APPENDIX B1
BIOLOGICAL TECHNICAL REPORT

Biological Technical Report and MSHCP Consistency Analysis for the Menifee 91 Residential Development Project in Menifee, California (TTM 38128)

Riverside County, California

APN 330-230-023
APN 330-230-024

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LIST OF ACRONYMS AND ABBREVIATIONS

APN	Assessor's Parcel Number
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CWA	Clean Water Act
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IA	Implementing Agreement
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PFO	Potential for Occurrence
Project	Menifee 91 Residential Development Project
RCA	Regional Conservation Authority
RCTLMA	Riverside county Land Management Agency
SAA	Streambed Alteration Agreement
SSAR	Study of Amphibians and Reptiles
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey at a 27.5-acre property for the proposed Menifee 91 Residential Development Project (TTM; 38128; Project) located in the City of Menifee in Riverside County. 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 (*Planning Species*) and outlines goals for their conservation. Information on the MSHCP can be found at www.rctlma.org (Riverside County Land Management Agency [RCTLMA] 2021). 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 Description and Location

The proposed Project would construct single family residences on approximately 27.5 acres (Assessor's Parcel Number [APN] 330-230-023 and APN# 330-230-024) in the City of Menifee. The Project site is located west of Interstate 215 within the City of Menifee (Figure 1). The Project site is located southwest of where Troy Lane and Byers Road intersect (Figure 2). The Project, as depicted on the U.S. Geological Survey (USGS) Romoland 7.5-minute topographic quadrangle, is located within Section 17, Township 5 South, Range 3 West. Elevation at the Project site is approximately 1,500 feet above mean sea level.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

The biological reconnaissance survey was conducted to identify potential constraints to development and to ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. Special-status species can be federally or state-listed as endangered, threatened, or candidate species; they can also be state-listed Species of Special Concern (SSC) or Fully Protected (FP). The regulations are detailed below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of the ESA, federal agencies are required to

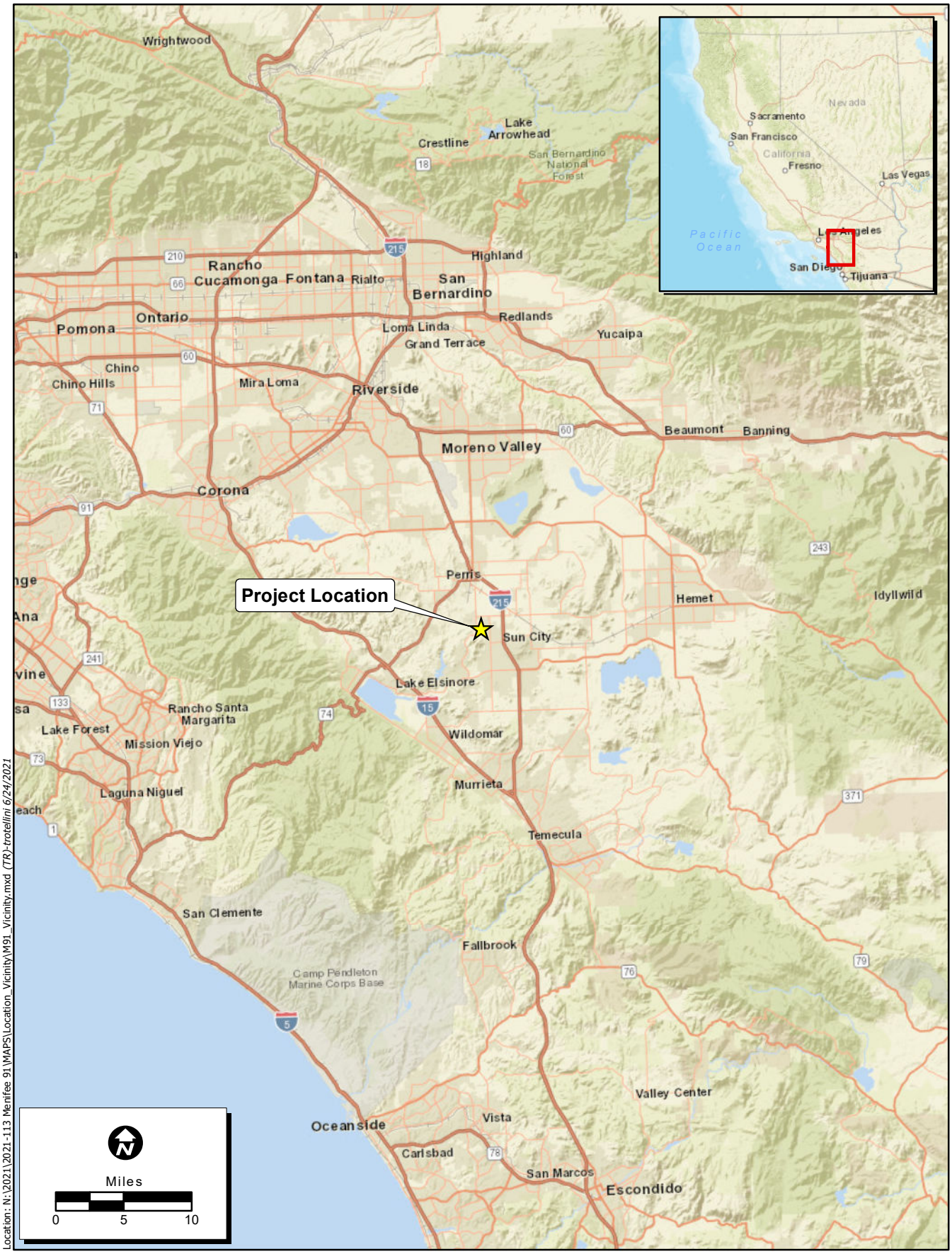

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Figure 1. Project Vicinity

2021-113 Menifee 91

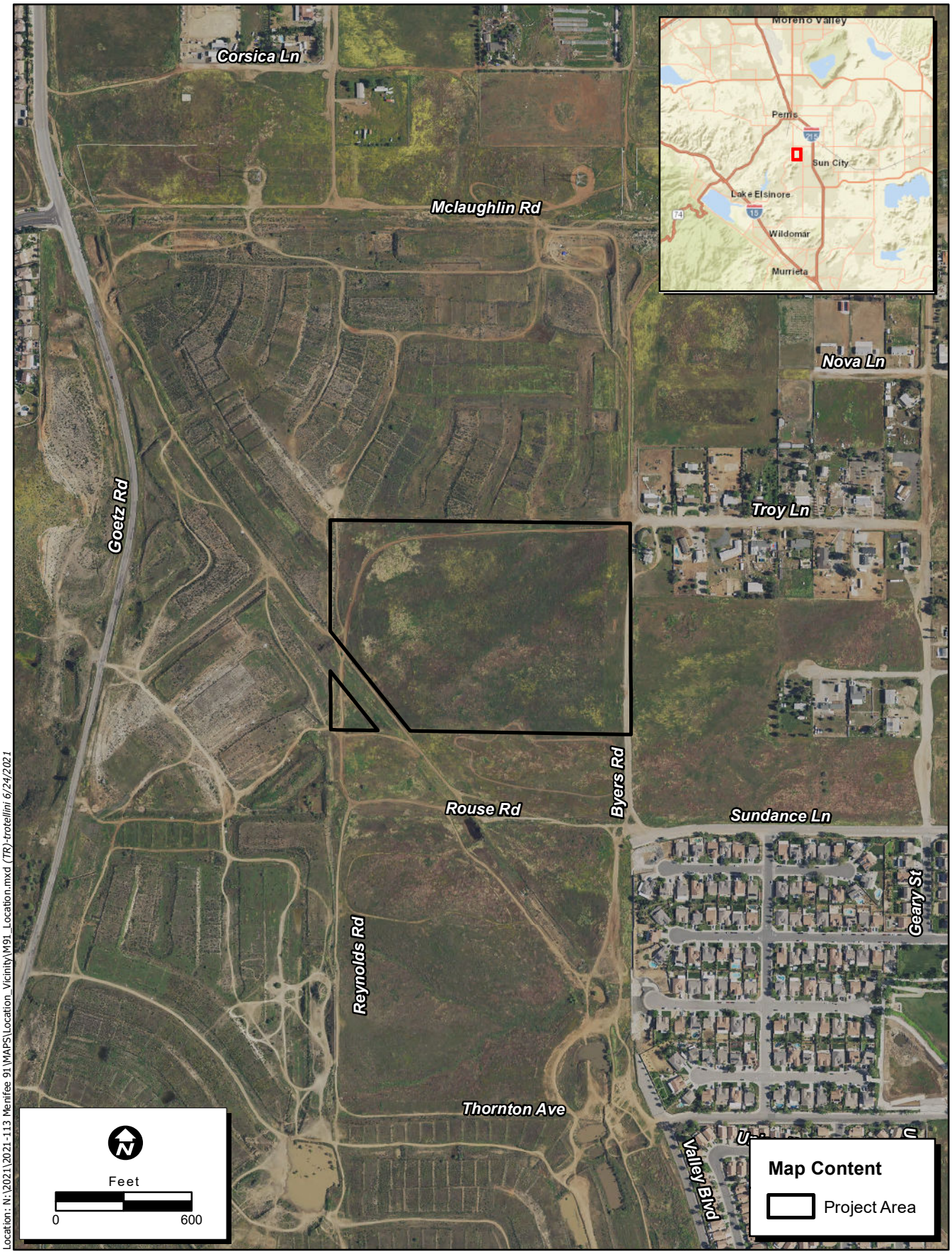

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Figure 2. Project Location

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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 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 Migratory Bird Treaty Act (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 (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 federal Clean Water Act's (CWA) purpose 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.

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the

State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with 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 § 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 §§ 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 § 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 §§ 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 § 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, multi-jurisdictional habitat conservation plan (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), the California ESA, and the ESA will be granted. The Development Mitigation Fee varies according to project size and project 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 CEQA 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. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW California Natural Diversity Data Base (CNDDB; CDFW 2021), the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI; CNPS 2021), and the USFWS Information for Planning and Consulting database (USFWS 2021b) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project site. ECORP searched CNDDB and CNPSEI records within the Project site boundaries as depicted on USGS 7.5-minute "Romoland, California" topographic quadrangle, and the surrounding eight topographic quadrangles: Winchester, Lakeview, Perris, Steele Peak, Lake Elsinore, Wildomar, Murrieta, and Bachelor Mountain. 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 2021);
- USFWS National Wetlands Inventory (NWI; USFWS 2021);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2021a);
- Special Animals List (CDFW 2021b);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);

- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- Various online websites (e.g., CalFlora 2021, CNPS 2021).

Using this information and observations in the field, a list of special-status plant and wildlife species that have potential to occur within the Project site was generated. 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, §§ 3511, 4700, 5050, or 5515;
- are of expressed concern (e.g., CDFW Species of Special Concern or Bureau of Land Management Sensitive, etc.) to resource and regulatory agencies or local jurisdictions; and/or
- are covered species under the MSHCP.

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

Present: The species was observed on site during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs within the Project site and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the Project site and a documented observation occurs within the database search, but not within five miles of the area (i.e., > 10 miles); a historic documented observation (more than 20 years old) was recorded within five miles of the Project site; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the Project site.

Low: Limited or marginal habitat for the species occurs within the Project site and a recently documented observation occurs within the database search, but not within five miles of the Project area (i.e., > 10 miles); a historic documented observation (more than 20 years old) was recorded within five miles of the Project site; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.

Presumed Absent: Species was not observed during focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project site.

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.

A desktop review of the NRCS' Web Soil Survey (NRCS 2021) and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages that might potentially fall under the jurisdiction of either federal or state agencies were present on the Project site.

3.2 Western Riverside County MSHCP Consistency Analysis

Data regarding the Project site were reviewed to determine consistency with the MSHCP. The Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map was queried to determine requirements for habitat assessment(s), potential focused survey(s), or other issues related to biological resources that could exist on the Project site (RCA 2021).

Section 6.0 of the MSHCP also requires that an assessment of the Project site be completed to identify any potential Project-related effects on biological resources, including riparian/riverine areas, vernal pools, and fairy shrimp, if applicable. 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.

3.3 Field Survey

3.3.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire Project site and a 500-foot buffer to identify the vegetation communities and wildlife habitats on the Project site. Portions of the buffer that were not accessible due to unknown property ownership were surveyed from a distance with binoculars. The biologists documented the plant and wildlife species present on the Project site, and the location and condition of the Project site were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were 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 site. The Project site was also examined 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 present on the Project site.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. 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 (SSAR 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).

In instances where a special-status species was observed, the species, location and habitat, and GPS coordinates were recorded.

3.3.2 Narrow Endemic Plant Species Habitat Assessment

The Project site is located within a MSHCP designated narrow endemic plant survey area for the following plant species: Munz's onion (*Allium* munzii), San Diego ambrosia (*Ambrosia* pumila), many-stemmed dudleya (*Dudleya* multicaulis), spreading navarretia (*Navarretia* fossalis), California Orcutt grass (*Orcuttia*

californica), Wright's trichocoronis (*Trichocoronis wrightii var. wrightii*) (RCA 2021). In order to determine if suitable habitat is present, a narrow endemic plant habitat assessment was conducted concurrently with the biological reconnaissance survey. The site and a 500-foot buffer were walked to identify the presence of habitat suitable for narrow endemic plant species. Areas that were not accessible by foot were scanned using binoculars for suitable habitat.

3.3.3 Burrowing Owl Habitat Assessment

The Project site is located within a MSHCP designated burrowing owl (*Athene cunicularia*) survey area. Surveys for burrowing owl are required as part of the Project review process where suitable habitat is present (RCTLMA 2021). In order to determine if suitable habitat is present a burrowing owl habitat assessment was conducted concurrently with the biological reconnaissance survey. The site and a 500-foot buffer were walked to identify the presence of owl habitat. Areas that were not accessible by foot were scanned using binoculars for suitable habitat.

4.0 RESULTS

The results of the literature review and field surveys, 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

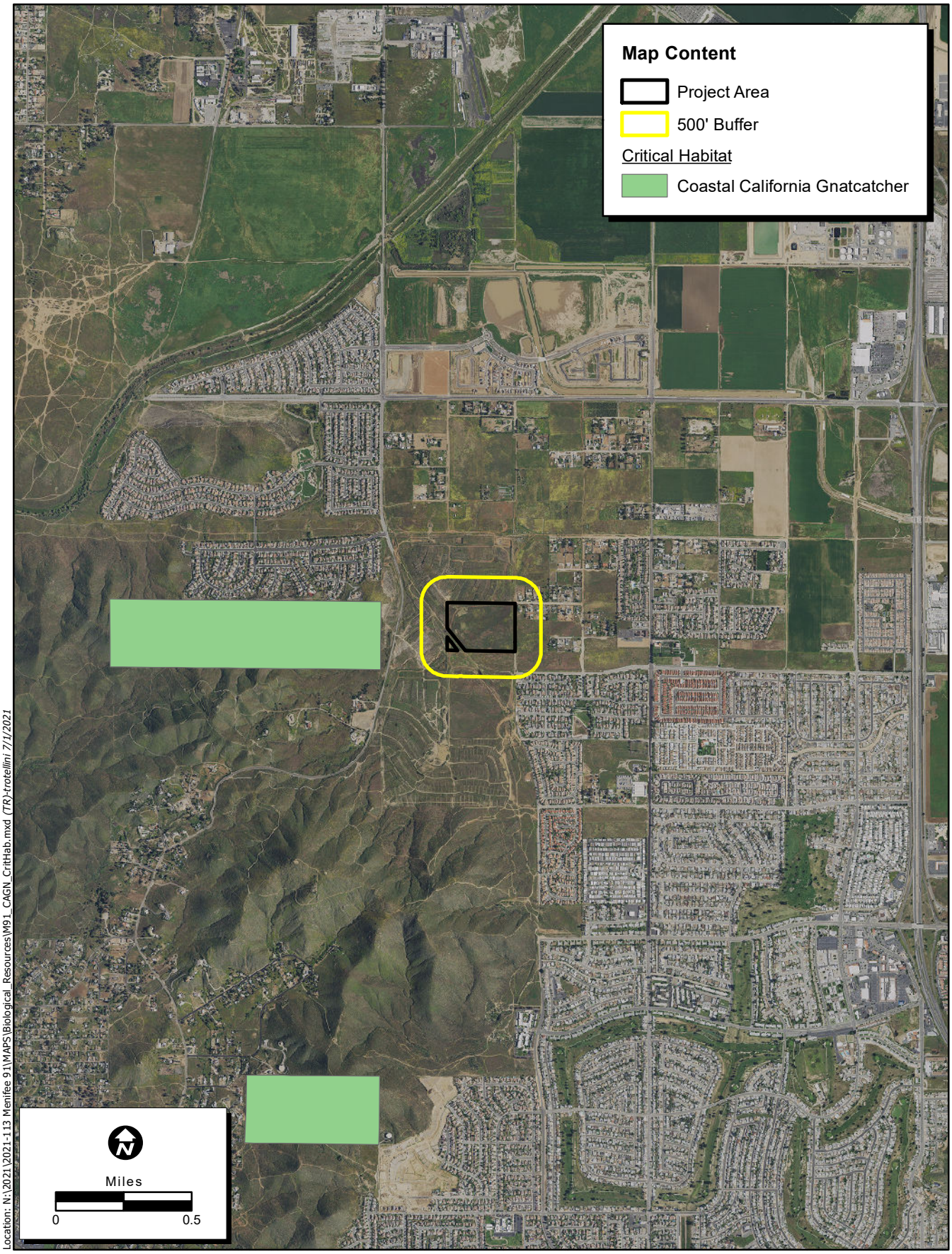
The CNDDB and CNPSEI searches were conducted on June 7, 2021. The database searches identified 55 special-status plant species and 53 special-status wildlife species that could occur on and/or near the Project site. A list was generated from the results of the literature review and the Project site was evaluated 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 site is not located within any USFWS-designated critical habitat. The closest designated critical habitat (Unit 10 within Riverside and San Bernardino counties) is designated for coastal California gnatcatcher (*Polioptila californica californica*), located approximately 0.25 mile to the west of the Project site (Figure 3; USFWS 2007).

4.1.3 State- or Federally Protected Wetlands and Waters of the United States

The Project site does not include any state- or federally protected wetlands or Waters of the U.S. (USFWS 2021). Although there is a concrete-lined ditch located along the northern boundary, this ditch is manufactured and was built in an upland area in support of a planned residential development that was graded but not yet constructed. The ditch shows no signs of regular water flow and does not connect to downstream resources. According to the NRCS, there are also no mapped hydric soils present on the Project site.



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Map Date: 7/1/2021

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Figure 3. Coastal California Gnatcatcher Critical Habitat

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The desktop review of the National Wetlands Inventory (NWI) showed a mapped drainage course outside of the Project boundary in the southern portion of the 500-foot buffer. The mapping designation (R4SBC) indicates a Riverine, Intermittent Streambed that is Seasonally Flooded (USFWS 2021). The USGS topographic map shows a mapped blue-line stream along the same location as the drainage course mapped within the NWI. However recent aerial photography and observations from the biological survey show no sign of this feature being present. It likely has been diverted from its historic course by developments built upstream.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on June 11, 2021, by ECORP biologists Greg Hampton, Alexandra Dorough, and Chelsie Brown. Summarized below are 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). Within the 500-foot buffer, areas of unknown property ownership or areas where no trespassing signs were posted were surveyed from a distance with binoculars. Weather conditions during the survey are summarized below in Table 4-1.

Table 4-1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
06/11/2021	1031	1310	76	86	0	0	0-2	4-5

4.2.1 Site Characteristics and Land Use

The Project site consisted of a disturbed vacant lot composed of primarily nonnative vegetation, scattered trash, and a dump site along the western boundary of the Project site. The whole site has evidence of mechanical disturbance with recently disced or graded areas around the perimeter. Off-highway vehicle tracks and a dirt road are also present on the site. There are six soil types within the Project site and 500-foot buffer:

- Auld clay, with 2 to 8 percent slopes;
- Auld clay, with 8 to 15 percent slopes;
- Cajalco fine sandy loam, with 8 to 15 percent slopes, eroded;
- Cajalco rocky fine sandy loam, with 5 to 15 percent slopes, eroded;
- Lodo gravelly loam, with 15 to 50 percent slopes, eroded; and
- Wyman loam, with 2 to 8 percent slopes, eroded (NRCS 2021).

The Project site is bounded to the north and south by disturbed nonnative grasslands; to the east by Byers Road, rural residences, and disturbed agricultural land; and to the west by what appeared to be partially developed residential pads with evidence of vegetation regrowth. There is a concrete-lined ditch located along the northern Project boundary. No aquatic resources were observed during the biological reconnaissance survey. Representative site photographs are included in Appendix A.

4.2.2 Vegetation Communities

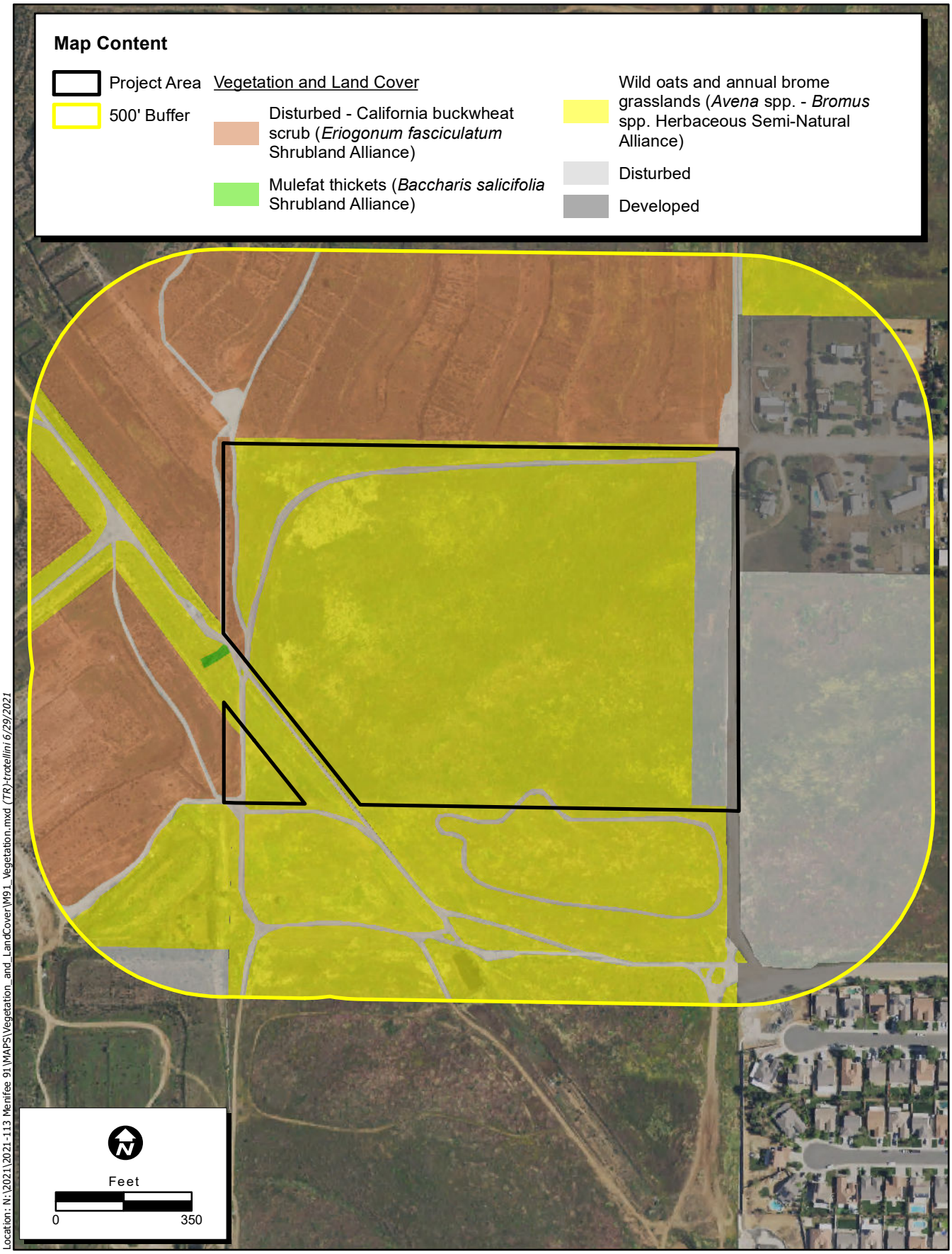
The dominant plant species observed on the Project site were nonnative and/or invasive weedy species. The site was largely devoid of native vegetation however some native species were present within the 500-foot buffer. The vegetation communities observed were characteristic of areas subjected to anthropogenic disturbances. The dominant vegetation community identified during the field survey was disturbed wild oat and annual brome grassland with occasional shrubs and no large trees. Small areas of disturbed California buckwheat (*Eriogonum fasciculatum*) scrub were present along the western boundary of the Project site and a small patch of mulefat thickets was identified to the southwest of one of the Project parcels. Each of these vegetation communities and land cover types is described below and depicted in Figure 4.

4.2.2.1 Disturbed Wild Oat and Annual Brome Grassland (Avena spp. – Bromus spp. Herbaceous Semi-Natural Alliance)

Areas mapped as disturbed wild oat and annual brome grasslands were largely devoid of native vegetation due to human disturbance and were dominated by open areas of nonnative grasses including nonnative weedy and ruderal vegetation. Disturbed wild oat and annual brome grasslands represent most of the vegetative cover within the Project site boundaries (Figure 4). Vegetation height at the time of survey ranged from approximately one to four feet, with a significant layer of thatch present in each stand. Plants present in this community on site included primarily nonnative grasses and weedy species such as wild oat (*Avena fatua*), short podded mustard (*Hirschfeldia incana*), foxtail chess (*Bromus madritensis*), and bromegrass (*Bromus diandrus*). Native species present in this community at the time of the survey included telegraph weed (*Heterotheca grandiflora*), turkey-mullein (*Croton setiger*), clustered tarweed (*Deinandra fasciculata*), and small seed sandmat (*Euphorbia polycarpa*).

4.2.2.2 Disturbed - California Buckwheat Scrub (Eriogonum fasciculatum Shrubland Alliance)

The western edge of the Project site as well as the northern and western sides of the buffer consisted of disturbed California buckwheat scrub (Figure 4). California buckwheat scrub is dominated or co-dominated by California buckwheat and consists primarily of shrubs less than two meters in height with a continuous to intermittent canopy (Sawyer et al 2009). The herbaceous layer is variable and may be grassy. Areas mapped as disturbed California buckwheat scrub contained open to intermittent shrub canopies dominated by California buckwheat. Disturbances observed included trash, dirt roads, and abandoned partially developed residential pads. Species present within this community at the time of the survey included California buckwheat, deerweed (*Acmispon glaber*) and brittlebush (*Encelia farinosa*), while nonnative species included tree tobacco (*Nicotiana glauca*) and Russian thistle (*Salsola tragus*).



Location: N:\2021\2021-113 Menifee 91\MAPS\Vegetation_and_LandCover\M91_Vegetation.mxd (TR)-trotellini 6/29/2021

Map Date: 6/25/2021

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Figure 4. Vegetation Communities and Land Cover Types

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4.2.2.3 Mulefat Thickets (Baccharis salicifolia Shrubland Alliance)

Mulefat (*Baccharis salicifolia*) was located outside of the Project site between the two parcels as depicted on Figure 4. Mulefat thickets consist primarily of shrubs less than five meters in height with a continuous canopy at two tiers (less than two meters and at or above five meters) and a sparse herbaceous layer (Sawyer et al 2009). The area mapped as mulefat thickets was isolated in nature with no other sub shrubs or associated species and did not appear to be associated with any waterways. Nearby disturbances included trash, dirt roads, and a dump site.

4.2.2.4 Disturbed/Developed

Disturbed/developed is not a vegetation classification, but rather a land cover type. Areas mapped as disturbed/developed were heavily disturbed due to human disturbance and were dominated by open areas or nonnative weedy and ruderal vegetation. The disturbed/developed areas of the Project Site were mainly associated with dirt roads, off-highway vehicle use, dumping, and mechanical disturbances present on the site and adjacent to the site within the 500-foot buffer.

4.2.3 Plants

Plant species observed on the Project site were generally characteristic of disturbed urban areas. Nonnative plant species observed on the Project site included wild oat, bromegrass, coastal heron's bill (*Erodium cicutarium*), shortpod mustard, and Russian thistle. Native plants observed on the Project site included common sand aster (*Corethrogyne filaginifolia*), turkey-mullein, clustered tarweed, and telegraph weed. A full list of plant species observed on or immediately adjacent to the Project site is included in Appendix B.

4.2.4 Wildlife

The Project site provided habitat for species adapted to disturbances and urban environments. Eight bird species were observed during the reconnaissance survey including red-tailed hawk (*Buteo jamaicensis*), greater roadrunner (*Geococcyx californianus*), coastal California gnatcatcher, and mourning dove (*Zenaida macroura*). Burrowing owl sign was observed at an occupied burrow complex to the east of the Project site within the 500-foot buffer however no live owls were observed and the pellet observed was old. Three mammal species were observed and included coyote *(Canis latrans),* black-tailed jackrabbit *(Lepus californicus)*, and California ground squirrel (*Otospermophilus beecheyi)*. A full list of wildlife species observed on or immediately adjacent to the Project site is included in Appendix C.

4.2.5 Potential for Special-Status Plant and Wildlife Species to Occur on the Project Site

The literature review and database search identified 55 special-status plant species and 53 special-status wildlife species that have the potential to occur on or near the Project site. However, due to the current lack of suitable habitat for the special-status plant and wildlife species, many of the species have a low potential to occur or are presumed absent from the Project site.

4.2.5.1 Special-Status Plants

There were 55 special-status plant species that appeared in the literature review and database searches for the Project site (CDFW 2021, CNPS 2021). Of those, nine are federally and/or state listed and 40 are covered by the MSHCP. A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. Descriptions of the CNPS designations can be found in Table 4-2. A Potential for Occurrence (PFO) table outlining each species and their designations can be found in Appendix D.

Table 4-2. 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
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 (CDFG 1984). This interpretation is inconsistent with other definitions.

4.2.5.2 Special-Status Plant Species with a Moderate Potential to Occur

Five species were found to have a moderate potential to occur on the Project site. Although, none of the species were identified on the Project site during the biological reconnaissance survey, the site provides marginal or limited amounts of habitat (including soils and elevation factors) occur onsite and recently documented observations occur within five miles of the Project site; or a historic documented observation (more than 20 years old) was recorded within five miles of the Project site. The special-status plant species with a moderate potential are listed below and detailed in Appendix D.

- San Diego ambrosia, CNPS 1B.1, federally listed (endangered), MSHCP Covered
- Thread-leaved brodiaea (*Brodiaea filifolia*) CNPS 1B.1, federally listed (threatened), state-listed (endangered), MSHCP Covered
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*) CNPS 1B1, MSHCP Covered
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CNPS 1B.1, MSHCP Covered
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*) CNPS 1B.2, MSHCP Covered

4.2.5.3 Special-Status Plant Species with a Low Potential to Occur

The following 29 species have a low potential to occur on the Project site because limited habitat for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site or a historic documented occurrence (more than 20 years old) was recorded within five miles of the Project site; or suitable habitat strongly associated with the species occurs on site, but no records were found in the database search. The dense nonnative vegetation observed on site combined with the mechanically disturbed soils limits the amount of suitable habitat; however, the disturbed wild oat and annual brome grassland on the Project site and the disturbed California buckwheat scrub adjacent to the north and west Project boundaries may provide low quality suitable habitat for these species.

- Bottle liverwort (*Sphaerocarpos drewiae*), CNPS 1B.1
- California Orcutt grass (*Orcuttia californica*), federally listed (endangered), state-listed (endangered), CNPS 1B.1, MSHCP Covered Species
- California screw moss (*Tortula californica*), CNPS 1B.2
- Campbell's liverwort (*Geothallus tuberosus*), CNPS 1B.1
- Coulter's goldfields (Lasthenia glabrata ssp. coulteri), CNPS 1B.1, MSHCP Covered Species
- Coulter's matilija poppy (Romneya coulteri), CNPS 4.2, MSHCP Covered Species
- Engelmann oak (Quercus engelmannii), CNPS 4.2, MSHCP Covered Species
- Graceful tarplant (Holocarpha virgata ssp. elongata), CNPS 4.2, MSHCP Covered Species
- Intermediate mariposa lily (Calochortus weedii var. intermedius), CNPS 1B.2, MSHCP Covered Species
- Jaeger's milk-vetch (Astragalus pachypus var. jaegeri), CNPS 1B.1, MSHCP Covered Species
- Little mousetail (Myosurus minimus ssp. apus), CNPS 3.1, MSHCP Covered Species
- Many-stemmed dudleya (Dudleya multicaulis), CNPS 1B.2, MSHCP Covered Species
- Munz's onion (Allium munzii), federally listed (endangered), state-listed (threatened), CNPS 1B.1, MSHCP Covered Species
- Palmer's grapplinghook (Harpagonella palmeri), CNPS 4.2, MSHCP Covered Species
- Payson's jewelflower (Caulanthus simulans), CNPS 4.2, MSHCP Covered Species
- Peninsular spineflower (Chorizanthe leptotheca), CNPS 4.2, MSHCP Covered Species
- Plummer's mariposa lily (Calochortus plummerae), CNPS 4.2, MSHCP Covered Species
- Prostrate vernal pool navarretia (Navarretia prostrata), CNPS 1B.2, MSHCP Covered Species
- Salt spring checkerbloom (Sidalcea neomexicana), CNPS 2B.2
- San Bernardino aster (Symphyotrichum defoliatum) CNPS 1B.2
- San Diego button-celery (Eryngium aristulatum var. parishii), federally listed (endangered), state-listed (endangered), CNPS 1B.1, MSHCP Covered Species

- San Jacinto Valley crownscale (Atriplex coronata var. notatior), federally listed (endangered), CNPS 1B.1, MSHCP Covered Species
- San Miguel savory (*Clinopodium chandleri*), CNPS 1B.2, MSHCP Covered Species
- Slender-horned spineflower (*Dodecahema leptoceras*), federally listed (endangered), state-listed (endangered), CNPS 1B.1, MSHCP Covered Species
- Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), CNPS 4.2, MSHCP Covered Species
- Small-flowered morning-glory (*Convolvulus simulans*), CNPS 4.2, MSHCP Covered Species
- Spreading navarretia (*Navarretia fossalis*), federally listed (threatened), CNPS 1B.1, MSHCP Covered Species
- Vernal barley (*Hordeum intercedens*), CNPS 3.2, MSHCP Covered Species
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*), CNPS 2B.2

4.2.5.4 Special-Status Plant Species Presumed Absent

A total of 21 plant species were presumed absent from the project due to lack of suitable habitat (including elevation and soils) on the Project site or because the Project is located outside of the known range for the species. A PFO table outlining each species and their designations can be found in Appendix D.

4.2.5.5 Special-Status Wildlife

The literature search documented 52 special-status wildlife species in the vicinity of the Project site. Of those, 15 are federally and/or state listed and 40 are covered by the MSHCP that appeared in the literature review and database searches for the Project site (CDFW 2021). A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. Mechanical disturbances on the site, proximity to residential development, and the presence of anthropogenic influences on the site likely preclude many of these species from occurring. A brief natural history and discussion of the special-status wildlife species found to be present onsite or to have a high potential to occur on the Project site is provided below. A PFO table outlining each species and their designations can be found in Appendix E.

4.2.5.6 Special-Status Wildlife Species Present

Northern Harrier

Northern harrier (*Circus hudsonius*) is a MSHCP-Covered Species and a CDFW SSC. This species is typically found in wide open habitats ranging from the Arctic tundra to prairie grasslands to fields and marshs. Suitable habitats include open pine-oak woodland, savannah, and agricultural fields with scattered trees. This species typically nests in trees, or in small groves. The low growing vegetation within the disturbed wild oat and annual grassland areas of the Project site and the scattered shrubs found within disturbed California buckwheat scrub in the 500-foot buffer to the north and west of the site provide suitable foraging habitat for this species, but no large trees suitable for nesting were identified on the Project site.

The literature review identified one recent and two historic occurrences of northern harrier, but none of the records were within five miles of the Project site (CDFW 2021). This species was observed flying over the Project site during the survey and therefore is presumed present on the Project site. However, due to the lack of suitable nesting habitat (e.g., large trees), this species is not expected to nest on the Project site.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a MSHCP-Covered Species and a CDFW fully protected species. This species is typically found in open lowland habitats including savanna, open woodlands, marshes, and agricultural fields. This species nests in tall trees within or on the edge of forested areas. The low growing vegetation within the disturbed wild oat and annual grassland areas of the Project site and the scattered shrubs found within disturbed California buckwheat scrub in the 500-foot buffer to the north and west of the site provide suitable foraging habitat for this species, but no large trees suitable for nesting were identified on the Project site. The literature review identified three recent and six historic occurrences of white-tailed kite, but none of the records were within five miles of the Project site (CDFW 2021). This species was observed flying over the Project site during the survey and therefore is presumed present on the Project site. However, due to the lack of suitable nesting habitat (e.g., large trees), this species is not expected to nest on the Project site.

California Horned Lark

California horned lark (*Eremophila alpestris actia*) is a MSHCP-Covered Species and a CDFW Watch List species. This species is typically found in bare open areas dominated by low vegetation or widely scattered shrubs, including prairies, deserts, and plowed fields. Low vegetation dominant within the disturbed wild oat and annual grassland on the Project site and scattered shrubs found within disturbed California buckwheat scrub in the 500-foot buffer to the north and west of the site provide suitable habitat for this species. Additionally, the literature review identified two recent and four historic occurrences of California horned lark within five miles of the Project site (CDFW 2021). This species was observed on Project site during the survey and therefore is presumed present on the Project site.

San Diego Black-tailed Jackrabbit

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is a MSHCP-Covered Species and a CDFW SSC. This species is typically found in a variety of open or semi-open country habitats including grasslands, croplands, and sparse coastal scrub. The disturbed wild oat and annual grassland on the Project site and the sparse disturbed California buckwheat scrub in the 500-foot buffer to the north and west of the site provide suitable habitat for this species. Additionally, the literature review identified two recent and three historic occurrences of San Diego black-tailed jackrabbit within five miles of the Project site (CDFW 2021). This species was observed during the survey and therefore is presumed present on the Project site.

Loggerhead Shrike

Loggerhead shrike (*Lanius ludovicianus*) is a MSHCP Covered Species and a CDFW SSC. This species is typically found in Open country, with scattered shrubs and trees or other perches for hunting; includes

agricultural fields, deserts, grasslands, savanna, and chaparral. The low growing vegetation within the disturbed wild oat and annual grassland areas of the Project site provide foraging habitat and the scattered shrubs found within disturbed California buckwheat scrub in the 500-foot buffer to the north and west of the site provide suitable foraging and nesting habitat for this species. Additionally, the literature review identified one recent and eight historic occurrences of loggerhead shrike, with the closest being identified in 2007, approximately 4.4 miles east of the Project site (CDFW 2021). This species was observed on Project site during the survey and therefore is presumed present on the Project site.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a MSHCP-Covered Species, a federally listed (threatened) species, and a CDFW SSC. This bird occurs in coastal scrub habitats, especially those dominated by California sage, including dry coastal slopes, washes, and mesas; areas of low plant growth (Atwood 1992). This species generally avoids crossing even small areas of unsuitable habitat (Atwood 1992). Suitable scrub habitat occurs within the disturbed California buckwheat scrub along the western project boundary. Several recent occurrences have been reported within five miles of the site, the closest of which was in 2003 approximately 0.8 mile east of the Project (CDFW 2021). The closest designated critical habitat for the gnatcatcher (unit 10 within Riverside and San Bernardino counties) is located approximately 0.25 mile to the west of the Project site (Figure 3; USFWS 2007).

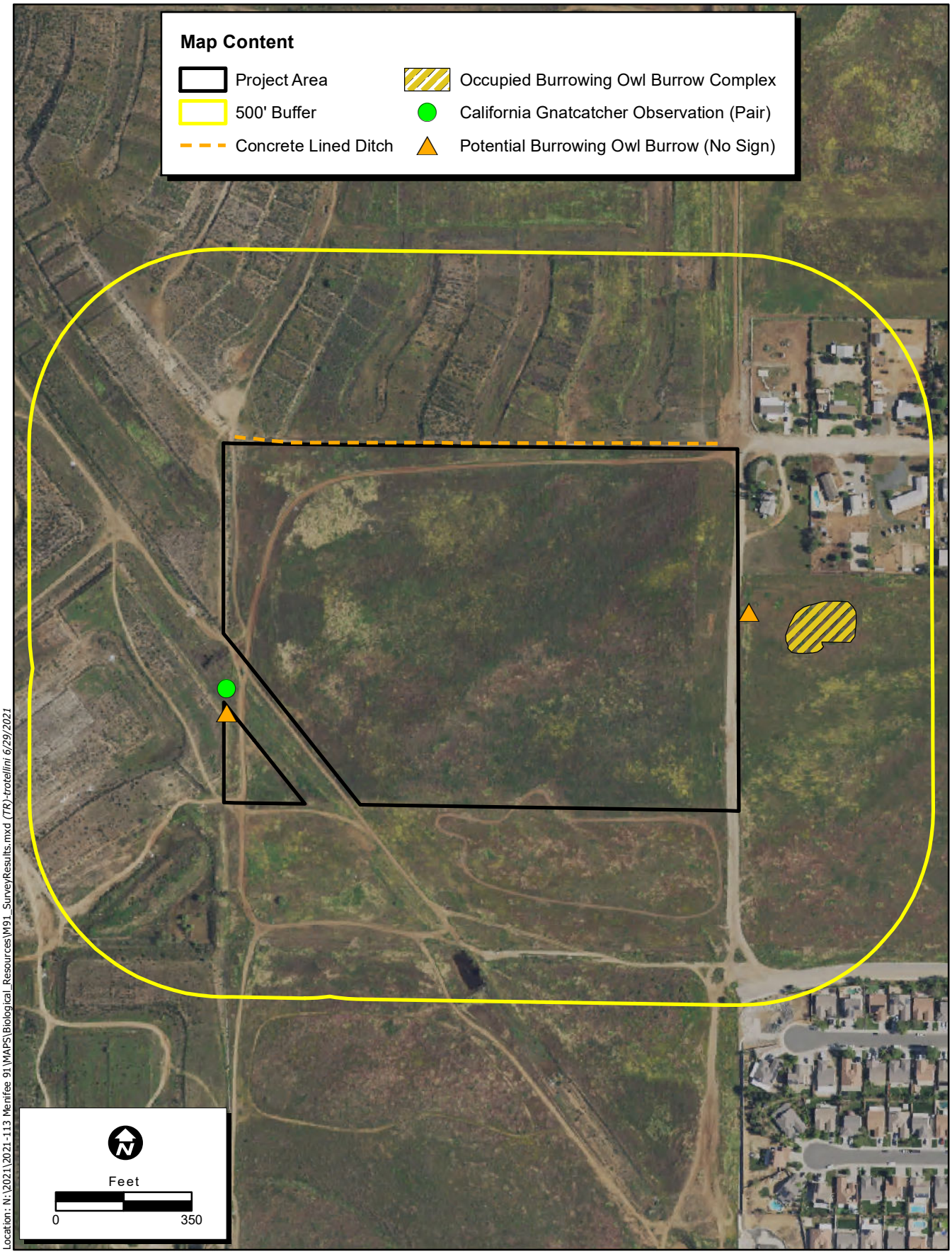
During the biological reconnaissance survey, one pair of gnatcatchers was observed foraging together in the disturbed California buckwheat scrub habitat offsite, within the 500-foot buffer Project site. This portion of the 500-foot buffer west of the Project site was not surveyed due to the presence of a no trespassing sign and the biologists were not able to search for a nest due to the lack of property access and it is unknown whether a nest was present. The location of the gnatcatcher observation is depicted in Figure 5.

4.2.5.7 Special-Status Wildlife Species with a High Potential to Occur

The following three species have a high potential to occur on the Project site due to the presence of suitable habitat for the species occurring on the Project site and a known a known occurrence has recently been recorded (within the last 20 years) within five miles of the Project area.

Burrowing Owl

Burrowing owl is a MSHCP-Covered Species and a CDFW SSC. Burrowing owls make use of mammal burrows and can also be found nesting in burrows made under concrete or other anthropogenic features and are often found near human activity. Small mammal burrows, likely from California ground squirrel, were located throughout the Project site, as well as within the 500-foot buffer east and west of the Project site. Each burrow observed was checked for sign of burrowing owl (e.g., whitewash, feathers, pellets). Burrows were classified according to definitions outlined in the *Staff Report on Burrowing Owl Mitigation* by the California Department of Fish and Game (2012). Burrows classified as occupied contained sign (consisting of whitewash, feathers, pellets, and/or bones of prey outside the burrow), indicating burrowing owl presence and/or use at some point in time. While potential burrows were defined as burrows that are large enough for a burrowing owl but do not show sign of use by the species. Data were recorded on survey sheets and photographs were taken. Two potential burrowing owl burrows were identified along



Location: N:\2021\2021-113 Menifee 91\MAPS\Biological_Resources\M91_SurveyResults.mxd (TR)-trotellini 6/29/2021

Map Date: 6/25/2021

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Figure 5. Biological Reconnaissance Survey Results

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the southwestern and eastern Project boundaries (Figure 5). One occupied burrow complex in the 500-foot buffer east of the Project site was identified with approximately 40 entrances of various dimensions and aspects and had one old pellet and some old whitewash present at the complex (Figure 5).

The literature review identified 16 occurrences of burrowing owls within five miles of the Project site between 2002 and 2016 (CDFW 2021). Due to the presence of suitable habitat, two potential burrows, one occupied burrow, and multiple recent occurrences within five miles of the Project site, burrowing owls have a high potential to occur. Representative photos of the burrows identified during the biological reconnaissance survey can be found in Appendix A.

4.2.5.8 Special-Status Wildlife Species with a Moderate Potential to Occur

Three species were found to have a moderate potential to occur on the Project site. Although these species were not present on the Project site during the biological reconnaissance survey, habitat for the species occurs onsite, and a known occurrence has been reported in the database, but not within five miles of the site; or a historic documented observation (more than 20 years old) was recorded within five miles of the Project site; or a recently documented observation occurs within five miles of the site and marginal or limited amounts of habitat occurs onsite. The special-status wildlife species with a moderate potential are listed below and also detailed in Appendix E.

- Orange-throated whiptail (*Aspidoscelis hyperythra*), MSHCP Covered Species
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC, MSHCP Covered Species

4.2.5.9 Special-Status Wildlife Species with a Low Potential to Occur

The following 18 species have a low potential to occur on the Project site because limited habitat for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site; or a historic documented observation (more than 20 years old) was recorded within five miles of the project site; or suitable habitat strongly associated with the species occurs on site, but no records were found in the database search. The disturbed wild oat and annual brome grassland on the Project site and the disturbed California buckwheat scrub within the 500-foot buffer adjacent to the north and west Project boundaries provide low quality habitat for species that are typically associated with grassland and scrub vegetation communities. Furthermore, the dense nonnative vegetation observed onsite combined with the mechanically disturbed soils severely limits the amount of suitable habitat for these species.

- American badger (*Taxidea taxus*), CDFW SSC
- Bell's sage sparrow (*Artemisiospiza belli belli*), MSHCP Covered Species
- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered Species
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), CDFW SSC, MSHCP Covered Species
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC, MSHCP Covered Species

- Cooper's hawk (*Accipiter cooperii*), MSHCP Covered Species
- Dulzura pocket mouse (*Chaetodipus californicus femoralis*), CDFW SSC
- Ferruginous hawk (*Buteo regalis*), MSHCP Covered Species
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), CDFW SSC, MSHCP Covered Species
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), CDFW SSC, MSHCP Covered Species
- Quino checkerspot butterfly (*Euphydryas editha quino*), federally listed (endangered), MSHCP Covered Species
- San Diego desert woodrat (*Neotoma lepida intermedia*), CDFW SSC, MSHCP Covered Species
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), MSHCP Covered Species
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC
- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (endangered), state-listed (threatened), MSHCP Covered Species
- Western spadefoot (*Spea hammondii*), CDFW SSC, MSHCP Covered Species

4.2.5.10 Special-Status Wildlife Species Presumed Absent

A total of 27 species were not present at the site during the biological reconnaissance survey and/or habitat was not present or suitable on the Project site. For some species, there were historic or recent database records; however, due to the lack of suitable habitat within the Project site, these species are presumed absent. A PFO table outlining each species and their designations can be found in Appendix E.

4.3 Narrow Endemic Plant Habitat Assessment

The narrow endemic plant habitat assessment was conducted concurrently with the biological reconnaissance survey on June 11, 2021, by ECORP biologists Greg Hampton, Alexandra Dorough, and Chelsie Brown. Weather conditions during the assessment are summarized in Table 4-1. The Project site and 500-foot buffer provided low to moderate quality habitat for the six narrow endemic plant species within the MSHCP narrow endemic plant survey area. The habitat within the Project boundaries consisted of primarily disturbed wild oat and annual brome grasslands with marginal disturbed California buckwheat scrub along the western Project boundary. The eastern Project boundary consisted of disturbed habitat largely devoid of native vegetation as a result of mechanical disturbances, dirt roads, and nearby developments. Disturbed California buckwheat scrub was present within the 500-foot buffer to the north and west of the Project site. The eastern portion of the buffer was disturbed habitat or developed land, and the southern portion of the buffer consisted of disturbed wild oat and annual brome grassland. Soils on the Project site were primarily clay soils with some loam and a small percentage of sandy loam soils present within the 500-foot buffer (NRCS 2021). Elevation on the Project site and within the 500-foot buffer ranged from approximately 450 – 475 meters. The following narrow endemic plant species typically occur in habitats of chenopod scrub, marshes and swamps, playas, vernal pools,

meadows and seeps, and riparian forests: spreading navarettia, California Orcutt grass, and Wright's trichocoronis. These habitats do not occur within the Project site and 500-foot buffer and thus, the site is not expected to support these species. Munz's onion and many-stemmed dudleya typically occur in chaparral, coastal scrub, and valley and foothill grassland habitats often in clay soils. Munz's onion may also occur in cismontane, pinyon, and/or juniper woodland habitats. The Project site contains clay soils and provides marginally suitable grassland and scrub habitat. However, the level of disturbance to the soil and habitat due to anthropogenic factors make it unlikely for these species to occur on the Project site. San Diego ambrosia typically occurs in chaparral, coastal scrub, valley and foothill grasslands, and vernal pools. It can be found in sandy loam or clay soils and is often found in disturbed areas. Since this species tends to be found in disturbed areas and the Project site contains clay soils and provides marginally suitable grassland and scrub habitat, it is possible that the site could support this species.

Due to the presence of marginally suitable habitat for San Diego ambrosia on the Project site and adjacent to the site in the 500-foot buffer, an additional survey is required to determine the presence of narrow endemic and/or rare plants in the Project area. Mitigation measures discussing additional survey requirements are described in section 6.0 below.

4.4 Burrowing Owl Habitat Assessment

The burrowing owl habitat assessment was conducted concurrently with the biological reconnaissance survey on June 11, 2021, by ECORP biologists Greg Hampton, Alexandra Dorough, and Chelsie Brown. Weather conditions during the assessment are summarized in Table 4-1. Small mammal burrows were located throughout the Project site and in the 500-foot buffer east and west of the Project site. The presence of small mammal burrows and concrete debris onsite provide suitable habitat for owls. Burrows were checked for sign of burrowing owl (e.g., whitewash, feathers, pellets). One occupied (only sign present, no owls) burrow complex in the 500-foot buffer east of the Project site was identified with approximately 40 entrances of various dimensions and aspects and had one pellet and whitewash present at the complex (Figure 5). Two potential owl burrows were found along the southwestern and eastern Project boundaries, but no sign was observed (Figure 5). Photos of the occupied burrow complex and sign can be found in Appendix A.

Due to the presence of suitable habitat, including potential and occupied burrows, additional owl surveys are required to determine the presence of burrowing owls in the Project Area and will need to follow the MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006). In addition to burrowing owl surveys, pre-construction surveys will be required within 30-days prior to site disturbance (RCTLMA 2021). Mitigation measures discussing additional survey requirements are described in section 6.0 below.

4.5 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present adjacent to the Project site, within the 500-foot buffer, in some of the larger shrubs. The Project site did not contain any large shrubs or trees suitable for nesting, but the grassland habitat present could be suitable for some ground nesting species (e.g., mourning dove). Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. While there is little suitable nesting habitat located on the Project site, there is potential for

nesting to occur in adjacent habitat, within the survey buffer, and within the grassland habitats on the Project site.

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, for example. 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. 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.

The Project Site was assessed for its ability to function as a wildlife corridor. The Project Site likely provides wildlife movement opportunities since it consists of open and unimpeded land. However, the site's value as a corridor is lessened by the fact that it borders residential developments to the northeast, a dump site to the west, and is moderately disturbed due to anthropogenic factors. Additionally, there are no features on site that would facilitate wildlife movement and relatively little to no cover for larger animals.

5.0 IMPACT ANALYSIS

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

5.1 Special-Status Species

The Project site, consisting wholly of disturbed land, was largely devoid of native vegetation. Vegetation communities onsite consisted primarily of disturbed wild oat and annual brome grassland and disturbed California buckwheat scrub. The literature review and database searches identified 55 special-status plant species, including six narrow endemic plant species, that occur near the Project site. Of these 55 special-status plants, five were found to have a moderate potential to occur (San Diego ambrosia, thread-leaved brodiaea, smooth tarplant, Parry's spineflower, and long-spined spineflower) on the Project site due to the presence of marginally suitable habitat and records within five miles. These species with a moderate potential to occur are covered under the MSHCP and thus, additional surveys will not be required for thread-leaved brodiaea, smooth tarplant, Parry's spineflower, and long-spined spineflower. However, an additional survey for narrow endemic plants will be required for San Diego ambrosia per the MSHCP. A total of 29 species had a low potential to occur onsite and 21 were presumed absent. Impacts to these 50 species are not expected to occur. Of the narrow endemic plant species, only San Diego ambrosia was found to have a moderate potential to occur. Munz's onion, many-stemmed dudleya, spreading navarretia, and California Orcutt grass had a low potential to occur while Wright's trichocoronis was

presumed absent. A focused rare and narrow endemic plant species surveys will be required to determine if rare or narrow endemic plants species are present on the Project site. If rare, special-status, or narrow endemic plants occur on the Project site, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality may occur. If Project-related impacts to rare plants on the Project Site are unavoidable, then consultation with the RCA and CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures.

A total of six special-status wildlife species (northern harrier, white-tailed kite, California horned lark, San Diego black tailed jackrabbit, loggerhead shrike, and coastal California gnatcatcher) were observed during the surveys and are therefore classified as present on the Project site. All six of these species are covered by the MSHCP and, other than coastal California gnatcatcher which is federally listed (threatened), none of the five other species are listed under the federal ESA or California ESA. If northern harrier, white-tailed kite, California horned lark, San Diego black tailed jackrabbit, or loggerhead shrike are present on the Project site, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Impacts to San Diego black-tailed jackrabbit are covered by MSHCP and considered adequately conserved and will not require additional surveys or mitigation. Impacts to northern harrier, white-tailed kite, California horned lark, and loggerhead shrike would be less than significant with the implementation of Mitigation Measure BIO-1.

One pair of coastal California gnatcatchers were observed foraging adjacent to the Project site, within the 500-ft buffer. Coastal California gnatcatcher is an MSHCP-Covered Species, a federally listed (threatened) species, and a CDFW SSC. This bird occurs in coastal scrub habitats, especially those dominated by California sage, including dry coastal slopes, washes, and mesas; areas of low plant growth (Atwood 1992). Suitable scrub habitat occurs within the disturbed California buckwheat scrub along the western project boundary (Figure 4). During the biological reconnaissance survey, one pair of coastal California gnatcatchers was observed foraging together in the disturbed California buckwheat scrub habitat offsite, within the 500-foot buffer west of the Project site (Figure 5). This portion of the 500-foot buffer west of the Project site was not surveyed due to unknown property ownership and the presence of a no trespassing sign. Vocalizations of the gnatcatcher pair were heard. The biologists did not search for a nest due to the lack of property access and it is unknown whether a nest was present. If coastal California gnatcatchers are present on the Project site, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Impacts to gnatcatchers would be less than significant with the implementation of Mitigation Measure BIO-1.

Of the 52 special-status wildlife species identified in the literature search, one species was found to have a high potential to occur: burrowing owl. The burrowing owl was found to have a moderate potential for occurrence and the Project site is located within a designated survey area under the MHSCP for burrowing owl (RCA 2021). The biological reconnaissance survey and habitat assessment determined that marginally suitable burrowing owl habitat was present on the Project site. Focused surveys will be performed on the Project site to further ascertain presence of the species. Although no burrowing owls were observed during the reconnaissance-level survey, two potential burrows and one occupied burrow were identified on the Project site or adjacent to the site within the 500-foot buffer (Figure 5). Due to the mobile nature of the species, it is possible that burrowing owls could use the site prior to the start of Project activities. Focused breeding season burrowing owl surveys will be required to determine if burrowing owl are

present on the Project site. If burrowing owls are present on the Project site, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Impacts to burrowing owl would be less than significant with the implementation of Mitigation Measure BIO-2.

Two special-status wildlife species identified in the literature search were determined to have moderate potential to occur of the Project site: orangethroat whiptail and red-diamond rattlesnake. Both of these species are covered under the MSHCP and considered adequately conserved and will not require additional surveys or mitigation.

A total of 17 special-status wildlife species has a low potential to occur onsite. Thirteen of the 17 species are covered under the MSHCP and considered adequately conserved and will not require additional surveys or mitigation. The remaining four CDFW SSC not covered by the MSHCP include American badger, California glossy snake, Dulzura pocket mouse, and southern grasshopper mouse. If present, these species could be subject to direct impacts through ground disturbance and indirect impacts from construction noise, vibrations, and increased human activity related to the development of the Project Site. However, due to the lack of high-quality habitat within the impact area, the site's long history of anthropogenic disturbances, and the presence of urban development immediately adjacent to the Project Site, if present in the impact area, these CDFW SSC species are only expected to occur in very low densities and Project-related impacts would not be expected to contribute to the overall decline of populations for these species. Therefore, impacts to American badger, California glossy snake, Dulzura pocket mouse, and southern grasshopper mouse would not be considered significant and additional surveys and mitigation are not necessary.

The shrubs immediately adjacent to the Project site, and some of the grassland habitat on the Project site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect nesting birds and other birds protected by the MBTA and their nests through the removal of habitat on the Project site, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-1.

5.2 Sensitive Natural Communities

In general, the Project site consists of disturbed soils and nonnative grass species. The site does not contain riparian habitat or other sensitive natural communities that would need to be preserved. A few mulefat shrubs were present within the buffer of the Project site but this area is not large enough to support riparian species outside of potential foraging. No impacts to sensitive natural communities are anticipated to result from the development of this Project.

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

No state or federally protected wetlands or Waters of the United States were identified on the Project site, therefore no impacts would occur. The concrete drainage culvert identified along the north boundary of

the Project site is an old stormwater control feature that is now isolated and does not exhibit any sign of water flow. For these reasons, no impacts to this feature are expected to occur.

5.4 Wildlife Corridors and Nursery Sites

The Project Site is located immediately adjacent to areas containing existing disturbances (e.g., dirt roads and residential developments). The Project Site could provide wildlife movement opportunities since it consists of open and unimpeded land. However, the Project site's value as a corridor is lessened by the fact that it borders residential developments to the northeast, a dump site to the west, and is disturbed due to anthropogenic factors. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project site. No impacts to these resources are expected to occur during the development of the Project site.

5.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Project site is located within the planning area for the Western Riverside MSHCP. The Project site is not located within any Conservation Areas, Criteria Cells, or Subunit designations according to the MSHCP (RCA 2021). The Project site is located within a MSHCP-designated survey area for burrowing owl and narrow endemic plant species. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would be consistent with the MSHCP requirements and therefore reduce any potential impacts to less than significant.

5.5.1 Western Riverside County MSHCP Consistency Analysis

The Project site is located within the planning area for the MSHCP, but outside of any Cell Groups, Criteria Cells, and Subunit designations. Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources including riparian/riverine areas, vernal pools, and fairy shrimp, burrowing owl, and narrow endemic plant species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. These resources were assessed during the reconnaissance survey and are discussed below in relation to the Project.

The proposed Project consists of the construction of a private residential housing tract development which is a covered activity under the MSHCP for areas outside of a Subunit or Criteria Cell (RCA 2021). Since development of the Project site is a covered activity within the MSHCP (see section 7.3.3 of Covered Activities/Allowable Uses within the MSHCP), it is an allowable use that has been contemplated within the MSHCP (RCTLMA 2021). However, projects that are covered still need to comply with MSHCP requirements.

5.5.1.1 Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Assessment (MSHCP Section 6.1.2)

In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was performed for riparian and riverine communities, vernal pools, and fairy shrimp. The Project site did not contain vernal pool habitat or suitable habitat for fairy shrimp. No significant riparian vegetation was observed on the Project site. No

defined channels or drainages were identified on the Project site and the Project site did not contain any riverine resources; therefore, no impact would occur. Mulefat, which is classified as riparian vegetation, was observed outside of the Project site between the 2 project parcels as depicted on Figure 4. The mulefat did not appear to be associated with any water way and was not a large enough area to support riparian species outside of potential foraging.

Additionally, there is a concrete-lined ditch located along the northern boundary, this ditch is manufactured and was built in an upland area in support of a planned residential development that was graded but never constructed. The ditch is not vegetated, shows no signs of water flow, and does not connect to any downstream resources. Therefore, it would not be considered a riparian/riverine resource.

5.5.1.2 Narrow Endemic Plant Species (MSHCP Section 6.1.3)

The Riverside Regional Conservation Authority (RCA) MSHCP Information Map was reviewed to determine whether the Project site was located within a Narrow Endemic Plant Species Survey Area (NEPSSA), in accordance with Section 6.1.3 of the MSHCP. The Project site is located within a NEPSSA for the following narrow endemic plant species: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis. None of these species were present on the Project site during the biological reconnaissance survey, however, the site provides marginally suitable habitat for San Diego ambrosia, and thus, this species has a moderate potential to occur on site. Munz's onion, many-stemmed dudleya, spreading navarretia, and California Orcutt grass were found to have a low potential to occur while Wright's trichocoronis was presumed absent due to a lack of suitable marsh, vernal pool, woodland, or riparian forest habitat on the Project site.

Due to the moderate potential for San Diego ambrosia to occur on the Project site, an additional survey for narrow endemic plants will need to be conducted in the spring to determine the presence of this species, as required by the MSHCP.

5.5.1.3 Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to this Project Site because the Project Site is not situated adjacent to any MSHCP-designated conserved lands. Net long-term increase of edge impacts is not expected because of the Project.

5.5.1.4 Additional Surveys (MSHCP Section 6.3.2)

The RCA MSHCP Information Map was reviewed to determine if the Project Site was located with any MSHCP designated survey areas. The Information Map revealed that the Project site is located within a survey area for burrowing owl and the following narrow endemic plants: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis. Therefore, habitat assessments for burrowing owl and narrow endemic plants were conducted concurrently with the biological reconnaissance survey.

The Project site was surveyed for habitat that could support the six narrow endemic plant species. The disturbed wild oat and annual brome grassland and the disturbed California buckwheat scrub provide marginally suitable habitat for San Diego ambrosia. This species has a moderate potential to occur on the

Project site and thus, an additional survey for narrow endemic plants is required. A supplemental report summarizing the findings of the focused survey should be prepared and submitted to the County after the completion of the survey.

The Project site was surveyed for potential burrowing owl habitat. Burrows that have the potential to serve as burrowing owl habitat were photographed and locations were marked using a GPS unit. The CNDDB was reviewed for records of burrowing owl observations and no burrowing owl observations were recorded within the immediate Project area. However, the literature review shows recent and historic occurrences of burrowing owl within five miles of the Project site (CDFW 2021). During the burrowing owl habitat assessment, potential burrows were located and one occupied burrow complex with sign of owls (old whitewash and pellet) were observed (Figure 5).

As require by the MSHCP, focused burrowing owl surveys will need to be conducted during the appropriate time of year. The surveys will follow the protocols set in place by the *Burrowing Owl Survey Instructions* for the Western Riverside MSHCP (RCTLMA 2006). A supplemental report summarizing the findings of the focused surveys should be prepared and submitted to the County after the completion of the surveys. Additionally, a pre-construction survey will be required within 30-day prior to site disturbance.

6.0 ADDITIONAL SURVEY REQUIREMENTS

Focused Breeding Season Surveys for Burrowing Owl: Due to the presence of suitable California ground squirrel burrows on the Project Site, burrow mapping and focused burrowing owl surveys will be required in accordance with the MSHCP. The surveys should be conducted according to the guidelines provided in the Western Riverside MSHCP Burrowing Owl Survey Instructions (RCTLMA 2006). The protocol requires that a focused burrow survey and four focused burrowing owl surveys be conducted between March 1 and August 31. Surveys conducted during the breeding season of March 1 to August 31 are required to describe if, when, and how the Site is used by burrowing owls. Negative results during surveys outside the breeding season are not conclusive proof that owls do not use the Project Site and may not provide an accurate picture of the number of owls that may utilize the Site. Surveys that are conducted outside the breeding season will likely need to be repeated during the breeding season; therefore, it is recommended that focused surveys only be conducted during the breeding season. The surveys should be conducted in the morning one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset during favorable weather conditions (e.g., wind <20 mph, temperature <90° F). If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project site during the survey and impacts to those features are unavoidable, consultation with the RCA and CDFW will be required to determine if additional mitigation may need to be implemented, such as implementing a no-disturbance buffer around occupied burrows, seasonal work restrictions, or passive relocation. The results of the focused breeding season burrowing owl surveys will be submitted under a separate cover.

Rare and Narrow Endemic Plant Species Surveys: Rare and narrow endemic plant surveys shall be conducted within suitable habitat on the Project site during the appropriate blooming period for San Diego ambrosia (April-October). The surveys shall be conducted by a botanist or qualified biologist in accordance with the USFWS General Rare Plant Survey Guidelines (USFWS 2002); the CDFW Protocols for

Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a GPS device for mapping purposes. If Project-related impacts to rare plants on the Project Site are unavoidable, then consultation with the RCA and CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures. The results of the rare and narrow endemic plant species surveys will be submitted under a separate cover.

7.0 MITIGATION MEASURES

The following mitigation measures would reduce impacts to sensitive biological resources to a less than significant level.

BIO-1 **Pre-Construction Surveys for Burrowing Owl:** A pre-construction survey for burrowing owl shall be conducted within the Project site 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). According to Western Riverside MSHCP's *Burrowing Owl Survey* Instructions, focused burrowing owl surveys shall be conducted because suitable habitat was recorded during the burrowing owl habitat assessment. If burrowing owls and/or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project site during the survey and impacts to the species are unavoidable, additional mitigation may need to be implemented, such as implementing a no-disturbance buffer around occupied burrows or seasonal work restrictions.

BIO-2 **Pre-construction Survey for Nesting Birds and Coastal California Gnatcatcher:** Any ground-disturbing activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 31). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds, including burrowing owl and coastal California gnatcatcher, are scheduled to occur during the bird breeding season (February 1 through August 31), a pre-construction survey for nesting birds and coastal California gnatcatcher shall be conducted by a qualified biologist who is experienced in the identification of avian species and conducting nesting bird surveys. The nest survey shall include the Project site and adjacent areas where Project activities have the potential to cause nest failure. The pre-construction survey shall be conducted no more than three days prior to the start of ground-disturbing activities within the bird breeding season. If no nesting birds or gnatcatchers are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) or gnatcatchers are found to be present, avoidance or minimization measures shall be undertaken 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. The width of the avoidance buffer will be determined by the Project biologist. Typically, this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for gnatcatcher and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at

nesting. 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 buffer.

8.0 CERTIFICATION

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

SIGNED:

DATE: 9/21/2022

Alexandra Dorough
Assistant Biologist
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Under the direction of:

SIGNED:

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LIST OF APPENDICES

APPENDIX A

Representative Site Photographs

Photo 1: Project site, disturbed wild oat and annual brome grassland, facing East

Photo 2: Project site, vehicle tracks, and dirt roads throughout the site, facing South

Photo 3: Concrete drainage culvert along North Project boundary, facing West

Photo 4: Project site, facing West

Photo 5: Vehicle tracks through project site, facing West

Photo 6: Dump site along the western Project boundary, facing Northwest

Photo 7: Mule fat thickets in buffer between Project parcels, facing North

Photo 8: Disturbed California buckwheat scrub, facing West

Photo 9: Occupied burrow complex East of the Project site within 500-foot buffer

Photo 10: Old owl pellet found at burrow complex East of Project site

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
ANGIOSPERMS (DICOTYLEDONS)	
AMARANTHACEAE	**PIGWEED FAMILY**
*Salsola tragus**	Russian thistle
APIACEAE	**PARSLEY FAMILY**
Daucus pusillus	rattlesnake weed
ASTERACEAE	**SUNFLOWER FAMILY**
*Oncosiphon pilulifer**	stinknet
Heterotheca grandiflora	telegraph weed
*Centaurea melitensis**	tocalote
Deinandra fasciculata	clustered tarweed
Ericameria sp.	goldenbush sp.
Encelia farinosa	brittlebush
Gutierrezia californica	California matchweed
Helianthus sp.	sunflower sp.
Holocarpha virgata	narrow tarplant
Isocoma menziesii	Menzies' goldenbush
Bebbia juncea	sweetbush
Corethrogyne sp.	California aster sp.
Baccharis salicifolia	mule fat
Corethrogyne filaginifolia	common sand aster
*Lactuca serriola**	prickly lettuce
BORAGINACEAE	**BORAGE FAMILY**
Amsinckia sp.	fiddleneck sp.
BRASSICACEAE	**MUSTARD FAMILY**
*Hirshfeldia incana**	shortpod mustard
CONVOLVULACEAE	**MORNINGGLORY FAMILY**
*Convolvulus arvensis**	orchard morningglory
EUPHORBIACEAE	**SPURGE FAMILY**
Croton setiger	turkey mullein
Euphorbia albomarginata	rattlesnake sandmat
Euphorbia polycarpa	smallseed sandmat
*Euphorbia maculata**	spotted spurge
FABACEAE	**PEA AND LEGUME FAMILY**
Acmispon glaber	deerweed
Astragalus sp.	milk-vetch
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	coastal heron's bill
PLANTAGINACEAE	**PLANTAIN FAMILY**
Plantago erecta	California plantain
POLYGONACEAE	**BUCKWHEAT FAMILY**
Eriogonum fasciculatum	California buckwheat
SOLANACEAE	**NIGHTSHADE FAMILY**
*Nicotiana glauca**	tree tobacco
TAMARICACEAE	**TAMARISK FAMILY**
Tamarix sp.	tamarisk

SCIENTIFIC NAME	COMMON NAME
ANGIOSPERMS (MONOCOTYLEDONS)	
ASPARAGACEAE	**ASPARAGUS FAMILY**
Dichelostemma capitatum	blue dicks
POACEAE	**GRASS FAMILY**
*Avena fatua**	wild oat
*Bromus madritensis**	foxtail chess
*Bromus diandrus**	bromegrass

*Nonnative species

APPENDIX C

Wildlife Species Observed

SCIENTIFIC NAME	COMMON NAME
AVES	**BIRDS**
ALAUDIDAE	**LARKS**
Eremophila alpestris actia	California horned lark
ACCIPITRIDAE	**EAGLES AND HAWKS**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	Red-tailed hawk
Circus hudsonius	Northern harrier
Elanus leucurus	White-tailed kite
CAPRIMULGIDAE	**NIGHTJARS**
Chordeiles acutipennis	Lesser nighthawk
CATHARTIDAE	**NEW WORLD VULTURES OR CONDORS**
Cathartes aura	Turkey vulture
CHARADRIIDAE	**PLOVERS AND LAPWINGS**
Charadrius vociferus	Killdeer
COLUMBIDAE	**DOVES AND PIGEONS**
*Streptopelia decaocto**	Eurasian collared dove
Zenaida macroura	Mourning dove
CORVIDAE	**CROWS AND JAYS**
Corvus corax	Common raven
CUCULIDAE	**ROADRUNNERS**
Geococcyx californianus	Greater roadrunner
FALCONIDAE	**FALCONS AND CARACARAS**
Falco sparverius	American kestrel
FRINGILLIDAE	**FINCHES & EUPHONIAS**
Haemorhous mexicanus	House finch
HIRUNDINIDAE	**SWALLOWS, MARTINS, & SAW-WINGS**
Petrochelidon pyrrhonota	Cliff swallow
ICTERIDAE	**NEW WORLD BLACKBIRDS**
Sturnella neglecta	Western meadowlark
LANIIDAE	**SHRIKES**
Lanius ludovicianus	Loggerhead shrike
MIMIDAE	**MOCKINGBIRDS**
Mimus polyglottos	Northern mockingbird
PASSERELLIDAE	**NEW WORLD SPARROWS**
Passerculus sandwichensis	Savannah sparrow
Passerellidae spp.	Sparrow spp.
POLIOPTILIDAE	**GNATCATCHERS**
Polioptila californica californica	Coastal California gnatcatcher
STRIGIDAE	**OWLS**
Athene cunicularia	Burrowing owl (old sign observed, no live owls)
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
TYRANNIDAE	**TYRANT FLYCATCHERS**
Sayornis saya	Say's phoebe

TYTONIDAE	**BARN-OWLS**
Tyto alba	Barn owl
MAMMALIA	**MAMMALS**
CANIDAE	**DOGS**
Canis latrans	Coyote
SCIURIDAE	**SQUIRRELS**
Ostospermophilus beecheyi	California Ground Squirrel
LEPORIDAE	**RABBITS**
Lepus californicus bennettii	San Diego black-tailed jackrabbit
Sylvilagus sp.	Cottontail rabbit

APPENDIX D

Special Status Plant Species Potential to Occur

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Abronia villosa* var. *aurita Chaparral sand-verbena	Fed: Ca: CNPS: MSHCP:	none none 1B.1 none	(Jan)Mar-Sept 75-1600	Occurs in chaparral, coastal scrub, and desert habitats. Often found in sandy soil.	**Presumed Absent.** No suitable chaparral or sandy desert habitat is present on the Project site and there are no records within five miles of the site.
Allium marvinii Yucaipa onion	Fed: Ca: CNPS: MSHCP:	none none 1B.2 COV	Apr-May 760-1065	Occurs in chaparral. Often found in openings on clay soils.	**Presumed Absent:** No suitable chaparral habitat is present on the Project site and there are no records within five miles. The site is also outside of the elevational range for this species.
Allium munzii Munz's onion	Fed: Ca: CNPS: 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. Often found in clay soils, growing in grasslands and openings within shrublands or woodlands.	**Low:** Although clay soils and marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, there are no recent records within five miles of the site. The literature review revealed 2 historic records (Occ # 21 and 22) within five miles of the Project site. The most recent occurrence (Occ #22) observed in 1962 was approximately 3.0 miles south of the Project site. The closest occurrence (Occ #21) observed in 1897 was approximately 2.9 miles east of the Project site.
Almutaster pauciflorus alkali marsh aster	Fed: Ca: CNPS: MSHCP:	none none 2B.2 none	Jun-Oct 240-800	Occurs in meadows and seeps of alkaline soils.	**Presumed Absent:** No suitable meadow or seep habitat is present on the Project site and there are no records within five miles of the site.
Ambrosia pumila San Diego ambrosia	Fed: Ca: CNPS: MSHCP:	**END** none 1B.1 COV	Apr-Oct 20-415	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Often found in sandy loam or clay, often in disturbed areas, sometimes found in alkaline soils.	**Moderate:** Marginally suitable disturbed grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer. In addition, the literature review revealed one recent record (Occ # 54) within five miles of the Project site. The most recent and closest occurrence was observed in 2005 approximately 4.8 miles west of the Project site.
Arctostaphylos rainbowensis rainbow manzanita	Fed: Ca: CNPS: MSHCP:	none none 1B.1 COV	Dec-Mar 205-670	Occurs in chaparral.	**Presumed Absent:** No suitable chaparral habitat is present on the Project site and there are no records within five miles.
Astragalus pachypus* var. *jaegeri Jaeger's milk-vetch	Fed: Ca: CNPS: MSHCP:	none none 1B.1 COV	Dec-Jun 365-975	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands.	**Low:** Although marginally suitable grassland habitat is present on the Project site, there are no records within five miles of the site.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Atriplex coronata* var. *notatior San Jacinto Valley crownscale	Fed: Ca: CNPS: MSHCP:	**END** none 1B.1 COV	Apr-Aug 139-500	Occurs in playas, valley and foothill grasslands, and vernal pools in alkaline soils.	**Low:** Although there have been two recent records (Occ # 2 and 26) within five miles of the Project site, only marginally suitable grassland habitat is present. Playa and vernal pool habitat is not present on the Project site. The most recent occurrence (Occ # 2) observed in 2015 was approximately 2.1 miles north of the Project site. The closest occurrence (Occ #26) observed in 2000 was approximately 1.3 miles north of the Project site.
Atriplex parishii Parish's brittlescale	Fed: Ca: CNPS: MSHCP:	none none 1B.1 COV	Jun-Oct 25-1900	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	**Presumed Absent:** Although one occurrence (Occ # 21) has been recorded within five miles of the Project site, no suitable chenopod scrub, playa, or vernal pool habitats are present on site.
Atriplex serenana* var. *davidsonii Davidson's saltscale	Fed: Ca: CNPS: MSHCP:	none none 1B.2 COV	Apr-Oct 10-200	Occurs in coastal bluff scrub and coastal scrub in alkaline soils.	**Presumed Absent:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site is out of the elevational range for this species and there are no records within five miles of the site.
Ayenia compacta California ayenia	Fed: Ca: CNPS: MSHCP:	none none 2B.3 none	Mar-Apr 150-1095	Occurs in Mojavean desert scrub and Sonoran desert scrub often in rocky habitats.	**Presumed Absent:** No suitable rocky, desert habitat is present on the Project site and there are no records within five miles.
Brodiaea filifolia thread-leaved brodiaea	Fed: Ca: CNPS: MSHCP:	**THR** **END** 1B.1 COV	Mar-Jun 25-1120	Occurs in cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools, and in openings of chaparral. Often found in clay soils.	**Moderate:** Marginally suitable grassland habitat and clay soils are present on the Project site. In addition, the literature review revealed 5 recent records of this species within five miles of the Project site. The closest occurrence (Occ # 1) was observed in 2000 approximately 0.8 mile north of the Project site. The most recent occurrence (Occ # 65) was observed in 2017 approximately 4.1 miles northeast of the Project site.
Brodiaea santarosae Santa Rosa Basalt brodiaea	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	May-Jun 565-1045	Occurs in basaltic habitats of valley and foothill grasslands	**Presumed Absent:** Although marginally suitable grassland habitat is present on the Project site, the site is outside of the elevational range for the species and there are no records within five miles.
Calochortus plummerae Plummer's mariposa-lily	Fed: Ca: CNPS: MSHCP:	none none 4.2 COV	May-Jul 100-1700	Occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. Often found in granitic, rocky soils.	**Low:** Although marginally suitable grassland habitat is present, the Project site lacks granitic, rocky soils and there are no records within five miles.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Calochortus weedii* var. *intermedius intermediate mariposa lily	Fed: none Ca: none CNPS: 1B.2 MSHCP: COV		May-July 105-855	Occurs in chaparral, coastal scrub, and valley and foothill grasslands, in rocky, calcareous soils.	**Low:** Although marginally suitable grassland habitat is present, the Project site lacks rocky, calcareous soils and there are no records within five miles.
Caulanthus simulans Payson's jewelflower	Fed: none Ca: none CNPS: 4.2 MSHCP: COV		(Feb)Mar-May(Jun) 90-2200	Occurs in chaparral and coastal scrub in sandy, granitic soils.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks sandy, granitic soils and there are no records within five miles.
Centromadia pungens* ssp. *laevis smooth tarplant	Fed: none Ca: none CNPS: 1B.1 MSHCP: COV		Apr-Sep 0-640	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland habitats. Often found in alkaline soil.	**Moderate:** Marginally suitable grassland habitat and clay soils are present on the Project site. In addition, the literature review revealed 15 records of this species within five miles of the Project site. The closest occurrence (Occ # 126) was observed in 2000 approximately 1.2 miles north of the Project site. The most recent occurrence (Occ #120) was observed in 2017 approximately 2.8 miles south of the Project site.
Chorizanthe leptotheca Peninsular spineflower	Fed: none Ca: none CNPS: 4.2 MSHCP: COV		May-Aug 300-1900	Occurs in chaparral, coastal scrub, and lower montane coniferous forest. Often found in granitic and alluvial fan habitats.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks granitic soils and alluvial fan habitats. Additionally, there are no records within five miles.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: none Ca: none CNPS: 1B.1 MSHCP: 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.	**Moderate:** Marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer. In addition, the literature review revealed 8 records of this species within five miles of the Project site. The closest occurrence (Occ # 67) was observed in 2001 approximately 0.3 miles north of the Project site. The most recent occurrence (Occ # 143) was observed in 2017 approximately 3.9 miles south of the Project site.
Chorizanthe polygonoides* var. *longispina long-spined spineflower	Fed: none Ca: none CNPS: 1B.2 MSHCP: COV		Apr-Jul 30-1530	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pool habitat. Often found in clay soil.	**Moderate:** Clay soils and marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer. In addition, one recent occurrence (Occ # 118) was observed in 2008 approximately 3.1 miles west of the Project site.
Clinopodium chandleri San Miguel savory	Fed: none Ca: none CNPS: 1B.2 MSHCP: COV		Mar-Jul 120-1075	Occurs in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grasslands. Often found in rocky, gabbroic or metavolcanic soils.	**Low:** Although marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks rocky soils and there are no records within five miles.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Convolvulus simulans small-flowered morning-glory	Fed: Ca: CNPS: MSHCP:	none none 4.2 COV	Mar-Jul 30-740	Occurs in coastal scrub, valley and foothill grasslands, and openings of chaparral. Often found in clay, serpentinite seeps.	**Low:** Although marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks serpentinite seeps and there are no records within five miles.
Cryptantha wigginsii Wiggin's cyptantha	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	Feb-Jun 20-275	Occurs in coastal scrub, often in clay soils.	**Presumed Absent:** Although clay soils and marginally suitable scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site is out of the elevational range for this species. Additionally there are no records within five miles of the site.
Dodecahema leptoceras slender-horned spineflower	Fed: Ca: CNPS: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 200-760	Occurs in chaparral, cismontane woodland and coastal scrub habitats. Often found in sandy soil.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks sandy soils and there are no records within five miles.
Dudleya multicaulis many-stemmed dudleya	Fed: Ca: CNPS: MSHCP:	none none 1B.2 COV	Apr-Jul 15-790	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in areas of clay soil.	**Low:** Although clay soils and marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, there are no records within five miles of the site.
Eryngium aristulatum* var. *parishii San Diego button-celery	Fed: Ca: CNPS: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 20-620	Occurs in mesic habitats of coastal scrub, valley and foothill grasslands, and vernal pools.	**Low:** Although marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks vernal pools and there are no records within five miles of the site.
Erythranthe diffusa Palomar monkeyflower	Fed: Ca: CNPS: MSHCP:	none none 4.3 COV	Apr-Jun 1220-1830	Occurs in chaparral and lower montane coniferous forest in sandy or gravelly soils.	**Presumed Absent:** No suitable chaparral or forest habitat is present on the Project site. In addition, the site is outside of the elevational range for the species and there are no records within five miles.
Geothallus tuberosus Campbell's liverwort	Fed: Ca: CNPS: MSHCP:	none none 1B.1 none	Ephemeral liverwort 10-600	Occurs in soils of mesic coastal scrub habitats and vernal pools.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks vernal pools and there are no records within five miles.
Harpagonella palmeri Palmer's grapplinghook	Fed: Ca: CNPS: MSHCP:	none none 4.2 COV	Mar-May 20-955	Occurs in chaparral, coastal scrub, and valley and foothill grassland. Often found in clay soils and open grassy areas within shrubland.	**Low:** Although clay soils and marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, there are no records within five miles of the site.
Hesperocyparis forbesii Tecate cypress	Fed: Ca: CNPS: 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:** No suitable forest or chaparral habitat is present on the Project site. In addition, there are no records within five miles of the site.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Holocarpha virgata* ssp. *elongata graceful tarplant	Fed: none Ca: none CNPS: 4.2 MSHCP: COV		May-Nov 60-1100	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	**Low:** Although marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer, there are no records within five miles of the site.
Hordeum intercedens vernal barley	Fed: none Ca: none CNPS: 3.2 MSHCP: COV		Mar-Jun 5-1000	Occurs in coastal dunes, coastal scrub, vernal pools, and in depressions and saline flats of valley and foothill grasslands.	**Low:** Although marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks coastal dunes, vernal pools, and saline flats. In addition, there are no records within five miles of the site.
Juncus luciensis Santa Lucia dwarf rush	Fed: none Ca: none CNPS: 1B.2 MSHCP: none		Apr-Jul 300-2040	Occurs in chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	**Presumed Absent:** No suitable chaparral, forest, seep, or vernal pool habitat is present on the Project site and there are no records within five miles.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: none Ca: none CNPS: 1B.1 MSHCP: COV		Feb-Jun 1-1220	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	**Low:** Although no suitable marsh, swamp, playa, or vernal pool habitat is present on the Project site, the literature review revealed 3 records (Occ # 76, 104, and 114) of this species within five miles of the Project site. The closest occurrence (Occ # 104) was observed in 2010 approximately 2.3 miles north of the Project site. The most recent occurrence (Occ # 114) was observed in 2015 approximately 2.5 miles south of the Project site.
Lilium humboldtii* ssp. *ocellatum ocellated Humboldt lily	Fed: none Ca: none CNPS: 4.2 MSHCP: COV		Mar-Jul (Aug) 30-1800	Occurs in openings of chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland.	**Presumed Absent:** No suitable chaparral, woodland, or forest habitat is present on the Project site and there are no records within five miles.
Lilium parryi lemon lily	Fed: none Ca: none CNPS: 1B.2 MSHCP: COV		Jul-Aug 1200-2745	Occurs in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest. Often found in mesic soils.	**Presumed Absent:** No suitable forest, meadow, or seep habitat is present on the Project site. In addition, the site is outside of the elevational range for the species and there are no records within five miles.
Limnanthes alba* ssp. *parishii Parish's meadowfoam	Fed: none Ca: **END** CNPS: 1B.2 MSHCP: COV		Apr-Jun 600-2000	Occurs in lower montane coniferous forest, meadows and seeps, and vernal pools. Often found in vernally mesic habitats.	**Presumed Absent:** No suitable forest, seep, or vernal pool habitat is present on the Project site. In addition, the site is outside of the elevational range for the species and there are no records within five miles.
Microseris douglasii* ssp. *platycarpha small-flowered microseris	Fed: none Ca: none CNPS: 4.2 MSHCP: COV		Mar-May 15-1070	Occurs in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools in clay soils.	**Low:** Although clay soils and marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks woodland and vernal pool habitats and there are no records within five miles of the site.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Monardella hypoleuca* ssp. *intermedia intermediate monardella	Fed: Ca: CNPS: 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 on the Project site and there are no records within five miles.
Myosurus minimus* ssp. *apus little mousetail	Fed: Ca: CNPS: MSHCP:	none none 3.1 COV	Mar-Jun 20-640	Occurs in valley and foothill grasslands and alkaline vernal pools.	**Low:** Although marginally suitable grassland habitat is present on the Project site, the site lacks vernal pools and there are no records within five miles.
Nama stenocarpa mud nama	Fed: Ca: CNPS: MSHCP:	none none 2B.2 COV	Jan-Jul 5-500	Occurs in marshes and swamps.	**Presumed Absent:** No suitable marsh or swamp habitat is present on the Project site and there are no records within five miles.
Navarretia fossalis spreading navarretia	Fed: Ca: CNPS: MSHCP:	**THR** none 1B.1 COV	Apr-Jun 30-655	Occurs in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools.	**Low:** Although no suitable chenopod scrub, marsh, playa, or vernal pool habitat is present on the Project site, the literature review revealed 3 recent records (Occ # 46, 47, and 90) of this species within five miles of the Project site. The closest and most recent occurrence (Occ #90) was observed in 2015 approximately 1.2 miles north of the Project site.
Navarretia prostrata prostrate vernal pool Navarretia	Fed: Ca: CNPS: 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.	**Low:** Although marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks seeps and vernal pools. In addition, there are no records within five miles of the site.
Orcuttia californica California Orcutt grass	Fed: Ca: CNPS: MSHCP:	**END** **END** 1B.1 COV	Apr-Aug 15-660	Occurs in vernal pools.	**Low:** Although one historic record (Occ # 2) of this species was observed in 1941 approximately 2.8 miles southeast of the Project site, no vernal pool habitat is present on the Project site.
Polygala cornuta* var. *fishiae Fish's milkwort	Fed: Ca: CNPS: MSHCP:	none none 4.3 COV	May-Aug 100-1000	Occurs in chaparral, cismontane woodland, and riparian woodland.	**Presumed Absent:** No suitable chaparral or woodland habitat is present on the Project site and there are no records within five miles.
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: Ca: CNPS: MSHCP:	none none 2B.2 none	(Jul)Aug-Nov(Dec) 0-2100	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Often found in sandy, gravelly soils.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer the site lacks sandy, gravelly soils and chaparral and woodland habitat. In addition, there are no records within five miles of the site.
Quercus engelmannii Engelmann oak	Fed: Ca: CNPS: MSHCP:	none none 4.2 COV	Mar-Jun 50-1300	Occurs in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland.	**Low:** Although marginally suitable grassland habitat is present on the Project site, the site lacks chaparral and woodland habitat. In addition, there are no records within five miles of the site.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Romneya coulteri Coulter's matilija poppy	Fed: Ca: CNPS: MSHCP:	none none 4.2 COV	Mar-Jul (Aug) 20-1200	Occurs in chaparral and coastal scrub habitats often in areas that were burned.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks chaparral habitat and there are no records within five miles.
Scutellaria bolanderi* ssp. *austromontana southern mountains skullcap	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	Jun-Aug 425-2000	Occurs in mesic soils of chaparral, cismontane woodland, and lower montane coniferous forest.	**Presumed Absent:** No suitable chaparral, woodland, or forest habitat is present on the Project site and there are no records within five miles.
Sibaropsis hammitii Hammitt's clay-cress	Fed: Ca: CNPS: MSHCP:	none none 1B.2 COV	Mar-Apr 720-1065	Occurs in clay soils of chaparral and valley and foothill grasslands.	**Presumed Absent:** Although clay soils and marginally suitable grassland habitat is present on the Project site, the site is out of the elevational range for the species. In addition, there are no records within five miles of the site.
Sidalcea neomexicana salt spring checkerbloom	Fed: Ca: CNPS: MSHCP:	none none 2B.2 none	Mar-Jun 15-1530	Occurs in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Often found in alkaline and mesic soils.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks chaparral, forest, desert scrub, and playa habitats. In addition, there are no records within five miles of the site.
Sphaerocarpos drewiae bottle liverwort	Fed: Ca: CNPS: MSHCP:	none none 1B.1 none	Ephemeral liverwort 90-600	Occurs in soil openings of chaparral and coastal scrub.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site lacks chaparral habitat and there are no records within five miles.
Symphyotrichum defoliatum San Bernardino aster	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	Jul-Nov 2-2040	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland habitats. Often found in areas near ditches, streams, and springs.	**Low:** Although marginally suitable grassland and scrub habitat are present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks riparian habitat and there are no records within five miles of the site.
Tortula californica California screw moss	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	Moss 10-1460	Occurs in sandy soil of chenopod scrub and valley and foothill grassland.	**Low:** Although marginally suitable grassland habitat is present on the Project site, the site lacks sandy soil and there are no records within five miles.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Trichocoronis wrightii* var. *wrightii Wright's trichocoronis	Fed: Ca: CNPS: MSHCP:	none none 2B.1 COV	May-Sep 5-435	Occurs in meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Often found in alkaline soils.	**Presumed Absent:** No suitable seep, marsh, riparian, or vernal pool habitat is present on the Project site and there are no records within five miles.

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

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

Other Designations
(Western Riverside MSHCP)
COV: Covered

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI) Romoland, Winchester, Lakeview, Perris, Steele Peak, Lake Elsinore, Wildomar, Murrieta, and Bachelor Mountain 7.5-minute topographic quadrangles.

APPENDIX E

Special Status Wildlife Species Potential to Occur

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
INVERTEBRATES				
Branchinecta lynchi vernal pool fairy shrimp	Fed: CA: MSHCP:	**THR** none COV	Vernal pools and ephemeral wetlands. Typically, in small and shallow pools with mud or grassy bottoms.	**Presumed Absent:** No ephemeral wetlands or vernal pools are present on the Project site and there are no records within five miles.
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:** No ephemeral wetlands or vernal pools are present on the Project site and there are no records within five miles.
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA: MSHCP:	**END** none COV	Chaparral and coastal sage scrublands in Riverside and San Diego counties.	**Low:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, no records were identified within five miles.
Linderiella santarosae Santa Rosa Plateau fairy shrimp	Fed: CA: MSHCP:	none SSC COV	Seasonal southern basalt flow vernal pools and ephemeral wetlands.	**Presumed Absent:** No ephemeral wetlands or vernal pools are present on the Project site and there are no records within five miles.
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:** No ephemeral wetlands or vernal pools are present on the Project site and there are no records within five miles.
FISH				
Gila orcutti arroyo chub	Fed: CA: MSHCP:	none SSC COV	Creeks, streams, and rivers with areas of slow-moving water with sand or mud bottoms. Ranges from San Diego to San Luis Obispo county.	**Presumed Absent:** No creeks, streams, or rivers are present on the Project site and there are no records within five miles.
AMPHIBIANS				
Anaxyrus californicus arroyo toad	Fed: CA: MSHCP:	**END** SSC COV	Sandy banks of rivers, arroyos, and streams with shallow sandy pools. Also found in riparian woodlands or uplands adjacent to arroyos.	**Presumed Absent:** No rivers, arroyos, or streams with shallow pools are present on the Project site and there are no records within five miles.
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 ponds or streams are present on the Project site and there are no records withing five miles.
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:** Although marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer, soils on site are primarily clay soils and no aquatic habitats are present on site. Ten recent records (Occ # 320, 335, 967, 68, 969, 970, 973, 974, 1005, and 1006) of this species have been observed within five miles of the Project site. The closest occurrence (Occ # 970) was observed in 2016 approximately 1.3 miles northwest of the Project site. The most recent occurrence (Occ # 1005) was observed in 2017 approximately 4.2 miles north of the Project site.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
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:** No chaparral, forest, or moist soil habitat is present on the Project site and there are no records within five miles.
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.	**Presumed Absent:** Although one recent record (Occ # 386) was observed in 2016 approximately 4.9 miles northeast of the Project site, no moist soil habitat is present on the Project site.
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.	**Low:** Although marginally suitable grassland and scrub habitat was present on the Project site and adjacent to the site within the 500-foot buffer, the site lacks loose, sandy soils. Three historic records (Occ # 106, 112, and 217) of this species were identified within five miles. The closest occurrence (Occ # 106) was observed in 1930 approximately 2.4 miles north of the Project site. The most recent occurrence (Occ # 112) was observed in 1997 approximately 2.8 miles southwest of the Project site.
Aspidoscelis hyperythra Orangethroat 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.	**Moderate:** Marginally suitable scrub habitat was present adjacent to the Project site within the 500-foot buffer. Seven historic records (Occ # 55, 58, 125, 287, 293, 319, and 321) and two recent records (Occ # 282 and 380) of this species were identified within five miles. The closest occurrence (Occ # 287) was observed in 1999 within the vicinity of the Project site. The most recent occurrence (Occ # 380) was observed in 2005 approximately 4.2 miles west of the Project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA: MSHCP:	none SSC COV	Arid habitats including chaparral, woodlands, and dry riparian areas.	**Low:** Although one historic record (Occ # 32) of this species was observed in 2001 approximately 2.3 miles south of the Project site, the site lacks suitable chaparral, woodland, or riparian habitats.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: CA: MSHCP:	none SSC COV	Rocky areas in coastal sage scrub and chaparral.	**Presumed Absent:** No suitable rocky habitat is present on the Project site and there are no records within five miles.
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:** Marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer but there is a lack of rocky habitat for the species. One historic (Occ # 73) and one recent (Occ # 89) record of this species were observed within five miles of the Project site. The closest record (Occ # 73) was observed in 2001 approximately 2.3 miles south of the Project

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
				site. The most recent record (Occ # 89) was observed in 2002 approximately 4.6 miles northwest of the Project site.
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:** Although one historic record (Occ # 849) of this species was observed in 1987 approximately 2.4 miles north of the Project site, no aquatic habitats are present on the Project site.
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:** Although marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer, the site consists of mostly disturbed, clay soils and nonnative vegetation. One historic (Occ # 8) and two recent (Occ # 533 and 549) records of this species were identified within five miles of the Project site. The most recent occurrence (Occ # 549) was observed in 2005 approximately 4.2 miles west of the Project site. The closest occurrence (Occ # 8) was observed in 1930 approximately 2.4 miles north of the Project site.
BIRDS				
Accipiter cooperii Cooper's hawk	Fed: CA: MSHCP	none WL COV	Open woodlands, or broadleaf and coniferous forested areas but also found in parks and fields with tall trees. Nests in tall trees, usually on flat ground, in dense woods.	**Low:** No woodland or forest habitat with tall trees are present on the Project site however trees in the surrounding area may provide habitat for this species. In addition, there are no records within five miles.
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA: MSHCP:	none **THR** COV	Freshwater marshes with dense cattails, bulrushes, sedges, and tule. Forages in open habitat such as cultivated fields and pastures.	**Presumed Absent:** No freshwater marshes for nesting are present on the Project site and there are no records within five miles.
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.	**Low:** Although there have been eight occurrences of this species (Occ # 33, 39, 40, 42, 111, 113, 147, and 187) within five miles of the project site; all occurrences are historic and only marginally suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer. The closest occurrence (Occ # 113) was observed in 1999, approximately 0.2 mile west of the Project site. The most recent occurrence (Occ #42), was observed in 2001, approximately 2.3 miles south of the Project site.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Artemisiospiza 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.	**Low:** Although there have been four occurrences of this species (Occ # 10, 29, 32, and 45) within five miles of the project site; all occurrences are historic. The closest occurrence (Occ #32) observed in 1999 approximately 0.2 mile west from the Project site. The most recent occurrence (Occ #29), observed in 2001, approximately 2.3 miles south of the Project site. In addition, no suitable chaparral habitat is present on site.
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:** Although there has been one occurrence (Occ # 2) of this species approximately 1.7 miles southeast of the Project site; the occurrence was recorded in 1974 and is considered historic. In addition, no suitable rocky, cliff habitat for nesting is present on site.
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 are present throughout portions of the disturbed grassland within the Project site. In addition, the literature review revealed 16 recent occurrences of this species within five miles of the Project site. The closest occurrence (Occ # 442) observed in 2002 approximately 0.4 mile south of the Project site. The most recent occurrence (Occ # 1537) observed in 2016 approximately 4.6 miles southeast of the Project site.
Buteo regalis Ferruginous hawk	Fed: CA: MSHCP:	none WL COV	Open country including prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. Nests on rocky cliff edges or in large trees such as eucalyptus or oak.	**Low.** Marginally suitable nesting habitat with large trees is present adjacent to the Project site within the 500-foot buffer and there has been one occurrence of this species (Occ #64) observed within five miles of the project site. The occurrence was observed in 2008 approximately 4.9 miles southeast of the Project site.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA: MSHCP:	none **THR** COV	Open pine-oak woodland, savannah, and agricultural fields with scattered trees. Nests in large solitary trees	**Presumed Absent:** No suitable woodland or savannah habitat with large trees for nesting is present on the Project site and there are no records within five miles.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	Fed: CA: MSHCP:	none SSC COV	Coastal sage scrub with tall opuntia cacti. Nests in opuntia cactus.	**Low:** Suitable coastal sage scrub habitat with opuntia cacti is not present on the Project site and there are no records within five miles.
Charadrius alexandrinus nivosus western snowy plover	Fed: CA: MSHCP:	**THR** SSC none	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**Presumed Absent:** No sandy, gravelly, or friable soils adjacent to water features are present on the Project site and there are no records within five miles.
Circus hudsonius Norther harrier	Fed: CA: MSHCP:	none SSC COV	Open pine-oak woodland, savannah, and agricultural fields with scattered trees. Nests in	**Low:** Marginally suitable nesting habitat with scattered trees is present adjacent to the Project site within the 500-foot buffer and there are no records within five miles.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
			solitary bush or tree, or in small groves.	
Elanus leucurus white-tailed kite (nesting)	Fed: CA: MSHCP:	none FP COV	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in tall trees within or on the edge of forested areas.	**Presumed Absent:** No suitable nesting habitat is present on the Project site and there are no records within five miles.
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.	**High:** Suitable habitat is present throughout portions of the Project site with low vegetation and evidence of plowing. In addition, the literature review revealed two recent (Occ # 47 and 84) and four historic (Occ # 34, 35, 39, and 64) occurrences of this species within five miles of the Project site. The closest occurrence (Occ # 35) was observed in 2000 approximately 1.8 miles south of the Project site. The most recent occurrence (Occ # 84) was observed in 2015 approximately 2.7 miles east of the Project site.
Haliaeetus leucocephalus bald eagle (nesting & wintering)	Fed: CA: MSHCP:	**DL** **END/FP** COV	Breeding habitat most commonly includes areas close to coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds	**Presumed Absent:** No suitable nesting habitat or bodies of water are present on the Project site and there are no records within five miles.
Icteria virens yellow-breasted chat (nesting)	Fed: CA: MSHCP:	none SSC COV	Riparian and upland thickets, and dry overgrown pastures. Prefers to nest in dense scrub along streams or at the edges of ponds or swamps.	**Presumed Absent:** No suitable riparian habitat is present on the project site and there are no records within five miles.
Lanius ludovicianus loggerhead shrike (nesting)	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:** Some suitable habitat with scattered shrubs for this species is present on the Project site and adjacent to the site within the 500-foot buffer. The literature review documented one recent occurrence (Occ # 50) of this species, observed in 2007, approximately 4.4 miles east of the Project site.
Plegadis chihi White-faced ibis	Fed: CA: MSHCP:	none WL COV	Freshwater habitats such as ponds, rivers, marshes, and swamps. Nests in low tree or on ground in reeds in marshes.	**Presumed Absent:** No suitable freshwater habitat is present on the Project site and there are no records within five miles.
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:** Suitable scrub habitat is present adjacent to the Project site within the 500-foot buffer and a pair was observed during the biological reconnaissance survey near the southwest Project boundary. In addition, the literature review revealed seven recent and fourteen historic occurrences of this species within five miles of the Project site. The closest occurrence

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
				(Occ # 532) was observed in 2003 approximately 0.8 mile south of the Project site. The most recent occurrence (Occ # 564) was observed in 2015 approximately 4.1 miles southwest of the Project site.
Setophaga petechia yellow warbler	Fed: CA: MSHCP:	none SSC COV	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Presumed Absent.** No suitable riparian habitat is present on the Project site and there are no records within five miles.
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.** Although there have been four recent occurrences of this species (Occ #200, 408, 412, and 413) observed within five miles of the project site; no riparian habitat is present on the Project site. The closest occurrence (Occ # 408) was observed in 2011 approximately 2.1 miles west of the Project site. The most recent occurrence (Occ # 200) was observed in 2015 approximately 4.9 miles west of the Project site.
Xanthocephalus xanthocephalus yellow-headed blackbird	Fed: CA: MSHCP:	None SSC none	Marshes, swamps, and wetlands. Frequently found nesting in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	**Presumed Absent:** No suitable riparian habitat is present on the Project site and there are no records within five miles.
MAMMALS				
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: CA: MSHCP:	none SSC none	Chaparral, coastal scrub, and desert grasslands in San Diego county along the U.S.-Mexico border.	**Low:** Although marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer, there is significant mechanical ground disturbance and the site is outside of San Diego county. One historic record (Occ # 1), observed in 1993, has been identified approximately 4.4 miles east of the Project site.
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.	**Low:** Although marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer, there is significant mechanical ground disturbance and the site is outside of San Diego county. One historic record (Occ # 79) of this species, observed in 1992, was identified approximately 4.5 miles east of the Project site.
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:** Although there has been one occurrence (Occ # 79) of this species approximately 2.9 miles east of the Project site; the occurrence was recorded in 1938 and is considered historic. In

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
				addition, no suitable alluvial scrub habitat with sandy loam soils is present on the Project site.
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:** Although the literature review revealed 27 historic and one recent (Occ #28) record of this species within five miles of the Project site, the site and 500-foot buffer only provide marginally suitable grassland and scrub habitat for the species. The closest occurrence (Occ # 42) was observed within the vicinity of the Project site in 1999. The most recent occurrence (Occ # 28) was observed in 2005 approximately 4.5 miles southeast of the Project site.
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:** Although there have been two records (Occ # 33 and 81) of this species within five miles of the Project site; both occurrences are over 20 years old and are considered historic. In addition, no suitable rock or cliff habitat is present on the Project site.
Lasiurus xanthinus western yellow bat	Fed: CA: MSHCP:	none SSC none	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Presumed Absent:** Although there has been one occurrence (Occ # 30) of this species approximately 0.7 mile southeast of the Project site; the occurrence was recorded in 1982 and is considered historic. In addition, no suitable riparian habitat is present on the Project site.
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.	**High:** Suitable grassland and sparse scrub habitat is present throughout the Project site and adjacent to the site within the 500-foot buffer. The literature review revealed two recent (Occ # 72 and 100) and three historic (Occ # 6, 16, and 41) occurrences of this species within five miles of the Project site. The closest occurrence (Occ # 6) was observed in 1998 approximately 1.1 miles south of the Project site. The most recent occurrence (Occ # 100) was observed in 2015 approximately 2.6 miles east of the Project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA: MSHCP:	none SSC COV	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops & rocky cliffs & slopes.	**Low:** Although marginally suitable scrub habitat was present adjacent to the Project site within the 500-foot buffer, the site lacks moderate to dense canopies and rocky habitats. In addition, there are no records within five miles.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA: MSHCP:	none SSC none	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings.	**Presumed Absent:** No suitable rock or cliff habitat is present on the Project site and there are no records within five miles.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Onychomys torridus ramona southern grasshopper mouse	Fed: CA: MSHCP:	none SSC none	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	**Low:** Marginally suitable semi-open grassland and open scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer. Two historic records (Occ # 32 and 33) of this species have been identified within five miles of the site, however, both occurrences are over 89 years old.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: CA: MSHCP:	none SSC COV	Habitats with sandy and fine soils, including grasslands, coastal sage scrub, and alluvial sage scrub.	**Low:** Marginally suitable grassland and scrub habitat is present on the Project site and adjacent to the site within the 500-foot buffer but the site lacks sandy, fine soils. One historic record (Occ # 26), observed in 1993, was identified approximately 4.4 miles east of the Project site.
Perognathus longimembris internationalis Jacumba pocket mouse	Fed: CA: MSHCP:	none SSC none	Desert, grassland/herbaceous, shrubland/chaparral	**Presumed Absent:** The Project site is outside of the range for the species and the nearest record is over 18 miles away.
Taxidea taxus American badger	Fed: CA: MSHCP:	none SSC none	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	**Low:** Marginally suitable scrub habitat is present adjacent to the site within the 500-foot buffer but no records have been identified within 10 miles of the site.

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

State designations:
(California Endangered Species Act, CDFW)
END: State-listed, Endangered
THR: State-listed, Threatened
SSC: California Species of Special Concern
FP: Fully Protected Species
WL: Watch List Species

Other Designations
COV: Covered under the Western Riverside MSHCP

Source: California Natural Diversity Data Base (CNDDB) Bachelor Mountain, Lakeview, Lake Elsinore, Murrieta, Perris, Romoland, Steele Peak, Wildomar, Winchester 7.5-minute quads.