Biological Technical Report
for the
Oakmont Park Tributary Rehabilitation Project

San Bernardino County, California

Prepared For:

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LIST OF ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPSEI	California Native Plant Society's Electronic Inventory
County	County of San Bernardino
Development Code	County of San Bernardino Development Code
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act
msl	Mean sea level
NCCP	Natural Community Conservation Plan
NHD	National Hydrology Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High Water Mark
Project	Oakmont Park Tributary Rehabilitation Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
City	City of Redlands
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) conducted a biological reconnaissance survey at a 2.6-acre property (Assessor Parcel Numbers 0300-231-61 & 0300-241-36) in the City of Redlands (City), San Bernardino County, California. The survey was conducted to identify any potential biological resources that could be affected by the proposed Oakmont Park Tributary Rehabilitation Project (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 Project will be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code.

1.1 Project Location

The Project site is located within Oakmont Park, south of Interstate 10, and north of Live Oak Canyon Road within the City of Redlands, San Bernardino County, California (Figure 1-1). The Project site is bounded by Sutherland Drive with residential housing to the north and the City of Redlands' Herngt 'Aki' Preserve to the west, east, and south (Figure 1-2). Surrounding land uses consist mainly of recreational and residential developments. The Project site, as depicted on the U.S. Geological Survey (USGS) 7.5-minute Yucaipa topographic quadrangle, lies within Sections 7 and 8 of Township 2 South, and Range 2 West. The elevation of the Project site ranges from approximately 594 to 613 meters above mean sea level (msl).

1.2 Project Description

The City proposes drainage improvements to Yucaipa Creek and to the check dams to the south of Sutherland Drive on the 2.6-acre property. The proposed Project would result in repairs for flood control, replanting and trail repair, slope modification, and installation of retaining walls to improve the existing waterway channel (Yucaipa Creek) and its associated hiking trail for the purpose of protecting the existing trail system and recreational areas of Oakmont Park. The City will act as the CEQA lead agency for the Project.

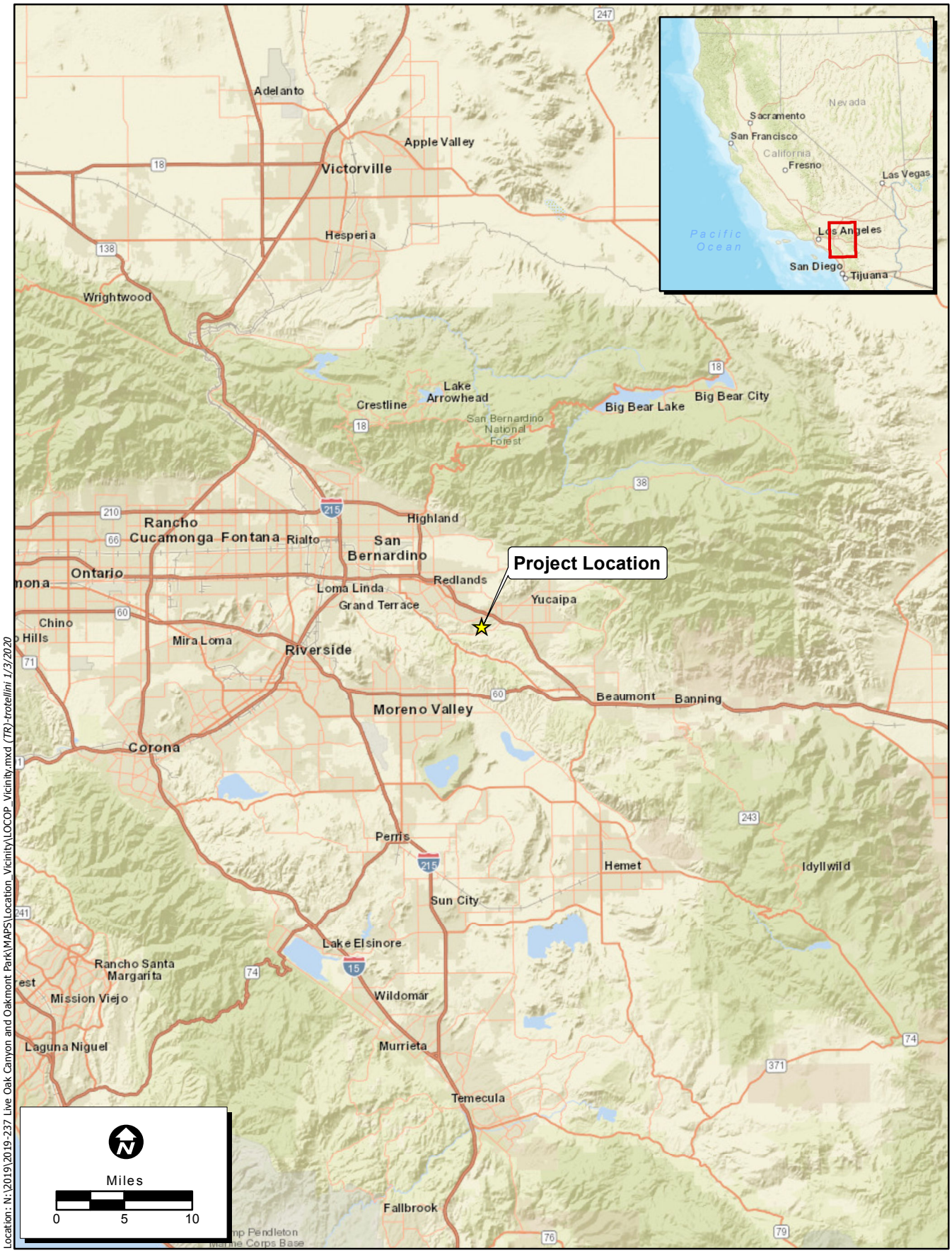
2.0 SPECIAL-STATUS SPECIES REGULATIONS

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

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the 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).



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Map Date: 1/3/2020

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 1-1. Project Vicinity

Oakmont Park Tributary Rehabilitation Project

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Map Date: 8/4/2021

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, NAIP (2020)

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Figure 1-2. Project Location

Oakmont Park Tributary Rehabilitation Project

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 [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity.

provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits (ITPs) where no other federal actions are necessary provided a habitat conservation plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities including hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, 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 USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the CWA. *Discharges of fill material* is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations (CFR) § 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code [USC] 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification, "gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into waters of the US" (33 USC 1251).

On April 21, 2020, the U.S. Environmental Protection Agency (USEPA) and the Department of the Army (Army) published the NWPR to define waters of the United States in the *Federal Register*. This rule became effective on June 22, 2020.

In August 2021, a judge in the U.S. District Court for the District of Arizona ruled to vacate the NWPR. An appeal is expected; however, the USEPA is likely to begin drafting a new rule to replace the NWPR. In the interim, reversion back to pre-2015 guidance (USEPA CWA regulations [33 CFR 328.3{a}]) is anticipated.

In the USACE/USEPA CWA regulations (33 CFR 328.3[a]), the term "waters of the U.S." is defined as follows:

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

2.1.4 Rivers and Harbors Act

The Rivers and Harbors Appropriation Act of 1899, commonly known as the Rivers and Harbors Act, requires permits for all structures such as bridges, causeways, riprap and for other activities such as dredging which are placed within navigable waters of the U.S. Navigable waters are defined as those which are subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce. The USACE grants or denies permits based on the effects on navigation.

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 the California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the 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 ITPs 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 California Fish and Game Commission (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 Agreements (Section 1602)

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CDFW 2021). In Title 14 of the CCR, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

The CDFW's jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the top of bank (TOB). It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

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

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 also 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 Porter-Cologne Water Quality Control Act

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

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

2.2.6 California Environmental Quality Act Significance Criteria

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

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, NCCP, 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 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's California Natural Diversity Database (CNDDB; CDFW 2021a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2021) to determine the special-status plant and wildlife species that have been documented near the Project site. ECORP searched CNDDB and CNPSEI records within the Project site boundaries as depicted on USGS 7.5-minute Yucaipa topographic quadrangle, plus the surrounding eight topographic quadrangles including Forest Falls, Big Bear Lake, Keller Peak, Harrison Mtn., Redlands, Sunnymead, El Casco, and Beaumont. 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 near the Project. Additional information was gathered from the following sources and includes, but is not limited to:

- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2021b);
- Special Animals List (CDFW 2021c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);

- *The Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009);
- Countywide – All Biotic Resources Overlay Map (County of San Bernardino 2012); and
- various online websites (e.g., Calflora 2021).

Using this information and observations in the field, a list of special-status plant and animal species that have the potential to occur on or near 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 ESA or California ESA;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; and/or
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the 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; 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 area; 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 a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project site.

Note that 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 species.

A review of the Natural Resources Conservation Service (NRCS 2021), National Wetlands Inventory (NWI) (USFWS 2021), National Hydrology Dataset (NHD; USGS 2021), and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages present on the Project site that potentially fall under the jurisdiction of either federal or state agencies.

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire Project site and a 500-foot buffer to determine the vegetation communities and wildlife habitats present on the site. Areas that were not accessible by foot were scanned using binoculars for suitable habitat. The biologists documented the plant and animal 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 also taken during the survey to provide visual representation of the conditions 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. Vegetation communities follow that of *A Manual of California Vegetation* (Sawyer et al. 2009).

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. 2020), 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 date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in NAD 83, Universal Transverse Mercator coordinates, Zone 11S.

3.2.2 Aquatic Resources Delineation

This Jurisdictional Waters delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008a). The boundaries of Jurisdictional Waters were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data were recorded on Wetland Determination Data Forms - Arid West Region (Attachment C). A color aerial Google Earth© image (photo date: May 17, 2018) was used to assist with mapping and ground-truthing, in addition to Unmanned Aircraft Systems (UAS) drone imagery collected by ECORP in 2021. *Munsell Soil Color Charts* (Munsell

Color 2009) and the Web Soil Survey (NRCS 2021a) were used to aid in identifying hydric soils in the field. *The Jepson Manual, 2nd Edition* (Baldwin et al. 2012) was used for plant nomenclature and identification.

The field survey was conducted on and updated on December 13, 2019 and updated on March 22, 2021, by ECORP biologist Scott Taylor. The biologist walked accessible areas of the Project site to determine the location and extent of Jurisdictional Waters. Paired locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. An additional non-paired location was sampled to document a marginal area that was determined to be upland as it lacked hydrophytic vegetation, hydric soils, and/or wetland hydrology. Jurisdictional Waters within the Project site were recorded in the field using a post-processing capable Global Positioning System (GPS) unit with sub-meter accuracy (e.g., Juniper Geode™). Feature characteristics and measurements were recorded directly into the data dictionary in the GPS unit. Characteristics of mapped features were also documented in photographs.

Within Title 14, California Code of Regulations, Section 1.72 a stream is defined as "*a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation*." However, this definition does not specifically define the terms *bed*, *channel* or *bank* and does not define related features such as vegetation. It is therefore up to the CDFW what constitutes a stream or its associated vegetation. ECORP has mapped limits of CDFW jurisdiction based on common practice and experience through Notification processes with the CDFW.

Generally, the limits of CDFW streambeds are defined for this delineation as the limits from top-of-bank to top-of-bank. Vegetation associated with streambeds includes riparian shrubs and trees that are within this streambed area or that are directly adjacent. Trees with a diameter at breast height (DBH) of four inches or greater found within the CDFW jurisdictional areas were mapped along with the extent of their canopy and DBH. Canopy extent was mapped based on field observation and aerial mapping.

3.2.2.1 Routine Determinations for Wetlands

To be determined a wetland, the following three criteria must be met:

- A majority of dominant vegetation species are wetland-associated species.
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season.
- Hydric soils are present.

Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental

Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each sampling point location. The *50/20 rule* was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional species that individually comprise 20 percent or more of the total cover in the stratum (USACE 1992, 2008a).

Dominant plant species observed at each sampling point were classified according to their indicator status (probability of occurrence in wetlands; Table 2), *North American Digital Flora: National Wetland Plant List* (Lichvar et al. 2016; USACE 2018). If the majority (more than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), the site was considered to be dominated by hydrophytic vegetation.

Table 2-1. Classification of Wetland-Associated Plant Species[1]

Plant Species Classification	Abbreviation	Probability of Occurring in Wetland
Obligate	OBL	Almost always occur in wetlands
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands
Upland	UPL	Almost never occur in wetlands
Plants That Are Not Listed (assumed upland species)	N/L	Does not occur in wetlands in any region.

[1]Source: Lichvar et al. 2016
N/L=Not listed

In instances where indicators of hydric soil and wetland hydrology were present, but the plant community failed the dominance test, the vegetation was re-evaluated using the Prevalence Index. The Prevalence Index is a weighted-average wetland indicator status of all plant species in the sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the Prevalence Index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2003).

Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

At each sampling point a soil pit was excavated to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each sampling point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Munsell Color 2009). Hydric soils are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. These processes and the features in the soil that develop can be identified by looking at the color and texture of the soils.

Hydrology

Wetlands are, by definition, seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include, but are not limited to, visual observation of saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to, drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard.

3.2.2.2 Ordinary High-Water Mark/Non-Wetland Waters

The discussion in this section briefly summarizes *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Guide; USACE 2008b). The OHWM Guide is intended for delineating ephemeral/intermittent channels. OHWM indicators commonly found in the Arid West include a clear natural scour line impressed on the bank, recent bank erosion, destruction of native terrestrial vegetation, and the present of litter and debris. Resources needed to delineate OHWM include aerial photography and other imagery, topographic maps and other maps (e.g., geological, soil, vegetation), rainfall data, stream gage data, and existing delineations (if present). Field identification of the OHWM includes noting general impression of the vegetation species and distribution, geomorphic features present, surrounding upland land use, and hydrologic alterations and instream and floodplain structures. In the field, the process of delineating the OHWM includes the identification of a low-flow channel (if present), a transition to an active floodplain, and an active floodplain through the presence of geomorphic features (e.g., presence of an active floodplain, benches, break in bank slope, staining of rocks, litter, or drift) and vegetation indicators (e.g., presence of sparse/low vegetation, annual herbs, hydromesic ruderals, pioneer tree seedlings and saplings, xeroriparian species).

3.2.3 Limitations of the Surveys

The steep banks of the channel prevented safe access from the top of the banks of the stream in some portions of the Project site. Therefore, the measurements of the limits of the channel were taken from the bottom of the steeper, more vertical banks and corrected using the most recent available topographic data. Otherwise the entire site was accessible and there were no other limitations identified.

3.2.4 Post-Processing

The data collected in the field utilized ArcGIS Collector™ on a device (smartphone or tablet) connected to a submeter external receiver. The submeter receiver applies differential correction instantaneously in the field using the Satellite Based Augmentation System. The data were then viewed and analyzed for verification, edited, and compiled in Geographic Information System (GIS) format at the time of download. ArcGIS™ software was used to develop the geodatabase and the shapefiles depicted on the figures included in this report.

4.0 RESULTS

Summarized below are 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).

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

The literature review and database searches identified 31 special-status plant species and 47 special-status wildlife species that could occur within the vicinity of 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. The Project site is located within the San Bernardino County biotic overlay for burrowing owl (*Athene cunicularia*).

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

The Project site is not located within any USFWS-designated critical habitat. Southwestern willow flycatcher (*Empidonax traillii extimus*) designated critical habitat is present approximately 2.7 miles from the Project site. There is no expected impact to the critical habitat because it is not in the immediate area. Additionally, the narrowleaf willows present within the buffer and the mulefat (*Baccharis salicifolia*) present on the Project site and within the buffer provide limited suitable habitat for the southwestern willow flycatcher.

4.1.3 Aquatic Resources Delineation Literature Review

The desktop review of the NRCS identified no hydric soils on the site. The NWI, NHD, and USGS mapping did not depict any aquatic features directly within the Project site. The closest feature is located south of the Project site, further downhill in the bottom of Live Oak Canyon (Yucaipa Creek).

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on July 22, 2021, by ECORP biologists Alexandra Dorough and Chelsie Brown. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 4-1.

Table 4-1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Min	Max	Min	Max	Min	Max
7/22/2021	800	1100	72	86	5	30	0-2	0-2

4.2.1 Property Characteristics

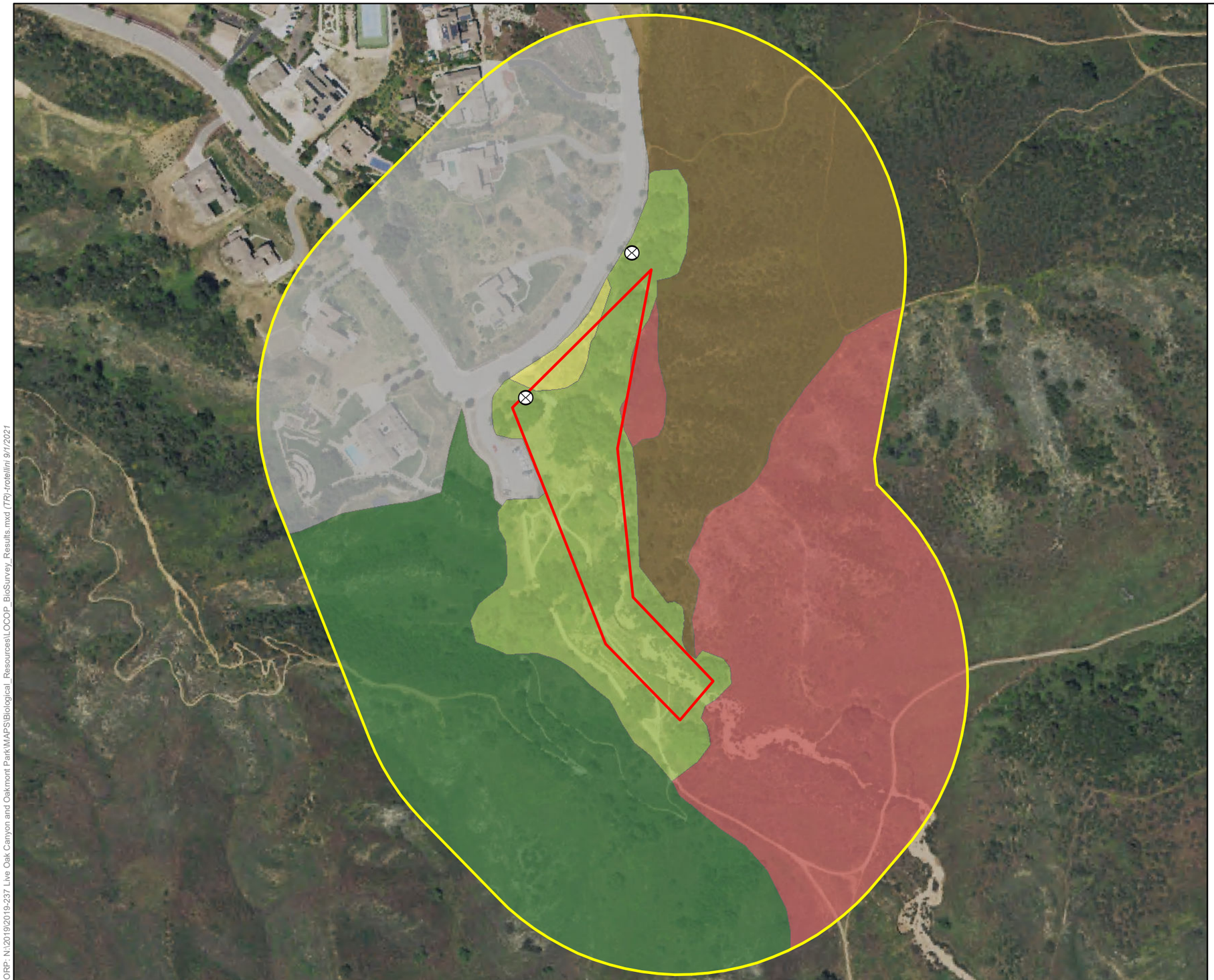
The Project site is located within the upper portions of Live Oak Canyon, within a canyon's headwaters whose surrounding topography is mildly sloped. The Project site consists of a mixture of developed and undeveloped areas. The site consists of a more natural portion of Oakmont Park, following the creek and consisting of disturbed oak woodland habitat consisting primarily of coast live oaks (*Quercus agrifolia*). The other vegetation within the Project site generally consists of nonnative grasslands and ruderal areas. The surrounding area consists of a nature preserve, residential development, and undeveloped slopes. The Project site is bounded by Sutherland Drive to the north and Herngt 'Aki' Preserve to the west, east, and south. Soils on the Project site consisted of Saugus sandy loam (30-50% slopes), San Timoteo loam (30-50% slopes, eroded), and San Emigdio fine sandy loam (2-9% slopes). Representative site photographs are presented in Appendix A.

4.2.2 Vegetation Communities

Native vegetation communities present on the Project site included coast live oak woodland, California sagebrush – California buckwheat scrub, and California buckwheat scrub. Adjacent to the Project site within the 500-foot buffer, native vegetation communities included chamise chaparral, sugarbush chaparral, and California buckwheat scrub. There was one land cover type present, developed, also adjacent to the Project site. Each of these vegetation communities and land cover types is described below and depicted in Figure 4-1.

4.2.2.1 Coast live oak woodland (Quercus agrifolia Woodland Alliance)

The majority of the Project site consists of coast live oak woodland. Coast live oak woodland consists primarily of trees greater than 30 meters tall with an open to continuous canopy, a shrub layer that is sparse to intermittent, and an herbaceous layer that is sparse or grassy.



Map Features

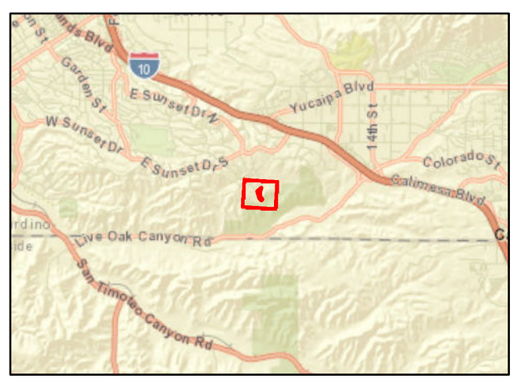
- Project Area
- 500' Buffer
- Culvert

Vegetation and Land Cover Types

- California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance)
- California Sagebrush - California Buckwheat Scrub (*Artemisia californica -Eriogonum fasciculatum* Shrubland Alliance)
- Chamise Chaparral (*Adenostoma fasciculatum* Shrubland Alliance)
- Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance)
- Sugar Bush Chaparral (*Rhus ovata* Shrubland Alliance)
- Developed

Sources: NAIP (2020)

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



ECORP: N:\2019\2019-237 Live Oak Canyon and Oakmont Park\MAPS\Biological_Resources\LOCOP_BioSurvey_Results.mxd (TR)-trotellini 9/1/2021

Map Date: 9/1/2021

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 4-1 Biological Survey Results

Oakmont Park Tributary Rehabilitation Project

This vegetation community occurs at elevations between sea level and 1,200 meters above msl. Within the coast live oak woodland, riparian vegetation including three narrowleaf willows (*Salix exigua*), three mulefat thickets, and one tree tobacco were observed. The riparian vegetation is not large enough to be classified as its own vegetation community. Within the Project boundaries, plant species that are associated with this vegetation community include coast live oak, bromegrass (*Bromus diandrus*), and foxtail chess (*Bromus madritensis* ssp. *madritensis*).

4.2.2.2 California sagebrush – California buckwheat scrub (Artemisia californica – Eriogonum fasciculatum Shrubland Alliance)

California sagebrush-California buckwheat scrub occurs within the northern portion of the Project site and within the survey buffer immediately to the north. California sagebrush consists of much-branched shrub up to 2.5 meters tall with shallow roots. California buckwheat consists of a semi-woody, much-branched shrub with woody, many-branched roots that penetrate 1.5 meters in depth. California sagebrush – California buckwheat scrub occurs on steep slopes that are usually south-facing and at elevations between 50 and 950 meters above msl. Within the Project boundaries, plant species that are associated with this vegetation community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica),* monkeyflower (*Diplacus* sp.), and chamise (*Adenostoma fasciculatum)*.

4.2.2.3 California buckwheat scrub (Eriogonum fasciculatum Shrubland Alliance)

California buckwheat scrub is located within the buffer in the adjacent land to the east. California buckwheat scrub consists of shrubs less than 2 meters tall with a continuous or intermittent canopy. The herbaceous layer is variable and may be grassy. This vegetation community occurs at elevations between 0 and 1200 meters above msl. Within the Project boundaries, plant species that are associated with this vegetation community include coyote brush (*Baccharis pilularis*), California buckwheat, and monkeyflower.

4.2.2.4 Chamise chaparral (Adenostoma fasciculatum Shrubland Alliance)

Chamise chaparral occurs northwest of the Project site within the 500-foot buffer. Chamise chaparral consists of shrubs less than 4 meters tall with an intermittent to continuous canopy. This vegetation community occurs at elevations between 10 to 1,800 meters above msl. Plant species observed during the survey that are associated with this vegetation community include chamise, monkeyflower, California buckwheat, and toyon (*Heteromeles arbutifolia*).

4.2.2.5 Sugarbush chaparral (Rhus ovata Shrubland Alliance)

Sugarbush chaparral occurs west of the Project site within the 500-foot buffer. Sugarbush chaparral consists of shrubs less than 5 meters tall with an open to continuous canopy. The herbaceous layer is sparse and emergent trees may occur with sparse cover. This vegetation community occurs at elevations between 5 and 400 meters above msl. Plant species observed during the survey that are associated with this vegetation community include chamise, California sagebrush, California cholla (*Cylindropuntia californica*), California buckwheat, and toyon.

4.2.2.6 Developed

Surrounding land north and northwest of the Project site consists of developed land cover. Developed is not a vegetation classification, but rather a land cover type. Areas mapped as disturbed/developed were heavily disturbed due to residential development, a paved road, and a paved parking lot.

4.2.3 Plants

Plant species observed on the Project site were generally characteristic of chaparral and oak woodland communities for the time of the year in which the survey was conducted. Nonnative species observed on the Project site included horehound *(Marrubium vulgare*), tree of heaven (*Ailanthus altissima*), tree tobacco (*Nicotiana glauca),* mustard (*Sisymbrium* sp.), Russian thistle (*Salsola tragus*), and bromegrass. Native plants observed on the Project site included coast live oak, California buckwheat, redberry buckthorn (*Rhamnus crocea*), fragment sumac (*Rhus aromatica*), and California sagebrush. A full list of plant species observed on and immediately adjacent to the Project site is included in Appendix B.

4.2.4 Wildlife

Wildlife species observed and detected on the Project site were characteristic of chaparral, oak woodland, and canyon habitat and were adapted to disturbances consistent with a park. Two mammal species were detected on and in the vicinity of the Project site: coyote (*Canis latrans*) and desert cottontail (*Sylvilagus audubonii*). Eleven bird species were also detected on and in the vicinity of the Project site, including Cooper's hawk (*Accipiter cooperii*), California scrub-jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), phainopepla (*Phainopepla nitens*), woodpecker (*Picidae* sp.), Bewick's wren (*Thryomanes bewickii*), barn owl (*Tyto alba),* and mourning dove (*Zenaida macroura*). A complete 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 searches identified 31 special-status plant species and 47 special-status wildlife species that occur on or near the Project site. However, with the San Bernardino Mountains to the north and east as well as Moreno Valley to the southwest, many of the species that appeared in the literature review were outside of the elevation range of the Project area and are thus presumed absent because they only occur at higher or lower elevations.

4.2.5.1 Special-Status Plants

There were 31 special-status plant species that appeared in the literature review and database searches for the Project site (CDFW 2021a; CNPS 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. Of the 31 special-status plants identified, none have a potential to occur on the Project site and therefore all thirty-one species identified in the literature review are presumed absent from the Project site.

For the purposes of this study, the results of the literature review were limited to plant species occurring within a nine-quadrangle search of the Project site. With various habitat types occurring within the nine-quadrangle search, several species appeared in the literature review results that had no potential to occur on or near the Project site. For the purposes of this study, plant species with a CNPS Rare Plant Rank (CRPR) of 1A species were eliminated from the analysis because they are presumed to be extirpated from California. Additionally, CRPS 3 or 4 species were eliminated from the analysis because these rankings are considered a review list and a watch list, respectively. Descriptions of the CRPR designations can be found in Table 4-2.

Table 4-2. CRPR 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 more information is needed; 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 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)

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

4.2.5.2 Plant Species Presumed Absent

The following species were presumed absent from the Project site due to the 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:

- Big Bear Valley milk-vetch (*Astragalus lentiginosus* var. *sierrae*), CRPR 1B.2;
- California satintail (*Imperata brevifolia*), CRPR 2B.1;
- Chaparral sand-verbena (*Abronia villosa* var. *aurita*), CRPR 1B.1;
- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), federally listed Endangered, CRPR 1B.2;
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), CRPR 1B.1;

- Deep Canyon snapdragon (*Pseudorandom cyathiferum*), CRPR 2B.3;
- Hall's monardella (*Monardella macrantha* ssp. *hallii*), CRPR 1B.3;
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*), CRPR 1B.1;
- Marsh sandwort (*Arenaria paludicola*), federally listed Endangered, state-listed Endangered, CRPR 1B.1;
- Mesa horkelia (*Horkelia cuneata* var. *puberula*), CRPR 1B.1;
- Mojave tarplant (*Deinandra mohavensis*), state-listed Endangered, CRPR 1B.3;
- Mt. Pinos onion (*Allium howellii* var. *clokeyi*), CRPR 1B.3;
- Mud nama (*Nama stenocarpa*), CRPR 2B.2;
- Narrow-leaf sandpaper-plant (*Petalonyx linearis*), CRPR 2B.3;
- Nevin's barberry (*Berberis nevinii*), federally listed Endangered, state-listed Endangered, CRPR 1B.1;
- Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*), CRPR 1B.2;
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR 1B.1;
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), CRPR 2B.2;
- Rock sandwort (*Arenaria lanuginose* var. *saxosa*), CRPR 2B.3;
- Salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), federally listed Endangered, state-listed Endangered, CRPR 1B.2;
- Salt spring checkerbloom (*Sidalcea neomexicana*), CRPR 2B.2;
- San Bernardino aster (*Symphyotrichum defoliatum*), CRPR 1B.2;
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), federally listed Endangered, state-listed Endangered, CRPR 1B.1;
- Slender-horned spineflower (*Dodecahema leptoceras*), federally listed Endangered, state-listed Endangered, CRPR 1B.1;
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1;
- Sonoran maiden fern (*Thelypteris puberula* var. *sonorensis*), CRPR 2B.2;
- Spiny-hair blazing star (*Mentzelia tricuspis*), CRPR 2B.1;
- Three-awned grama (*Bouteloua trifida*), CRPR 2B.3;
- Yucaipa onion (*Allium marvinii*), CRPR 1B.2;

- White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), CRPR 1B.2; and
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), CRPR 2B.1.

4.2.5.3 Special-Status Wildlife

Of the 47 special-status wildlife species identified in the literature review, two were found to have a high potential to occur, seven have a moderate potential to occur, and eight have a low potential to occur on the Project site. The remaining 30 species are presumed absent from the Project site. The sensitive wildlife species with a potential to occur in the vicinity were not observed during the reconnaissance survey.

4.2.5.4 Wildlife Species with a High Potential to Occur

The following species have a high potential to occur on the Project site because habitat for the species occurs onsite and a known occurrence has been recently reported in the database within five miles of the site.

Coastal whiptail (*Aspidoscelis tigris stejnegeri*)

Coastal whiptail is a CDFW SSC. The coastal whiptail is found primarily in hot and dry open areas with sparse vegetation in habitats including chaparral, woodlands, and dry riparian areas. It primarily feeds on small lizards and small invertebrates including spiders, scorpions, centipedes, and termites. Suitable habitat is present on the Project site in the dry riparian areas along the drainage and the oak woodlands. The chaparral habitat in the survey buffer adjacent to the Project site also contains suitable habitat. Three recent records of this species are documented within five miles of the Project site with the closest record being 1.7 miles southwest in 2015 (Occurrence 120; CDFW 2021a). The presence of suitable habitat and the recent documented records near the Project site resulted in this species having a high potential to occur on the Project site.

Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)

Northwestern San Diego pocket mouse is a CDFW SSC. The northwestern San Diego pocket mouse is found in sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California. It primarily occurs in arid coastal and desert borders and typical habitats include sandy desert fans and shrub communities such as coastal sage scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland. The northwestern San Diego pocket mouse primarily feeds on seeds of forbs, grasses, shrubs with a lower to moderate preference for forb and shrub seeds, and a high preference for grass seeds. Seeds are transported within cheek pouches where they are stored in and around their burrows. The species may also feed on some insects. Suitable habitat is present on the Project site along the banks of the drainage in the sandy loam soils and within the chaparral habitat adjacent to the Project site in the survey buffer. Four recent records (Occurrences 31, 92, 52, 105) of this species from 2002 and 2016 are documented within five miles of the Project site with the closest record being 0.9 miles southeast (CDFW 2021a). The presence of suitable habitat and the recent documented records near the Project site resulted in this species having a high potential to occur on the Project site.

4.2.5.5 Wildlife Species with a Moderate Potential to Occur

The following species have a moderate potential to occur on the Project site because either habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within five miles of the site; a historic documented observation was recorded within five miles of the Project site; or a known recently documented occurrence has been reported within five miles of the site and marginal or limited amounts of habitat occurs onsite.

California glossy snake (*Arizona elegans occidentalis*)

California glossy snake is a CDFW SSC. The California glossy snake is most commonly found in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral habitats. The species prefers washes and sandy areas with patchy brush and rocks including soil loose enough for easy burrowing. Perennial plants are necessary in the habitat for a food source. The species preys mostly on sleeping diurnal lizards, but also eats small snakes, terrestrial birds, and nocturnally active mammals. Suitable habitat occurs on the Project site in the sandy wash of the drainage. Although no records occur within five miles of the Project site, a recent record was documented 6.2 miles north (Occurrence 100) in 2014 (CDFW 2021a). Based on the suitable habitat within the sandy wash on the Project site and the recent documented records of the species but not within five miles of the Project site, this species has been determined to have a moderate potential to occur within the Project site.

Coast patch-nosed snake (*Salvadora hexalepis virgultea*)

Coast patch-nosed snake is a CDFW SSC. The coast patch-nosed snake is found in coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains in coastal Southern California. The species requires small mammal burrows for refuge and overwintering sites. Diet consists mostly of lizards, along with small mammals. The Project site is located within canyon headwaters. Suitable brushy habitat is present within the Project site and marginally suitable shrubby grassland habitat is present near the intermittent drainage on the Project site. The survey buffer adjacent to the Project site contains suitable chaparral habitat. Many small mammal burrows were observed within the Project site which could provide refuge for this species (photo 12 in Appendix A). The literature review identified one recent record within five miles of the Project site in 2016 (Occurrence 23; CDFW 2021a). Based on the marginally suitable habitat present on the Project site and suitable habitat adjacent to the Project site, as well as the recent documented record of the species within five miles, this species has been determined to have a moderate potential to occur on the Project site.

Red-diamond rattlesnake (*Crotalus ruber*)

Red-diamond rattlesnake is a CDFW SSC. The red-diamond rattlesnake is found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes, and rocky desert flats. The diet of the species consists of birds, lizards, and small mammals including ground squirrels, wood rats, and rabbits. Suitable chaparral habitat is present adjacent to the Project site in the survey buffer. Foraging is possible on the Project site as many small mammal burrows were observed on the survey. The literature

review identified one recent record within five miles of the Project site in 2016 (Occurrence 177; CDFW 2021a). Based on the suitable foraging habitat present on the Project site and suitable chaparral habitat present adjacent to the Project site, as well as the recent documented record of the species within five miles, this species has been determined to have a moderate potential to occur on the Project site.

Loggerhead shrike (*Lanius ludovicianus*)

Loggerhead shrike is a CDFW SSC. The loggerhead shrike is found in open country, with scattered shrubs and trees or other perches for hunting in habitats including agricultural fields, deserts, grasslands, savanna, and chaparral. The species preys on both vertebrate and invertebrate animals, consisting mostly of mice but also insects, small amphibians, and even small birds. Suitable shrub and tree habitat is present on the Project site. Although no recent CNDDB records for this species have been documented within five miles of the Project site (CDFW 2021a), the species is often recorded in the general area through other sources such as eBird (eBird 2012). Based on the suitable habitat present on the Project site and the frequent documented records of the species in the general area, this species has a moderate potential to occur on the Project site.

White-tailed kite (*Elanus leucurus*)

White-tailed kite is a CDFW FP. The white-tailed kite is found in lowlands including savanna, open woodlands, marshes, and agricultural fields. It nests in trees, riparian scrub areas, oak woodlands, and other similar habitats. The species eats mostly lizards, especially whiptails, along with small mammals, and possibly small snakes, nestling birds, reptile eggs, and amphibians. Both low to marginally suitable nesting and foraging habitat is present on the Project site. Two recent records from 2016 (Occurrences 166 and 167) were documented within five miles of the Project site (CDFW 2021a). Based on the low to marginally suitable nesting and foraging habitat present on the Project site and the two recent documented records of the species within five miles, this species has a moderate potential to occur on the Project site.

Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

Los Angeles pocket mouse is a CDFW SSC. The Los Angeles pocket mouse is found in lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. The species can be found in fine, sandy soils associated with washes or dunes. It may hide under weeds and dead leaves in addition to digging burrows. Suitable habitat occurs in the fine, sandy soils of the intermittent drainage wash and marginally suitable habitat is present in the grassland below the oak canopy within the Project site. No records exist within five miles of the Project site. The most recent record is from 2016 and is 8.6 miles southeast of the Project site (Occurrence 61; CDFW 2021a). Based on the suitable habitat present on the Project site and the recent documented records of the species but not within five miles of the Project site, this species has a moderate potential to occur on the Project site.

Pallid bat (*Antrozous pallidus*)

Pallid bat is a CDFW SSC. The pallid bat is found in chaparral, coastal scrub, desert wash, Great Basin grassland and scrub, Mojavean desert scrub, riparian woodland, Sonoran Desert scrub, upper montane coniferous forest, and valley and foothill grassland habitats. The species is most commonly found in open,

dry habitats with rocky areas for roosting. Although the species prefers rocky outcrops for roost, they can be found roosting in caves, rock crevices, mines, hollow trees, and buildings. The pallid bat is very sensitive to disturbance of roosting sites. The diet of the species consists mainly of large flying and ground-dwelling insects, moths, spiders, scorpions, and centipedes and will sometimes eat small lizards and mice. Suitable roosting habitat is present in the oak trees where tree holes and other cavities such as exfoliating bark is present. One historic record of the species occurs within five miles of the Project site (CDFW 2021a). Based on the suitable roosting habitat present on the Project site and the historic records documented within five miles, this species has been determined to have a moderate potential to occur on the Project site.

4.2.5.6 Wildlife Species with a Low Potential to Occur

The following species have a low potential to occur on the Project site because limited or marginal habitat for the species occurs within the site and a recently documented observation occurs within the database search, but not within five miles of the area; 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 onsite, but no records or only historic records were found within the database search.

- Crotch bumble bee (*Bombus crotchii*), Candidate for state listing;
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC;
- Southern California legless lizard (*Anniella stebbinsi*), CDFW SSC;
- Burrowing owl (*Athene cunicularia*), CDFW SSC;
- Golden eagle (*Aquila chrysaetos*), CDFW Fully Protected;
- Western yellow bat (*Lasiurus xanthinus*), CDFW SSC;
- American badger (*Taxidea taxus*), CDFW SSC; and
- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (endangered), state-listed (threatened).

4.2.5.7 Wildlife Species Presumed Absent

The following species were presumed absent from the Project site due to lack or suitable habitat and absence of species records in the vicinity of the Project site:

- Santa Ana sucker (*Catostomus santaanae*), federally listed (threatened);
- Steelhead - southern California DPS (*Oncorhynchus mykiss irideus* pop. *10*), federally listed (endangered);
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. *8*), CDFW SSC;
- California red-legged frog (*Rana draytonii*), federally listed (threatened), CDFW SSC;

- Southern mountain yellow-legged frog (*Rana muscosa*), federally listed (endangered), state-listed (endangered);
- Western spadefoot (*Spea hammondii*), CDFW SSC;
- Southern rubber boa (*Charina umbratica*), state-listed (threatened);
- Western pond turtle (*Emys marmorata*), CDFW SSC;
- Two-striped gartersnake (*Thamnophis hammondii*), CDFW SSC;
- Tricolored blackbird (*Agelaius tricolor*), state-listed (threatened), CDFW SSC;
- Swainson's hawk (*Buteo swainsoni*), state-listed (threatened);
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), federally listed (threatened), state-listed (endangered);
- Black swift (*Cypseloides niger*), CDFW SSC;
- Southwestern willow flycatcher (*Empidonax traillii extimus*), federally listed (endangered), state-listed (endangered);
- Bald eagle (*Haliaeetus leucocephalus*), federally delisted, state-listed (endangered), CDFW Fully Protected;
- Yellow-breasted chat (*Icteria virens*), CDFW SSC;
- Coastal California gnatcatcher (*Polioptila californica californica*), federally listed (threatened), CDFW SSC;
- Purple martin (*Progne subis*), CDFW SSC;
- Yellow warbler (*Setophaga petechia*), CDFW SSC;
- Least Bell's vireo (*Vireo bellii pusillus*), federally listed (endangered), state-listed (endangered);
- Dulzura pocket mouse (*Chaetodipus californicus femoralis*), CDFW SSC;
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*), federally listed (endangered), candidate for state listing, CDFW SSC;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC;
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*), CDFW SSC;
- Lesser long-nosed bat (*Leptonycteris yerbabuenae*), federally de-listed, CDFW SSC;
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), CDFW SSC;
- San Diego desert woodrat (*Neotoma lepida intermedia*), CDFW SSC;
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC;

- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC; and
- White-eared pocket mouse (*Perognathus alticola alticola*), CDFW SSC.

4.2.6 Raptors and Migratory Birds

Suitable nesting habitat for numerous species of migratory birds protected under the federal MBTA and California Fish and Game Code is present on the Project site in the coast live oak trees and some of the larger shrubs. Therefore, nesting birds could use the Project site during the nesting bird season (typically February 1 through August 31).

4.2.7 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 varies, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. 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. The nature of corridor usage and wildlife movement patterns vary 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 and cover is provided for larger animals within the shrubs and oak tree woodland. Canyons border the Project site to the west, south, and east. Residential development is located directly to the north of the Project site and there is barbed wire running along portions of the two drainage features which lessens the site's value as a corridor. Disturbances from pedestrians using the trails and picnic areas could also deter wildlife from moving through the area. The Project site is not situated along any major drainages or washes that would facilitate wildlife movement. The Project site is not considered a linkage or corridor between natural habitat areas.

Location: N:\2019\2019-237 Live Oak Canyon and Oakmont Park\MAPS\Jurisdictional_Delineation\LOCOP_ARD.mxd *(TR)-trotellini 12/9/2021*

Map Date: 12/9/2021

Figure 4-2. Aquatic Resources Delineation

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Oakmont Park Tributary Rehabilitation Project

4.3 Aquatic Resources Delineation

A total of 0.132 acre of potential Waters of the U.S./State and 0.525 acre of CDFW jurisdiction have been mapped within the project area (Figure 4-2. *Aquatic Resources Delineation*). The Project site supports two water features, both considered to be ephemeral drainages, each fed by culverts leading from residential areas to the north. No hydric soils were identified on the Project site. Each of the mapped features are tributary to Yucaipa Creek to the south.

4.3.1 Wetlands

No wetlands were identified or suspected within the project area. All stream flows are considered to be ephemeral in nature, conveying flows immediately after storm events and then periodically throughout the rainy season.

4.3.2 Other Waters (Non-wetland Waters)

4.3.2.1 Ephemeral Drainage

Ephemeral drainages are linear features that exhibit a bed and bank and an OHWM, resulting from surface flows for short periods during and immediately following significant rainfall events. The drainages within the project area originate at culverts that collect stormwater from surrounding residential areas. The channel within the project area was unvegetated in the bottom and sides, while over the top of the banks there were coast live oak trees, shrubs or weedy vegetation. Shrub species recorded adjacent to the project area included California buckwheat. Weedy upland plants recorded within the project area adjacent to the ephemeral drainages include species such as wild oats, black mustard and brome. None of these plants are hydrophytic. The soils found within the drainages were largely composed of sediment and large cobbles exposed during scouring storm flows. There are also a series of check dam gabions within the larger drainage channel, installed previously to inhibit erosion. Typical soil matrix colors within the drainage were 10YR5/3 and 10YR4/3, which are not considered to be hydric colors.

Indicators of the presence of an OHWM within the intermittent drainage included presence of bed and bank, drift and/or debris, changes in average sediment texture, changes in vegetation cover, and changes in vegetation species. Indicators of hydrology that were observed within the drainage included water marks, debris lines, sediment deposits, drift or debris deposits, and drainage patterns.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The Project site is generally classified as oak woodland and chaparral habitat. Disturbances on the Project site include pedestrians uses, trash, an irrigation system, recreational trails, and man-made structures (picnic tables, benches, a porta potty, and a dumpster). No special-status plant or wildlife species were observed during the biological survey. Of the thirty-one special-status plant species identified in the literature review and database searches, all were presumed absent based on the available habitat and records in the vicinity of the Project site.

The literature review and database searches identified 47 special-status wildlife species that occur in the vicinity of the Project site. However, based on the condition of the site and the available habitat, only two species (coastal whiptail and northwestern San Diego pocket mouse) were determined to have a high potential to occur on the Project site. These two species are of lower levels of sensitivity (species of special concern) and direct impacts to them caused by the Project are not considered to be significant under CEQA as the site is not expected to support large numbers of either species. Eight species (California glossy snake, coast patch-nosed snake, red-diamond rattlesnake, loggerhead shrike, white-tailed kite, pallid bat, and Los Angeles pocket mouse) were determined to have a moderate potential to occur and eight species (Crotch bumble bee, coast horned lizard, southern California legless lizard, burrowing owl, golden eagle, western yellow bat, American badger, and Stephen's kangaroo rat) with a low potential to occur. These moderate and low potential species are of relatively low levels of sensitivity (species of special concern and fully protected) and direct impacts caused by the Project are not considered to be significant under CEQA. The site is not expected to support large numbers of these species.

There is also one special status species that has a moderate potential to occur and is considered to be of higher sensitivity (white-tailed kite) and two special status species that have low potential to occur and are considered to be of higher sensitivity (golden eagle) or have special survey requirements (burrowing owl). For these three species, any direct or indirect impacts to them due to Project implementation would be considered significant under CEQA due to their higher level of sensitivity. Implementation of Mitigation Measure BIO-1 and BIO-2 will reduce impacts to a level that is less than significant.

The Project site also contained suitable nesting habitat for bird species protected under the MBTA. Development of the Project site will be required to comply with the MBTA and avoid impacts to nesting birds. It is strongly recommended that the Project construction be completed outside of nesting bird season (typically February 1 through August 31). If construction of the Project occurs during the nesting bird season, ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat and indirectly through increased noise. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-1.

5.2 Sensitive Natural Communities

The Project site consisted primarily of coast live oak woodland with small amounts of California sagebrush – California buckwheat scrub and California buckwheat scrub. Adjacent to the Project site within the 500-

foot buffer, native vegetation communities included chamise chaparral, sugarbush chaparral, and California buckwheat scrub. A few mulefat thickets were identified within the Project site along the banks of the drainage and mulefat and narrowleaf willow thickets were present within the 500-foot buffer along the northern Project boundary. These species are considered to be riparian habitat and due to the low density, are not large enough to be classified as their own vegetation community.

Within the Project site, approximately 2.4 acres of coast live oak woodland are present. Coast live oak woodland is considered a sensitive natural community. Any impacts to oak trees would be considered significant. We recommend that the Project avoid all impacts to individual oak trees to the maximum extent possible. If any oak trees are impacted, mitigation will be required. Mitigation will be at the discretion of the City of Redlands. Mitigation measures could include, but are not limited to, off-site oak tree replacement or on-site replacement of oak trees for every one that is impacted.

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

A formal aquatic resources delineation was completed and is provided under separate cover for the Project site. State and federally protected waters were identified on the Project site. If the entire Project site is developed, a total of 0.297 acre of Waters of the U.S. and Waters of the State would be impacted (ECORP Consulting, Inc. 2020).

5.4 Wildlife Corridors and Nursery Sites

The Project site is located adjacent to areas containing existing disturbances (e.g., a paved road, a parking lot, and residential development). The Project site could provide wildlife movement opportunities since it consists of open and unimpeded land and cover is provided for larger animals within the shrubs and coast live oak woodland. However, the Project site's value as a corridor is lessened by the disturbances from pedestrians using the trails and picnic areas and barbed wire runs along portions of the drainage features. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project site. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur during the development of the Project site.

5.5 Aquatic Resources

The project purpose is to stabilize the banks of the intermittent drainage mapped, and will entail an as-yet undetermined acreage of impacts to the feature, comprising a combination of impacts to state and federal jurisdiction.

If impacts to state- and/or federally protected wetlands and waters are unavoidable, coordination and/or consultation with the regulatory agencies (USACE, CDFW, RWQCB) regarding regulatory permitting will be required. An impact is defined as placement of fill material or removal of riparian vegetation, or could include any kind of alteration to these features. Impacts of less than 0.5 acre and 500 linear feet of Waters of the U.S. would likely qualify under the USACE Nationwide Permit program, which are a series of "pre-approved" permits. A notification is still needed, but the permit approval process typically takes a minimum of four to six months to complete from the time of notification and application submittal. Larger

impacts to Waters of the U.S. could necessitate an individual permit, which is a longer process, taking multiple years. Impacts to CDFW jurisdiction entail the same process regardless of the size of impacts, although greater impacts and impacts to riparian habitats will require larger amounts of mitigation in order to complete the permit process.

Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal Clean Water Act, an Application for Water Quality Certification under Section 401 of the federal Clean Water Act and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. The permit process will take approximately six months, as long as the impacts are relatively minor. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies and so on are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement or other types of habitat improvement. Typically the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.

6.0 MITIGATION MEASURES AND RECOMMENDATIONS

6.1 Mitigation Measures

The following mitigation measures are recommended prior to Project implementation:

BIO-1 – Pre-construction Nesting Bird Survey: If construction or other Project activities are scheduled to occur during the bird breeding season (February 1 through August 31), a pre-construction nesting bird survey shall be conducted by a qualified biologist to ensure that active bird nests will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting bird survey shall include the Project site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity, noise, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriate disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified avian biologist through a minimum of weekly biological monitoring.

BIO-2 – Preconstruction Burrowing Owl Survey: A preconstruction wildlife survey shall be conducted for the burrowing owl prior to Project-related ground disturbance. The survey shall be conducted within 14 days of initial ground disturbance (grading, grubbing, and construction) in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Typically, if burrowing owls or active burrowing owl burrows are identified on a Project site during the survey, these features must be completely avoided during the owl breeding season (March 1 through August 31). If impacts to those features are unavoidable then the Project proponent must also develop an owl mitigation plan in consultation with CDFW. Mitigation methods may include passive relocation conducted between September 1 and February 28 outside of the owl breeding season. If an active owl burrow is identified, and construction is to

proceed, then a qualified owl biologist (with two or more years of owl experience) can establish an appropriate disturbance-limit buffer around the burrow using flagging or staking. The buffer limit size can be at the biologist's discretion based on topography of the site and other conditions. Construction activities shall not occur within any buffer zones until the burrow is deemed inactive by the qualified owl biologist through a minimum of weekly biological monitoring.

6.2 Recommendations

As mentioned above in Section 5.5, impacts to aquatic resources are expected for this Project. For any impacts to state- and/or federally protected wetlands and waters that are unavoidable, coordination and/or consultation with the regulatory agencies (USACE, CDFW, RWQCB) regarding regulatory permitting will be required by law. Additional mitigation measures beyond those specified above may result from that process.

The following best management practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to species that have potential to occur on the property:

- Confine all work activities to a pre-determined work area.
- To prevent inadvertent entrapment of wildlife during the construction phase of a Project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of four inches or greater should be capped while stored onsite.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the construction or Project site.
- Use of rodenticides and herbicides on the Project site should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife, and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to predatory wildlife.

7.0 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: Chelsie Brown DATE: 9/1/2021

Chelsie Brown
Associate Biologist
ECORP Consulting, Inc.

Under the direction of:

SIGNED: DATE: 12/8/2021

Scott Taylor
Senior Biologist
ECORP Consulting, Inc.

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LIST OF APPENDICES

APPENDIX A

Representative Site Photographs

Photo 1. Representative photo of California sagebrush – California buckwheat scrub present in the northern portion of the Project site & northern buffer, facing northeast.

Photo 2. Project site and coast live oak woodland from western buffer, facing northeast.

Photo 3. Drainage wash and coast live oak woodland in Project site, facing north.

Photo 4. Project site and survey buffer, facing west.

Photo 5. Overview of southern portion of Project site and survey buffer, facing east.

Photo 6. Project site with drainage and coast live oak woodland, facing south.

Photo 7. Culvert with mulefat thicket (foreground) in northwest corner of Project site.

Photo 8. Culvert in northeast buffer, adjacent to Project site.

Photo 9. Mulefat thickets above culvert in northwest corner of Project site, facing southwest.

Photos 10 & 11. Narrowleaf willow thickets in northern buffer near entrance to Oakmont Park.

Photo 12. Representative of small mammal burrows observed throughout Project site.

Photo 13. Coast live oak woodland within Project site, facing northwest.

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
Acmispon glaber	deerweed
Acourtia microcephala	sacapellote
Adenostoma fasciculatum	chamise
*Ailanthus altissima**	tree of heaven
Ambrosia acanthicarpa	annual bursage
Amsinckia sp.	fiddleneck sp.
Artemisia californica	California sagebrush
Artemisia dracunculus	tarragon
Baccharis pilularis	coyote brush
Baccharis salicifolia	mulefat
*Bromus diandrus**	bromegrass
Bromus madritensis ssp. *madritensis**	foxtail chess
*Brassica rapa**	common mustard
*Centaurea melitensis**	tocalote
Corethrogyne filaginifolia	common sandaster
Croton setiger	doveweed
Cuscuta sp.	dodder
Cucurbita foetidissima	Missouri gourd
Cylindropuntia californica	California cholla
Datura wrightii	sacred datura
Diplacus sp.	monkeyflower
Eriogonum fasciculatum	California buckwheat
*Euphorbia maculate**	spotted spurge
Heterotheca grandiflora	telegraph weed
Heteromeles arbutifolia	toyon
*Hirschfeldia incana**	mustard
Lonicera hispidula	pink honeysuckle
*Lysimachia arvensis**	scarlet pimpernel
*Marrubium vulgare**	horehound
*Nerium oleander**	oleander
*Nicotiana glauca**	tree tobacco
Opuntia oricola	chaparral prickly pear
*Parkinsonia aculeata**	Mexican palo verde
Penstemon centranthifolius	scarlet bugler
Penstemon sp.	beardtongue
*Polypogon monspeliensis**	annual beard grass
*Olea Europaea**	olive
Quercus agrifolia	coast live oak
Quercus sp.	oak
Rhamnus crocea	redberry buckthorn
Rhus aromatica	fragment sumac
Rhus ovata	Sugarbush

SCIENTIFIC NAME	COMMON NAME
Salix exigua	narrowleaf willow
*Salsola tragus**	Russian thistle
Sambucus nigra	black elderberry
Sisymbrium sp.*	mustard
Stephanomeria sp.	wirelettuce
Tamarix sp.	tamarisk
*Verbena pulchella**	South American mock vervain
**Nonnative species*	

APPENDIX C

Wildlife Species Observed

SCIENTIFIC NAME	COMMON NAME
MAMMALIA	**MAMMALS**
Canis latrans	coyote
Sylvilagus audubonii	desert cottontail
AVES	**BIRDS**
Accipiter cooperii	Cooper's hawk
Aphelocoma californica	California scrub-jay
Calypte anna	Anna's hummingbird
Corvus corax	common raven
Haemorhous mexicanus	house finch
Melozone crissalis	California towhee
Phainopepla nitens	phainopepla
Picidae sp.	woodpecker
Thryomanes bewickii	Bewick's wren
Tyto alba	barn owl
Zenaida macroura	mourning dove

APPENDIX D

Potential for Occurrence of Sensitive Plant Species

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat**	**Potential for Occurrence**
Abronia villosa var. ***aurita*** chaparral sand-verbena	Fed: CA: CRPR:	none none 1B.1	(Jan) Mar-Sept 75-1600	Occurs in various types of chaparral habitat, coastal scrub, and desert dunes in sandy soils.	**Presumed Absent:** Although some suitable habitat was present adjacent to the Project site within the chaparral habitat and sandy soils, no suitable habitat was present on the Project site. However, there are no records within five miles and the only occurrence (Occ # 69) was observed 14.2 miles away in 2009.
Allium howellii var. ***clokeyi*** Mt. Pinos onion	Fed: CA: CRPR:	none none 1B.3	Apr-Jun 1300-1850	Occurs in Great Basin scrub, along the edges of meadows and seeps, and in pinyon and juniper woodland.	**Presumed Absent:** No suitable habitat was present on the Project site. Typically occurs in Great Basin scrub or pinyon and juniper woodland. The Project site is below the elevation range for the species and there are no records within five miles.
Allium marvinii Yucaipa onion	Fed: CA: CRPR:	none none 1B.2	Apr-May 760-1065	Occurs in openings of chaparral habitats often in clay soils.	**Presumed Absent:** No suitable chaparral habitat was present on the Project site. Although chaparral habitat occurs adjacent to the Project site in the buffer, soils are not composed of clay. The Project site is below the elevation range for the species and there are no records within five miles.
Arenaria lanuginosa var. ***saxosa*** rock sandwort	Fed: CA: CRPR:	none none 2B.3	Jul-Aug 1455-2600	Occurs in subalpine and upper montane coniferous forest. Often found in mesic, sandy soils.	**Presumed Absent:** No suitable coniferous forest habitat was present on the Project site. The Project site is below the elevation range for the species and there are no records within five miles.
Arenaria paludicola marsh sandwort	Fed: CA: CRPR:	**END** **END** 1B.1	May-Aug 3-170	Occurs in freshwater or brackish marshes and swamps in sandy openings. Known only from two natural occurrences in Black Lake Canyon and at Oso Flaco Lake.	**Presumed Absent:** No suitable marsh or swamp habitat was present on the Project site. The Project site is above the elevation range for the species and there are no records within five miles.
Astragalus hornii var. ***hornii*** Horn's milk-vetch	Fed: CA: CRPR:	none none 1B.1	May-Oct 60-850	Occurs in meadows and seeps and playas. Often found along lake margins in alkaline soils.	**Presumed Absent:** No suitable meadow and seep, playa, or lake habitat was present on the Project site. There are no records within five miles and the only occurrence (Occ # 16) was observed 9 miles away over 100 years ago.
Astragalus lentiginosus var. ***coachellae*** Coachella Valley milk-vetch	Fed: CA: CRPR:	**END** none 1B.2	Feb-May 40-655	Occurs in desert dunes and sandy areas of Sonoran desert scrub.	**Presumed Absent:** No suitable dune or desert scrub habitat was present on site. There are no records within five miles.
Astragalus lentiginosus var. ***sierrae*** Big Bear Valley milk-vetch	Fed: CA: CRPR:	none none 1B.2	Apr-Aug 1800-2600	Occurs in Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, and upper montane coniferous forest. Often found in gravelly or rocky soils.	**Presumed Absent:** No suitable Mojavean desert scrub, meadow and seep, pinyon and juniper woodland, or montane coniferous forest habitat was present on the Project site. The Project site is below the elevation range for the species and there are no records within five miles.

Scientific Name Common Name	Status		Bloom Period & Elevation (meters)	Habitat	Potential for Occurrence
Berberis nevinii Nevin's barberry	Fed: CA: CRPR:	**END** **END** 1B.1	(Feb) Mar-Jun 70-825	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland in sandy or gravelly soils.	**Presumed Absent:** No suitable chaparral, woodland, coastal scrub, or grassland habitat occurs on the Project site. Suitable chaparral habitat with sandy soils occurs adjacent to the Project site in the buffer. One record (Occ # 4) occurs 4.1 miles west from 2009. This species is a perennial species that would have been observed if present. No surveys recommended.
Bouteloua trifida three-awned grama	Fed: CA: CRPR:	none none 2B.3	(Apr) May-Sep 700-2000	Occurs in carbonate, rocky soils of Mojavean desert scrub.	**Presumed Absent:** No suitable Mojavean desert scrub habitat was present on the Project site. The Project site is below the elevation range for the species and there are no records within five miles.
Calochortus palmeri var. ***palmeri*** Palmer's mariposa-lily	Fed: CA: CRPR:	none none 1B.2	Apr-Jul 710-2390	Occurs in mesic soils in chaparral, lower montane coniferous forest, and meadow and seep habitats.	**Presumed Absent:** Although there is suitable chaparral habitat present adjacent to the Project site in the buffer, the site is below the elevation range for the species and there are no records within five miles.
Centromadia pungens ssp. ***laevis*** smooth tarplant	Fed: CA: CRPR:	none none 1B.1	Apr-Sep 0-640	Occurs in alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland.	**Presumed Absent:** Limited suitable riparian woodland habitat is present within the mulefat thickets on the Project site and willows north of the site within the 500-foot buffer. Three recent records (Occ # 142, 127, 102) are within five miles of the project site in San Timoteo Canyon in 2011, 2012, and 2018. However, the biological survey was conducted during the blooming period of the species and it was not observed, therefore it is considered to be absent from the Project site.
Chloropyron maritimum ssp. ***maritimum*** salt marsh bird's-beak	Fed: CA: CRPR:	**END** **END** 1B.2	May-Oct (Nov) 0-30	Occurs in coastal dunes and in coastal salt marshes and swamps.	**Presumed Absent:** No dune, marsh, or swamp habitat occurs on site and the project is outside of the elevational range for the species. Also, no records occur within five miles.
Chorizanthe parryi var. ***parryi*** Parry's spineflower	Fed: CA: CRPR:	none none 1B.1	Apr-Jun 275-1220	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats in openings in sandy or rocky soils. Generally associated with larger alluvial plains.	**Presumed Absent:** No suitable habitats occur within the Project site. Four recent records (Occ # 84, 83, 127, 151) are within five miles of the project site in 2006, 2007, 2011, and 2018.
Chorizanthe xanti var. ***leucotheca*** white-bracted spineflower	Fed: CA: CRPR:	none none 1B.2	Apr-Jun 300-1200	Occurs in sandy or gravelly soils on alluvial fans in coastal scrub habitats, and in Mojavean desert scrub and pinyon and juniper woodland habitats.	**Presumed Absent:** No coastal scrub habitat, desert scrub, or pinyon and juniper woodland habitat is present on site. There are no records within five miles of the Project site.
Cuscuta obtusiflora var. ***glandulosa*** Peruvian dodder	Fed: CA: CRPR:	none none 2B.2	Jul-Oct 15-280	Occurs in freshwater marshes and swamps.	**Presumed Absent:** No marsh or swamp habitat is present on site and project is outside of the elevational range for the species.

Scientific Name Common Name	Status		Bloom Period & Elevation (meters)	Habitat	Potential for Occurrence
Deinandra mohavensis Mojave tarplant	Fed: CA: CRPR:	none **END** 1B.3	(Jan-May) Jun-Oct 640-1600	Occurs in chaparral, coastal scrub, and riparian scrub. Most commonly found in riparian areas or in ephemeral grassy areas. Often found in mesic soils.	**Presumed Absent:** No suitable habitat is present on the Project site. There are no records within five miles.
Dodecahema leptoceras slender-horned spineflower	Fed: CA: CRPR:	**END** **END** 1B.1	Apr-Jun 200-760	Occurs in chaparral, cismontane woodland, and alluvial fan coastal scrub in sandy soils. Generally only located in large alluvial systems.	**Presumed Absent:** No suitable habitat occurs on the Project site. One historic occurrence (Occ # 11) was recorded 3.7 miles from the Project site in 1923.
Eriastrum densifolium ssp. ***sanctorum*** Santa Ana River woollystar	Fed: CA: CRPR:	**END** **END** 1B.1	Apr-Sep 91-610	Occurs in chaparral and alluvial fan coastal scrub in sandy or gravelly soils. Generally only located in large alluvial systems.	**Presumed Absent:** No suitable habitat is present on the Project site. Two recent records (Occ # 17 & 36) are within five miles of the Project site in 2010 & 2014.
Horkelia cuneata var. ***puberula*** mesa horkelia	Fed: CA: CRPR:	none none 1B.1	Feb-Jul (Sep) 70-810	Occurs in cismontane woodland, coastal scrub, and maritime chaparral in sandy or gravelly soils.	**Presumed Absent:** No suitable cismontane woodland, coastal scrub, or maritime chaparral habitat was present on the Project site. There are no records within five miles.
Imperata brevifolia California satintail	Fed: CA: CRPR:	none none 2B.1	Sep-May 0-1215	Occurs in chaparral, coastal scrub, Mojavean desert scrub, alkaline meadows and seeps, and riparian scrub habitats in mesic soils.	**Presumed Absent:** No suitable habitat is present on the Project site. Although marginally suitable habitat is present adjacent to the Project site in the chaparral within the buffer, there were no mesic soils observed on the Project site or adjacent to it. Soils were primarily sandy loam. One historic record (Occ #6) was 2.9 miles from the Project site but was over 100 years old.
Lasthenia glabrata ssp. ***coulteri*** Coulter's goldfields	Fed: CA: CRPR:	none none 1B.1	Feb-Jun 1-1220	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	**Presumed Absent:** No suitable habitat occurs for the species on site. Prefers coastal salt marshes and swamps, playas, or vernal pool communities. There are no records within five miles of the Project site.
Mentzelia tricuspis spiny-hair blazing star	Fed: CA: CRPR:	none none 2B.1	Mar-May 150-1280	Occurs in Mojavean desert scrub. Often found in sandy, gravelly soils along slopes and in washes.	**Presumed Absent:** No suitable desert scrub habitat was present on the Project site and there are no records within five miles.
Monardella macrantha ssp. ***hallii*** Hall's monardella	Fed: CA: CRPR:	none none 1B.3	Jun-Oct 730-2195	Occurs in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats.	**Presumed Absent:** No suitable broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, or valley and foothill grassland habitat was present on the Project site. The Project site is below the elevation range for the species and there are no records within five miles.
Nama stenocarpa mud nama	Fed: CA: CRPR:	none none 2B.2	Jan-Jul 5-500	Occurs in lake margins, riverbanks, marshes, and swamps.	**Presumed Absent:** No suitable lake, riverbank, marsh, or swamp habitat was present on the Project site. The Project site is above the elevation range for the species and there are no records within five miles.

Scientific Name Common Name	Status		Bloom Period & Elevation (meters)	Habitat	Potential for Occurrence
Petalonyx linearis narrow-leaf sandpaper-plant	Fed: CA: CRPR:	none none 2B.3	(Jan-Feb) Mar-May (Jun-Dec) -25-1115	Occurs in Mojavean and Sonoran desert scrub. Often found in sandy or rocky canyons.	**Presumed Absent:** No suitable desert scrub habitat was present on the Project site and there are no records within five miles.
Pseudorontium cyathiferum Deep Canyon snapdragon	Fed: CA: CRPR:	none none 2B.3	Feb-Apr 0-800	Occurs in rocky soils of Sonoran desert scrub.	**Presumed Absent:** No suitable desert scrub habitat was present on the Project site and there are no records within five miles.
Sidalcea neomexicana salt spring checkerbloom	Fed: CA: CRPR:	none none 2B.2	Mar-Jun 15-1530	Occurs in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Requires moist to wet alkaline soils.	**Presumed Absent:** Although habitat occurs adjacent to the Project site as chaparral, this species grows poorly in sandy soils and prefers loamy or clay soils. No suitable habitat was observed on the Project site and soils consist primarily of sandy loam. One record is within 5 miles (Occ # 23) in 2011 near Mill Creek.
Symphyotrichum defoliatum San Bernardino aster	Fed: CA: CRPR:	none none 1B.2	Jul-Nov 2-2040	Occurs in meadows and seeps, marshes, and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernally mesic valley and foothill grassland. Often found in disturbed areas and near ditches, streams, and springs.	**Presumed Absent:** No suitable habitat was present on the Project site. Species occurs in meadow and seep, marsh, swamp, coastal scrub, cismontane woodland, coniferous forest, and valley and foothill grassland communities. One occurrence was recorded within 5 miles (Occ # 24) more than 50 years ago.
Thelypteris puberula var. ***sonorensis*** Sonoran maiden fern	Fed: CA: CRPR:	none none 2B.2	Jan-Sep 50-610	Occurs in meadows, seeps, and stream habitats.	**Presumed Absent:** No habitat exists on site for this species. Prefers meadow, seep, or stream communities. Although there is a stream habitat (intermittent drainage) within the Project site, it does not provide suitable habitat due to it being fed intermittently by stormwater from surrounding residential areas. There are no records within five miles.
Trichocoronis wrightii var. ***wrightii*** Wright's trichocoronis	Fed: CA: CRPR:	none none 2B.1	May-Sep 5-435	Occurs in alkaline soils in meadows and seeps, marshes and swamps, riparian forests, and vernal pool habitats.	**Presumed Absent:** No suitable meadow and seep, marsh, swamp, riparian forest, or vernal pool habitat was present on the Project site. There are no records within five miles.

Federal Designations:
(Federal Endangered Species Act, USFWS)

END: federally listed, endangered
THR: federally listed, threatened
CAN: Candidate

State designations:
(California Endangered Species Act, CDFG)

END: state-listed, endangered
THR: state-listed, threatened
CAN: Candidate
Rare: California rare species

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI).

APPENDIX E

Potential for Occurrence of Sensitive Wildlife Species

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
INVERTEBRATES				
Bombus crotchii Crotch bumble bee	Fed: CA:	none CAN	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats.	**Low Potential to Occur:** No suitable grassland or scrub habitat was present on the Project Site. Scrub habitat was present adjacent to the Project site in the buffer and one recent record (Occ # 422) occurs 3.2 miles east of the Project site from 2020.
FISH				
Catostomus santaanae Santa Ana sucker	Fed: CA:	**THR** none	Pools and runs of creeks and small to medium rivers with cool, shallow, clear, and unpolluted water.	**Presumed Absent:** No suitable habitat for this species is present on the Project site. Although there is a water feature on the Project site, it is fed intermittently by stormwater from surrounding residential areas and would contain pollutants which would make it unlikely for the species to be present. No records occur within five miles.
Oncorhynchus mykiss irideus pop. ***10*** steelhead - southern California DPS	Fed: CA:	**END** none	Typically occurs in slow water steams or rivers.	**Presumed Absent:** No suitable habitat for this species is present on the Project site. Although there is a water feature on the Project site, it is not consistently slow moving and is fed intermittently by stormwater from surrounding residential areas. No records occur within five miles.
Rhinichthys osculus ssp. ***8*** Santa Ana speckled dace	Fed: CA:	none SSC	Permanent flowing creeks and streams with shallow gravel and cobble riffles.	**Presumed Absent:** No suitable habitat for this species is present on the Project site. Although there is a water feature on the Project site, it is not permanently flowing and is fed intermittently by stormwater from surrounding residential areas. One historic record (Occ # 9) occurs in Mill Creek, within five miles but is over 20 years old.
AMPHIBIANS				
Rana draytonii California red-legged frog	Fed: CA:	**THR** SSC	Found near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.	**Presumed Absent:** No suitable water features are present on the Project site and no records occur within five miles.
Rana muscosa southern mountain yellow-legged frog	Fed: CA:	**END** **END**	Ponds, streams, lakes, and isolated pools in southern Sierra Nevada Mountains and rocky streams within narrow canyons and the chaparral belt in Southern California mountains.	**Presumed Absent:** Although there is a stream habitat (intermittent drainage) within the Project site, it does not provide suitable habitat due to it being fed intermittently by stormwater from surrounding residential areas. No records occur within five miles.
Spea hammondii western spadefoot	Fed: CA:	none SSC	Open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, alluvial fans, and grasslands. Vernal pools are essential for breeding and egg-laying. The species is almost completely terrestrial, entering water only to breed.	**Presumed Absent:** No breeding habitat for this species is present in the drainage wash. Seven recent records of this species are documented within five miles of the Project site with the most recent being 4.9 miles northeast in 2019.

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
REPTILES				
Anniella stebbinsi southern California legless lizard	Fed: CA:	none SSC	Coastal sand dunes, and variety of interior habitats including sandy washes and alluvial fans. Occurs in moist warm loose soil with plant cover and sparsely vegetated beach dunes, pine-oak woodlands, desert scrub, chaparral, and stream terraces. Sometimes found in suburban gardens.	**Low Potential to Occur:** Suitable habitat for this species is present in the sandy wash within the oak woodlands but surrounding areas are likely not sandy enough for the species. Seven records of this species are documented within five miles of the Project site with the closest record being 0.5 miles away in 2016.
Arizona elegans occidentalis California glossy snake	Fed: CA:	none SSC	Most common in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral. Prefers washes and sandy areas with patchy brush and rocks. Perennial plants necessary in habitat for food source.	**Moderate Potential to Occur:** Suitable habitat for this species is present in the sandy wash of the intermittent drainage. No records occur within five miles of the Project site and the closest record (Occ # 100) is 6.2 miles north in 2014.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA:	none SSC	Arid habitats including chaparral, woodlands, and dry riparian areas.	**High Potential to Occur:** Suitable habitat for this species is present in the dry riparian areas along the drainage and the oak woodlands within the Project site. The chaparral adjacent to the Project site within the buffer also provides suitable habitat. Three records of this species are documented within five miles of the Project site with the closest record 1.7 miles southwest in 2015 (OCC # 120).
Charina umbratica southern rubber boa	Fed: CA:	none **THR**	Under rocks, woody debris, or in crevices in conifer or conifer-mixed semi-open forests and woodlands, patchy chaparral/shrublands, and meadows.	**Presumed Absent:** No suitable conifer forest or woodland habitat is present on the Project site. No records occur within five miles.
Crotalus ruber red-diamond rattlesnake	Fed: CA:	none SSC	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats. Diet consists of birds, lizards, and small mammals including ground squirrels, wood rats, and rabbits.	**Moderate Potential to Occur:** Suitable chaparral habitat is present adjacent to the Project site in the buffer. Foraging is possible on the Project site as many small mammal burrows were observed. There is one record (Occ # 177) within five miles from 2016.
Emys marmorata western pond turtle	Fed: CA:	none SSC	Ponds, lakes, rivers, streams, marshes, and other water sources with rocky or muddy substrate. Basks on logs, rocks, and exposed banks.	**Presumed Absent:** Although there is a stream habitat (ephemeral drainage) within the Project site, there is no pond habitat. One record was observed within five miles in San Timoteo Creek in 2016.
Phrynosoma blainvillii coast horned lizard	Fed: CA:	none SSC	Frequents a wide variety of habitats (open areas of valleys, foothills, and semiarid mountains with sandy soil and low vegetation including chaparral, woodlands, and grasslands), most common in lowlands along sandy washes with scattered low bushes. Prefers open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of harvester ants and other insects.	**Low Potential to Occur:** No suitable habitat was present on the Project Site. Occurs in valley, foothill, chaparral, woodland, and grassland habitats. Suitable chaparral habitat was present adjacent to the Project site in the buffer. No recent records occur within five miles. However, one historic record (Occ # 771) occurs 3.6 miles northwest from 1935.

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: CA:	none SSC	Coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites. Diet consists mostly of lizards, along with small mammals.	**Moderate Potential to Occur:** Project site is located within canyon headwaters and contains suitable brushy areas. Suitable chaparral habitat is present adjacent to the Project site. Marginally suitable habitat is present in shrubby grassland near the intermittent drainage. Many small mammal burrows were observed within the Project site which could provide refuge. One record (Occ # 23) occurs within five miles from 2016.
Thamnophis hammondii two-striped gartersnake	Fed: CA:	none SSC	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests. Found in coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Hunts in water.	**Presumed Absent:** No suitable aquatic habitat for this species is present. Four records (Occ # 92, 95, 154, 160) occur within the past 20 years ranging from 6.6 to 12.3 miles from the Project site.
BIRDS				
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA:	none **THR**/SSC	Freshwater marshes with dense cattails, bulrushes, sedges, and tule. Forages in open habitat such as cultivated fields and pastures.	**Presumed Absent:** Although one recent record from 2013 is within five miles (Occ # 363), no suitable freshwater marsh habitat for nesting is present on the Project site.
Aquila chrysaetos golden eagle (nesting & wintering)	Fed: CA:	none FP	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 Potential to Occur:** Suitable foraging habitat is present on the Project site, and there is marginal nesting habitat in the largest oak trees. However the park is likely too disturbed to support a nesting pair of eagles. One historic record (Occ # 302) occurs within five miles from 1980.
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA:	none SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Occurs in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley & foothill grassland habitats. Also found in vacant lots and airports. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low Potential to Occur:** Marginally suitable habitat for this species is present in the southern portion of the Project site where shrubs are more spread out and soil is friable. Possible burrows were found on the Project site that could be used by burrowing owl. Although no recent CNDDB records for this species have been documented within five miles of the Project site, the species has been seen during migration in San Timoteo Canyon in 2021 and recorded in eBird.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA:	none **THR**	Open pine-oak woodland, savannah, and agricultural fields with scattered trees. Nests in solitary bush or tree, or in small groves.	**Presumed Absent:** No suitable habitat for this species is present on the Project site. Last CNDDB occurrence in vicinity of the Project site was recorded in 1900.
Coccyzus americanus occidentalis western yellow-billed cuckoo (nesting)	Fed: CA:	**THR** **END**	Occurs in riparian forest habitat. Nests along the broad, lower floodbottoms of larger river systems in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Presumed Absent:** No suitable riparian forest habitat for this species is present on the Project site. No large river systems are within five miles. The mulefat thickets that were identified within the Project site and the willows that were found within the 500-buffer are small in size, contain disturbances, and are too narrow in width to support even foraging activities for this species. No records occur within five miles.

Scientific Name **Common Name**	**Status**		**Habitat**	**Potential for Occurrence**
Cypseloides niger black swift (nesting)	Fed: CA:	none SSC	Coastal belt of Santa Cruz and Monterey counties; central & southern Sierra Nevada; San Bernardino & San Jacinto mountains. Often breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	**Presumed Absent:** No suitable habitat is present on the Project site. No records occur within five miles.
Elanus leucurus white-tailed kite (nesting)	Fed: CA:	none FP	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in trees, riparian scrub areas, oak woodlands, and other similar habitats.	**Moderate Potential to Occur:** Both nesting and foraging habitat is present, of low to moderate quality. Two occurrences (Occ # 166 & 167) from 2016 are within five miles of the Project site.
Empidonax traillii extimus southwestern willow flycatcher (nesting)	Fed: CA:	**END** **END**	Riparian woodlands particularly with willow thickets. Nests in densest areas of shrubs and trees with low-density canopies.	**Presumed Absent:** No suitable riparian woodland habitat is present. One record (Occ # 29) occurs within five miles but is over 20 years old and is in San Timoteo Creek where the riparian habitat is much denser.
Haliaeetus leucocephalus bald eagle (nesting & wintering)	Fed: CA:	DL **END**/FP	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. Nests in tall trees or on cliffs or pinnacles near open water.	**Presumed Absent:** No suitable nesting habitat or bodies of water are present on the Project site and no records exist within five miles.
Icteria virens yellow-breasted chat (nesting)	Fed: CA:	none SSC	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 habitat for this species is present on the Project site as the site does not contain pastures or riparian thickets. One recent record (Occ # 116) from 2016 occurs within five mile in San Timoteo Canyon where the riparian habitat is much denser. The species is a known breeder in parts of San Timoteo Creek.
Lanius ludovicianus loggerhead shrike (nesting)	Fed: CA:	none SSC	Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral. Breeds in variety of semi-open terrain.	**Moderate Potential to Occur:** Suitable habitat was present on the Project site. Although no recent CNDDB records for this species have been documented within five miles of the Project site, the species is often recorded in the general area through other sources such as eBird and as recently as 2021.
Polioptila californica californica coastal California gnatcatcher	Fed: CA:	**THR** SSC	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub.	**Presumed Absent:** No suitable coastal habitat was present on the Project site and no records occur within five miles. The species is largely absent from this portion of San Timoteo Canyon.
Progne subis purple martin (nesting)	Fed: CA:	none SSC	Woodlands, broadleaved upland forest, and lower montane coniferous forest, particularly low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly: also in human-made structures. Nest often located in tall, isolated tree/snag.	**Presumed Absent:** No suitable habitat was present on the Project site. Occurs in low elevation coniferous forest and broadleaved upland forest. No records are within five miles and no records occur in the past 100 years within the 9-quad search.

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
Setophaga petechia yellow warbler (nesting)	Fed: CA:	none SSC	Riparian woodlands especially with willows, open scrub, gardens, and thickets often near water.	**Presumed Absent:** No suitable habitat for this species is present on the Project site. The mulefat thickets that were identified within the Project site and the willows that were found within the 500-buffer are small in size, contain disturbances, and are too narrow in width to support even foraging activities for this species. One recent record (Occ # 112) occurs within five miles from 2016. According to eBird, this species is a regular breeding species in San Timoteo Creek, where riparian habitats are much denser.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA:	**END** **END**	Riparian woodlands and willow-cottonwood forests particularly with streamside thickets and dense brush. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms: below 2,000 ft. Usually nests in willow, mulefat, mesquite.	**Presumed Absent:** The mulefat thickets that were identified within the Project site and the willows that were found within the 500-buffer are small in size, contain disturbances, and are too narrow in width to support even foraging activities for this species. This species has been documented within five miles of the Project, and is a regular breeding species in San Timoteo Creek, where riparian habitats are much denser.
MAMMALS				
Antrozous pallidus pallid bat	Fed: CA:	none SSC	Occurs in chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, and valley & foothill grassland habitats. Most commonly found in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Moderate Potential to Occur:** Suitable roosting habitat was present on the Project site in the oak trees where tree holes or other cavities are present. One historic record (Occ # 244) of this species occurs within five miles, however, it is close to 100 years old.
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: CA:	none SSC	Chaparral, coastal scrub, and desert grasslands in San Diego county along the U.S.-Mexico border.	**Presumed Absent:** The Project site is outside of the range for the species and the nearest record is over 14 miles away.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: CA:	none SSC	Sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California. Primarily occurs in arid coastal and desert borders. Typical habitats include sandy desert fans and shrub communities such as coastal sage scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland.	**High Potential to Occur:** Suitable habitat was present on the Project site along the banks of the drainage in the sandy loam soils and within the chaparral adjacent to the Project site in the buffer. Four recent records (OCC # 31, 92, 52, 105) from 2002 & 2016 occur within five miles with the closest being 0.9 miles southeast.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: CA:	**END** CAN/SSC	Gentle slopes of alluvial fans, on flood plains, along washes, and on adjacent upland areas with soils containing sand, loam, and gravel deposited by rivers and streams. Can also be found in sandy soils that are wind deposited. Found in alluvial sage scrub, coastal sage scrub, and chaparral vegetation.	**Presumed Absent:** Although the site contains sandy loam soils along the drainage wash within the Project site, no potential burrows were observed during the survey visit. The Project site is well outside of the areas where San Bernardino kangaroo rat are known to occur (closest known population to occur is the Santa Ana River wash).

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
Dipodomys stephensi Stephen's kangaroo rat	Fed: CA:	**END** **THR**	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain. Prefer open habitats with less than 50% protective cover.	**Low Potential to Occur:** Limited suitable habitat is present for the species. Project site contains loose friable sandy soils that could be used for burrowing. Four historic records exist within five miles from 1988 & 1976.
Eumops perotis californicus western mastiff bat	Fed: CA:	none SSC	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:** No suitable roosting habitat is present. Prefers to roost in rock and cliff crevices, caves, and buildings. There are no records within five miles.
Glaucomys sabrinus californicus San Bernardino flying squirrel	Fed: CA:	none SSC	Mixed conifer forests of white fir, Jeffery pine, and black oak with many snags and fallen logs. Prefers forests with a relatively closed canopy and open or sparse undergrowth.	**Presumed Absent:** No suitable conifer forest habitat is present on the Project site and no records occur within five miles.
Lasiurus xanthinus western yellow bat	Fed: CA:	none SSC	Found in valley foothill riparian, desert riparian, desert wash, palm oasis, and oak or pinyon-juniper woodland habitats and human developed areas. Roosts in trees, particularly palms. Forages over water and among trees.	**Low Potential to Occur:** Limited suitable roosting and foraging habitat is present in the oak woodland within the Project site. This species roosts almost exclusively in palm trees, occasionally cottonwoods or other riparian trees. However, only historic records of this species occur within five miles.
Leptonycteris yerbabuenae lesser long-nosed bat	Fed: CA:	DL SSC	Roosts in caves and mines. Occurs in arid regions including desert grasslands and shrub lands. Requires suitable concentration of columnar cacti and agave food sources.	**Presumed Absent:** No suitable desert grassland or shrub land habitat for this species is present on the Project site. No caves or mines are present for roosting. One record (Occ # 1) was observed 3.7 miles from the Project site over 20 years ago.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: CA:	none SSC	Variety of open or semi-open country including grasslands, croplands, and sparse coastal scrub.	**Presumed Absent:** No suitable semi-open country habitat occurs on the Project site. Six records, all from 2007, exist within five miles of the Project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA:	none SSC	Coastal chaparral, sagebrush scrub, sandy desert and boulder habitats. May also be found in woodlands of Joshua trees or pinyon-juniper pine.	**Presumed Absent:** No suitable habitat occurs on the Project site. Species typically prefers coastal chaparral, sagebrush scrub, desert habitats, or Joshua tree woodlands. One record (Occ # 46) occurs within five miles of the project site within the past 20 years.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA:	none SSC	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 rugged canyon, cliff, or rock outcropping habitat is present on the Project site and no records occur within five miles.
Onychomys torridus ramona southern grasshopper mouse	Fed: CA:	none SSC	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.	**Presumed Absent:** No suitable flat, sandy valley floor open scrub habitat occurs on the Project site. No records occur within five miles.
Perognathus alticolus alticolus white-eared pocket mouse	Fed: CA:	none SSC	Isolated montane areas with ponderosa and Jeffery pine habitats in the San Bernardino mountains.	**Presumed Absent:** No suitable montane habitat is present on the Project site and no records exist within five miles of the Project site.

Scientific Name Common Name	Status		Habitat	Potential for Occurrence
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: CA:	none SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Can be found in fine, sandy soils associated with washes or dunes. May hide under weeds and dead leaves in addition to digging burrows.	**Moderate Potential to Occur:** Suitable habitat occurs in the fine, sandy soils of the intermittent drainage wash and marginally suitable habitat is present in the grassland below the oak canopy within the Project site. No records exist within five miles of the Project site. The most recent record is from 2016 and is 8.6 miles southeast of the Project site (Occ # 61).
American badger	Fed: CA:	none SSC	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. Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow. Young are born in underground burrows.	**Low Potential to Occur:** Marginally suitable grassland habitat with sandy soil occurs on the Project site but no records exist within five miles of the Project site.

Federal Designations:
(Federal Endangered Species Act, USFWS)

END: Federally listed, Endangered
THR: Federally listed, Threatened
DL: Federally-delisted

State designations:
(California Endangered Species Act, CDFW)

END: State-listed, Endangered
THR: State-listed, Threatened
SSC: California Species of Special Concern
CAN: Candidate Species
FP: Fully Protected Species
WL: Watch List Species

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI).