Riverside Co., primarily restricted to alluvial floodplains and alluvial chaparral and scrub of Western Riverside County, specifically the Santa Ana, Agua Tibia (Palomar), San Bernardino and San Jacinto Mountains.	**Low**. The Project Area lacks suitable alluvial habitat for the species. The literature review revealed 16 recent and 3 historic records of this species within 5 miles of the Project.
Chorizanthe polygonoides* var. *longispina long-spined spineflower	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 30-1530	Associated primarily with heavy, often rocky, clay soils in southern needlegrass grassland, and openings in coastal sage scrub, and chaparral.	**Low.** Portions of the Project Area contain coastal sage scrub habitat; however, the Project Area lacks suitable clay soils. There are 17 recent and 3 historic records of this species within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Clinopodium chandleri San Miguel savory	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Mar-Jul 120-1075	Associated with rocky, gabbroic and metavolcanic substrates in coastal sage scrub, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands.	**Low.** Although portions of the Project Area include coastal sage scrub, the Project Area lacks suitable soils for this species. There are 4 recent and 4 historic within 5 miles of the Project.
Convolvulus simulans Small-flowering morning-glory	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	March-July 30-740	In Riverside Co., associated with open sage scrub and grasslands in the Riverside Lowlands, San Jacinto Foothills, and Santa Ana Mountains Bioregions where they occur on clay and cobbly clay soils below 1,000 feet (~325m) elevation.	**Low.** Although portions of the Project Area contain coastal sage scrub, the Project Area lacks suitable clay soils. There are 2 recent records within 5 miles of the Project.
Deinandra paniculata paniculate tarplant	Fed: CA: CRPR: MSHCP:	none none 4.2 none	April-Nov (March-Dec) 25-940	Occurs in coastal scrub, valley and foothill grassland, and vernal pools usually in vernal mesic and sometimes in sandy soils.	**Present.**
Dodecahema leptoceras slender-horned spineflower	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 200-760	Dependent on mature alluvial scrub that is maintained by periodic flooding and sediment transport.	**Presumed Absent.** Project Area lacks suitable alluvial habitat. There are no records within 5 miles.
Dudleya multicaulis many-stemmed dudleya	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 15-790	In Riverside Co., associated with openings in chaparral, coastal sage scrub, and grasslands underlain by clay and cobbly clay soils of the following series: Altamont, Auld, Bosanko, Claypit, and Porterville.	**Presumed Absent.** The Project Area lacks clay or cobbly soils typical of this species. There are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Eryngium aristulatum* var. *parishii San Diego button-celery	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 20-620	Occurs in coastal scrub, valley and foothill grassland and vernal pools. Prefers mesic habitats.	**Presumed Absent.** The Project Area lacks suitable mesic habitat. There is 1 recent record within 5 miles of the Project.
Harpagonella palmeri Palmer's grapplinghook	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	March-May 20-955	Associated with clay and cobbly clay soils in chaparral, coastal sage scrub, valley and foothill grasslands, and scrub oak woodland.	**Low.** Although portions of the Project Area contain coastal sage scrub, the Project Area lacks suitable clay soils. There are 7 recent and 3 historic records within 5 miles of the Project.
Holocarpha virgata ssp. elongata graceful tarplant	Fed: CA: CRPR: MSHCP:	None None 4.2 COV	Jul-Nov <900	Occurs in chaparral, cismontane woodland, coastal sage scrub, and valley and foothill grasslands. Generally, shrub cover is not well-developed at graceful tarplant localities, with a heavy incidence of non-native grasses and invasive herbs.	**Presumed Absent.** The Project Area lacks suitable grassland habitat. There is 1 recent and 1 historic record within 5 miles of the Project (Santa Rosa Plateau).
Hordeum intercedens Vernal barley	Fed: CA: CRPR: MSHCP:	none none 3.2 COV	March-June 5-1000	Mesic grasslands, vernal pools, and large saline flats or depressions. In Riverside Co., found in the Domino, Willows and Traver soils series and is associated with alkali flats and flood plains within the alkali vernal plains community.	**Presumed Absent.** The Project Area lacks suitable mesic habitat and soils. There are no records within 5 miles of the Project.
Juglans californica Southern California Black Walnut	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	March-August 50-900	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland, often alluvial soils.	**Presumed Absent.** This conspicuous species was not observed during the May 2023 biological survey. There are 1 historic and 2 recent records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Juncus luciensis Santa Lucia dwarf rush	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Apr-Jul 300-2040	Obligate wetland species occurring in chaparral, great basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools.	**Presumed Absent.** Project Area lacks suitable wetland habitat to support the species. There is 1 historic record within 5 miles.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Feb-Jun 1-1220	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	**Presumed Absent.** No suitable coastal marsh, swamp, playa or vernal pool habitat is present on Project Area. There are 2 historic records within 5 miles of the Project.
Lilium humboldtii ssp. ocellatum ocellated Humboldt lily	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	March-August 30-1800	Associated with riparian corridors in lower montane coniferous forest and coastal chaparral. Typically occurs on lower stream benches but can also occur on shaded, dry slopes, beneath a dense coniferous canopy and cismontane oak woodland.	**Presumed Absent.** Project Area lacks suitable riparian and/or oak woodland habitat for the species. There are no records within 5 miles of the Project.
Lilium parryi lemon lily	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Jul-Aug 1220-2745	Occurs in lower montane coniferous forest, meadows and seeps, riparian forest. In western Riverside Co., restricted to forested, shady stream banks within narrow canyon bottoms, higher than 1,300 m within the San Jacinto Mountains Bioregion.	**Presumed Absent.** Project Area lacks suitable forested stream bed habitat. There are no records within 5 miles of the Project.
Limnanthes alba* ssp. *parishii Parish's meadowfoam	Fed: CA: CRPR: MSHCP:	None **END** 1B.2 COV	Apr-Jun 600-2000	Occurs in lower montane coniferous forest, meadows and seeps, vernal pools. Prefers vernally mesic habitats.	**Presumed Absent.** No suitable lower montane coniferous forest, meadows or seeps, or vernal pool habitat occurs within the Project Area. There are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Microseris douglasii* ssp. *platycarpha small-flowered microseris	Fed: CA: CRPR: MSHCP:	None None 4.2 COV	Mar-May <1100	Associated with perennial grasslands on clay lenses and on the periphery of vernal pools.	**Presumed Absent.** Project Area lacks suitable grassland or vernal pool habitat. There is 1 historic record within 5 miles of the Project.
Monardella hypoleuca* ssp. *intermedia intermediate monardella	Fed: CA: CRPR: MSHCP:	None None 1B.3 None	Apr-Sep 400-1250	Occurs in chaparral, cismontane woodland, and occasionally in lower montane coniferous forest habitat. Often found in areas of understory.	**Presumed Absent.** No suitable chaparral, woodland, or forest habitat is present within the Project Area and there are no records within 5 miles.
Myosurus minimus* ssp. *apus little mousetail	Fed: CA: CRPR: MSHCP:	none none 3.1 COV	March-June 20-640	Occurs in association with vernal pools and within the alkali vernal pools and alkali annual grassland components of alkali vernal plains.	**Presumed Absent.** Project Area lacks suitable alkali habitat. There are 1 recent and 2 historic records within 5 miles of the Project.
Navarretia fossalis spreading navarretia	Fed: CA: CRPR: MSHCP:	**THR** None 1B.1 COV	Apr-Jun 30-655	Occurs in chenopod scrub, marshes and swamps, playas and vernal pools.	**Presumed Absent.** There is 1 recent and 1 historic record within 5 miles of the Project. However, there is no suitable chenopod scrub, marshes or swamps, playas or vernal pool habitat present within the Project Area.
Navarretia prostrata prostrate vernal pool navarretia	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 3-1210	Occurs in coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools.	**Presumed Absent.** The Project Area lacks seeps and vernal pools. There is one recent record within 5 miles of the Project.
Orcuttia californica California Orcutt grass	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Aug 15-660	Occurs in vernal pools	**Presumed Absent.** Project Area lacks vernal pool habitat. There are two historic records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Polygala cornuta* var. *fishiae Fish's milkwort	Fed: CA: CRPR: MSHCP:	None None 4.3 COV	May-Aug 90-1270	Associated with shaded areas within cismontane oak woodlands and riparian woodlands. In western Riverside Co., restricted to the eastern slopes of the Santa Ana Mountains and possibly the northern slopes of the Agua Tibia Mountains.	**Presumed Absent.** Project Area lacks suitable woodland habitat. There are two historic records and 1 recent record within 5 miles of the Project.
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: CA: CRPR: MSHCP:	None None 2B.2 None	Aug-Nov <500	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Often found in sandy, gravelly soils.	**Low.** Portions of Project Area contain coastal scrub and riparian vegetation; however soils are sandy loam. There is 1 recent and 1 historic record within 5 miles.
Quercus engelmannii Engelmann oak	Fed: CA: CRPR: MSHCP:	None None 4.2 COV	Apr-May <1300	Restricted to southern oak woodlands and riparian woodlands.	**Presumed Absent**. This conspicuous species was not observed during the May 2023 biological survey. There are 6 historic and 2 recent records within 5 miles of the Project.
Romneya coulteri Coulter's matilija poppy	Fed: CA: CRPR: MSHCP:	none none 4.2 COV	March-August 20-1200	Occurs in dry washes and canyons below 1,200 m in open, mildly disturbed sage scrub, chaparral and along rocky drainages.	**Moderate.** Project Area has suitable disturbed sage scrub and rocky drainage habitat; however, there are no records within 5 miles of the Project.
Scutellaria bolanderi* ssp. *austromontana southern mountains skullcap	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Jun-Aug 425-2000	Occurs in gravelly soils, stream banks, oak or pine woodland.	**Presumed Absent.** No suitable stream or woodland habitat present within the Project Area. There is 1 historic record within 5 miles of the Project.
Sibaropsis hammittii Hammitt's clay-cress	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Mar-Apr 600-1300	Occurs in clay lenses within openings in chaparral and valley and foothill grassland habitats.	**Presumed Absent.** The Project Area is out of the elevational range of the species and there are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Symphyotrichum defoliatum San Bernardino aster	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Jul-Nov 2-2040	Obligate wetland plant; occurs in grassland and meadow habitat. Often found in areas near ditches, streams, and springs.	**Presumed Absent.** The Project Area lacks suitable wetland meadow habitat to support the species. There are 2 historic records within 5 miles of the Project.
Gymnosperms					
Hesperocyparis forbesii Tecate cypress	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	Perennial evergreen tree 80-1500	Occurs in closed-cone coniferous forest, and chaparral habitat. Often found in areas with clay, gabbroic or metavolcanics soils.	**Presumed Absent.** Project Area lacks suitable soils and there are no records within 5 miles of the Project. This conspicuous species was not observed during the May 2023 biological survey.
Bryophytes					
Geothallus tuberosus Campbell's liverwort	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	10-600	Occurs in mesic coastal scrub, vernal pools.	**Presumed Absent.** Project Area lacks suitable mesic habitat. There are no records within 5 miles of the Project.
Sphaerocarpos drewiae bottle liverwort	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	90-600	Under shade of coastal sage brush. Appears to be associated with *Geothallus tuberosus*.	**Presumed Absent.** Project Area lacks mesic habitat associated with *Geothallus tuberosus*. There are no records within 5 miles of the Project.

Federal Designations:
(Federal Endangered Species Act, USFWS)
END: federally listed, endangered
THR: federally listed, threatened

State designations:
(California Endangered Species Act, CDFW)
END: state-listed, endangered
THR: state-listed, threatened
Rare: CDFW Rare

Other Designations
(Western Riverside MSHCP)
COV: Covered

California Native Plant Society (CNPS) Rare Plant Ranks:
1A: Plants presumed extirpated in California and either rare or extinct elsewhere
1B: Plants rare, threatened, or endangered in CA and elsewhere
2A: Plants presumed extirpated in California but common elsewhere
2B: Plants rare, threatened, or endangered in CA but more common elsewhere
3: Plants about which need more information; a review list
4: Plants of limited distribution; a watch list
Threat Ranks:
0.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
0.3 Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or current threats known)

Source: California Natural Diversity Data Base (CNDDB), California Native Plant Society Electronic Inventory (CNPSEI) Romoland, Lake Elsinore, Murrieta, and Wildomar 7.5-minute quadrangles.

APPENDIX E

Special Status Wildlife Species Potential to Occur

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
INVERTEBRATES				
Bombus crotchii Crotch bumble bee	Fed: CA: MSHCP:	None CAN None	Occurs in open grassland and scrub habitats. Select food plant genera: *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, Eriogonum.*	**Moderate.** Coastal sage scrub habitat occurs on portions of the Project Area, including the species' food genera such as *Eriogonum* and *Salvia*. There is 1 record from 2001 within 5 miles of the Project.
Branchinecta lynchi vernal pool fairy shrimp	Fed: CA: MSHCP:	**THR** None COV	Occurs in vernal pools and ephemeral wetlands. Typically, in small and shallow pools with mud or grassy bottoms.	**Presumed Absent.** The Project Footprint lacks suitable vernal pool habitat. There is one record within 5 miles of the Project, located within the Santa Rosa Plateau Ecological Reserve.
Branchinecta sandiegonensis San Diego fairy shrimp	Fed: CA: MSHCP:	**END** None None	Vernal pools and ephemeral wetlands in San Diego and Orange Counties.	**Presumed Absent.** The Project Footprint is outside of the geographical range of the species. There is one recent record within 5 miles of the Project consisting of a transplant occurring within the Clayton Ranch mitigation site.
Danaus plexippus pop. 1 monarch butterfly (overwintering population)	Fed: CA: BLM:	**CAN** none none	Roosts in wind-protected tree groves (Coastal California conifer, Eucalyptus) from Northern Mendocino to Baja California.	**Presumed Absent.** While scattered Eucalyptus trees occur within the Project Footprint, they do not comprise a grove extensive enough to support the species. Additionally, there are no records within 5 miles of the Project.
Linderiella santarosae Santa Rosa Plateau fairy shrimp	Fed: CA: MSHCP:	None None COV	Known to occur in a few vernal pools on the Santa Rosa Plateau, which are characterized as southern basalt flow vernal pools that contain cool clear to milky waters.	**Presumed Absent.** The Project Footprint lacks suitable vernal pool habitat. There is one record within 5 miles of the Project, located within the Santa Rosa Plateau Ecological Reserve.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA: MSHCP:	**END** None COV	Patchy shrub or small tree landscapes with openings of several meters between large plants, or a landscape of open swales alternating with dense patches of shrubs. Primary host plants or larval food sources: *Plantago erecta*, *Antirrhinums coulterianum, Plantago patagonica,* and *Collinsia concolor*.	**Presumed Absent.** Project Footprint lacks suitable habitat and host species, and the Project is outside the recommended survey areas. There are 2 historic records within 5 miles of the Project.
Streptocephalus woottoni Riverside fairy shrimp	Fed: CA: MSHCP:	**END** None COV	Occurs in vernal pools, tectonic swales, and earth slump basins in Riverside County.	**Presumed Absent.** There are no vernal pools or clay soils present within the Project Footprint. There are 4 recent records identified within 5 miles of the Project.
AMPHIBIANS				
Rana draytonii California red-legged frog	Fed: CA: MSHCP:	**THR** SSC COV	Found near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.	**Presumed Absent.** No permanent creeks, ponds or streams, are present on the Project Footprint. There is one historic record within 5 miles of the Project Area, located within the Santa Rosa Plateau.
Spea hammondii western spadefoot	Fed: CA: MSHCP:	None SSC COV	Prefers open areas with sandy or gravelly soils, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, and alkali flats.	**Low.** There is marginally suitable coastal sage scrub habitat with sandy loam soils within the Project Area. However, the Project Area and 500-foot buffer lack ponded habitat. There are 4 historic and 5 recent records within 5 miles of the Project. The three closest records (from 1998, 2003, and 2017) occur within 1.5 miles of the Project Area, located within ponded habitat.
Taricha torosa coast range newt	Fed: CA: MSHCP:	None SSC COV	Occurs in wet forests, oak forests, chaparral, and rolling grasslands. Burrows in moist soil or wood debris.	**Presumed Absent.** The Project Footprint lacks suitable moist forest or chaparral habitat for the species. There is 1 recent and 1 historic record within 5 miles.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
REPTILES				
Anniella stebbinsi southern California legless lizard	Fed: CA: MSHCP:	None SSC None	Typically occurs in moist warm loose soil with plant cover in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	**Low.** There are three recent records within 5 miles of the Project Footprint (2011, 2017, 2018). Densely vegetated scrub and a few scattered oak trees occur within the Project Area, however, no suitable moist habitat or open areas are present onsite.
Arizona elegans occidentalis California glossy snake	Fed: CA: MSHCP:	None SSC None	Typically occurs in scrub or grassland habitat, often with loose or sandy soils.	**Moderate.** Marginally suitable scrub habitat occurs within the Project Footprint. There are five historic occurrences within 5 miles of the Project Area from 1946-1977.
Aspidoscelis hyperythra orange-throated whiptail	Fed: CA: MSHCP:	None WL COV	Semi-arid open areas with coarse soils including coastal sage scrub, chaparral, and dry riparian areas and washes.	**Low.** Although coastal scrub occurs within portions of the Project Area, it lacks suitable open habitat with coarse soils to support the species. Ten historic occurrences have been recorded with 5 miles of the Project.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA: MSHCP:	None SSC COV	Open, often rocky areas with little vegetation or sunny microhabitats within shrub or grassland association.	**Low.** Although coastal scrub occurs within portions of the Project Area, it lacks suitable open habitat to support the species. One historic occurrence has been recorded with 5 miles of the Project.
Crotalus ruber red-diamond rattlesnake	Fed: CA: MSHCP:	None SSC COV	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats.	**Moderate.** Somewhat suitable habitat present onsite, and there are three historic records within 5 miles of the Project, but the Project Area lacks rocky areas preferred by this species.
Emys marmorata western pond turtle	Fed: CA: MSHCP:	None SSC COV	Ponds, lakes, rivers, streams, marshes, and other water sources with rocky or muddy substrate. Basks on logs, rocks, and exposed banks.	**Presumed Absent.** No suitable aquatic habitats are present within the Project Area. There are 3 historic records within 5 miles: 2 are now considered extirpated and 1 was documented at the Santa Rosa Plateau.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Phrynosoma blainvillii coast horned lizard	Fed: CA: MSHCP:	None SSC COV	Open areas of valleys, foothills, and semiarid mountains with sandy soil and low vegetation including chaparral, woodlands, and grasslands.	**Low.** Chaparral habitat and sandy soils are present within the Project Area; however, the Project Area has high vegetative cover and lacks open areas to support the species. There are 7 historic records and 1 recent record within 5 miles.
Thamnophis hammondii two-striped gartersnake	Fed: CA: MSHCP:	None SSC None	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests and hunts in water. Found from sea to about 7,000 ft elevation.	**Presumed Absent.** No suitable aquatic habitat is present within the Project Area. There is 1 historic record within 5 miles of the Project Area.
BIRDS				
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Fed: CA: MSHCP:	None WL 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.	**Moderate.** Suitable coastal sage scrub habitat occurs within the Project Area. There are 9 historic records within 5 miles of the Project.
Aquila chrysaetos golden eagle (nesting & wintering)	Fed: CA: MSHCP:	None FP COV	Open country including prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. Nests on rocky cliff edges.	**Presumed Absent.** There is one historic record within 5 miles of the Project (located at the Santa Rosa Plateau); however, no suitable rocky, cliff habitat for nesting is present within the Project Area.
Artemisiospiza belli belli Bell's sage sparrow	Fed: CA: MSHCP	None WL COV	Chaparral dominated with California sagebrush or chamise. Nests on ground or within 1 meter above ground in a shrub.	**Moderate.** Suitable coastal sage scrub habitat occurs within the Project Area. There are 8 historic records within 5 miles of the Project.
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA: MSHCP:	None SSC COV	Open grasslands including prairies, plains, and savannah, or vacant lots and airports. Nests in abandoned dirt burrows.	**High.** Suitable foraging and burrow habitat and a few small mammal burrows are present within the Project Area. There are 7 recent records within 5 miles of the Project.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Eremophila alpestris actia California horned lark	Fed: CA: MSHCP:	None WL COV	Bare open areas dominated by low vegetation or widely scattered shrubs, includes prairies, deserts, and plowed fields. Nests in a hollow on the ground.	**Low.** The Project Area contains shrub habitat; however, it lacks suitable bare, open habitat to support the species. There are 3 historic records within 5 miles of the Project.
Empidonax traillii extimus southwestern willow flycatcher (nesting)	Fed: CA: MSHCP:	**END** **END** COV	Riparian woodlands particularly with willow thickets. Nests in densest areas of shrubs and trees with low-density canopies.	**Presumed Absent.** While small patches of willows, mulefat, and cottonwoods are present within the Project Area, they are not abundant or continuous enough to provide suitable foraging and breeding habitat for the species. There are no occurrences of the species recorded within 5 miles of the Project Area.
Lanius ludovicianus loggerhead shrike	Fed: CA: MSHCP:	None SSC COV	Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral.	**Moderate.** There is suitable habitat present within the Project Area. There is one historic occurrence within 5 miles of the Project Area.
Polioptila californica californica coastal California gnatcatcher	Fed: CA: MSHCP:	**THR** SSC COV	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub.	**Present.** This species was observed adjacent to the Project Area, within the 500-ft buffer area during the biological assessment.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA: MSHCP:	**END** **END** COV	Riparian woodlands and willow-cottonwood forests particularly with streamside thickets and dense brush.	**Presumed Absent.** While small patches of willows, mulefat, and cottonwoods are present within the Project Area, they are not abundant or continuous enough to provide suitable foraging and breeding habitat for the species. There are 4 recent records and 1 historic record within 5 miles of the Project Area.
MAMMALS				
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: CA: MSHCP:	None SSC COV	Coastal scrub, chaparral, sagebrush, and grasslands in western San Diego County.	**High.** Suitable coastal sage scrub habitat and sandy loam soils occur within the Project Area. There is 1 historic and 1 recent occurrence recorded for this species within 5 miles of the Project Area.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: CA: MSHCP:	**END** CAN COV	Occurs in alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	**Presumed Absent.** The Project Area lacks suitable alluvial or flood plain habitat to support the species. There are no recorded occurrences within 5 miles of the Project Area.
Dipodomys stephensi Stephens' kangaroo rat	Fed: CA: MSHCP:	**END** **THR** COV	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain.	**Low.** While coastal sage scrub habitat and sandy loam soils occur onsite, the Project Area exhibits relatively high vegetative cover reducing habitat suitability for the species. There are 12 historic records within 5 miles of the Project Area.
Eumops perotis californicus western mastiff bat	Fed: CA: MSHCP:	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.	**Presumed Absent.** The literature review revealed one historic record within 5 miles of the Project Area; however, there is no suitable rock or cliff habitat present within the Project Area.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: CA: MSHCP:	None SSC COV	Variety of open or semi-open country including grasslands, croplands, and sparse coastal scrub.	**Moderate.** Suitable habitat is present within the Project Area. There are 4 historic occurrences within 5 miles of the Project Area.

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

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
WL: Watch List Species

Other Designations
COV: Covered under the Western Riverside MSHCP

Source: CNDDB Murrieta, Lake Elsinore, Romoland, Winchester, Bachelor Mountain, Pechanga, Temecula, Fallbrook, and Wildomar 7.5-minute quadrangles.