



BIOLOGICAL & CULTURAL INVESTIGATIONS & MONITORING

**BIOLOGICAL RESOURCES ASSESSMENT, FOCUSED BOTANICAL AND NARROW
ENDEMIC PLANT SURVEYS, TREE SURVEY, AND URBAN WILDLANDS INTERFACE
ASSESSMENT REPORT FOR APNs 563-250-017, 563-250-028, & 563-250-031,
CUP 190065, IDYLLWILD, RIVERSIDE COUNTY, CALIFORNIA**

±3.57 Acres

APNs 563-250-017, -028, & -031, CUP 190065, Section 7,
Township 5 South, Range 3 East, USGS Idyllwild 7.5' Topographic Quadrangle Map

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Report Summary:

The site is three parcels in Jeffrey pine forest with ongoing human disturbance. Developing willow thickets and wet/mesic meadow were present on one parcel but have been removed. San Jacinto Mountains bedstraw and Munz's mariposa lily considered absent. Johnston's rockcress has low potential for occurrence. No special status plants observed; however, botanical surveys did not include spring season. Native oaks present and some will be impacted; an Oak Tree Habitat Mitigation and Monitoring Plan may be required. Three special status wildlife species observed (Cooper's hawk, Nuttall's woodpecker, and oak titmouse). No suitable habitat for fairy shrimp or riparian birds. No perennial aquatic habitat and mountain yellow-legged frog considered absent. Habitat for nesting birds present and pre-construction nesting bird clearance survey recommended. San Bernardino flying squirrel and California spotted owl have low potential for occurrence. Potential for the development of habitat for southern rubber boa within could occur within historic quarry /bowl like feature if not maintained. Blue-line ephemeral stream just offsite. Site is not within a wildlife corridor.

Surveys Conducted By: Guy Bruyey

Surveys Conducted: July through September 2020

Report Date: October 2020, revised February 2021

\\darwin\UNIFIED PROJECTS\WSCS-19-738 Idyllwild\2020 BA1 BS1 NE2 T51 UW1\Report\WSCS-19-R738.BA1 BS1 NE2 T51 UW1(draft to client).doc

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MANAGEMENT SUMMARY

L&L Environmental, Inc. conducted biological surveys on APNs 563-250-017, -028, and -031, a total of ±3.57 acres located in Idyllwild, California. The purpose of this study was to examine the subject property to determine presence/absence of biological resources.

The site is within area covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) but is not within MSHCP Criteria Area. The MSHCP requires a habitat assessment to address riparian/riverine and vernal pool habitats and associated species, mountain yellow-legged frog, and narrow endemic plant species (Johnston's rockcress, Munz's [San Jacinto] mariposa lily, and San Jacinto Mountains bedstraw).

The site is located in a low density residential and commercial area within a forest setting. Parcels 563-250-028 and -031 are mostly developed or disturbed in association with current and past land use. Parcel 563-250-017 has also been disturbed, but relatively undisturbed habitat is present. Vegetation onsite is Jeffrey pine forest mixed with black oak and canyon live oak with a limited understory of a few native shrubs and native and non-native annuals. Some ornamental species are also present. The February 2021 survey found that native understory plants previously present on Parcels 563-250-028 and -031 and manzanita shrubs and small pine trees on Parcel 563-250-017 had been removed prior to completion of surveys.

Initial surveys found that Parcel 563-250-017 included an excavated quarry of unknown age with a sandy soil backfill, embankments and emergent and mature arroyo/red willows. Manmade features created in upland areas that do not undergo regular maintenance can develop regulated habitat. On the day of the last site visit (February 2021) this area had been impacted and all native vegetation removed. No additional surveys of the project are planned.

No drainages were observed on the site. A mapped ephemeral blue-line feature is present just offsite. The quarry was most accurately described as a wet or mesic meadow rather than a vernal pool. A jurisdictional delineation is recommended if jurisdictional waters/wetlands develop within the upland quarry. The results of which could find habitat protected by Riverside County under Section 6.1.2 of the MSHCP and regulatory agencies.

The narrow endemic species Munz's mariposa lily and San Jacinto Mountains bedstraw are considered absent from the site and Johnston's rockcress has a low potential for occurrence. No special status plants were identified onsite. The botanical survey period is projected to end in early summer.

Native oak trees are present onsite and some fall within the proposed Project footprint. Riverside County regulates oak trees and project development plans are required to minimize and mitigate impacts to oak trees. Removal of other native trees may also require a permit. The project proponent should consult with Riverside County Environmental Programs Department (EPD) to determine requirements for altering or removing oak trees and other native trees.

No federal or state-listed endangered or threatened wildlife species were observed. Three special status species, Cooper's hawk, Nuttall's woodpecker, and oak titmouse were observed. Most special status species have low potential for occurrence or are not expected to occur. A few were determined to have a low to moderate, moderate, or high potential for occurrence, particularly on Parcel 017. However, subsequent removal of habitat on Parcel 017 has affected the potentials for occurrence of some species.

There is no suitable habitat for listed fairy shrimp species or riparian birds (least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo) and they are considered absent. There is no perennial aquatic habitat on or adjacent to the Project site and mountain yellow-legged frog is considered absent.

There is suitable habitat for nesting birds, including raptors, onsite. Nesting birds are protected under state and federal laws and a nesting bird clearance survey is recommended three (3) days prior to the start of vegetation clearing or ground disturbance within the nesting season (February 1 to September 15). If nesting birds are present, avoidance of nest sites is required and a buffer of 300 to 500 feet (or as determined by a qualified biologist) is recommended until juvenile birds are no longer dependent on the nest and/or a biologist has verified that the nest is inactive.

San Bernardino flying squirrel and California spotted owl have a low potential for occurrence. Mountain lion has a high potential to move through and potentially forage on the site. Southern rubber boa has a low potential for occurrence on Parcels 028 and 031 but had been determined to have a low to moderate potential on Parcel 017. L&L did not conduct a focused rubber boa survey prior to maintenance of the quarry and recent fuel modification / clearing of the parcel.

Forest species such as raccoons, coyotes, birds, etc. likely move and forage throughout the Project vicinity, but the site is not within a wildlife corridor.

1.0) INTRODUCTION

The following report was prepared by L&L Environmental, Inc. (L&L) for WSCS Design. It describes the results of a biological survey to determine presence/absence of biological resources at a site made up of three (3) parcels in the community of Idyllwild. The Project site consists of APNs 563-250-017, -028, and -031, totaling ±3.57 acres.

The assessment consisted of (1) a records search and literature review, conducted to determine the species of concern in the project area and proximity to documented special status species occurrences, (2) field reconnaissance, intended to identify plants and animals on the property and presence/absence of habitat for species of concern including mountain yellow-legged frog and narrow endemic plants, (3) focused surveys for narrow endemic plants (Johnston's rockcress, Munz's [San Jacinto] mariposa lily, and San Jacinto Mountains bedstraw), and (4) a tree survey to map and evaluate oaks on the site.

1.1) Project Description

The Project consists of construction of extended stay lodging immediately north and east of existing residential units. The three (3) existing structures are on APN 563-250-028 (referred to as Parcel 028 hereafter) and were previously operated as the Apple Blossom Inn, established in 1978. These structures have been converted for residential use.

The site plan (dated May 13, 2019) shows an additional 11 units to be constructed on Parcel 028 to the east of the existing structures. Another 16 units are planned for APN 563-250-031 (referred to as Parcel 031 hereafter) and 13 units on APN 563-250-017 (referred to as Parcel 017 hereafter) (Figure 7).

1.2) Location

The site is located in the unincorporated community of Idyllwild in the San Jacinto Mountains of Riverside County (Figure 1). Specifically, the site is located between State Route 243 (Banning-Idyllwild Panoramic Highway) on the west, east and west of the northern end of Oakwood Street, and about 270 feet north of Pine Crest Avenue. It is situated within Section 7 of Township 5 South, Range 3 East, on the U. S. Geological Survey (USGS) Idyllwild 7.5' topographic quadrangle (Figure 2).

The site is located in a low density residential and commercial area within a forest setting. The community of Idyllwild is surrounded by San Bernardino National Forest and Mount San Jacinto

State Park. The site is generally bounded as follows: to the west by State Route 243 and a portion of Mount San Jacinto State Park and low density residential and commercial beyond; to the east by low density residential and commercial; and to the north and south by low density residential and commercial (Figure 3).

1.3) Vegetation and Setting

Parcel 028 is mostly developed or disturbed in association with its past operation as the Apple Blossom Inn. More recently, the three (3) existing structures have been converted for residential use. A paved driveway enters the property from Highway 243 uphill into a paved parking lot. The paved driveway continues through the property between two existing buildings and exits onto Oakwood Street. Undeveloped areas on the east side of the parcel (behind the existing buildings) appear to be regularly impacted by vehicle parking and storage. Undeveloped areas are sparsely vegetated with a mix of native and non-native annual plants. Several large trees are present, mainly native pines and oaks, as well as a few native shrubs. The February 2021 survey found that that native understory plants previously present on Parcel 028 had been removed prior to completion of the survey.

The northern portion of Parcel 031 contains a paved road (driveway) that becomes unimproved at its northeast corner. A small unoccupied structure is present on the west-central portion of the site. The site appears to have been cleared historically as there are few perennials except for several mature trees. Residential housing abuts the northern, southern and eastern site boundaries. Associated residential fencing is present along its southern and eastern edges. Much of the parcel is disturbed by a driveway and what appears to be vehicle parking and storage. The February 2021 survey found that that native understory plants previously present on Parcel 031 had been removed prior to completion of the survey.

An unimproved road or driveway loop is present at the southwestern and northwestern corners of Parcel 017 that leads up a moderate-relief slope to the west-central portion of the parcel. An elevated and mostly flat "bowl" created during excavation of an upland quarry of unknown age is present at this location above Highway 243. It appears that it may have seasonally pond water based on its topography and botanical characteristics. Ponding water was not observed during the 2020 survey, but wetland plants were present prior to maintenance and modification to allow it to drain.

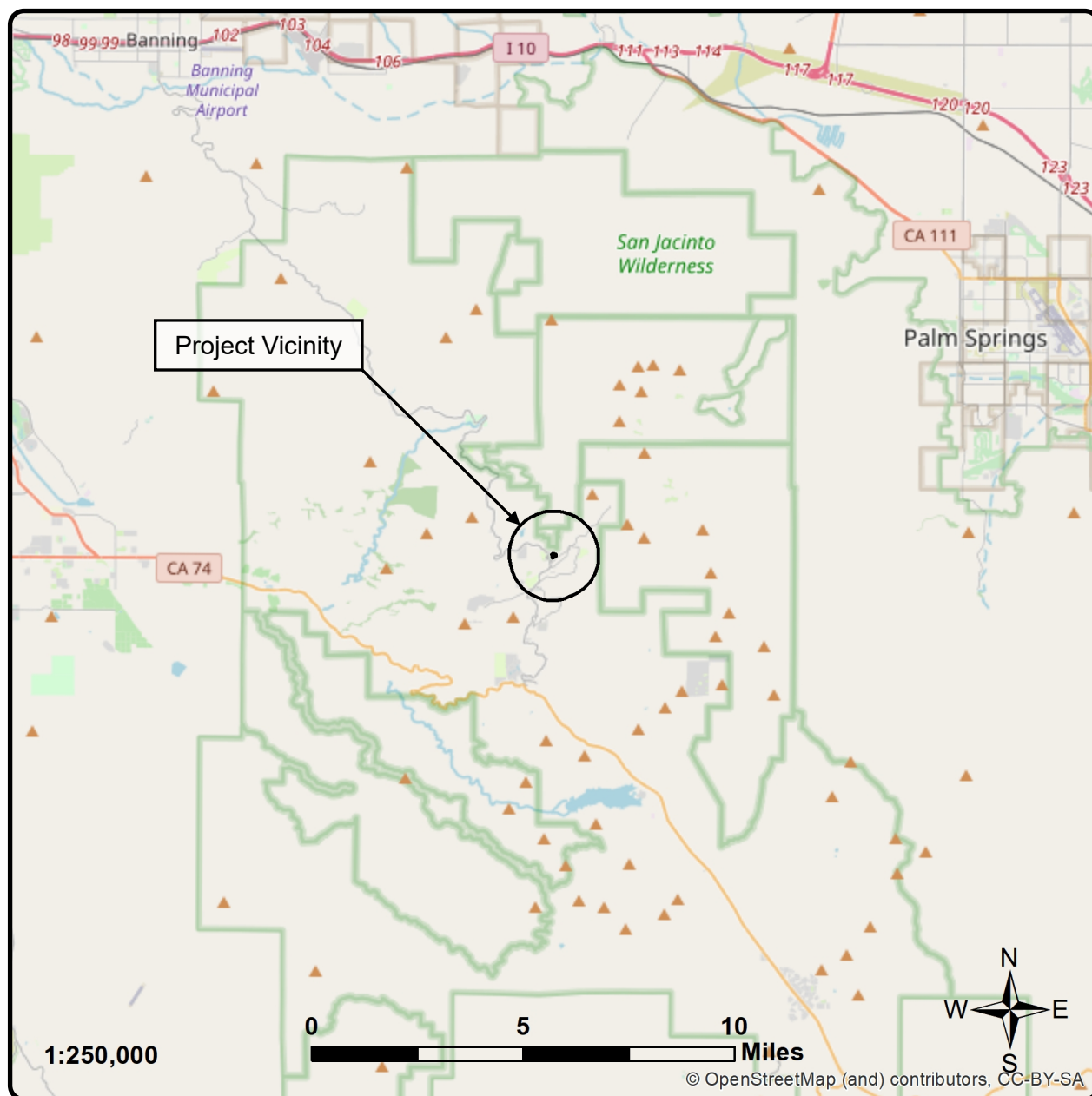
Evidence of off-road vehicle activity is present as well as a disturbed area in the northeastern portion, but the majority of Parcel 017 contains undisturbed yellow pine forest with a relatively

undisturbed understory. Steep slopes lie above and east of the bowl area to its northern and easternmost corners, and more gradual slopes to the south abutting Parcel 028. Rural residential properties (without fencing) abut the northern and eastern edges. A pile of concrete debris which was observed in the northwest corner has been removed. A dirt driveway on Parcel 017 connects to Highway 243 at two points.

1.4) Soils and Topography

The site gradually to steeply increases in elevation as it trends away from Highway 243 to the east, with elevations ranging from 5,461 feet (1,665 meters) above mean sea level (AMSL) at the southwest corner of Parcel 017 to 5,523 feet (1,683 meters) AMSL at the northeast corner of Parcel 031. A north to south trending mapped blue-line stream is present adjacent to the northwest corner of Parcel 017. No drainages were observed on the site. An upland quarry of unknown age is present on Parcel 017 which could impound water seasonally if it were not recently altered to allow it to drain toward Highway 243.

Parcels 031, 028, and the southeast portions of Parcel 017 are mapped as Wind River-Oak Glen families association, 2 to 15 percent slopes (KoD) and the remainder of Parcel 017 is mapped as Pacifico-Preston families complex, 2 to 30 percent slopes (NRCS 2020) (Figure 4). Soils in the bowl area on Parcel 017 are friable and appear to be uncharacteristic of the surrounding soils.



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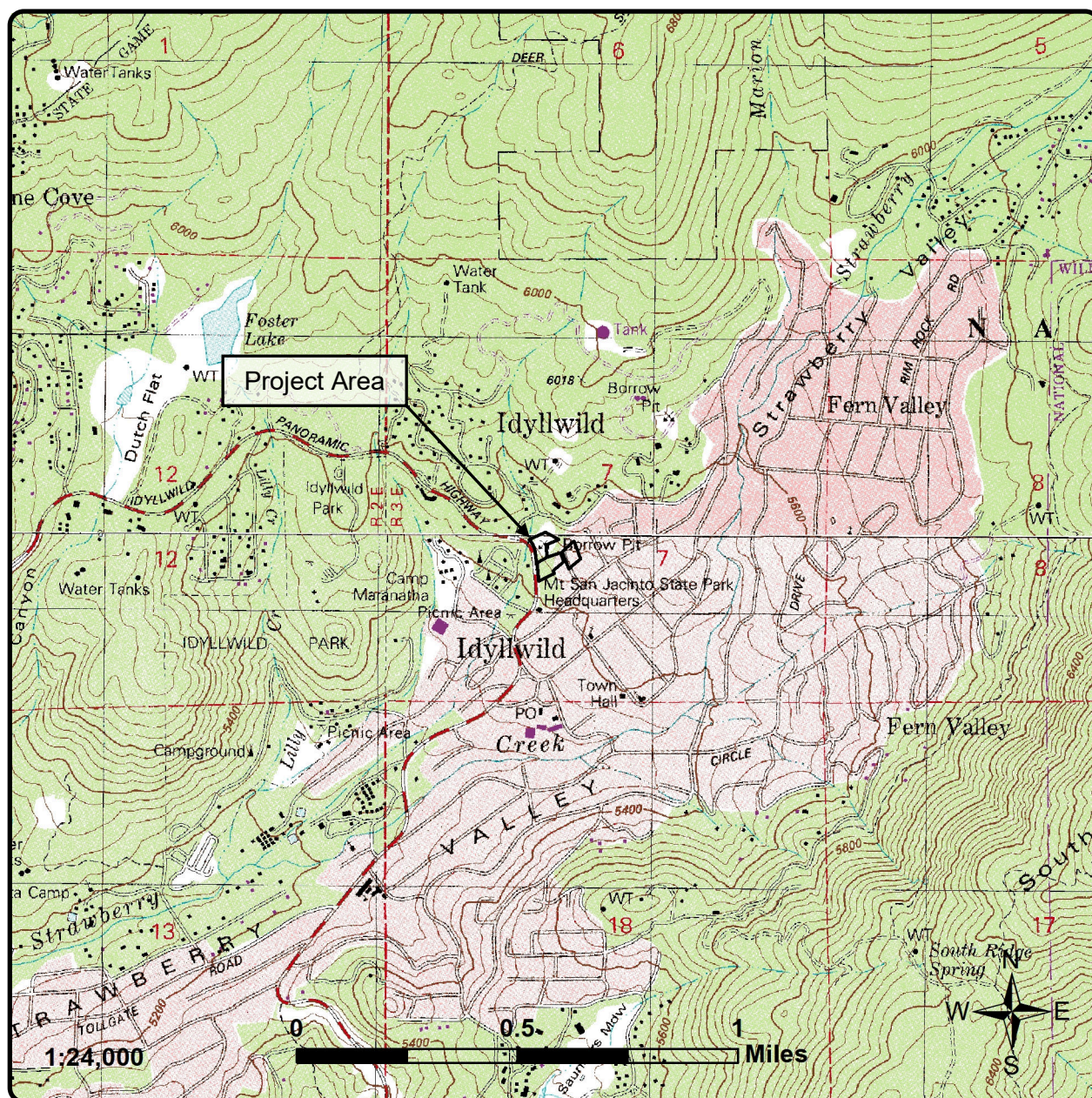
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Figure 1

Project Vicinity Map

APNS 563-250-017, -028, & -031, Idyllwild
 County of Riverside, California



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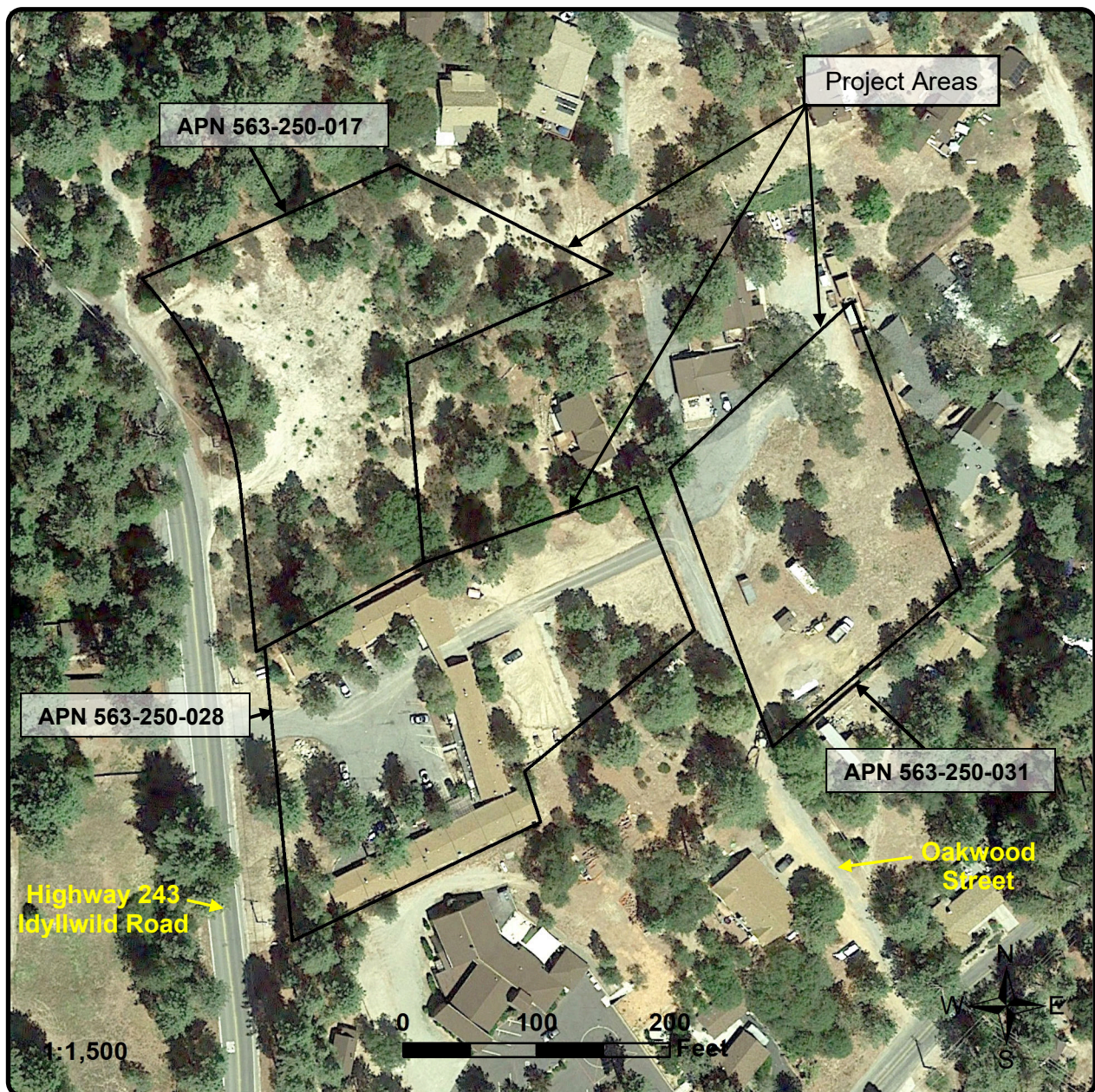
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Figure 2

Project Location Map

(USGS Idyllwild [1988] quadrangle,
 Section 7, Township 5 South, Range 3 East)

APNs 563-250-017, -028, & -031, Idyllwild
 County of Riverside, California



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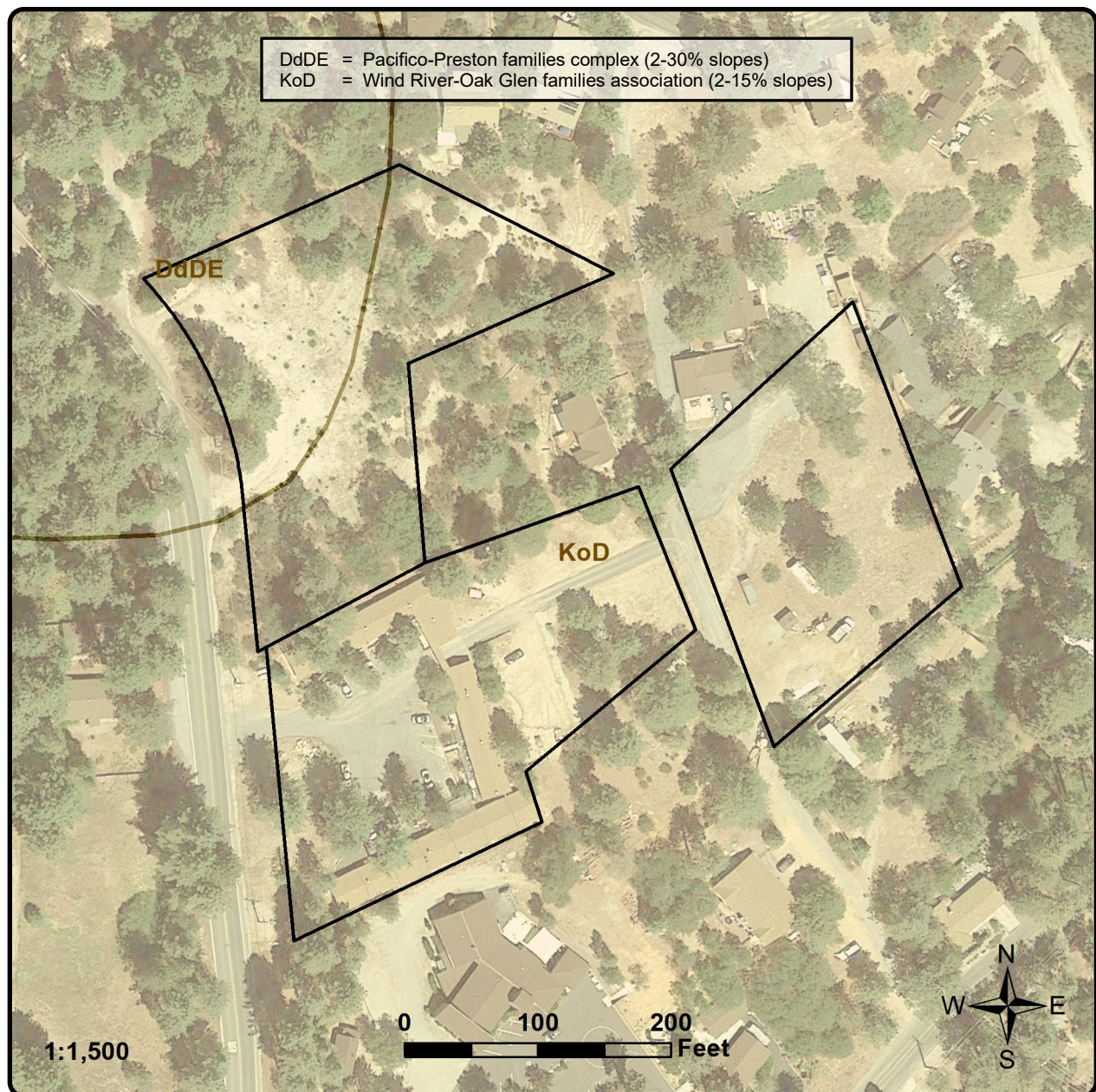
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Figure 3

Aerial Photograph

(Aerial obtained from Google Earth, August 2018)

APNS 563-250-017, -028, & -031, Idyllwild
County of Riverside, California



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Figure 4

Soils Map

(Aerial obtained from Google Earth, August 2018,
USDA Nat. Res. Cons. Serv. SSURGO Data)

APNS 563-250-017, -028, & -031, Idyllwild
County of Riverside, California

2.0) METHODS AND PERSONNEL

For the purposes of this report, Parcel 028 refers to APN 563-250-028, Parcel 031 refers to APN 563-250-031, and Parcel 017 refers to APN 563-250-017 (see Figure 3). The 'Project' or 'Project site' refers to all three parcels collectively. Focused surveys include only the portions of the site with suitable habitat for the species, plus any buffers required by protocol.

2.1) Literature Review

Certain plants and animals have been listed as threatened or endangered under state or federal Endangered Species Acts. Other species have not been formally listed, but declining populations or habitat availability are reasons for concern regarding their long-term viability. These species are included in lists compiled by resource management agencies or conservation organizations. In this report, the term "listed" refers to all species that are listed, or candidates for listing, as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW). "Special status species" refers to all species included in one or more compendia of rare species, but not listed as threatened or endangered by USFWS or CDFW.

Pertinent literature was reviewed to identify local occurrences and habitat requirements of special status species and communities occurring in the region. Literature reviewed included compendia provided by resource agencies (CDFW 2020a, 2020b), the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Dudek 2003), and a search of the California Natural Diversity Database (CNDDDB; CDFW 2020c) and California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2020) for the Project topographic quadrangle (Idyllwild) and adjacent quadrangles (San Jacinto Peak, Lake Fulmor, Palm Springs, Blackburn Canyon, Palm View Peak, Cahuilla Mountain, Anza, and Butterfly Peak), and a search of the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC; USFWS 2020) for the Project site.

A habitat assessment survey was previously conducted by L&L on Parcel 028 only in November 2019 (L&L 2019). Information from that survey is incorporated into this report as appropriate.

Potentials for occurrence of plant and wildlife species were evaluated and classified as either absent, not expected, low, moderate, high, or occurs. These are defined as follows:

Occurs: Species was detected during surveys or previously documented on the Project site or adjacent areas.

High: Species documented in the vicinity (i.e., within 5 miles) of the Project site and suitable habitat is present, but species not detected during surveys.

Moderate: Species documented in the vicinity of the Project site or suitable habitat present and site is within geographic and elevational range of the species.

Low: Species not documented in the vicinity of the Project site or suitable habitat is marginal.

Not Expected: Species not documented in the vicinity of the Project site and suitable habitat marginal or absent, or site is not within geographic and elevational range of the species.

Absent: No potential for the species to occur due to lack of habitat, geographic or elevation range, species life history, survey results, etc.

Classifications are based on the presence and quality of habitat, geographic and elevation range of species, proximity to a known occurrence of a species obtained from CNDDDB or other reliable data, and field observations. Classifications for individual species may be modified based on biologists' experience and expert opinion.

Scientific names of plants follow Baldwin et al. (2012) with updates from the online Jepson eFlora (Jepson 2020). Scientific names of animals follow Stebbins (1985), Jameson and Peeters (1988), BNA (2020), Sibley (2000), and Arnett (2000) with updates from academic sources. Vegetation community classifications follow Sawyer et al. (2009). Ranking of sensitive vegetation communities is from the California Department of Fish and Wildlife (CDFW 2019). Current conservation status of plant and wildlife species determined from CDFW (2020a, 2020b).

Precipitation data was obtained from the Keenwild Remote Automated Weather Station (RAWS). The Keenwild RAWS is located approximately 6.5 miles southwest of the Project site at an elevation of 4,920 feet (WRCC 2020).

2.2) Habitat Assessment and Botanical and Narrow Endemic Plant Surveys

L&L biologist Guy Bruyey visited the site on four dates between July and September 2020 to describe vegetation and habitat and evaluate the site for the presence of suitable habitat for special status wildlife, including mountain yellow-legged frog, and special status and narrow endemic plant species. Surveys included an evaluation of presence/absence of riparian,

riverine, and vernal pool habitats. A fifth site visit was conducted by Mr. Bruyey on October 5, 2020 to Parcel 017 to examine the bowl area and other habitat components more closely.

Focused surveys were conducted for Johnston's rockcress, Munz's (San Jacinto) mariposa lily, and San Jacinto Mountains bedstraw. Due to the timing of this study, it was recommended that botanical surveys continue through June 2021 to cover the entire flowering season. Surveys were planned for Spring 2021 and Mr. Bruyey visited the site on February 19, 2021. Additional surveys were terminated after the February 2021 site visit.

Table 1. Survey Dates and Weather Conditions

Date	Time	Weather	Wind (mph)
07.07.2020	1030-1300	Clear, 76-84°F	0-2
07.24.2020	1400-1530	Clear, 81-84°F	2-6
08.17.2020	0800-1000	Partly cloudy, 76-87°F	0-3
09.09.2020	0900-1030	Clear, 68-74°F	1-4
02.19.2021	1145-1300	Clear, 62-65°F	0-2

A total of about 8.75 person-hours were spent onsite plus additional time on October 5. All habitat types on the site were visited on foot. The site was surveyed by conducting a series of meandering transects across the subject property where possible, stopping periodically for observations and notations. A general habitat map and field notes were completed at the time of the survey. All field surveys were conducted during daylight hours. Digital photographs were taken to record the condition of the site during the present survey.

Botanical surveys consisted of walking over the entire site in a meandering pattern to assure sufficient coverage of all areas and habitat types. Surveys were not conducted during inclement weather (Table 1). The methodology used is consistent with recommendations by the California Native Plant Society (CNPS 2001), CDFW (2018, 2000), and USFWS (2000). All plant species observed were identified in the field or collected for later identification or confirmation. All species were recorded in field notes and the locations of special status plants or other resources were documented with a GPS unit and mapped on USGS topographic maps. Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in Abrams (1923, 1944, and 1951), Abrams and Ferris (1960), Munz (1974), and Parker (1999).

There is no U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW) survey protocol for yellow-legged frog. Therefore, the habitat assessment for

southern mountain yellow-legged frog was conducted in accordance with survey instructions provided by the Western Riverside County Regional Conservation Authority (RCA undated). Those instructions require that the entire project area be searched on foot for suitable habitat. Suitable habitat is defined as creeks or rivers that support water throughout the year (portions of the creek system may only support pooled water for portions of the year). Intermittent creeks are not considered to be suitable habitat. Because the species is very susceptible to predation by non-native fish, improved lakes and artificial ponds that support non-native predatory fishes (excluding mosquitofish) are not considered to be suitable.

2.3) Tree Survey

A survey of trees on the site was conducted by Leslie Irish on September 18 and 21, 2020. All trees with a trunk diameter (or sum of the diameter of multiple trunks) of two (2) inches or more at a height of 4.5 feet from the ground were identified, mapped, and measured and general tree health was assessed. The health assessment used the scale shown in Table 2.

The survey included oak trees (plants of the genus *Quercus*), as required by Riverside County (Riverside County 1993). The dripline of oaks was also mapped, as well as the “protected zone.” Under County guidelines, the protected zone is either the actual tree dripline, an area with a radius equal to the tree height, or 10 feet, whichever is larger. Dead oak trees (which are useful for bird nesting and foraging) do not have a protected zone unless it is obvious the tree was killed due to human activity. The location of oaks and their protected zones was compared to development plans (Site Plan Concept dated May 13, 2019) to determine potential impacts.

Table 2. Tree Health Rating Scale

Rating	Criteria
5	Tree in excellent health with abundant foliage, new leaf growth, and shoot elongation; no signs of herbivory, insect infestation, disease, fungus growth, or limb/trunk damage.
4	Tree in very good health with ample green foliage and new leaf growth; minor signs of drought stress, herbivory, insect infestation, decreased shoot growth, or loss of vigor.
3	Tree in moderate health with limited or uneven new leaf growth; moderate signs of drought stress; noticeable insect activity; decay on branches; noticeable herbivory damage.
2	Tree in poor health with existing leaves yellowing; limited/stunted new leaf growth; decreased shoot growth from previous year; dark-colored cracks or abnormalities on trunk; presence of fungus; observable decay on trunk or major limbs; sap bleeding from trunk; significant insect infestation; extensive herbivory; thinning canopy.
1	Tree in obvious decline with existing leaves yellowing and no new leaf growth; extensive limb or trunk damage; large cracks or other decay on trunk; bleeding sap; dieback of more than 30% of the canopy; a general lack of vigor.
0	Tree dead or apparently dead.

3.0) RESULTS

3.1) Literature Review Results

The site is within area covered by the MSHCP, but it is not located within the MSHCP Criteria Area. The community of Idyllwild is surrounded by public lands (San Bernardino National Forest and Mount San Jacinto State Park). The RCA MSHCP Information Map shows no conservation lands adjacent to (within 200 feet of) the site (RCA 2020). However, the California Protected Areas Database shows a portion of Mount San Jacinto State Park immediately to the west of the site across Highway 243 (CPAD 2020).

There are no MSHCP conserved lands within a mile of the site. Public/quasi-public (PQP) conserved lands within one mile of the site include Idyllwild County Park (about 0.3 mile west of the site), Mount San Jacinto State Park (about 0.6 mile north of the site), and the San Bernardino National Forest (about 0.9 mile southeast of the site) (RCA 2020).

Surveys required by the MSHCP are a habitat assessment to address riparian/riverine and vernal pool habitats, fairy shrimp, mountain yellow-legged frog, and narrow endemic plant species. The narrow endemic plant species are Johnston's rockcress, Munz's (San Jacinto) mariposa lily, and San Jacinto Mountains bedstraw. Narrow endemic plants with potential habitat present onsite require focused surveys to determine presence or absence. Other special status species have been documented in the area and are listed along with their potential for occurrence in Appendix B.

3.1.1) Precipitation Data

Table 2 provides the precipitation data from the Keenwild Remote Automated Weather Station (RAWS) starting with the year preceding the beginning of the survey through January 2021. The total precipitation recorded by this RAWS for the 2019 water year (October 2018 through September 2019) is 31.72 inches and for the 2020 water year is 22.58 inches (WRCC 2020). Average annual precipitation for this area is about 30 inches (WRCC 2019).

Table 3. Precipitation Data (Keenwild RAWS)

2019 Water Year	Precipitation (inches)	2020 Water Year	Precipitation (inches)	2021 Water Year	Precipitation (inches)
10.2018	0.87	10.2019	0	10.2020	0.12
11.2018	2.44	11.2019	2.77	11.2020	1.85
12.2018	2.16	12.2019	4.31	12.2020	1.12
01.2019	5.02	01.2020	1.07	01.2021	2.21
02.2019	14.32	02.2020	1.21		
03.2019	2.94	03.2020	7.07		
04.2019	0.52	04.2020	4.38		
05.2019	2.93	05.2020	0.07		
06.2019	0	06.2020	0.07		
07.2019	0.03	07.2020	0		
08.2019	0	08.2020	1.63		
09.2019	0.49	09.2020	0		
Total for 2019 Water Year	31.72	Total for 2020 Water Year	22.58	Total through Jan 2021	5.30

3.2) Vegetation Communities

3.2.1) Disturbed/Developed

Parcel 028 is mostly developed or disturbed in association with its past and current use as lodging or residential units. Three (3) separate structures and a small storage shed are present, and portions of the site are paved in association with a driveway and parking area. Undeveloped areas are present along the western site edge (adjacent to Highway 243) and behind the main structures on either side of the paved driveway that leads to Oakwood Street to the east. These areas have a mix of native and non-native or ornamental plants. A narrow strip below the paved parking lot and adjacent to Highway 243 is the least disturbed of these undeveloped areas. Open areas behind (east of) the apartment structures on either side of the driveway are unpaved and sparsely inhabited with various (mostly) low-growing annuals. These undeveloped areas appear to be regularly impacted by weed abatement and vehicle parking and storage. The February 2021 survey found that native understory plants previously present on Parcel 028 had been mowed or removed.

Much of Parcel 031 is disturbed by a driveway and what appears to be vehicle parking and storage. Several large pine trees and one black oak tree are present. The understory appears to have been cleared in the past and there are no perennial shrubs. The February 2021 survey found that native understory plants previously present on Parcel 031 had been mowed or removed.

Parcel 017 is the least undisturbed of the three parcels but had a good diversity of native plants during 2020 surveys. The February 2021 survey found the quarry, driveway, some native vegetation including willows, manzanita shrubs and small pines to have been mowed, altered or removed and the understory thinned.

3.2.2) Jeffrey Pine Forest

Jeffrey pines (*Pinus jeffreyi*) are the most common trees onsite. Other trees observed include canyon live oak (*Quercus chrysolepis*), California black oak (*Quercus kelloggii*), incense cedar (*Calocedrus decurrens*), and white fir (*Abies concolor*). Perennial shrubs observed include manzanita (*Arctostaphylos* species), California coffeeberry (*Frangula californica* ssp. *californica*), and southern honeysuckle (*Lonicera subspicata* var. *denudata*). Native understory plants observed on the less disturbed portions of site include (but are not limited to) Wright's buckwheat (*Eriogonum wrightii* var. *membranaceum*), slender buckwheat (*Eriogonum gracile*), California yarrow (*Achillea millefolium*), lotus (*Acmispon* species), leafy fleabane (*Erigeron foliosus*), sapphire woollystar (*Eriastrum sapphirinum*), sticky lessingia (*Lessingia glandulifera* var. *glandulifera*), perennial cudweed (*Pseudognaphalium thermale*), and Parish's milkvetch (*Astragalus douglasii* var. *parishii*).

Non-native and ornamental plants observed onsite include common dandelion (*Taraxacum officinale*), cheatgrass (*Bromus tectorum*), ornamental perennial sweet pea (*Lathyrus latifolius*), ornamental plum (*Prunus* species), silver maple (*Acer saccharinum*), shortpod mustard (*Hirschfeldia incana*), and greater periwinkle (*Vinca major*).

This vegetation community is classified by Sawyer et al. (2009) as Jeffrey pine forest (*Pinus jeffreyi* Forest Alliance). CDFW ranks this community as S4 (apparently secure) and it is not considered sensitive (CDFW 2019).

3.2.3) Willow Thickets and Mesic Meadow

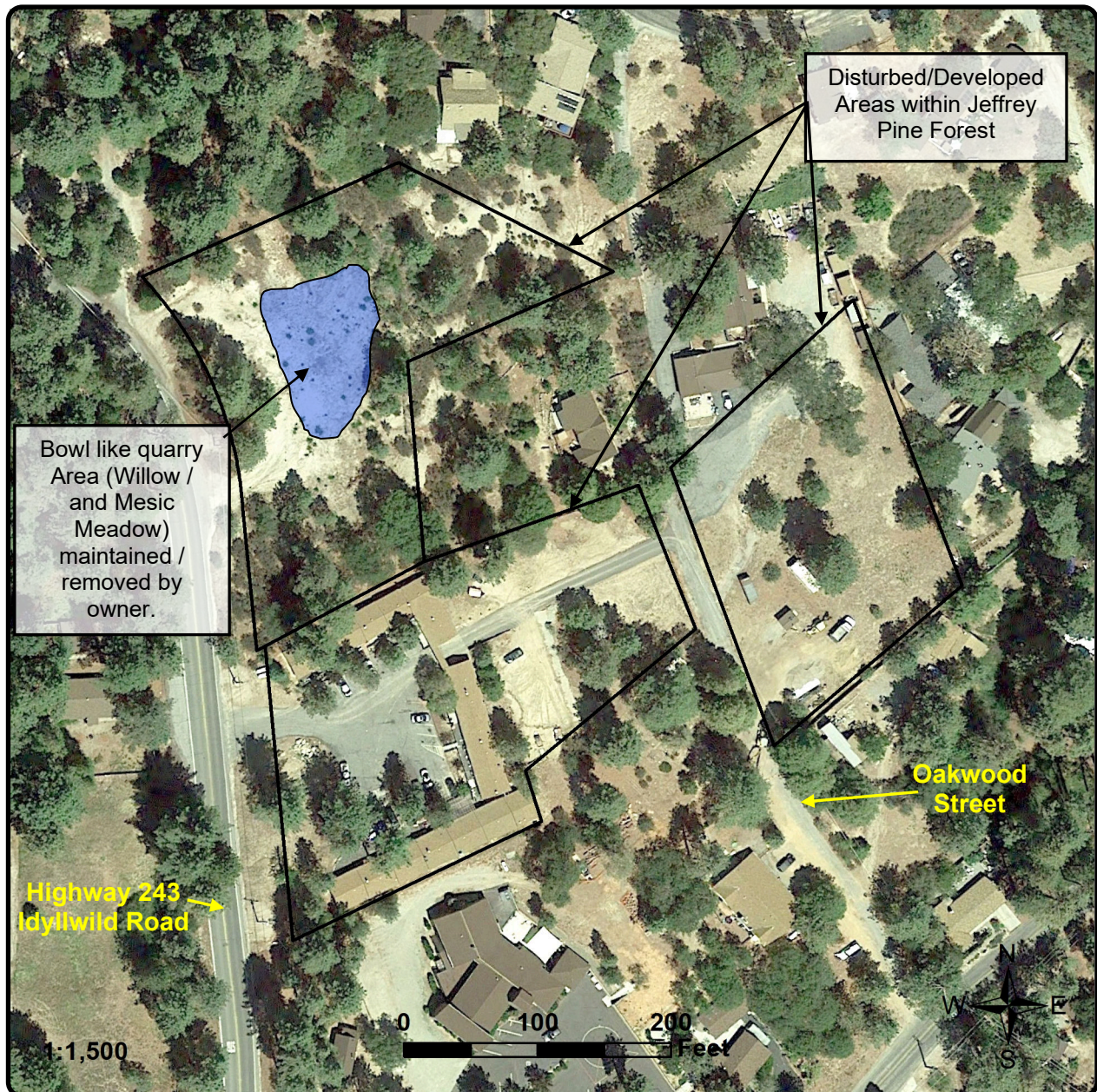
A upland bowl-shaped depression appearing to be a quarry of unknown age is present on Parcel 017, plant species observed included red willow and arroyo willow (*Salix laevigata* and *S.*

lasiolepis), California dock (*Rumex californicus*), Hooker's evening primrose (*Oenothera elata* ssp. *hookeri*), seep monkeyflower (*Erythranthe guttatus*), lesser paintbrush (*Castilleja minor* ssp. *spiralis*), cotton batting (*Pseudognaphalium stramineum*), creek clover (*Trifolium obtusiflorum*), and toad rush (*Juncus bufonius*). Most of the willows were small and scattered throughout the bowl area.

This habitat is classified by Sawyer et al. (2009) as arroyo/red willow thickets (*Salix lasiolepis*/*Salix laevigata* Shrubland Alliance). CDFW ranks this community as S4 (apparently secure); however, it is considered sensitive (CDFW 2019).

The bowl area on Parcel 017 also included vegetation that would be best described as a wet or mesic meadow (Mayer and Laudenslayer 1988). There is no classification in Sawyer et al. (2009) or CDFW (2019) that fits this vegetation community well and it could be considered sensitive.

Communication from the Project proponent indicates that the area is maintained annually. As of the February 2021 field visit native wetland vegetation no longer present and the quarry has been modified to drain to the street.



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BIOLOGICAL AND CULTURAL
 INVESTIGATIONS AND MONITORING

WCS-19-738
 February 2021

Figure 5

Vegetation Map

(Aerial obtained from Google Earth, August 2018)

APNS 563-250-017, -028, & -031, Idyllwild
 County of Riverside, California

3.3) Plant Species

A total of 55 plant species were observed and identified during the survey. Additional annual plants may occur on the less disturbed portions of the site but were not detected due to timing of the survey. The botanical surveys were recommended to continue through June 2021 to cover the entire flowering season but were terminated after the February 2021 survey.

A list of observed plant species is included in Appendix A. No federal or state-listed or special status plants were observed. The site is not within designated critical habitat for any federally listed plant species.

3.3.1) Narrow Endemic Plants

The MSHCP requires a habitat assessment narrow endemic plant species and a focused survey if habitat is present. The narrow endemic plant species are Johnston's rockcress, Munz's (San Jacinto) mariposa lily, and San Jacinto Mountains bedstraw.

Johnston's Rockcress

Johnston's rockcress (*Boechea [Arabis] johnstonii*) is a perennial herb in the Brassicaceae (mustard) family that flowers from February to June. It is found in chaparral, grassland, and open oak/pine woodland from about 4,430 to 7,050 feet elevation. It occurs in rocky areas, on gravelly soil or eroded clay soils. Johnston's rockcress has a California Rare Plant Rank (CRPR) of 1B.2, indicating that it is rare, threatened, or endangered in California and elsewhere and moderately threatened in California. It is also a USFS sensitive species. It is a covered species under the MSHCP and surveys are required in the MSHCP Narrow Endemic Plant Survey area. Under the MSHCP, mitigation is required if the species is present. This species is found only in the San Jacinto Mountains in Riverside County (CDFW 2020c, Jepson 2020, Dudek 2003).

There is one (1) documented occurrence of Johnston's rockcress in the CNDDDB within five (5) miles of the Project site. This is CNDDDB Element Occurrence (EO) #9 and was last observed in 1937. It is mapped along the west slope of San Jacinto Peak about 3.3 miles north of the Project site (CDFW 2020c).

Two reference sites for Johnston's rockcress (CNDDDB EO#2 and #11) in the San Bernardino National Forest were visited during this the 2020 surveys, but the plant was not found at either of those locations. EO#2 is 10.9 miles southeast of the site at an elevation of 4,560 feet and

EO#11 is 12.2 miles southeast of the site at an elevation of 4,595 feet. The species was last documented at EO#2 in 1982 and at EO#11 in 1922, 1937, and 1982. A 2008 report from the U.S. Forest Service lists these occurrences as unconfirmed (CDFW 2020c). EO#11 was also visited on February 19, 2020 and no Johnston's rockcress were found.

No Johnston's rockcress was observed during 2020 surveys, but the survey was conducted outside of the flowering season. An unidentified rockcress (*Boechera* species) was observed on the southern edge of Parcel 017. The plants were fully senesced at the time of the survey and could not be identified to species. The observable characteristics of this unidentified rockcress were a single, very tall inflorescence, approximately three (3) feet high, and growing in relatively loose soils below a Jeffrey pine. In comparison, Johnston's rockcress prefers rocky, gravelly soils and has a much shorter inflorescence and multiple stems. Based on available evidence, this species does not appear to be Johnston's rockcress.

There is potentially suitable habitat for Johnston's rockcress on the site, but it is over 8.7 miles northwest of the Garner Valley area where all recent occurrences of the species have been documented. Past and ongoing anthropogenic disturbances on most of the site reduce the likelihood that rare plants will occur.

Based on habitat and soils present, proximity of known occurrences, and disturbances associated with current and past land use, Johnston's rockcress has a low potential for occurrence onsite (see Appendix B). The survey was recommended to continue through the 2021 flowering season to more conclusively determine if Johnston's rockcress is present. However, surveys were terminated after the February 2021 visit.

Munz's Mariposa Lily

Munz's (San Jacinto) mariposa lily (*Calochortus palmeri* var. *munzii*) is a perennial bulb-forming herb in the Liliaceae (lily) family that flowers from April through July. It is found in chaparral, meadows, and open yellow pine forest from about 2,800 to 7,200 feet elevation. It occurs on seasonally moist, fine granitic loam on exposed knolls in the shade of yellow pine forest and on moist, sandy clay in chaparral and meadows. This species has a CRPR of 1B.2, indicating that it is rare, threatened, or endangered in California and elsewhere and moderately threatened in California. It is also a USFS sensitive species. It is a covered species under the MSHCP and surveys are required in the MSHCP Narrow Endemic Plant Survey area. Under the MSHCP, mitigation is required if the species is present. This species is found only in the San Jacinto and

Santa Rosa Mountains of Riverside County and scattered locations in San Diego County (CDFW 2020c, Jepson eFlora 2020, Dudek 2003).

There are several documented occurrences of Munz's mariposa lily within five (5) miles of the Project site, including one (1) occurrence (EO#1) that is mapped immediately to the east on a formerly vacant lot. The exact location of this occurrence is unknown and the mapped buffer includes a portion of Parcel 031. The species was last observed at this location in 1967. However, more recent surveys indicate that this occurrence has been extirpated due to development. The remaining occurrences are all over two (2) miles from the Project site (CDFW 2020c).

One reference site for Munz's mariposa lily (CNDDDB EO#2) in the San Bernardino National Forest was visited during this study on June 29, July 7, July 19, and July 24, 2020. The plant was flowering and identifiable on June 29 and July 7. This occurrence is about 2.6 miles west-southwest of the site at an elevation of 4,850 feet.

There is potentially suitable habitat for Munz's mariposa lily on the site and a documented occurrence is located in the immediate vicinity. No Munz's mariposa lily was observed during surveys. The survey was conducted within the flowering season for this species and it was observed flowering at a nearby reference site. Past and ongoing anthropogenic disturbances on most of the site reduce the likelihood that rare plants will occur. Based on survey results and other available evidence, Munz's mariposa lily is considered absent from the project site.

San Jacinto Mountains Bedstraw

San Jacinto Mountains bedstraw (*Galium angustifolium* ssp. *jacinticum*) is a perennial herb in the Rubiaceae (madder) family that flowers from June through August. It is found in partially shady or open lower montane mixed and coniferous forest from about 4,400 to 6,900 feet elevation. This species has a CRPR of 1B.3, indicating that it is rare, threatened, or endangered in California and elsewhere and not very threatened in California. It is also a USFS sensitive species. It is a covered species under the MSHCP and surveys are required in the MSHCP Narrow Endemic Plant Survey area. Under the MSHCP, mitigation is required if the species is present. This species is found only in the San Jacinto and Santa Rosa Mountains of Riverside County and Laguna and Volcan Mountains of San Diego County (CDFW 2020c, Jepson eFlora 2020, Dudek 2003).

There are several documented occurrences of San Jacinto Mountains bedstraw within five (5) miles of the Project site; the closest is about 2.4 miles to the west (CDFW 2020c).

One reference site for San Jacinto Mountains bedstraw (CNDDDB EO#13) in the San Bernardino National Forest was visited during June, July, and August 2020. The plant was flowering and identifiable during those visits. This occurrence is about 3.4 miles southwest of the site at an elevation of 4,300 feet.

There is potentially suitable habitat for San Jacinto Mountains bedstraw on the site, but it was not observed during surveys. The survey was conducted within the flowering season for this species and it was observed flowering at a reference site. Past and ongoing anthropogenic disturbances on most of the site reduce the likelihood that rare plants will occur. Based on survey results and other available evidence, San Jacinto Mountains bedstraw is considered absent from the project site.

3.3.2) Special Status Plants

No special status plants were observed on the site during the survey, but the survey did not include the spring flowering season. There is existing development and/or disturbance on much of Parcels 028 and 031. The February 2021 survey found that native understory plants previously present on Parcels 028 and 031 had been mowed or removed. Parcel 017 previously had some disturbance and the February 2021 survey found that the bowl area had been graded flat and all native vegetation removed. Undisturbed natural habitat capable of supporting special status plants is generally lacking within Parcels 028 and 031. Relatively undisturbed habitat is present on portions of Parcel 017.

Most special status plants known from the region have a low potential for occurrence or are not expected to occur. Several were determined to have a low to moderate or moderate potential to occur, mainly on Parcel 017. However, subsequent removal of habitat on Parcel 017 has affected that determination. See Appendix B for the complete list. Due to the project schedule the entire flowering season was not addressed.

3.3.3) Oak Trees

Native canyon live oak and California black oak trees are present onsite. Riverside County regulates oaks and mitigation may be required if oaks will be impacted.

If native oaks will be impacted or construction activities will occur within the protected zone of any oak (see Section 5.10), the Riverside County Oak Tree Management Guidelines require mapping and evaluation of oak trees with a trunk (or sum of multiple trunks) at least two (2)

inches in diameter at 4.5 feet above the ground (DBH¹) within project areas. The evaluation must include dead or dying oak trees, as these have value for cavity nesting birds. Project development plans are required to minimize and mitigate impacts to oak trees. Figure 6 identifies the location of oaks and other trees present on the site and Table 4 provides tree survey data. The February 2021 survey noted that some small pines had been recently removed. It is unknown if any of the trees in Table 4 have been removed since the inventory was conducted.

L&L catalogued 91 trees within the property boundaries, of which 21 are oaks. This includes 17 black oaks (*Quercus kelloggii*) and four (4) canyon live oaks (*Quercus chrysolepis*). Other trees present included 59 pine trees (Jeffrey pine or Coulter pine), one (1) white fir (*Abies concolor*), one (1) Pacific madrone (*Arbutus menziesii*), one (1) silver maple (*Acer saccharinum*; a non-native ornamental), and eight (8) incense cedars (*Calocedrus decurrens*). All oaks on the site are in very good or excellent health and no dead oaks are present (Table 4).

All of the oaks are on Parcel 017, with the exception of one black oak on Parcel 031 and one canyon live oak on Parcel 028. The protected zones of offsite oaks and oaks on Parcel 017 also extend onto Parcel 028. Figure 6 shows the oak trees and their protected zones (see Section 5.10 for the definition of a protected zone).

Based on a review of the oak locations and the Site Plan Concept (dated May 13, 2019), the one black oak on Parcel 031 (Tree #3) will be impacted; the one canyon live oak on Parcel 028 (Tree #34) will be impacted, as will a portion of the protected zone of black oak #52 and two offsite black oaks. On Parcel 017, canyon live oak #79 and black oaks #51, 52, 72, 77, 78, and 80 will be impacted. Depending on the final development plan and the extent of construction-related disturbance, additional oaks may also be impacted. Per communication from the Project proponent, the following trees are planned for removal: pines #1, 2, 4, 5, and 6; black oaks #3, 51, 52, and 78; and canyon live oaks #34 and #79. Other impacted trees will be mitigated in place.

¹ DBH is a forestry term meaning “diameter breast height.” It is the diameter of the trunk, or the sum of the diameters of multiple trunks at 4.5 feet above ground level on the uphill side of the tree.

Table 4. Tree Data

Tree #	Coordinates	Type	Height (feet)	Health Rating*	DBH (inches)
1	33.749375° -116.712304°	Pine	35	5	14
2	33.749433° -116.712305°	Pine	25	5	7
3	33.749568° -116.712461°	Black Oak	45	5	24
4	33.749386° -116.712669°	Pine	30	5	30
5	33.749434° -116.712534°	Pine	20	5	12
6	33.749283° -116.712504°	Pine	45	5	24
7	33.748843° -116.713751°	Pine	55	5	24
8	33.748799° -116.713727°	Pine	50	4	14
9	33.748741° -116.713703°	Pine	55	5	18
10	33.748704° -116.713592°	Pine	55	5	18
11	33.748801° -116.713854°	Pine	65	5	28
12	33.748664° -116.713867°	Silver Maple	40	5	8
13	33.748623° -116.713780°	Pine	55	5	18
14	33.748579° -116.713782°	Pine	55	5	14
15	33.748547° -116.713751°	Pine	40	5	12
16	33.749105° -116.713996°	Pine	35	5	10
17	33.749048° -116.713872°	Pine	20	5	10
18	33.749077° -116.713892°	Pine	15	5	4
19	33.749048° -116.713872°	Pine	25	5	6
20	33.749034° -116.713856°	Pacific Madrone	20	5	6
21	33.748827° -116.713565°	Pine	35	5	12
22	33.748782° -116.713547°	Pine	50	5	18
23	33.748777° -116.713472°	Cedar	30	5	10
24	33.748811° -116.713424°	Pine	50	5	20
25	33.749000° -116.713785°	Pine	30	4	14
26	33.749064° -116.713733°	Pine	20	5	5
27	33.749049° -116.713675°	Pine	30	5	12
28	33.749095° -116.713603°	Pine	30	4	14
29	33.749132° -116.713557°	Pine	30	3	16
30	33.749036° -116.713494°	Pine	30	4	14
31	33.748999° -116.713476°	Pine	35	4	20

Tree #	Coordinates	Type	Height (feet)	Health Rating*	DBH (inches)
32	33.749250° -116.713463°	Pine	65	5	22
33	33.749282° -116.713348°	Pine	60	4	24
34	33.749333° -116.713250°	Canyon Live Oak	30	5	24
35	33.749370° -116.712974°	Pine	20	5	10
36	33.749102° -116.712950°	Pine	30	5	20
37	33.749064° -116.713089°	Pine	55	5	19
38	33.749169° -116.713126°	Pine	55	5	20
39	33.748840° -116.713269°	Cedar	20	5	4
40	33.748903° -116.713294°	Pine	45	5	20
41	33.748934° -116.713308°	Cedar	12	5	3
42	33.748976° -116.713332°	Cedar	30	5	12
43	33.749028° -116.713341°	Cedar	30	5	11
44	33.749064° -116.713362°	Pine	28	5	8
45	33.749125° -116.713382°	Pine	20	5	5
46	33.749285° -116.714007°	Black Oak	15	5	4
47	33.749129° -116.713816°	Pine	50	5	20
48	33.749166° -116.713730°	Pine	50	5	19
49	33.749266° -116.713784°	Pine	50	5	18
50	33.749331° -116.713707°	White Fir	55	5	20
51	33.749297° -116.713644°	Black Oak	40	5	13
52	33.749341° -116.713579°	Black Oak	45	5	22
53	33.749535° -116.713990°	Pine	50	5	18
54	33.749641° -116.714042°	Pine	50	5	18
55	33.749580° -116.713900°	Pine	55	5	20
56	33.749648° -116.713961°	Pine	55	5	20
57	33.749719° -116.714074°	Pine	47	5	18
58	33.749755° -116.714045°	Pine	42	5	16
59	33.749612° -116.713893°	Pine	55	5	20
60	33.749356° -116.713999°	Pine	15	4	6
61	33.749393° -116.713904°	Pine	40	5	9
62	33.749828° -116.714201°	Incense Cedar	35	5	12
63	33.749876° -116.714125°	Pine	45	5	10
64	33.749901° -116.714048°	Pine	50	5	16

Tree #	Coordinates	Type	Height (feet)	Health Rating*	DBH (inches)
65	33.749993° -116.713802°	Pine**	55	5	15
66	33.750071° -116.713550°	Pine**	55	5	15
67	33.749929° -116.713544°	Pine**	55	5	15
68	33.749845° -116.713455°	Pine**	55	5	15
69	33.749809° -116.713287°	Pine**	55	5	15
70	33.749645° -116.713590°	Pine**	55	5	15
71	33.749396° -116.713937°	Black Oak	9	5	5
72	33.749388° -116.713863°	Black Oak	15	4	7
73	33.749590° -116.714047°	Black Oak	9	5	2
74	33.749618° -116.714050°	Pine	15	5	6
75	33.749383° -116.713990°	Incense Cedar	9	5	3
76	33.749640° -116.714054°	Incense Cedar	9	5	3
77	33.749371° -116.713859°	Black Oak	11	5	2
78	33.749266° -116.713715°	Black Oak	22	5	5
79	33.749504° -116.713608°	Canyon Live Oak	15	5	8
80	33.749744° -116.713542°	Black Oak	18	5	3
81	33.749756° -116.713461°	Black Oak	8	5	2
82	33.749783° -116.713396°	Canyon Live Oak	20	5	6
83	33.749883° -116.713512°	Black Oak	20	5	3
84	33.749932° -116.713467°	Canyon Live Oak	20	5	6
85	33.749960° -116.713584°	Black Oak	20	5	4
86	33.749992° -116.713639°	Black Oak	27	5	5
87	33.750038° -116.713661°	Black Oak	12	5	2
88	33.749995° -116.713708°	Black Oak	18	5	4
89	33.749988° -116.713830°	Black Oak	16	5	4
90	33.749413° -116.713844°	Pine	35	5	10
91	33.749381° -116.713778°	Pine	40	5	12

*Health rated on a scale of 0 (dead), 1 (declining), 2 (poor), 3 (moderate), 4 (very good), and 5 (excellent); see Table 2. **inaccessible trees, height and DBH estimated.

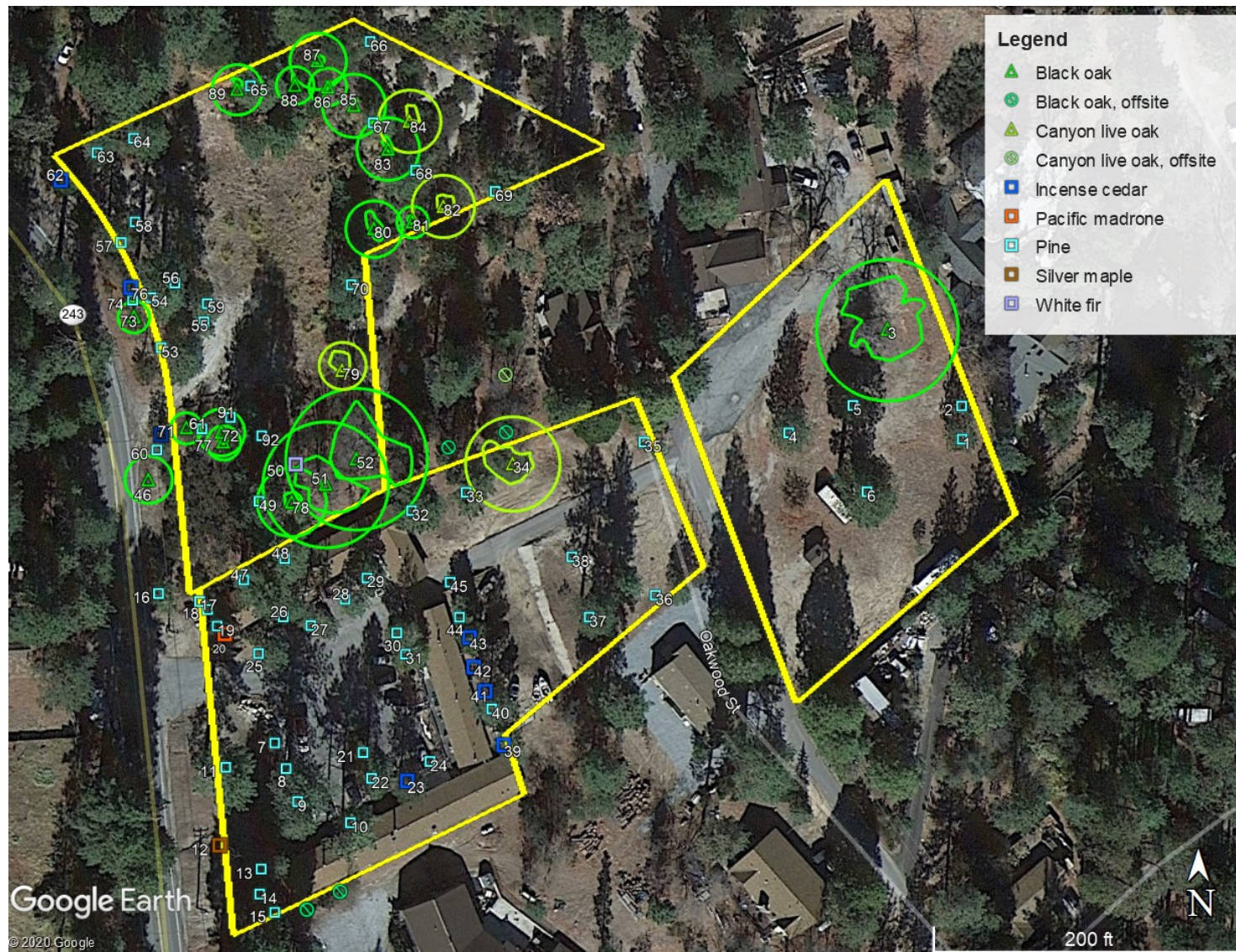


Figure 6. Trees Mapped on the Site. The dripline (irregular outline) and the protected zone (circle) are shown for oaks.

3.4) Wildlife Species

A total of 21 wildlife species (mostly birds) were detected during the survey. No federal or state-listed endangered or threatened species were observed. Three special status species, Cooper's hawk (*Accipiter cooperii*), Nuttall's woodpecker (*Dryobates nuttalli*), and oak titmouse (*Baeolophus inornatus*) were observed and are described below. A list of all observed species is included in Appendix A.

MSHCP species listed for protection associated with riparian/riverine areas and vernal pools were not observed and are considered absent. The site is not within designated critical habitat for any federally listed wildlife species.

3.4.1) Fairy Shrimp

Soil types mapped onsite are not consistent with an alkali playa or vernal pool complex (Bauder et al. 2011). Pools or depressions characteristic of vernal pool habitat were not observed onsite. Evidence of potential ponding was observed on Parcel 017 and consisted of a "bowl" area with wetland indicator plants. The topography of the bowl area appears to have been artificially created. The February 2021 survey found that this area had been graded flat and all native vegetation removed.

The Riverside fairy shrimp (*Streptocephalus woottoni*) is restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions. All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. All known populations lie between 30 and 415 meters (about 100 to 1,360 feet) in elevation (Dudek 2003). The elevation onsite (5,442 and 5,523 feet) is well above the range for Riverside fairy shrimp.

In southern California, the vernal pool fairy shrimp (*Branchinecta lynchi*) is known only from western Riverside County up to an elevation of 1,159 meters (3,800 feet) (Dudek 2003). The elevation onsite is well above the range for vernal pool fairy shrimp.

The MSHCP requires focused surveys if suitable habitat for fairy shrimp is present. Although a potential ponding area was identified (and later removed), the site is well above the elevation range for listed fairy shrimp species and there is therefore no suitable habitat and they are considered absent.

3.4.2) Riparian Birds

Least Bell's vireo (*Vireo bellii pusillus*) is state and federally listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species is migratory and breeds in California, arriving in March and departing by September or October. Males establish and defend territories in riparian woodlands and riparian scrub. Dense shrub cover is required for nesting. The riparian habitat utilized by this species is limited to the immediate vicinity of water courses below 1,500 feet elevation (Dudek 2003). The elevation onsite (5,442 and 5,523 feet) is well above the range for least Bell's vireo. In addition, the willows present on the site are generally small, scattered, and isolated and do not provide the dense riparian habitat required by this species (all riparian plants were removed). Therefore, there is no suitable habitat for least Bell's vireo and this species is considered absent from the site.

Southwestern willow flycatcher (*Empidonax traillii extimus*) is state and federally listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species inhabits dense riparian forests with ample numbers of willows and other associated trees and shrubs at elevations from sea level to 8,500 feet (Dudek 2003). The willows present on the site are generally small, scattered, and isolated and do not provide the dense riparian habitat required by this species (all riparian plants were removed). Therefore, there is no suitable habitat for southwestern willow flycatcher and this species is considered absent from the site.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is federally listed as threatened and state listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species inhabits extensive riparian thickets or forests with dense, low-level or understory foliage and abutting on slow-moving watercourses, backwaters, or seeps (Dudek 2003). The willows present on the site are generally small, scattered, and isolated and do not provide the extensive and dense riparian habitat required by this species (all riparian plants were removed). Therefore, there is no suitable habitat for western yellow-billed cuckoo and this species is considered absent from the site.

3.4.3) Mountain Yellow-legged Frog

Southern mountain yellow-legged frog (*Rana muscosa*) is a medium-sized amphibian in the Ranidae (true frog) family. It is a federal and state listed endangered species and a California

Department of Fish and Wildlife (CDFW) Watch List species (CDFW 2020b). It is also a U.S. Forest Service (USFS) sensitive species. Mountain yellow-legged frog has recently been split into the Sierra Nevada yellow-legged frog (*Rana sierra*, found in the northern and central Sierra Nevada) and the southern mountain yellow-legged frog (*Rana muscosa*, found in the southern Sierra Nevada and southern California).

Southern mountain yellow-legged frog (MYLF) is always found within a few feet of water. In the mountains of southern California, this species inhabits streams, creeks, and small pools with cool, perennial water. Tadpoles are generally restricted to permanent still water deeper than a meter (3.3 feet) and may require two (2) to four (4) years to complete their development. The current distribution of the species consists of 10 small populations scattered across the San Jacinto, San Bernardino, and San Gabriel Mountains (Dudek 2003, USFWS 2019).

Historically, southern mountain yellow-legged frog was distributed along Strawberry Creek, but the last documented observation in 1953. None have been found during more recent surveys in 2001, 2002, and 2005 (Dudek 2003, CDFW 2020c, RCA 2006).

There are several documented occurrences of this mountain yellow-legged within five (5) miles of the Project site, primarily along Strawberry Creek, which runs to the east and south of the site. At its closest point, Strawberry Creek is about 0.4 mile from the Project site and the mapped occurrence of mountain yellow-legged frog, which may be extirpated, includes a buffer that extends from the creek and is about a quarter mile from the Project site. No perennial aquatic habitat was identified on the Project site and the mapped blue-line stream present adjacent to the northwest corner of Parcel 017 does not have perennial flow. The upland bowl shaped quarry on Parcel 017 may have ponded water seasonally but was dry at the time of the survey and does not provide perennial aquatic habitat. Mountain yellow-legged frog is always found within a few feet of water and the site is not located in an area where this species could be dispersing from one stream or reach to another. Therefore, mountain yellow-legged frog is considered absent from the Project site.

3.4.4) Nesting Birds

There is suitable habitat for nesting birds onsite. Nesting birds may utilize trees and other vegetation, structures, idle vehicles/equipment, and open ground onsite for nesting. However, given the level of ongoing disturbance and nearby developments, nesting is likely to be limited to more common species tolerant of human presence.

Several large trees are present throughout the parcels and surrounding areas and may provide potential raptor nesting sites. However, no potential raptor nests were observed in any of the onsite trees during this survey.

3.4.5) Other Special Status Wildlife

Three (3) species status wildlife species were observed during the survey, Cooper's hawk, Nuttall's woodpecker, and oak titmouse. Cooper's hawk is a CDFW Watch List species and Nuttall's woodpecker is a USFWS Bird of Conservation Concern. Oak titmouse is a CDFW Special Animal and a USFWS Bird of Conservation Concern. Cooper's hawk is covered by the MSHCP and considered adequately conserved. Nuttall's woodpecker and oak titmouse are not covered by the MSHCP.

The CNDDDB only tracks nesting for Cooper's hawk and oak titmouse and there are no documented nests within five (5) miles of the site. Nuttall's woodpecker is not tracked in the CNDDDB. Review of eBird observations (eBird 2020) indicate that all three species are frequently seen in the area, including the immediate vicinity of the site.

No other special status wildlife species were detected during the survey. Although relatively undisturbed pine forest habitat is present on portions of the site, paved roads and various residential and commercial developments on and surrounding the property limit the potential for some special status wildlife species to occupy the site. Habitat capable of supporting special status wildlife species may be present in some areas, especially in the northern and eastern areas of Parcel 017, although some of this habitat was removed prior to completion of surveys.

Other special status biological resources documented in the vicinity of the Project site include, but are not limited to, San Bernardino flying squirrel, southern rubber boa, California spotted owl, and mountain lion, described below. Most special status wildlife known from the region have a low potential for occurrence or are not expected to occur. Several were determined to have a low to moderate, moderate, or high potential to occur, mainly on Parcel 017 though maintenance of the quarry on parcel 017 has removed this habitat. See Appendix B for the complete list.

San Bernardino Flying Squirrel

San Bernardino flying squirrel (*Glaucmys oregonensis californicus*) is a CDFW Species of Special Concern and a USFS Sensitive Species. It is a covered species under the MSHCP but is not considered adequately conserved.

This species is a medium-sized squirrel with a furred patagium (membrane) connecting the front and hind limbs, which it uses to glide from tree to tree. It is nocturnal and secretive. Historically, San Bernardino flying squirrel was found in the San Bernardino and San Jacinto Mountains. However, populations in the San Jacinto Mountains may have been extirpated. Habitat for the San Bernardino flying squirrel is mixed-conifer forests dominated by Jeffrey pine, white fir, and black oak between about 3,900 to 8,200 feet. The San Bernardino flying squirrel is typically found in old growth and some second-growth forests, and uses stumps, snags, and dead trees for nesting and foraging (Brylski 1998).

There is one (1) documented occurrence of San Bernardino flying squirrel mapped in proximity to the Project site, but this observation is from 1919 and there are no more recent observations at this location or any other CNDDDB occurrences in the San Jacinto Mountains (CDFW 2020c).

There is potentially suitable habitat for San Bernardino flying squirrel, but it has low potential for occurrence due to human disturbance associated with existing development, lack of any documented occurrences in the area during the past century, and CDFW information indicating that this species may be extirpated in the San Jacinto Mountains (CDFW 2020c).

Southern Rubber Boa

Southern rubber boa (*Charina umbratica*) is a state listed threatened and USFS Sensitive species. It is a covered species under the MSHCP but is not considered adequately conserved.

It is restricted to the San Bernardino and San Jacinto Mountains at elevations from about 5,050 to 8,100 feet. The species is semi-fossorial (burrowing), primarily crepuscular (active at dawn and dusk) or nocturnal, and highly secretive. It does not lay eggs but gives birth to live young. Suitable habitat is mixed conifer-oak forest or woodland dominated by two (2) or more of the following tree species: Jeffrey pine, ponderosa pine, sugar pine, incense cedar, white fir, or black oak. Southern rubber boa has also been observed in rock outcrops within open areas of mixed grasses and bracken fern with some shrubs and small trees. Rock outcrops and surface debris (rocks, logs, litter, etc.) provide cover and rock outcrops appear to be important for hibernacula. Presence of water appears to be critical, as southern rubber boa is frequently observed in association with damp draws near springs, seeps, and streams during the summer months. Southern rubber boa tends to have a clumped distribution, with areas of apparently unoccupied but suitable habitat intervening between known populations. The current abundance of southern rubber boa is unknown (CDFG 1987, Stewart et al. 2005).

To protect the species from unlawful harvesting, the exact locations of southern rubber boa observations are not available in the CNDDDB. There are multiple observations within the San Jacinto Peak topographic quadrangle (topo quad), located just north of the Project site, but no observations within the Idyllwild topographic quadrangle (CDFW 2020c).

Parcels 028 and 031 have ongoing human disturbance, lack of rock outcrops and woody debris, and no natural water. There was potential habitat for southern rubber boa on Parcel 017, mainly in the vicinity of the bowl like quarry area. There was a pile of rocks and concrete debris on Parcel 017 as well as downed woody debris, a duff layer, and a bowl area/mesic meadow that may pond water seasonally. These areas would provide habitat for the southern rubber boa if left undisturbed.

The site has an ephemeral stream along the northeast corner of Parcel 017 (offsite) vegetated with wild rose (*Rosa californica*) and willows (*Salix* species) and is within about 0.4 mile of Strawberry Creek. Based on available information, potential for occurrence of southern rubber boa had been determined to be low on Parcels 028 and 031 and (prior to impacts) low to moderate on Parcel 017.

A species-specific habitat assessment and focused survey would be recommended by a wildlife biologist with southern rubber boa experience if the site remains undisturbed and habitat to support the southern rubber boa if allowed to return. The species is known to occupy areas like the upland quarry and associated vegetation and to hibernate in rock piles and rotting stumps (CDFW 1987). Due to the maintenance that occurred prior to the last field visit (February 2021) it is unlikely that habitat is still present or that a focused survey would be productive at this time.

California Spotted Owl

California spotted owl (*Strix occidentalis occidentalis*) is a CDFW Species of Special Concern, a USFS Sensitive species, and a USFWS Bird of Conservation Concern. It is a covered species under the MSHCP but is not considered adequately conserved.

It is nocturnal and a year-round resident, breeding from mid-February to mid-September or early October. It nests in tree cavities. In southern California, the California spotted owl is found mainly in hardwood and mixed conifer hardwood forests at mid to high elevations and oak and riparian woodlands at lower elevations. Breeding and roosting habitat consists of forests and woodlands with large old trees and snags, dense canopies, multiple canopy layers, and downed woody debris. Foraging habitat is similar to breeding and roosting habitat, with moderate to high canopy cover (at least 40 percent). Edge habitat, particularly fire-created edges, may also

be used for foraging. Downed woody debris is associated with underground fungi, which are an important food for spotted owl prey species. Prey is typically small to medium-sized rodents, often flying squirrel or woodrat (Davis and Gould 2008; USFS 2018).

There are multiple spotted owl territories mapped within five (5) miles of the Project site, and the closest observation is about 0.85 mile to the east. The nearest activity center is documented about 1.14 miles to the north-northeast and has a pair of owls. The nearest documented nest is approximately 1.88 miles to the northeast (CDFW 2020c).

There is potentially marginal habitat for California spotted owl onsite and documented territories within five (5) miles of the Project site. However, California spotted owls utilize densely canopied forest stands with large and old trees for nesting and roosting and mature forests with moderate to high canopy cover for foraging (USFS 2018). While there are some larger trees onsite and dense canopy in some areas, there is ongoing human disturbance associated with existing development on and adjacent to the site. Based on this information, there is low potential for spotted owl to forage onsite and nesting onsite is not expected.

Mountain Lion

The mountain lion (*Puma concolor*) is a candidate for state listing as threatened or endangered. Under the California Endangered Species Act, candidate species receive the same consideration and protection as listed species. It is a covered species under the MSHCP and considered adequately conserved.

The mountain lion is a large native cat that is found throughout California. It is primarily crepuscular (active at dawn and dusk) or nocturnal. This species has large home ranges that include various habitats such as pine forest, riparian and oak woodlands, chaparral, and grasslands. Natal dens are often in rocky outcrops or dense vegetation (CDFW 2014).

Mountain lions are not tracked in the CNDDB, so there are no documented occurrences in that database. There are news reports of mountain lion sightings in the Idyllwild area, including photos from motion-activated wildlife cameras and reports of pets being killed.

Mountain lion habitat exists throughout the forest surrounding the town of Idyllwild and mountain lions could move through and potentially forage on the Project site. Given the existing development on and adjacent to the site, it is unlikely that a natal den would be located there.

3.4.6) Wildlife Corridor

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because movement barriers prohibit the infusion of new individuals and genetic information.

Wildlife movement activities usually fall into one (1) of three (3) movement categories: dispersal (e.g., juvenile animals dispersing from natal areas or individuals extending their range), seasonal migration, and movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover).

The Project site is located in the community of Idyllwild within the San Bernardino National Forest. Wildlife habitat exists throughout the forest surrounding the town. Forest species such as raccoons, coyotes, birds, etc. likely move and forage throughout the Project vicinity, but it is not within a wildlife corridor.

3.5) MSHCP Riparian/Riverine and Vernal Pool Habitat

Under MSHCP Volume 1, Section 6.1.2, areas associated with wetland and streambed systems must be evaluated for consideration as riparian/riverine or vernal pool habitat. Riparian/riverine areas are defined within the MSHCP as:

“ . . . lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.”

Vernal pools are defined within the MSHCP as:

“ . . . seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally

dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. . . .”

The MSHCP also states:

“With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.”

No drainages were observed on the site. The mapped ephemeral blue-line feature is just offsite at the northwest corner of Parcel 017 and does not enter the site.

A bowl like quarry on Parcel 017 contained emergent willows, toad rush, and other wetland indicator plants. Most of the willows were small and communication from the Project proponent indicates that the area is maintained annually. It appears that this bowl may have seasonally ponded water based on its topography and botanical characteristics. No water source for the bowl was observed during the survey and it was likely fed by rainfall and snowmelt. An erosion rill was observed along the edge of the southernmost driveway on Parcel 017 and appears to be where the bowl drained toward Highway 243.

The topography had been modified in the bowl like area did not appear to be natural. Historic aerial images from 1972 and 1978 (NETR 2020) appear to show substantial disturbance in the area of the bowl, but the images are not clear or detailed enough to determine the type or level of disturbance. It seems likely that the bowl was an artifact of disturbance most likely a quarry rather than an intentional impoundment.

Montane vernal pool and meadow habitat is associated with topographic depressions in surrounding forested areas that have moist to wet soils. These areas are comprised mostly of grasses and other herbaceous species. The pool fills with water in spring and then gradually dries up during the summer. As the pool recedes, specialized plants grow along the margins of the water. An example is Hidden Lake, located about 5.4 miles northeast of the Project site at an elevation of 8,700 feet (Keeler-Wolf et al. 1998, USFWS 2013).

No specialized vernal pool plants were observed in the bowl during the 2020 surveys, although wetland indicator plants were present. Based on the vegetation and conditions observed during the 2020 surveys, the bowl like quarry area would be more accurately described as a wet or mesic meadow rather than a vernal pool. Manmade structures which are not routinely maintained can develop habitat and hydrological conditions which are regulated as state, federal and local agencies including the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. If MSHCP riparian/riverine habitat is present, a Determination of Biologically Equivalent or Superior Preservation (DBESP) may be required. Since the bowl like quarry appears to be artificially created within otherwise upland habitat and is not immediately adjacent to a natural water course these laws may not apply. As the area has been impacted by maintenance actions, the quarry is down altered to drain, and habitat has been removed, a jurisdictional delineation is not recommended at this time.

3.6) Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The guidelines in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with development near MSHCP Conserved Areas. The proposed Project is not adjacent to any MSHCP Conservation Area on the RCA MSHCP Information Map (RCA 2020); however, a portion of Mount San Jacinto State Park is located immediately to the west of the site across Highway 243 and is assumed to be PQP lands. If this portion of Mount San Jacinto State Park is not considered to be PQP lands by RCA, this section of the report will be withdrawn.

Developments in proximity to Conserved Areas may result in “edge effects” that might adversely affect biological resources within the Conserved Areas. To minimize such “edge effects,” the following guidelines will be implemented for this project.

Drainage: The proposed project should incorporate measures as required, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged from the site is not altered in an adverse way when compared with existing conditions. Stormwater systems, if required, should be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within any MSHCP Conserved Area or state or federal jurisdictional areas downstream. Regular maintenance should occur to ensure effective operation of runoff control systems.

Toxics: Land use in proximity to MSHCP Conserved Area that uses chemicals or generates bioproducts that are potentially toxic or may adversely affect wildlife species, habitat, or water quality will incorporate measures to ensure that application of such chemicals does not result in discharge into MSHCP Conserved Area or any state or federal jurisdictional areas downstream.

Lighting: Exterior night lighting within the project development area should be directed downward and/or away from the PQP.

Noise: Noise associated with the proposed Project is not expected to result in a substantial increase over existing conditions in the area and will not have a significant effect on the PQP.

Invasives: When approving landscape plans for Development that is proposed adjacent to the MSHCP Conservation Area, Permittees shall consider the invasive, non-native plant species to be avoided (MSHCP Table 6-2) and shall require landscape plans (subject to the limitations of their jurisdiction) to avoid the use of invasive species for the portions of development that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

Should landscaping be included in the Project, plants listed on MSHCP Table 6-2 (see Appendix E) shall be excluded from landscape plans.

Barriers: Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, and illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

Given that Highway 243 is between the Project site and the PQP, and there is existing fencing along the west side of Highway 243, the barrier requirements of Section 6.1.4 of the MSHCP do not apply.

Grading/Land Development: Highway 243 is between the Project site and the PQP. Therefore, this requirement does not apply.

4.0) SUMMARY AND RECOMMENDATIONS

The purpose of this study was to identify biological resources present or potentially present onsite. The MSHCP requires a habitat assessment to address riparian/riverine and vernal pool habitats, fairy shrimp, narrow endemic plants (Johnston's rockcress, San Jacinto Mountains bedstraw, and Munz's mariposa lily), and mountain yellow-legged frog. L&L also analyzed the potential for impacts to special status species and sensitive vegetation communities. The recommendations are based on the literature review, L&L's knowledge of species and habitats in the region, and the biological field survey.

Vegetation on Parcels 028 and 031 is not considered a sensitive vegetation community. Parcel 017 which previously included willow thickets, which are considered sensitive, and a wet or mesic meadow has been altered to drain and no longer contains vegetation. If maintenance operations were to cease for a period of years and vegetation were to return this area could be considered habitat which it regulated by Riverside County MSHCP, as well as the state and federal regulatory agencies.

The narrow endemic species Munz's mariposa lily and San Jacinto Mountains bedstraw are considered absent from the site. Based on available evidence, narrow endemic plant species Johnston's rockcress has a low potential for occurrence onsite. The survey was recommended continue through the 2021 flowering season to more conclusively determine if Johnston's rockcress is present. No special status plants were identified onsite, but the survey did not include the entire flowering season.

Native oak trees are present on all three (3) parcels and are regulated by Riverside County. Under current development plans, six (6) oaks will be removed and at least five (5) additional oaks will be impacted. Mitigation will be required by Riverside County and an Oak Tree Habitat Mitigation and Monitoring Plan is recommended.

No federal or state-listed endangered or threatened wildlife species were observed. Three special status species, Cooper's hawk, Nuttall's woodpecker, and oak titmouse were observed. All three species are frequently seen in the area, including the immediate vicinity of the site. No other special status wildlife species were detected. Most special status species have low potential for occurrence or are not expected to occur. A few were determined to have a low to moderate, moderate, or high potential for occurrence, particularly on Parcel 017.

Although a potential ponding area was identified on Parcel 017, the site is well above the elevation range for listed fairy shrimp species and they are considered absent. The willows observed were generally small, scattered, and isolated and do not provide the dense riparian habitat required by least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. The elevation is also well above the range for least Bell's vireo. These riparian bird species are considered absent from the site.

There is no perennial aquatic habitat on or adjacent to the Project site and mountain yellow-legged frog is considered absent.

There is suitable habitat for nesting birds, including raptors, onsite. A nesting bird clearance survey is recommended within three (3) days prior to the start of vegetation clearing or ground disturbance within the nesting season (February 1 to September 15). If nesting birds are present, avoidance of nest sites is required and a buffer of 300 to 500 feet (or as determined by a qualified biologist) is recommended until juvenile birds are no longer dependent on the nest and/or a biologist has verified that the nest is inactive.

San Bernardino flying squirrel has a low potential for occurrence. California spotted owl has a low potential to forage on the site and is not expected to nest there. Mountain lion has a high potential to move through and possibly forage on the site.

Southern rubber boa has a low potential for occurrence on Parcels 028 and 031 and a low to moderate potential on Parcel 017 if habitat within the quarry returns before project development. In this event a species-specific habitat assessment and focused survey by a wildlife biologist with southern rubber boa experience would be recommended. As native vegetation, piles of rocks and concrete, rotting stumps, deadfall and the understory of trees and shrubs have been removed as a result moderate habitat to support the species is not currently present within parcel 017.

No drainages were observed on the site. The mapped ephemeral blue-line feature is just offsite at the northwest corner of Parcel 017 and does not enter the site. A bowl like quarry area created in an otherwise upland area was present on Parcel 017 may have ponded water seasonally fed by rainfall and snowmelt. An erosion rill appeared allowing the bowl to drain toward Highway 243. This quarry has been altered to drain and prevent standing water.

No specialized vernal pool plants were observed in the bowl area; based on available information during Fall 2020, the bowl was more accurately described as a wet or mesic meadow rather than a vernal pool.

The client is advised that manmade features that are not maintained can be considered habitat and any project related impacts to jurisdictional waters/wetlands require permitting through the USACE, RWQCB, and/or CDFW. If MSHCP riparian/riverine habitat is present, a DBESP may be required.



Figure 7. Site Plan.

5.0) REGULATORY ENVIRONMENT

5.1) Federal Endangered Species Act

By law, it is a requirement of the federal Endangered Species Act (FESA), 1973 (as amended) at Section 7(a)(2) that federal agencies ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of critical habitat. In order to comply with this requirement, the federal agency must conduct a Biological Assessment (BA), in which effects to listed species are analyzed and disclosed in the form of an “effects determination.”

Section 7 requires federal agencies to consult with the U. S. Fish and Wildlife Service (USFWS) should it be determined that their actions may affect federally listed threatened or endangered species. Section 9 of FESA prohibits “take” (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife. “Harm” is further defined to include habitat modification or degradation where it kills or injures wildlife by impairing essential behavioral patterns such including breeding, feeding, or sheltering. Take that is incidental to otherwise lawful activities can be authorized under Section 7 of FESA.

Procedures for obtaining a permit for incidental take are identified under Section 7 of FESA for federal properties or where federal actions are involved and are identified under Section 10 of FESA for non-federal actions. During the Section 7 process, measures to avoid and minimize project effects to listed species and their habitat will be identified and incorporated into a Biological Opinion (prepared by the USFWS) that includes an incidental take by the federal agency and applicant.

The County of Riverside has been issued a Section 10(a) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). This project falls within the area covered by the MSHCP.

5.2) Jurisdictional Waters and Wetlands

Three (3) agencies generally regulate activities within streams, wetlands, and riparian areas in California: (1) the U. S. Army Corps of Engineers (USACE) regulates activities under Section 404 of the federal Clean Water Act; (2) the Regional Water Quality Control Board (RWQCB) regulates activities under Section 401 of the federal Clean Water Act and the State Porter-

Cologne Water Quality Control Act; and (3) the California Department of Fish and Wildlife (CDFW) regulates activities under California Fish and Game Code Sections 1600-1616.

5.2.1) Federal Clean Water Act, Section 404

Section 404 of the federal Clean Water Act applies to "Waters of the United States" (WoUS). By definition these include waterways that could be used for interstate commerce and their tributaries, including any waters with a nexus with (ultimately flow into) traditional navigable waters. In non-tidal waters, the limits of jurisdiction are "ordinary high water marks" (OHWM) such as stream banks. Where wetlands occur above high water marks, they are considered "adjacent wetlands" and are included within USACE jurisdiction. USACE jurisdiction has often been extended to wetlands not adjacent to WoUS ("isolated wetlands"), such as vernal pools. Under the current administration, there have been recent changes to the definition of USACE jurisdictional waters.

Final determination and delineation of federal jurisdiction is made by the USACE and not by the project biologists. Therefore, fieldwork and documentation of site conditions are done as a preliminary delineation until the USACE reviews and concurs with the results.

5.2.2) Federal Clean Water Act, Section 401

The RWQCB has jurisdiction over wetlands, WoUS, and Waters of the State under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne) under the California Water Code (§ 13000, et seq.) Permitting is required for activities that will result in a discharge of soils, nutrients, chemicals, detrital materials, or other pollutants into WoUS, Waters of the State, or adjacent wetlands that will affect the water quality of those bodies and the watershed.

5.2.3) California Fish and Game Code, Section 1600

The CDFW, through provisions of the California Fish and Game Code (Sections 1600-1616), is empowered to issue agreements ("Lake and Streambed Alteration Agreements") for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. The Lake and Streambed Alteration Agreement will typically include required measures to mitigate impacts.

5.3) California Endangered Species Act

California Endangered Species Act (CESA) definitions of endangered and threatened species parallel those defined in the FESA. The CESA defines an endangered species as “. . . a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes including loss of habitat, change in habitat, overexploitation, predation, competition or disease.” Endangered species are in serious danger of becoming extinct and threatened species are likely to become endangered species in the foreseeable future (according to Sections 2062 and 2067, respectively, of the California Fish and Game Code). Candidate species are those under formal review by the CDFW for listing as endangered or threatened (Section 2067). Prior to being considered for protected status, the CDFW designates a species as being of special concern. Species of Special Concern are wildlife species for which the CDFW has information indicating population decline. Plant species of concern are designated by California Rare Plant Ranks, described below.

5.4) California Environmental Quality Act

The California Environmental Quality Act (CEQA) and CEQA Guidelines (§ 15000 et seq.) require identification of environmental effects from discretionary projects. Significant effects are to be mitigated by avoidance, minimization, rectification, or compensation whenever possible.

Effects to all state and federal listed species are considered significant under CEQA. In addition to formally listed species, CEQA considers effects to species that are demonstrably endangered or rare as important or significant. These definitions can include state designated species of special concern, federal candidate and proposed species, CNDDDB tracked species, and CRPR list 1B and list 2 plants.

Appendix G of the CEQA Guidelines specifically addresses biological resources and encompasses a broad range of resources to be considered.

5.5) California Natural Diversity Database

The California Natural Diversity Database (CNDDDB) includes documented occurrences of special status species that have been reported to the CDFW. It also includes ranks of overall condition of sensitive species and vegetation communities on global (throughout its range) and state (within California) levels. State ranking is numerical, ranging from one to five (S1 to S5),

with one indicating very few remaining individuals or little remaining habitat and five indicating a demonstrably secure to ineradicable population condition.

5.6) California Rare Plant Rank

The California Native Plant Society (CNPS) Inventory of Rare and Endangered Species includes documented occurrences of special status plant species that are available through the Consortium of California Herbaria and other sources. The CNPS, in coordination with CDFW, has cataloged California's rare and endangered plants into lists according to population distributions and viability. These lists are numbered and indicate the following California Rare Plant Ranks (CRPR): (1A) presumed extinct in California; (1B) rare, threatened, or endangered throughout their range; (2A) presumed extirpated in California, but more common in other states; (2B) threatened or endangered in California, but more common in other states; (3) more information is needed to establish rarity; and (4) plants of limited distribution in California (i.e., naturally rare in the wild), but whose populations do not appear to be susceptible to threat. A CRPR may also have an extension (e.g., 1B.x) that indicates current level of threat: seriously threatened (x.1), moderately threatened (x.2), or not very threatened (x.3).

5.7) Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Executive Order 13186 ensures that environmental analyses of federal actions required by the National Environmental Policy Act (NEPA) or other established environmental review processes evaluate the effects of actions on migratory birds, with emphasis on species of concern. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered "take" and constitute a violation of the MBTA. There have been recent changes to the MBTA and implementation of these changes are currently in flux.

5.8) California Fish and Game Code, Sections 3503 and 3513

California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or possession of birds of prey or their eggs except as otherwise provided by the

Code; and Section 3513 provides for the adoption of the provisions of the federal Migratory Bird Treaty Act, described above.

5.9) Western Riverside County Multiple Species Habitat Conservation Plan

The County of Riverside, including eight (8) additional land jurisdictions and 14 cities, have prepared a Multiple Species Habitat Conservation Plan (MSHCP) for western Riverside County. The MSHCP will build upon existing preserves and provide connectivity and wildlife corridors throughout the region. The MSHCP proposes to conserve approximately 500,000 acres and 146 different species.

The MSHCP was approved by the county on June 17, 2003 and an Implementation Agreement (IA) between the USFWS, the CDFW, and the County was executed and an associated USFWS Section 10(a)(1)(B) Permit (No. TE-088609) was issued on June 22, 2004. The permit grants take authorization for certain species identified in the permit as "Covered Species Adequately Conserved."

The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP divides areas into Cells using USGS coordinates. Conservation efforts for the project site will be evaluated with regard to sensitive species identified as not adequately conserved and observed onsite, riverine/riparian or vernal pool habitat and their associated sensitive species (if located onsite), fairy shrimp, jurisdictional areas, and sage scrub.

Focused surveys are required for species identified as not adequately conserved under the MSHCP if suitable habitat is present onsite. If focused surveys are determined necessary and species identified as not adequately conserved under the MSHCP occur onsite, the proponent may be required to undergo a Habitat Acquisition and Negotiation Strategy (HANS) determination with the County of Riverside. If a single family home or mobile home is to be placed on an existing legal lot, permitting will be reviewed according to the procedures outlined in MSHCP Section 6.1.1, *Expedited Review Process for Single-Family Homes or Mobile Homes to Be Located on an Existing Lot within the Criteria Area*.

MSHCP Section 6.1.2 (Riparian/Riverine Habitat)

Section 6.1.2 of the MSHCP requires an assessment of the potentially significant effects of the proposed project on Riparian/Riverine areas, and vernal pools as currently required by CEQA

using available information augmented by project-specific mapping. Riparian/Riverine areas and vernal pools are defined as follows:

- Riparian/Riverine Areas are lands that have flow for all or a portion of the year and which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.
- Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses, to which it has been subjected, and weather and hydrologic records.

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

MSHCP Section 6.1.3 (Narrow Endemic Plants)

Per Section 6.1.3 of the MSHCP, surveys are required for narrow endemic plants within the identified survey areas. If suitable habitat and appropriate soils are present, site-specific focused surveys are required. Focused surveys must be conducted during the appropriate season in accordance with established protocols. If the survey finds that narrow endemic plants are present, any projects with the potential to impact narrow endemic plants is subject to avoidance, minimization, and mitigation requirements.

Prior to conducting surveys for narrow endemic plant species, a habitat suitability assessment may be undertaken by a biologist/botanist with expertise in the plant species of concern to determine whether focused surveys for individual species are required and to focus the species-specific survey efforts. In general, habitat suitability assessments may be undertaken year-round, with the exception of vernal pool species for which habitat suitability assessments must be conducted during the rainy season.

5.10) Riverside County Oak Tree Management Guidelines

The Riverside County Oak Tree Management Guidelines (Guidelines) require mapping and evaluation of oak trees with a trunk (or sum of multiple trunks) at least two (2) inches in diameter at 4.5 feet above the ground (DBH) within project areas. The evaluation must include dead or dying oak trees, as these have value for cavity nesting birds. Project development plans are required to minimize and mitigate impacts to oak trees.

Replacement of oak trees is not required by the Guidelines; however, replacement plantings may be used in addition to these guidelines when they are required by another agency or when it is determined to be biologically sound and appropriate to do so. Relocation of oak trees does not constitute mitigation under the Guidelines and is considered the same as removal.

Construction activities are not allowed within the protected zone of any oak tree except as provided for in the Guidelines. The protected zone is defined as a circle whose center is within the base of an oak tree, the radius of which is equal to an oak tree's height or 10 feet, whichever is greater. Where the outermost edge of an oak tree's dripline extends beyond this radius, that portion of the dripline shall also be included as part of that tree's protected zone. Protected zones do not apply to dead or dying oak trees, unless the tree's condition appears to be the result of human activity that indicates an intent to kill the tree.

5.11) Riverside County Native Tree Ordinance

Riverside County Ordinance No. 559 states that "No person shall remove any living native tree on any parcel or property greater than one-half acre in size, located in an area above 5,000 feet in elevation and within the unincorporated area of the County of Riverside, without first obtaining a permit to do so, unless exempted by the provisions of Section 4 of this ordinance." The ordinance also specifies methods to be used to treat stumps and slash.

6.0) REFERENCES

- Abrams, L. 1923, 1944, and 1951. Illustrated Flora of the Pacific States, Volumes I-III. Stanford University Press, Stanford, California.
- Abrams, L. and R. Ferris. 1960. Illustrated Flora of the Pacific States, Volume IV. Stanford University Press, Stanford, California.
- Arnett, Ross H. Jr. 2000. American Insects: A Handbook of the Insects of America North of Mexico. CRC Press, New York, New York. 1003 pp.
- Baldwin, B. G., D. H. Goldman, D. J., Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley.
- Bauder, E. T., A. J. Bohonak, B. Hecht, M. A. Simovich, D. Shaw, D. G. Jenkins, and M. Rains. 2011. A Draft Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing Wetland Functions of Vernal Pool Depressional Wetlands in Southern California. San Diego State University. San Diego, California.
- BNA (The Birds of North America online). 2020. Cornell Lab of Ornithology. Ithaca, NY. <https://birdsna.org/Species-Account/bna/home>
- Brylski, P.V. 1998. San Bernardino flying squirrel, *Glaucomys sabrinus californicus*. Pp. 90-93 in Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed.
- CDFG (California Department of Fish and Game). 1987. Five-year status report: Southern rubber boa (*Charina bottae umbratica*). Online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=46589>
- CDFW (California Department of Fish and Wildlife). 2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. May 8.
- _____. 2014. Mountain Lion in California Wildlife Habitat Relationships System. California Interagency Wildlife Task Group. CWHR version 9.0 personal computer program. Sacramento, CA.
- _____. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. March 20.
- _____. 2019. California Natural Community List. November 8. <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>
- _____. 2020a. Special Animals List. Periodic publication. July.
- _____. 2020b. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. January.

- _____. 2020c. Natural Diversity Database. Rare Find 5. Accessed September 2020.
<https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>
- CNPS (California Native Plant Society). 2001. CNPS Botanical Survey Guidelines.
http://www.cnps.org/cnps/rareplants/pdf/cnps_survey_guidelines.pdf
- _____. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.38). Accessed September 2020. www.rareplants.cnps.org
- CPAD (California Protected Areas Database). 2020. Accessed September 2020.
www.calands.org
- Davis, J. N. and G. I. Gould Jr. 2008. California Spotted Owl (*Strix occidentalis occidentalis*). In Shuford, W. D. and T. Gardali, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Dillingham, C. 2005. Conservation Assessment for *Meesia triquetra* (L.) Aongstr. (three-ranked hump-moss) and *Meesia uliginosa* Hedwig (broad-nerved hump-moss) in California with a focus on the Sierra Nevada Bioregion. USDA Forest Service, Vegetation Management Solutions (VMS) Enterprise Team. Quincy, CA. May 3. https://www.fs.fed.us/vms/local-resources/documents/Meesia_CA.pdf
- Dudek & Associates, Inc. 2003. Western Riverside County MSHCP, Vol. I. The Plan and Vol. II-A through E, The MSHCP Reference Document.
- eBird. 2020. National Audubon Society and Cornell Laboratory of Ornithology. Accessed September 2020. www.ebird.org
- Google Earth. 2019. Google Earth Pro 7.3.2.5776. Aerial images from August 2018.
- Jameson, E. W. and H. J. Peeters. 1988. California Mammals. University of California Press, Berkeley.
- Jepson (Jepson eFlora). 2020. Jepson Flora Project. <http://ucjeps.berkeley.edu/eflora/>
- Keeler-Wolf, T, Elam, D.R., Lewis, K., Flint, S.A. 1998. California Vernal Pool Assessment Preliminary Report. California Department of Fish and Game. May 18.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=99964>
- L&L (L&L Environmental, Inc.). 2019. Habitat Assessment Report for APN 563-250-028, 25840 Idyllwild Road, Idyllwild, Riverside County, California. Report prepared for WSCS Design. November 2019.
- Mayer, K.E. and Laudenslayer, W.F. (eds.) 1988. A Guide to Wildlife Habitats of California. State of California, Resources Agency, Department of Fish and Game. Sacramento, CA.
<https://wildlife.ca.gov/data/cwhr/wildlife-habitats>
- Munz, Philip A. 1974. A Flora of Southern California. University of California Press, Berkeley, California.

- NETR (Nationwide Environmental Title Research, LLC). 2020. Online Historic Aerials. Aerial images from 1972 and 1978.
- NRCS (Natural Resources Conservation Service). 2020. U. S. Department of Agriculture. Web Soil Survey. <https://websoilsurvey.nrcs.usda.gov/>
- Parker, Robert et al. 1999. Weeds of the West. The Western Society of Weed Science. Newark, California. 630 pp.
- RCA (Western Riverside County Regional Conservation Authority). 2020. RCA MSHCP Information Map. Accessed September 2020. <http://www.wrc-rca.org/rcamaps/>
- _____. 2019. Status of Covered Species Not Adequately Conserved. July 29. <http://www.wrc-rca.org/about-rca/annual-reports/>
- _____. 2006. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Biological Monitoring Program: Mountain Yellow-legged Frog (*Rana muscosa*) Survey Report 2005. https://www.wrc-rca.org/archivecdn/AnnualReport_2005/RCA_2005_AR_TR_Monitor_AppM10_YellowLegged_Frog.pdf
- _____. Undated. MSHCP Species Survey Protocols. Mountain yellow-legged frog (*Rana muscosa*). <http://www.wrc-rca.org/mshcp-species-survey-protocols/>
- Riverside County. 1993. Riverside County Oak Tree Management Guidelines (March 2, 1993). https://planning.rctlma.org/Portals/14/devproc/guidelines/oak_trees/oak_trees.html
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation*, 2nd Edition. California Native Plant Society, Sacramento, California. 1,300 pp.
- Sibley, D. A. 2000. *The Sibley Guide to Birds*. Alfred A. Knopf, Inc., New York, New York. 545 pp.
- Stebbins, R. C. 1985. *Western Reptiles and Amphibians*. Houghton Mifflin Company, Boston Mass.
- Stewart, G.R., Jennings, M.R., and Goodman, R.H.Jr. 2005. Sensitive Species of Snake, Frogs, and Salamanders in Southern California Conifer Forest Areas: Status and Management. USDA Forest Service Gen. Tech. Rep. PSW-GTR-195. Pp 165-197.
- USFS (U. S. Forest Service). 2018. Draft Conservation Strategy for the California Spotted Owl, Version 1.0. Pacific Southwest Region. February.
- USFWS (U. S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. January. <https://www.fws.gov/ventura/docs/species/protocols/botanicalinventories.pdf>
- _____. 2013. *Trichostema austromontanum* subsp. *compactum* (Hidden Lake Bluecurls), 5-Year Review: Summary and Evaluation. Carlsbad Field Office. Carlsbad, California. May.

- _____. 2019. Mountain Yellow-legged Frog [Southern California Distinct Population Segment] (*Rana muscosa*) 5-Year Review: Summary and Evaluation. Carlsbad Field Office. Carlsbad, California. May 6.
- _____. 2020. Information for Planning and Consultation (IPaC). Accessed September 2020. <https://ecos.fws.gov/ipac/>
- USGS (U. S. Geological Survey). 1988. Idyllwild, California 7.5-Minute topographic map. USGS, Denver, Colorado.
- WRCC (Western Regional Climate Center). 2019. Precipitation Maps: PRISM Precipitation Maps 1961-1990. <https://wrcc.dri.edu/Climate/maps.php>
- WRCC (Western Regional Climate Center). 2020. RAWs USA Climate Archive. <https://raws.dri.edu/>

APPENDIX A: PLANT AND WILDLIFE SPECIES

List of plant and wildlife species identified on the site during the surveys. One asterisk (*) indicates a non-native species; two asterisks (**) indicates a special status species.

Scientific Name

Common Name

VASCULAR PLANTS DICOTYLEDONS

Ferns

FILICALES

Pteridium aquilinum var. *pubescens*

FERN FAMILIES

Bracken fern

Gymnosperms

CUPRESSACEAE

Calocedrus decurrens

CYPRESS FAMILY

Incense cedar

PINACEAE

Abies concolor

Pinus coulteri

Pinus jeffreyi

PINE FAMILY

White fir

Coulter pine

Jeffrey pine

Angiosperms

APOCYNACEAE

Asclepias eriocarpa

* *Vinca major*

DOGBANE FAMILY

Kotolo, Indian milkweed

Greater periwinkle, blue periwinkle

ASTERACEAE

Achillea millefolium

Ambrosia acanthicarpa

Artemisia dracunculus

Erigeron foliosus

Lessingia glandulifera var. *glandulifera*

Pseudognaphalium stramenium

(*Gnaphalium stramenium*)

Pseudognaphalium thermale

(*Gnaphalium canescens* ssp.

thermale)

Solidago velutina ssp. *californica*

(*S. californica*)

* *Taraxacum officinale*

ASTER FAMILY

California yarrow

Annual bur-sage, annual sandbur

Tarragon

Leafy fleabane, leafy daisy

Sticky lessingia

Cotton batting

Perennial cudweed

California goldenrod

Common dandelion

BORAGINACEAE

Phacelia imbricata var. *patula*

BORAGE OR WATERLEAF FAMILY

Imbricate phacelia

BRASSICACEAE

? *Boechera species*

MUSTARD FAMILY

Unid. rockcress

Scientific Name	Common Name
* <i>Hirschfeldia incana</i> (<i>Brassica geniculata</i>)	Shortpod mustard
<i>Lepidium virginicum</i> ssp. <i>menziesii</i> (L. v. <i>pubescens</i>)	Wild peppergrass
* <i>Sisymbrium altissimum</i>	Tumble mustard
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
<i>Lonicera subspicata</i> var. <i>denudata</i> (L. s. var. <i>johnstonii</i>)	Southern honeysuckle
ERICACEAE	HEATH FAMILY, MANZANITA FAMILY
<i>Arbutus menziesii</i>	Pacific madrone
<i>Arctostaphylos species</i> (probably <i>glauca</i>)	Unid. manzanita
<i>Arctostaphylos pringlei</i> ssp. <i>drupacea</i>	Pink-bracted manzanita
FABACEAE	LEGUME FAMILY, PEA FAMILY
<i>Acmispon americanus</i> (<i>Lotus purshianus</i> , L. <i>unifolius</i>)	"Spanish" clover
<i>Acmispon argophyllus</i>	Silver-leaved lotus
<i>Acmispon heermannii</i> var. <i>heermannii</i> (<i>Lotus heermannii</i> var. <i>heermannii</i>)	Woolly lotus
<i>Astragalus douglasii</i> var. <i>parishii</i>	Parish's milkvetch
* <i>Lathyrus latifolius</i>	Ornamental perennial sweet pea
<i>Lupinus concinnus</i>	Bajada lupine
<i>Trifolium obtusiflorum</i>	Clammy cover, creek clover
FAGACEAE	OAK FAMILY
<i>Quercus chrysolepis</i>	Canyon live oak
<i>Quercus kelloggii</i>	California black oak
ONAGRACEAE	EVENING-PRIMROSE FAMILY
<i>Oenothera elata</i> ssp. <i>hookeri</i>	Hooker's evening primrose
OROBANCHACEAE	BROOMRAPE FAMILY
<i>Castilleja minor</i> ssp. <i>spiralis</i>	Lesser paintbrush
PHRYMACEAE	LOPSEED FAMILY
<i>Erythranthe</i> (<i>Mimulus</i>) <i>guttatus</i>	Seep monkeyflower
POLEMONIACEAE	PHLOX FAMILY
<i>Eriastrum sapphirinum</i>	Sapphire woollystar
<i>Gilia species</i> (<i>diegensis</i> ?)	Unid. annual
<i>Leptosiphon ciliatus</i>	Whisker brush
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Eriogonum species</i> (<i>davidsonii</i> ?)	Unid. buckwheat
<i>Eriogonum gracile</i>	Slender wild buckwheat

Scientific Name	Common Name
<i>Eriogonum wrightii</i> var. <i>membranaceum</i>	Ringed-stem bastard-sage, Wright's buckwheat
<i>Rumex californicus</i>	California dock
RHAMNACEAE	BUCKTHORN FAMILY
<i>Frangula californica</i> ssp. <i>californica</i> (<i>Rhamnus californica</i>)	California coffee berry
ROSACEAE	ROSE FAMILY
<i>Drymocallis glandulosa</i> ssp. <i>reflexa</i>	Mountain sticky cinquefoil
* <i>Prunus</i> species	Ornamental plum
SALICACEAE	WILLOW FAMILY
<i>Salix laevigata</i>	Red willow
<i>Salix lasiolepis</i>	Arroyo willow
SAPINDACEAE	SOAPBERRY FAMILY
* <i>Acer saccharinum</i>	Silver maple
VISCACEAE	MISTLETOE FAMILY
<i>Arceuthobium campylopodum</i> (<i>A. divaricatum</i>)	Western dwarf mistletoe (on pine)
MONOCOTYLEDONS	
JUNCACEAE	RUSH FAMILY
<i>Juncus bufonius</i>	Toad rush
POACEAE	GRASS FAMILY
* <i>Bromus diandrus</i> (<i>B. rigidus</i>)	Ripgut brome
* <i>Bromus tectorum</i>	Cheatgrass

Scientific Name

Common Name

VERTEBRATES

Reptiles

Phrynosomatidae

Uta stansburiana elegans

Spiny Lizards

Western side-blotched lizard

Birds

Accipitridae

** *Accipiter cooperii*

Buteo jamaicensis

Hawks, Eagles, and Harriers

Cooper's hawk

Red-tailed hawk

Aegithalidae

Psaltirparus minimus

Long-tailed Tits

Bushtit

Cathartidae

Cathartes aura

Vultures

Turkey vulture

Columbidae

Zenaida macroura

Pigeons and Doves

Mourning dove

Corvidae

Corvus corax

Cyanocitta stelleri

Crows and Jays

Common raven

Stellar's jay

Fringillidae

Haemorhous (Carpodacus) mexicanus

Finches

House finch

Odontophoridae

Oreortyx pictus

Quail

Mountain quail

Paridae

** *Baeolophus inornatus*

Poecile (Parus) gambeli

Chickadees and Titmice

Oak titmouse

Mountain chickadee

Passerellidae

Junco hyemalis

Pipilo maculatus

New World Sparrows

Dark-eyed junco

Spotted towhee

Picidae

** *Dryobates (Picoides) nuttallii*

Melanerpes formicivorus

Woodpeckers

Nuttall's woodpecker

Acorn woodpecker

Sittidae

Sitta carolinensis

Nuthatches

White-breasted nuthatch

Trochilidae

Hummingbirds

Calypte anna

Anna's hummingbird

Turdidae

Thrushes

Sialia currucoides

Mountain bluebird

Mammals

Sciuridae

Squirrels

Neotamias merriami

Merriam's chipmunk

Sciurus griseus

Western grey squirrel

APPENDIX B: SPECIAL STATUS SPECIES POTENTIALS FOR OCCURRENCE

Potentials for occurrence based on surveys in July through September 2020. Potentials for many plant species would likely have been revised after Spring 2021 surveys were completed. However, surveys were terminated after the February 2021 site visit. Potentials that have been revised based on removal of suitable habitat in Parcel 017 are noted.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
Plants				
<i>Abronia villosa</i> var. <i>aurita</i> Chaparral sand-verbena	Annual herb. Sandy soils in chaparral, coastal scrub, desert dunes at 75-1600m elevation. Southern CA, Arizona, Baja.	(Jan)Mar-Sep	Fed: None Calif: S2 CRPR: 1B.1	Not expected; no suitable habitat, one documented occurrence within 5 mi, not observed during surveys.
<i>Acmispon haydonii</i> Pygmy lotus	Perennial herb. Rocky areas in pinyon juniper woodland, Sonoran desert scrub at 520-1200m elevation. Riverside, San Diego, and Imperial Cos. and Baja.	Jan-Jun	Fed: None Calif: S3 CRPR: 1B.3	Not expected; no suitable habitat, above elevation range, no documented occurrences within 5 mi.
<i>Allium marvinii</i> Yucaipa onion	Perennial bulbiferous herb. Clay soils in openings in chaparral at 760-1065m. Riverside and San Bernardino Cos.	Apr-May	Fed: None Calif: S1 CRPR: 1B.2 MSHCP: AC b USFS: S	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi.
<i>Almutaster pauciflorus</i> Alkali marsh aster	Perennial herb. Alkaline soils in meadows and seeps at 240 to 800m elevation. Inyo, Kern, Riverside, and San Bernardino Cos., SW and North-Central US, and Mexico.	Jun-Oct	Fed: None Calif: S1S2 CRPR: 2B.2	Not expected; well above elevation range, no documented occurrences within 5 mi, not observed during surveys.
<i>Ambrosia monogyra</i> Singlewhorl burrobrush	Perennial shrub. Sandy soils in chaparral and Sonoran desert scrub at 10-500m elevation. Riverside, San Bernardino, and San Diego Cos., SW US, and Mexico.	Aug-Nov	Fed: None Calif: S2 CRPR: 2B.2	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi., not observed during surveys.
<i>Androsace elongata</i> ssp. <i>acuta</i> California androsace	Annual herb. Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon juniper woodland, valley and foothill grassland at 150-1305m elevation. Northern, Central, and Southern CA, Oregon, Baja.	Mar-Jun	Fed: None Calif: S3S4 CRPR: 4.2	Low; potentially suitable habitat, above elevation range.
<i>Arctostaphylos parryana</i> ssp. <i>tumescens</i> Interior manzanita	Perennial evergreen shrub. Montane chaparral, cismontane woodland at 2100-2310m elevation. Los Angeles and San Bernardino Cos.	Feb-Apr	Fed: None Calif: S3S4 CRPR: 4.3 USFS: S	Not expected; below elevation range.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	Annual herb. Alkaline soils along lake margins, meadows and seeps and playas at 60-850m elevation. San Bernardino, Inyo, Kern, Tulare(?) Co and Nevada. San Joaquin Valley, South Coast, Western Transverse Ranges, W edge of the Mojave Desert.	May-Oct	Fed: None Calif: S1 CRPR: 1B.1	Not expected; potentially suitable habitat, well above elevation range, no documented occurrences within 5 mi., not observed during surveys.
<i>Astragalus lentiginosus</i> var. <i>coachellae</i> Coachella Valley milk-vetch	Annual/perennial herb. Sandy soils in Sonoran desert scrub, desert dunes at 40-655m elevation. Riverside Co.	Feb-May	Fed: END Calif: S1 CRPR: 1B.2	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi.
<i>Astragalus pachypus</i> var. <i>jaegeri</i> Jaeger's milk-vetch	Perennial shrub. Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland at 365-975m elevation. Riverside and San Diego Cos.	Dec-Jun	Fed: None Calif: S1 CRPR: 1B.1 MSHCP: AC USFS: S BLM: S	Not expected; well above elevation range, no documented occurrences within 5 mi.
<i>Atriplex parishii</i> Parish's brittle scale	Annual herb. Floodplains with alkali scrub, alkali playas, vernal pools, and alkali grasslands; southern California and Baja; 25-1900m elevation.	Jun - Oct	Fed: none Calif: S1 CRPR: 1B.1 MSHCP: AC d USFS: S	Low; no or marginal suitable habitat. No documented occurrences within 5 mi, not observed during surveys.
<i>Ayenia compacta</i> California ayenia	Perennial herb. Rocky soils in Mojavean and Sonoran desert scrub at 150-1095m elevation. Riverside, San Bernardino, San Diego Cos., Arizona, Sonora and Baja Mexico.	Mar-Apr	Fed: none Calif: S3 CRPR: 2B.3	Not expected; no suitable habitat, above elevation range, no documented occurrences within 5 mi.
<i>Boechea johnstonii</i> Johnston's rockcress	Perennial herb. Rocky areas, gravelly or eroded clay soils in chaparral, grassland, and lower montane coniferous forest (open oak/pine woodland) at 1350-2150m elevation. San Jacinto Mts in Riverside Co.	Feb-Jun	Fed: None Calif: S1 CRPR: 1B.2 MSHCP: AC b USFS: S	Low; potentially suitable habitat, one documented occurrence (from 1937) within 5 mi, not observed during surveys (outside flowering season).
<i>Calochortus palmeri</i> var. <i>munzii</i> Munz's (San Jacinto) mariposa lily	Perennial bulbiferous herb. Seasonally moist, fine granitic loam soils on exposed knolls in yellow pine forest and moist, sandy clay in chaparral and meadows. Chaparral, lower montane coniferous forest (open yellow pine forest), meadows and seeps at 855-2200m elevation. San Jacinto and Santa Rosa Mts in Riverside Co. and scattered locations in San Diego Co.	Apr-Jul	Fed: None Calif: S3 CRPR: 1B.2 MSHCP: AC b USFS: S	Absent; potentially suitable habitat, multiple documented occurrences within 5 mi. Not observed during focused surveys during flowering season.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa-lily	Perennial bulbiferous herb. Mesic soils in chaparral, lower montane coniferous forest, meadows and seeps at 710-2390m elevation. Kern, LA, Riverside, Santa Barbara, San Bernardino, San Luis Obispo, Ventura Co.	Apr-Jul	Fed: None Calif: S2 CRPR: 1B.2 USFS: S BLM: S	Low; potentially suitable habitat, no documented occurrences within 5 mi., not observed during surveys.
<i>Calochortus plummerae</i> Plummer's mariposa lily	Perennial bulbiferous herb. Granitic rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland at 100-1700m elevation. LA, Orange, Riverside, San Bernardino, Ventura Co.	May-Jul	Fed: None Calif: S4 CRPR: 4.2 MSHCP: AC	Low-moderate; potentially suitable habitat, four documented occurrences within 5 mi., not observed during surveys.
<i>Carex occidentalis</i> Western sedge	Perennial rhizomatous herb. Lower montane coniferous forest, meadows and seeps at 1645-3135m elevation. Los Angeles, Riverside, San Bernardino, and Mono Cos. (San Bernardino, San Jacinto, San Gabriel, and White Mts), western US.	Jun-Aug	Fed: None Calif: S3 CRPR: 2B.3	Not expected; potentially suitable habitat on Parcel 017 removed, one documented occurrence within 5 mi., not observed during surveys.
<i>Castilleja lasiorhyncha</i> San Bernardino Mountains owl's-clover	Hemiparasitic annual herb. Mesic areas in chaparral, montane meadows, pebble plains, riparian woodland, upper montane coniferous forest at 1300-2390m elevation. Moist edges of springs/seeps on clay soil, wet meadows, openings in coniferous forest. Riverside, San Diego, San Bernardino Co.; San Bernardino Mts, San Jacinto Mts.	May-Aug	Fed: None Calif: S2? CRPR: 1B.2	Not expected; potentially suitable habitat on Parcel 017 removed, one documented occurrence within 5 mi., not observed during surveys.
<i>Caulanthus simulans</i> Payson's jewelflower	Annual herb. Chaparral, coastal scrub, pinyon-juniper woodland at 90-2200m elevation. North-facing slopes and ridgelines on sandy-granitic soils, frequently on steep rocky slopes, in burned areas, or disturbed sites such as streambeds. Western Riverside Co., San Diego Co.	(Feb)Mar-May(Jun)	Fed: None Calif: S4 CRPR: 4.2 MSHCP: AC	Not expected; no suitable habitat, one documented occurrence within 5 mi.
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth tarplant	Annual herb. Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland at 0-640m elevation. Also fallow fields, drainage ditches; primarily in SW Riverside Co. but a few sites in interior valleys of LA, San Bernardino, San Diego Co.	Apr-Sep	Fed: None Calif: S2 CRPR: 1B.1 MSHCP: AC d	Not expected; well above elevation range, no documented occurrences within 5 mi., not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Chaenactis parishii</i> Parish's chaenactis	Perennial herb. Rocky soils in chaparral at 1300-2500m elevation. Riverside and San Diego Cos., Baja.	May-Jul	Fed: None Calif: S3 CRPR: 1B.3	Low; no or marginal suitable habitat, three documented occurrences within 5 mi., not observed during surveys.
<i>Chorizanthe leptotheca</i> Peninsular spineflower	Annual herb. Granitic soils and alluvial fans in chaparral, coastal scrub, lower montane coniferous forest at 300-1900m elevation. Riverside, San Bernardino, San Diego Co., Baja.	May-Aug	Fed: None Calif: S3 CRPR: 4.2 MSHCP: AC	Low; potentially marginal habitat, not observed during surveys.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	Annual herb. Sandy or rocky soils and openings in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland at 275-1220m elev. LA, Riverside, San Bernardino Co.	Apr-Jun	Fed: None Calif: S2 CRPR: 1B.1 USFS: S BLM: S MSHCP: AC	Low; potentially suitable habitat, above elevation range, no documented occurrences within 5 mi.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-spined spineflower	Annual herb. Often on clay soils in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools at 30-1530m elevation. Orange, Riverside, Santa Barbara, and San Diego Co., Baja.	Apr-Jul	Fed: None Calif: S3 CRPR: 1B.2 MSHCP: AC	Not expected; marginal suitable habitat, above elevation range, no documented occurrences within 5 mi., not observed during surveys.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i> White-bracted spineflower	Annual herb. Sandy or gravelly soil in coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodlands at 300-1200m elevation. LA, Riverside, San Bernardino, San Diego Co.	Apr-Jun	Fed: None Calif: S3 CRPR: 1B.2	Not expected; no suitable habitat, above elevation range, one documented occurrence within 5 mi.
<i>Deinandra mohavensis</i> Mojave tarplant	Annual herb. Mesic areas in chaparral, coastal scrub, riparian scrub at 640-1600m. Inyo, Kern, Riverside, San Diego, Tulare Cos. Presumed extirpated in San Bernardino Co.	(May)Jun-Oct (Jan)	Fed: None Calif: END, S2 CRPR: 1B.3 MSHCP: NAC e USFS: S BLM: S	Not expected; potentially suitable habitat on Parcel 017 removed, slightly above elevation range, multiple documented occurrences within 5 mi., not observed during surveys.
<i>Deinandra (Hemizonia) paniculata</i> Paniculate tarplant	Annual herb. Usually vernal mesic areas, sometimes sandy. Coastal scrub, valley and foothill grassland, vernal pools at 25-940m elevation. Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo Co., Baja.	(Mar) Apr-Nov	Fed: None Calif: S4 CRPR: 4.2	Not expected; well above elevation range, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Delphinium hesperium</i> ssp. <i>cuyamaca</i> Cuyamaca larkspur	Perennial herb. Mesic areas in lower montane coniferous forest, meadows and seeps, vernal pools at 1220-1631m elevation. Riverside and San Diego Cos.	May-Jul	Fed: None Calif: Rare, S2 CRPR: 1B.2 USFS: S BLM: S	Not expected; potentially suitable habitat on Parcel 017 removed, at top of elevation range, no documented occurrences within 5 mi., not observed during surveys.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert larkspur	Perennial herb. Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub at 600-1800m elevation. Imperial, Riverside, San Diego Cos. and Baja.	Mar-Jun	Fed: None Calif: S4 CRPR: 4.3	Low; potentially suitable habitat, no CCH records near Idyllwild.
<i>Delphinium parryi</i> ssp. <i>purpureum</i> Mt. Pinos larkspur	Perennial herb. Chaparral, Mojavean desert scrub, pinyon and juniper woodland at 1000-2600m elevation. Kern, Santa Barbara, Ventura, Riverside, San Bernardino Cos.	May-Jun	Fed: None Calif: S4 CRPR: 4.3 USFS: S	Not expected; no suitable habitat, no CCH records near Idyllwild.
<i>Dieteria canescens</i> var. <i>ziegleri</i> Ziegler's aster	Perennial herb. Montane coniferous forest at 1372-2499m elevation. Riverside Co., known only from the Santa Rosa Mts.	Jul-Oct	Fed: None Calif: S1 CRPR: 1B.2 USFS: S	Not expected; outside of current known range, no documented occurrences within 5 mi, not observed during surveys.
<i>Dodecahema leptoceras</i> Slender-horned spineflower	Annual herb. Open, sandy alluvial benches in valleys & canyons. Chaparral, coastal scrub, alluvial scrub, cismontane woodland at 200-760m elevation. LA, Riverside, San Bernardino Co. San Fernando Valley, Santa Ana River Valley, W Riverside Co.	Apr-Jun	Fed: END Calif: END, S1 CRPR: 1B.1 MSHCP: AC b	Not expected; well above elevation range, no documented occurrences within 5 mi.
<i>Draba saxosa</i> Southern California rock draba	Perennial herb. Rocky soils in alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest at 2440-3600m elevation. Riverside and San Bernardino Cos. Known only from the San Jacinto and Santa Rosa Mts.	Jun-Sep	Fed: None Calif: S2S3 CRPR: 1B.3 USFS: S	Not expected; well below elevation range, four documented occurrences within 5 mi. all above 8400 feet (2560m), not observed during surveys.
<i>Erigeron breweri</i> var. <i>jacintus</i> San Jacinto Mountains daisy	Perennial rhizomatous herb. Rocky soils in subalpine and upper montane coniferous forest at 2700-2900m. Los Angeles, Riverside, and San Bernardino Cos. in San Gabriel, San Bernardino, and San Jacinto Mts.	Jun-Sep	Fed: None Calif: S3 CRPR: 4.3	Not expected; well below elevation range, CCH records near Idyllwild are at Tahquitz peak at much higher elevation than the Project site, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Eriogonum evanidum</i> Vanishing wild buckwheat	Annual herb. Sandy or gravelly soils in chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland at 1100-2225m elevation. Riverside, San Bernardino, San Diego Cos. and Baja.	Jul-Oct	Fed: None Calif: S1 CRPR: 1B.1 USFS: S	Low; potentially suitable habitat, no documented occurrences within 5 mi., not observed during surveys.
<i>Erythranthe diffusa</i> Palomar monkeyflower	Annual herb. Sandy or gravelly soils in chaparral, lower montane coniferous forest at 1220-1830m elevation. Orange, Riverside, San Diego Co., Baja.	Apr-Jun	Fed: None Calif: S3 CRPR: 4.3	Low-moderate; potentially suitable habitat, Several CCH records near Idyllwild.
<i>Euphorbia arizonica</i> Arizona spurge	Perennial herb. Sandy soils in Sonoran desert scrub at 50-300m elevation. Riverside, San Diego, Imperial Cos., SW US, Sonora and Baja Mexico.	Mar-Apr	Fed: None Calif: S3 CRPR: 2B.3	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi.
<i>Galium angustifolium</i> ssp. <i>jacinticum</i> San Jacinto Mountains bedstraw	Perennial herb. Partially shady or open lower montane mixed and coniferous forest at 1350-2100m. Riverside Co. (San Jacinto and Santa Rosa Mts) and San Diego Co. (Laguna and Volcan Mts).	Jun-Aug	Fed: None Calif: S2? CRPR: 1B.3 MSHCP: AC b USFS: S	Absent; potentially suitable habitat, multiple documented occurrences within 5 mi., not observed during focused surveys in flowering season.
<i>Galium californicum</i> ssp. <i>primum</i> Alvin meadow bedstraw	Perennial herb. Granitic, sandy soil in chaparral, lower montane coniferous forest at 1350-1700m elevation. Riverside, San Bernardino Co.	May-Jul	Fed: None Calif: S2 CRPR: 1B.2 MSHCP: NAC f	Moderate; potentially suitable habitat, multiple documented occurrences within 5 mi., not observed during surveys.
<i>Heuchera hirsutissima</i> Shaggy-haired alumroot	Perennial rhizomatous herb. Rocky, granitic soils in subalpine and upper montane coniferous forest at 1520-3500m elevation. Riverside and San Bernardino Cos.	(May)Jun-Jul	Fed: None Calif: S3 CRPR: 1B.3 MSHCP: NAC f USFS: S	Low; potentially suitable habitat, multiple documented occurrences within 5 mi. but all are much higher elevation than site, not observed during surveys.
<i>Heuchera parishii</i> Parish's alumroot	Perennial rhizomatous herb. Rocky, sometimes carbonate soils in alpine boulder and rock field, subalpine and montane coniferous forest at 1500-3800m elevation. Riverside and San Bernardino Cos.	Jun-Aug	Fed: None Calif: S3 CRPR: 1B.3 USFS: S	Low; potentially suitable habitat, no documented occurrences within 5 mi, not observed during surveys.
<i>Hulsea vestita</i> ssp. <i>callicarpa</i> Beautiful hulsea	Perennial herb. Rocky or gravelly granitic soils in chaparral and lower montane coniferous forest at 915-3050m elevation. Riverside and San Diego Cos.	May-Oct	Fed: None Calif: S4 CRPR: 4.2 MSHCP: AC	Low-moderate; potentially suitable habitat, multiple CCH records in and near Idyllwild, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Imperata brevifolia</i> California satintail	Perennial rhizomatous herb. Mesic areas in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), riparian scrub at 0-1215m elevation. Scattered location throughout CA, SW US, Baja.	Sep-May	Fed: None Calif: S3 CRPR: 2B.1 USFS: S	Not expected; above elevation range, no documented occurrences within 5 mi.
<i>Ivesia callida</i> Tahquitz ivesia	Perennial herb. Granitic rocky soils in upper montane coniferous forest at 2410-2450m elevation. San Jacinto Mts in Riverside Co.	Jul-Sep	Fed: None Calif: Rare,S1 CRPR: 1B.3 USFS: S	Not expected; well below elevation range, two documented occurrences within 5 mi., but much higher elevation than site, not observed during surveys.
<i>Jaffueliobryum rauli</i> Rau's jaffueliobryum moss	Moss. Dry openings, rock crevices, carbonate soils in alpine dwarf scrub, chaparral, Mojavean and Sonoran desert scrub at 490-2100m elevation. Scattered locations in northern, central, and southern CA, SW and Midwestern US.	--	Fed: None Calif: S2 CRPR: 2B.3	Low; no or marginal suitable habitat, no documented occurrences within 5 mi, not observed during surveys.
<i>Johnstonella costata</i> Ribbed cryptantha	Annual herb. Sandy soils in Mojavean and Sonoran desert scrub, desert dunes at 60-500m elevation. Riverside, San Bernardino, San Diego, Imperial, and Inyo Cos.	Feb-May	Fed: None Calif: S4 CRPR: 4.3	Not expected; no suitable habitat, well above elevation range.
<i>Johnstonella holoptera</i> Winged cryptantha	Annual herb. Mojavean and Sonoran desert scrub at 100-1690m elevation. Riverside, San Bernardino, San Diego, Imperial, and Inyo Cos., Arizona, Nevada, Sonora and Baja Mexico.	Mar-Apr	Fed: None Calif: S4 CRPR: 4.3	Not expected; no suitable habitat, no CCH records near Idyllwild.
<i>Juncus duranii</i> Duran's rush	Perennial rhizomatous herb. Mesic areas in lower montane coniferous forest, meadows and seeps, upper montane coniferous forest at 1769-2804m elevation. LA, Riverside, San Bernardino Co.	Jul-Aug	Fed: None Calif: S3 CRPR: 4.3	Not expected; potentially suitable habitat on Parcel 017 removed, somewhat below elevation range, not observed during surveys.
<i>Lasthenia glabrata</i> spp. <i>coulteri</i> Coulter's goldfields	Annual herb. Coastal salt marshes and swamps, playas, vernal pools at 1-1220m elevation. Scattered locations in CA, Baja.	Feb-Jun	Fed: None Calif: S2 CRPR: 1B.1 BLM: S MSHCP: AC d	Not expected; no suitable habitat, above elevation range.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	Annual herb. Chaparral, coastal scrub at 1-885m elevation. LA, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, Ventura Co., Santa Cruz Island.	Jan-Jul	Fed: None Calif: S3 CRPR: 4.3	Not expected; no suitable habitat, above elevation range, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Lilium parryi</i> Lemon lily	Perennial bulbiferous herb. Mesic soils in upper and lower montane coniferous forest, riparian forest, meadows and seeps at 1220-2745m elevation. LA, Riverside, San Bernardino, San Diego Co, Arizona, Sonora Mex.	July-Aug	Fed: None Calif: S3 CRPR: 1B.2 USFS: S MSHCP: NAC f	Not expected; potentially suitable habitat on Parcel 017 removed, multiple documented occurrences within 5 mi., not observed during surveys.
<i>Limnanthes alba</i> ssp. <i>parishii</i> Parish's meadowfoam	Annual herb. Vernal mesic areas in lower montane coniferous forest, meadows and seeps, vernal pools at 600-2000m elevation. Riverside and San Diego Cos.	Apr-Jun	Fed: None Calif: END, S2 CRPR: 1B.2 USFS: S BLM: S MSHCP: AC	Not expected; potentially suitable habitat on Parcel 017 removed, two documented occurrences within 5 mi.
<i>Linanthus jaegeri</i> San Jacinto linanthus	Perennial herb. Granitic rocky soils in subalpine and upper montane coniferous forest at 2195-3050m. Riverside Co.	Jul-Sep	Fed: None Calif: S2 CRPR: 1B.2 USFS: S	Not expected; well below elevation range, five documented occurrences within 5 mi., but all much higher elevation than site, not observed during surveys.
<i>Linanthus maculatus</i> ssp. <i>maculatus</i> Little San Bernardino Mountains linanthus	Annual herb. Sandy soils in Joshua tree woodland, Mojavean and Sonoran desert scrub, desert dunes at 140-1220m elevation. Riverside, San Bernardino, and Imperial Cos.	Mar-May	Fed: None Calif: S2 CRPR: 1B.2 BLM: S	Not expected; no suitable habitat, above elevation range.
<i>Malaxis monophyllos</i> var. <i>brachypoda</i> White bog adder's-mouth	Perennial bulbiferous herb. Mesic areas in bogs and fens, meadows and seeps, and upper montane coniferous forest at 2200-2743m elevation. Riverside and San Bernardino Cos., presumed extirpated in Riverside Co. Eastern, central, southwest US and Alaska.	Jun, Aug	Fed: none Calif: S1 CRPR: 2B.1 USFS: S	Not expected; no suitable habitat, well below elevation range, one documented occurrence within 5 mi. but much higher elevation, not observed during surveys.
<i>Matelea parvifolia</i> Spear-leaf matelea	Perennial herb. Rocky soils in Mojavean and Sonoran desert scrub at 440-1095m elevation. Riverside, San Bernardino, San Diego, Imperial Cos. SW US and Baja.	Mar-May(Jul)	Fed: none Calif: S3 CRPR: 2B.3 USFS: S	Not expected; no suitable habitat, well above elevation range.
<i>Meesia triquetra</i> Three-ranked hump moss	Moss. Found on soil in bogs and fens, meadows and seeps, mesic areas in subalpine and upper montane coniferous forest at 1300-2953m elevation. Northern and Central CA and Riverside Co. (San Jacinto Mts.), NW and SW US.	Jul	Fed: none Calif: S4 CRPR: 4.2 USFS: S	Not expected; potentially suitable habitat on Parcel 017 removed, only one record in San Jacinto Mts and appears extirpated (Dillingham 2005).

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Meesia uliginosa</i> Broad-nerved hump moss	Moss. Found on damp soil in bogs and fens, meadows and seeps, subalpine and upper montane coniferous forest at 1210-2804m elevation. Northern and Central CA and Riverside Co. (San Jacinto Mts.); NW, SW and north-central US.	Jul, Oct	Fed: none Calif: S3 CRPR: 2B.2 USFS: S	Not expected; potentially suitable habitat on Parcel 017 removed, one documented occurrence within 5 mi. from 1961 and at much higher elevation, not observed during surveys.
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	Perennial rhizomatous herb. Broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland at 730-2195m elevation. LA, Orange, Riverside, San Bernardino, San Diego Co.	Jun-Oct	Fed: None Calif: S3 CRPR: 1B.3 USFS: S MSHCP: AC	Low; potentially suitable habitat, no documented occurrences within 5 mi, not observed during surveys.
<i>Monardella nana</i> ssp. <i>leptosiphon</i> San Felipe monardella	Perennial rhizomatous herb. Chaparral, lower montane coniferous forest at 1200-1855m elevation. Riverside and San Diego Cos., Baja	Jun-Jul	Fed: None Calif: S2 CRPR: 1B.2 USFS: S BLM: S	Low-moderate; potentially suitable habitat, five documented occurrences within 5 mi., not observed during surveys.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender cottonheads	Annual herb. Coastal dunes, desert dunes, Sonoran desert scrub at 50-400m elevation. Riverside, San Bernardino, San Diego, Imperial Cos. Arizona, Sonora and Baja Mexico.	(Mar)Apr-May	Fed: None Calif: S2 CRPR: 2B.2	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi.
<i>Penstemon californicus</i> California beardtongue	Perennial herb. Sandy soils in chaparral, lower montane coniferous forest, pinyon and juniper woodland at 1170-2300m. Orange and Riverside Cos., Baja.	May-Jun(Aug)	Fed: none Calif: S2 CRPR: 1B.2 USFS: S	Low; potentially suitable habitat, no documented occurrences within 5 mi.
<i>Penstemon clevelandii</i> var. <i>connatus</i> San Jacinto beardtongue	Perennial herb. Rocky soils in chaparral, pinyon and juniper woodland, Sonoran desert scrub at 400-1500m elevation. Riverside, San Diego, and Imperial Cos., Baja.	Mar-May	Fed: none Calif: S3 CRPR: 4.3	Not expected; no suitable habitat, above elevation range.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i> Golden-rayed pentachaeta	Annual herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland at 80-1850m elevation. LA, Riverside, Orange, San Bernardino, and San Diego Cos., Baja.	Mar-Jul	Fed: None Calif: S3 CRPR: 4.2	Low-moderate; potentially suitable habitat, not observed during surveys.
<i>Petalonyx linearis</i> Narrow-leaf sandpaper-plant	Perennial shrub. Sandy or rocky canyons in Mojavean and Sonoran desert scrub at 25-1115m elevation. Riverside, San Bernardino, San Diego, and Imperial Cos., Arizona, Sonora and Baja Mexico.	(Jan-Feb)Mar-May(Jun-Dec)	Fed: None Calif: S3? CRPR: 2B.3	Not expected; no suitable habitat, above elevation range.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Potentilla rimicola</i> Cliff cinquefoil	Perennial herb. Granitic, rocky soils in subalpine and upper montane coniferous forest at 2400-2800m elevation. Riverside Co. (San Jacinto Mts.), Baja.	Jul-Sep	Fed: None Calif: S1 CRPR: 2B.3 MSHCP: NAC e USFS: S	Not expected; below elevation range, seven documented occurrences within 5 mi., but all at much higher elevation, not observed during surveys.
<i>Rupertia rigida</i> Parish's rupertia	Perennial herb. Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble plain, valley and foothill grassland at 700-2500m elevation. LA, Riverside, San Bernardino, San Diego Cos., Baja.	Jun-Aug	Fed: None Calif: S4 CRPR: 4.3	Low; most potentially suitable habitat on Parcel 017 removed, one CCH record near Idyllwild, not observed during surveys.
<i>Saltugilia latimeri</i> Latimer's woodland gilia	Annual herb. Rocky or sandy, often granitic soils, sometimes washes in chaparral, Mojavean desert scrub, pinyon and juniper woodland at 400-1900m. Riverside, San Bernardino, Inyo, Kern Cos.	Mar-Jun	Fed: None Calif: S3 CRPR: 1B.2 USFS: S BLM: S	Low; no or marginal suitable habitat, two documented occurrences within 5 mi.
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> Southern mountains skullcap	Perennial rhizomatous herb. Mesic areas in chaparral, cismontane woodland, lower montane coniferous forest at 425-2000m elevation. Often in meadows and along streams. LA, Riverside, San Bernardino, San Diego Cos. Presumed extirpated in LA and San Bernardino Cos.	Jun-Aug	Fed: None Calif: S3 CRPR: 1B.2 USFS: S	Not expected; potentially suitable habitat on Parcel 017 removed, multiple occurrences within 5 mi, not observed during surveys.
<i>Sedum niveum</i> Davidson's stonecrop	Perennial rhizomatous herb. Rocky soils in lower and upper montane and subalpine coniferous forest at 2075-3000m elevation. Riverside and San Bernardino Cos., Baja.	Jun-Aug	Fed: None Calif: S3 CRPR: 4.2 USFS: S	Low; potentially suitable habitat, below elevation range, no CCH records near Idyllwild, not observed during surveys.
<i>Selaginella asprella</i> Bluish spike-moss	Perennial rhizomatous herb. Granitic, rocky soils in cismontane woodland, pinyon juniper woodland, and lower, upper, and subalpine coniferous forest at 1600-2700m elevation. Riverside, San Bernardino, San Diego, LA, Orange, Kern, and Tulare Cos.	Jul	Fed: None Calif: S4 CRPR: 4.3	Low; potentially suitable habitat, no CCH records near Idyllwild, not observed during surveys.
<i>Selaginella eremophila</i> Desert spike-moss	Perennial rhizomatous herb. Gravelly or rocky soils in chaparral and Sonoran desert scrub at 200-1295m elevation. Riverside, San Diego, Imperial Cos., Arizona, Sonora and Baja Mexico.	(May)June (Jul)	Fed: None Calif: S2S3 CRPR: 2B.2	Not expected; no suitable habitat, above elevation range, no documented occurrences within 5 mi.
<i>Sidothea caryophylloides</i> Chickweed oxytheca	Annual herb. Sandy soils in lower montane coniferous forest at 1114-2600m elevation. LA, Riverside, San Bernardino, Tulare, Ventura Co.	Jul-Sep(Oct)	Fed: None Calif: S4 CRPR: 4.3 USFS: S MSHCP: NAC e	Moderate; potentially suitable habitat, CCH records in and near Idyllwild, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Sidothea emarginata</i> White-margined oxythea	Annual herb. Chaparral, lower montane coniferous forest, pinyon and juniper woodland at 1200-2500m. Santa Rosa and San Jacinto Mts in Riverside Co.	(Feb)Apr-Jul(Aug)	Fed: None Calif: S3 CRPR: 1B.3 USFS: S	Low-moderate; potentially suitable habitat, three documented occurrences within 5 mi, not observed during surveys.
<i>Stemodia durantifolia</i> Purple stemodia	Perennial herb. Often in mesic areas and sandy soils in Sonoran desert scrub at 180-300m elevation. Riverside and San Diego Cos., presumed extirpated in Riverside Co. Also SW US, Baja, South America, Puerto Rico, Virgin Islands.	(Jan)Apr, Jun, Aug, Sep, Oct, Dec	Fed: None Calif: S2 CRPR: 2B.1	Not expected; no suitable habitat, well above elevation range.
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	Perennial herb. Chaparral, lower montane coniferous forest at 670-2500m elevation. Riverside, San Bernardino, San Diego Co.	May-Aug	Fed: None Calif: S3S4 CRPR: 4.3	Moderate; potentially suitable habitat, two documented occurrences within 5 mi, not observed during surveys.
<i>Streptanthus campestris</i> Southern jewelflower	Perennial herb. Rocky soils in chaparral, lower montane coniferous forest, pinyon and juniper woodland at 900-2300m elevation. Imperial, Santa Barbara, Ventura, San Bernardino, Riverside, San Diego Co, Baja.	(Apr)May-Jul	Fed: None Calif: S3 CRPR: 1B.3	Low-moderate; potentially suitable habitat, three documented occurrences within 5 mi, not observed during surveys.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	Perennial rhizomatous herb. Near ditches, streams, springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grasslands (vernally mesic) at 2-2040m elevation. Southern and Central California.	Jul-Nov	Fed: None Calif: S2 CRPR: 1B.2 USFS: S BLM: S	Not expected; potentially suitable habitat on Parcel 017 removed, three documented occurrences within 5 mi, not observed during surveys.
<i>Syntrichopappus lemmonii</i> Lemmon's syntrichopappus	Annual herb. Sandy or gravelly soils in chaparral, Joshua tree woodland, pinyon and juniper woodland at 500-1830m. Riverside, San Bernardino, LA, Ventura, Kern, and Monterey Cos.	Apr-May(Jun)	Fed: None Calif: S4 CRPR: 4.3	Low; no or marginal suitable habitat, no CCH records near Idyllwild.
<i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	Perennial rhizomatous herb. Meadows, seeps/streambanks at 50-610m elevation; Coast Ranges, coastal foothills of the Santa Monica, San Gabriel, San Bernardino Mountains, desert foothills of San Jacinto Mountains; to Arizona, Baja, Sonora.	Jan-Sep	Fed: None Calif: S2 CRPR: 2B.2 USFS: S	Not expected; no suitable habitat, well above elevation range, not observed during surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
<i>Trichostema austromontanum</i> ssp. <i>compactum</i> Hidden Lake bluecurls	Annual herb. Upper montane coniferous forest on seasonally submerged lake margins at 2400-2680m elevation. San Jacinto Mts in Riverside Co.	Jul-Sep	Fed: Delisted Calif: S1 CRPR: 1B.1	Not expected; no suitable habitat, well below elevation range, no documented occurrences within 5 mi., not observed during surveys.
<i>Xylorhiza cognata</i> Mecca-aster	Perennial herb. Sonoran desert scrub at 20-400m elevation. Imperial and Riverside Cos.	Jan-Jun	Fed: None Calif: S2 CRPR: 1B.2 BLM: S	Not expected; no suitable habitat, well above elevation range, no documented occurrences within 5 mi.
References: CDFW (2020a, 2020c), CNPS (2020), Dudek (2003), RCA (2019)				

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Invertebrates			
<i>Bombus caliginosus</i> Obscure bumble bee	Coastal areas from Santa Barbara County north to Washington State. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> , and <i>Phacelia</i> .	Fed: None Calif: SA, S1S2	Not expected; outside current known range, one documented occurrence in San Jacinto Mts from 1929.
<i>Bombus crotchii</i> Crotch bumble bee	Coastal CA E to Sierra-Cascade crest & S into Mexico. Open grassland and scrub habitats. Food plant genera include <i>Antirrhinum</i> , <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Salvia</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> . Lives in colonies that may be underground in rodent holes or above ground in rock piles, tree cavities, etc.	Fed: None Calif: CanE, S1S2	Low; no or marginal suitable habitat, one documented occurrence in Tahquitz Valley from 1939.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	Vernal pools or similar vernal habitats, requires cool water pools ($\leq 50^{\circ}\text{F}$ to hatch, $\leq 75^{\circ}\text{F}$ to survive); disjunct locations in Riverside Co. and the Coast Ranges thru Central Valley to Tehama Co., southern Oregon, up to elevation of 1159m.	Fed: THR Calif: SA, S3 MSHCP: AC a	Absent; well above elevation range.
<i>Calileptoneta oasa</i> Andreas Canyon leptonetid spider	Mojavean desert scrub. Known only from Andreas Canyon in Palm Springs, Riverside Co.	Fed: None Calif: SA, S1	Not expected; no suitable habitat, outside current known range.
<i>Dinacoma caseyi</i> Casey's June beetle	Sandy soils in desert wash and Mojavean desert scrub. Females live underground and only come to the surface to mate. Found only in two populations in a small area of southern Palm Springs, Riverside Co.	Fed: END Calif: SA, S1	Not expected; no suitable habitat, outside current known range.
<i>Euphydryas editha quino</i> Quino checkerspot butterfly	Coastal scrub, open chaparral, juniper woodland, native grassland. Western Riverside Co., southern San Diego Co., Baja. Flight season from mid-Jan to late May. Host plants are dwarf plantain (<i>Plantago erecta</i>), purple owl's clover (<i>Castilleja exserta</i>), white snapdragon (<i>Antirrhinum coulterianum</i>), wooly plantain (<i>Plantago patagonica</i>), thread-leaved bird's beak (<i>Cordylanthus rigidus</i>).	Fed: END Calif: SA, S1S2 MSHCP: AC	Not expected; no suitable habitat, no documented occurrences within 5 mi.
<i>Gonidea angulata</i> Western ridged mussel	Aquatic, freshwater mollusk; primarily creeks and rivers, less often lakes. Originally in most of state, now extirpated from Central & Southern Calif.	Fed: None Calif: SA, S1S2	Absent; no aquatic habitat.
<i>Halictus harmonius</i> Harmonius halictid bee	Known only from the foothills of the San Bernardino Mts and possibly also the San Jacinto Mts.	Fed: None Calif: SA, S1	Low; one documented occurrence in Idyllwild from 1933.
<i>Juniperella mirabilis</i> Juniper metallic wood-boring beetle	Larvae develop in juniper in Santa Rosa Mts. in Southern California.	Fed: None Calif: SA, S1	Not expected; outside of known geographic range, no juniper host plants.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Stenopelmatus cahuiensis</i> Coachella Valley Jerusalem cricket	Desert dunes. Found in the large, undulating dunes piled up at the north base of Mt. San Jacinto. Inhabits a small segment of the sand and dune area of the Coachella Valley in the vicinity of Palm Springs.	Fed: None Calif: SA, S1S2	Absent; no suitable habitat, outside current known range.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Coastal scrub, valley & foothill grassland, vernal pool, wetland. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season. Generally restricted to pools greater than 12 inches deep.	Fed: END Calif: SA, S1S2 MSHCP: AC a	Absent; well above elevation range.
Amphibians			
<i>Anaxyrus californicus</i> Arroyo toad	Washes & intermittent streams of semi-arid regions, sandy-banked rivers, riparian woodlands, & loose gravel. Southern California to tip of Baja California. Desert pop. along Mojave River.	Fed: END Calif: SSC, S2S3 MSHCP: AC c	Not expected; no suitable habitat, no documented occurrences within 5 mi, not observed during surveys.
<i>Ensatina eschscholtzii klauberi</i> Large-blotched salamander	Moist deciduous and evergreen forests, oak woodland, chaparral and well shaded canyons. Most common in areas of woody debris on the forest floor. Peninsular ranges of So. Cal. and eastern San Bern. Mtns. Intergrades with <i>E. e. croceata</i> in the San Bernardino and San Jacinto Mountains.	Fed: None Calif: WL, S3 USFS: S	Not expected (Parcels 028 and 031), low (Parcel 017 - some potentially suitable habitat removed); marginal suitable habitat; two documented occurrences within 5 mi.- within 0.4 and 0.7 mi. of site along Strawberry Creek. Not observed during surveys but is secretive.
<i>Rana draytonii</i> California red-legged frog	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Fed: THR Calif: SSC, S2S3 MSHCP: AC c	Not expected; no suitable habitat, no documented occurrences within 5 mi. not observed during surveys

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Rana muscosa</i> Southern mountain yellow-legged frog	Streams, creeks, and small pools with cool, perennial water. Always encountered within a few feet of water. Tadpoles generally restricted to permanent still water deeper than a meter and may require up to 2 years to complete development.	Fed: END Calif: END, WL, S1 MSHCP: AC c USFS: S	Absent; no suitable habitat, several mapped occurrences within 5 mi. Nearest occurrence along Strawberry Creek may be extirpated. Site is not within critical habitat.
<i>Spea hammondi</i> Western spadefoot toad	Cismontane woodland, coastal scrub, valley & foothill grassland, vernal pool. Breeds in quiet streams & vernal pools, burrows beneath sand during dry season. W CA, Central Valley to Baja California. From near sea level up to 4,500 ft elev.	Fed: None Calif: SSC, S3 MSHCP: AC	Not expected; well above elevation range. Not observed during surveys.
Reptiles			
<i>Anniella stebbinsi</i> (<i>Anniella pulchra pulchra</i>) Southern California legless lizard	Various habitats, mainly shrublands, <6500 ft. elev. Coast Ranges from Bay area to N Baja CA, SW Sierra Nevada, parts of the Central Valley, Transverse & Peninsular Ranges.	Fed: None Calif: SSC, S3	Low (Parcels 028 and 031), low-moderate (Parcel 017); potentially suitable habitat, no documented occurrence within 5 mi. Not observed during surveys, but species is fossorial and secretive.
<i>Arizona elegans occidentalis</i> California glossy snake	Arid scrub, rocky washes, grasslands, chaparral, often with loose or sandy soils. Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Sea level to 7200' elev.	Fed: None Calif: SSC, S2	Low; no or marginal suitable habitat, no documented occurrences within 5 mi. Not observed during surveys, but species is nocturnal.
<i>Aspidoscelis hyperythra</i> Orange-throated whiptail	Low-elevation coastal scrub, chaparral, valley-foothill hardwood, sea level to 1040m. Sandy areas, patches of rock. S CA, west of desert to tip of Baja CA.	Fed: None Calif: WL, S2S3 MSHCP: AC	Not expected; no suitable habitat, above elevation range, no documented occurrences within 5 mi. Not observed during surveys.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Aspidoscelis tigris stejnegeri</i> Coastal whiptail	Primarily hot, dry open areas with sparse foliage, chaparral, woodland, riparian; coastal So CA, mostly west of Peninsular Ranges and south of Transverse Ranges, north into Ventura County, below $\pm 7000'$ elev. and into Baja.	Fed: None Calif: SSC, S3 MSHCP: AC	Moderate; potentially suitable habitat, no documented occurrences within 5 mi., but included on checklist of sightings at Idyllwild Park. Not observed during surveys.
<i>Charina umbratica</i> Southern rubber boa	Found in a few locales in San Bernardino & San Jacinto Mtn. ranges. Woodland & coniferous forest. Usually found within several hundred meters of water. 5000-9150 ft. elev.	Fed: None Calif: THR, S2S3 MSHCP: NAC f USFS: S	Not expected (Parcels 028 and 031), low (Parcel 017); potentially suitable habitat removed; several documented occurrences within 5 mi. not observed during surveys but is secretive.
<i>Crotalus ruber ruber</i> Red-diamond rattlesnake	Desert scrub, thorn scrub, chaparral below 4,000ft. San Bernardino County S through most of Baja California, Mexico.	Fed: None Calif: SSC, S3 MSHCP: AC USFS: S	Not expected; no suitable habitat, above elevation range, no documented occurrences within 5 mi. Not observed during surveys.
<i>Gopherus agassizii</i> Desert tortoise	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat, 300-1070m elevation. Requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Fed: THR Calif: THR, S2S3	Absent; no suitable habitat, well above elevation range. Site is not within critical habitat.
<i>Phrynosoma blainvillii</i> Coast horned lizard	Coastal sage scrub, low elevation chaparral, annual grassland, riparian scrub and woodlands, desert wash, pinyon and juniper woodland, valley and foothill grassland, 0-2438m elevation. SW California to NW Baja California, Mexico.	Fed: None Calif: SSC, S3S4 MSHCP: AC	Low; potentially marginal habitat, five documented occurrences within 5 mi., not observed during surveys.
<i>Phrynosoma mcallii</i> Flat-tailed horned lizard	Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants. Desert dunes, Mojavean and Sonoran desert scrub	Fed: None Calif: SSC, S2 BLM: S	Absent; no suitable habitat, outside known range.
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	Desert dunes, desert wash. Limited to sandy areas in the Coachella Valley, Riverside Co. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely-spaced desert shrubs.	Fed: THR Calif: END, S1	Absent; no suitable habitat, outside known range.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Birds			
<i>Accipiter cooperii</i> Cooper's hawk	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Forages in open areas over scrublands; California, Mexico, Central America. Nests in trees, often in dense woods.	Fed: None Calif: WL, S4 MSHCP: AC	Occurs (foraging), moderate (nesting); potentially suitable nesting habitat, no documented nesting within 5 mi.
<i>Agelaius tricolor</i> Tricolored blackbird	Breeds colonially in freshwater marshes, nomadic among marshes and fields in winter; almost completely endemic to Calif.	Fed: BCC Calif: THR, SSC, S1S2 BLM: S MSHCP: AC	Not expected; no suitable habitat.
<i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow	Sparse, mixed chaparral, scrub, rocky, brushy slopes. Central California to Baja California.	Fed: None Calif: WL, S3 MSHCP: AC	Low; no suitable habitat, no documented occurrences within 5 mi., one observation near Idyllwild in eBird.
<i>Aquila chrysaetos</i> Golden eagle	Found in a variety of habitats from sea level to 11,500 feet, rugged open habitats preferred. Large platform nests constructed on secluded cliffs, large trees, and occasionally structures (i.e., electrical transmission towers).	Fed: BGEPA, BCC Calif: FP, WL, S3 BLM: S MSHCP: AC	Low; no or marginal suitable nesting or foraging habitat on site. No eagles or raptor nests observed during surveys.
<i>Artemisiospiza belli belli</i> Bell's sage sparrow	Sage scrub and chaparral communities. Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Central Washington southward to Baja California, Mexico.	Fed: BCC Calif: WL, S3 MSHCP: AC	Not expected; no suitable habitat. Not observed during surveys.
<i>Baeolophus inornatus</i> Oak titmouse	Open pine or mixed oak-pine forest, juniper woodland, pinyon or juniper mixed with Joshua trees. Not migratory. CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S4	Occurs (foraging), high (nesting); observed during survey, suitable nesting habitat present.
<i>Calypte costae</i> Costa's hummingbird	Desert and coastal scrub and chaparral in desert, semi-desert and mountain foothills and seasonally in mountains, adjacent open meadows and gardens. Found in NV, UT, AZ, CA and Mexico. Year-round resident in southern CA. CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S4	High; suitable habitat, a few eBird records in area including near the site.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Cypseloides niger</i> Black swift	Coastal belt of Santa Cruz and Monterey counties; central & southern Sierra Nevada; San Bernardino & San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	Fed: BCC Calif: SSC, S2 MSHCP: AC	Low (foraging), not expected (nesting); potentially suitable foraging habitat removed on Parcel 017, no nesting habitat, several documented occurrences within 5 mi.
<i>Dryobates (Picoides) albolarvatus</i> White-headed woodpecker	Montane mixed coniferous forest dominated by pines. Sierra Nevada, Cascade, Klamath, Transverse, and Peninsular Ranges, and Warner Mts. Prefers semi-open areas with large mature trees and snags. Not tracked in the CNDDDB.	Fed: BCC Calif: none	High; suitable habitat, large numbers of eBird observations in area including immediately adjacent to the site.
<i>Dryobates (Picoides) nuttallii</i> Nuttall's woodpecker	Found in low elevation riparian and oak woodlands; rarely in conifers. Central Valley, Transverse and Peninsular Ranges, Coast Ranges north to Sonoma Co., lower portions of the Cascade Range and Sierra Nevada. Year-round resident throughout coastal mountains of CA.	Fed: BCC Calif: None	Occurs (foraging), high (nesting); observed during survey, suitable nesting habitat present.
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	Dense riparian forests, wet mountain meadow systems with standing water for at least part of the breeding season (May to July) & with ample numbers of willow & other associated trees & shrubs. Rare & local in S CA. SW US & N Baja California.	Fed: END Calif: END, S1 MSHCP: AC a	Absent; no suitable habitat, no documented occurrences within 5 mi.
<i>Falco mexicanus</i> Prairie falcon	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores. Desert scrub, valley and foothill grassland. CNDDDB only tracks nesting.	Fed: BCC Calif: WL, S4 MSHCP: AC	Low; no or marginal suitable habitat, one documented occurrence (nesting) within 5 mi. Few eBird records in area.
<i>Haliaeetus leucocephalus</i> Bald eagle	Breed in large trees, usually near major rivers or lakes. Winters more widely. Wide but scattered distribution in N America, esp. coastal regions.	Fed: Delisted, BGEPA, BCC Calif: END, FP, S3 BLM: S USFS: S MSHCP: AC	Not expected; no suitable habitat.
<i>Melanerpes lewis</i> Lewis's woodpecker	Breeds in open forest and woodland with an open canopy and brushy understory. Requires dead trees for nest cavities. Open ponderosa pine forest, open riparian woodland, logged or burned pine forest, oak woodlands, orchards, pinyon-juniper woodland, pine and fir forest, agricultural areas. CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S4	High; suitable habitat, several eBird records in area including adjacent to the site.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Polioptila californica</i> californica Coastal California gnatcatcher	Sage scrub, also chaparral, grasslands, riparian adjacent to or mixed with sage scrub. S Ventura Co. to LA, Orange, Riv., San Bern., San D. Cos into Baja CA, Mexico.	Fed: THR Calif: SSC, S2 MSHCP: AC	Absent; no suitable habitat, well above elevation range.
<i>Polioptila melanura</i> Black-tailed gnatcatcher	Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, palo verde, ironwood, acacia; absent from areas where salt cedar introduced. Mojavean and Sonoran desert scrub.	Fed: None Calif: WL, S3S4	Not expected; no suitable habitat.
<i>Progne subis</i> Purple martin	Inhabits woodlands, 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. Broadleaved upland forest, lower montane coniferous forest. CNDDDB only tracks nesting.	Fed: None Calif: SSC, S3 MSHCP: AC	Low; suitable habitat, one documented nest within 5 mi., few eBird observations in area (from 1970s-1980s).
<i>Psiloscops flammeolus</i> Flammulated owl	Need montane forests with some understory brush for breeding. In California the breeding range is closely associated with the presence of ponderosa pine and Jeffrey pine. Lower montane and subalpine coniferous forest. CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S2S4	Low-moderate; potentially suitable habitat, no documented occurrences (nesting) within 5 mi., a few eBird observations, mainly near Mt. San Jacinto.
<i>Selasphorus rufus</i> Rufous hummingbird	Breeds in open or shrubby areas, forest openings, yards and parks. Sometimes forests, thickets, swamps, meadows. Elev. range 0-6000 ft. Migrating birds can be up to 12,600 ft. Wintering birds in oak, pine, and juniper woodlands. Found in Western US and Canada. Generally migrates through southern CA during pre-breeding migratory season (mid-Feb to mid-May). CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S1S2	High (foraging), absent (nesting); potentially suitable foraging habitat, outside of breeding range, several eBird records in area including immediately adjacent to site.
<i>Setophaga petechia</i> Yellow warbler	Migrant and summer resident in southern CA. Riparian, including willow, cottonwood, sycamore, alder, aspen for nesting & foraging, also conifer forest. CNDDDB only tracks nesting.	Fed: BCC Calif: SSC, S3S4	High; potentially suitable habitat, no documented nests within 5 mi., several eBird observations in and near Idyllwild.
<i>Spinus lawrencei</i> Lawrence's goldfinch	Summer breeder, may overwinter. Coastal side of southern and central CA, western edge of southern deserts, east side of Central Valley into northern CA, Colorado River, SW US and northern Mex. Valley foothill hardwood and hardwood-conifer, desert riparian, pinyon juniper, palm oasis, lower montane. Nests in oaks, conifers. CNDDDB only tracks nesting.	Fed: BCC Calif: SA, S3S4	High; potentially suitable habitat, no documented nests within 5 mi., several eBird observations in and near Idyllwild.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Spizella atrogularis</i> Black-chinned sparrow	Chaparral, sagebrush, arid scrublands, and brushy hillsides, 0-2700m elevation. Present during breeding season only in California. Not tracked in the CNDDDB.	Fed: BCC Calif: None	Low-moderate; potentially marginal habitat, several eBird records in area.
<i>Strix occidentalis occidentalis</i> California spotted owl	Hardwood and mixed conifer/hardwood forests at mid to high elevations, oak and riparian woodlands at lower elevations with large old trees and snags, dense canopies, multiple canopy layers, and downed woody debris. Nests in tree cavities. Foraging habitat also includes more open stands.	Fed: BCC Calif: SSC, S3 MSHCP: NAC f USFS: S BLM: S	Low (foraging), not expected (nesting); several territories within 5 mi. of the site but ongoing human disturbance.
<i>Toxostoma crissale</i> Crissal thrasher	Resident of southeastern deserts in desert riparian and desert wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrowweed, willow.	Fed: None Calif: SSC, S3	Not expected; no suitable habitat.
<i>Toxostoma lecontei</i> Le Conte's thrasher	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Fed: BCC Calif: SSC*, S3 *San Joaquin population only	Not expected; no suitable habitat.
<i>Vireo bellii pusillus</i> Least Bell's vireo	Riparian woodlands, bottomlands. N Mex. & Baja CA into S CA & the S mid-western US.	Fed: END Calif: END, S2 MSHCP: AC a	Absent; no suitable habitat.
Mammals			
<i>Antrozous pallidus</i> Pallid bat	Rock outcrops of shrublands, ≤ 6000' elevation; southwest North America to interior Oregon and Washington; hibernates in winter. Locally common at low elevations in grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground. Roosts in caves, crevices, mines, hollow trees, buildings. Very sensitive to disturbance of roosting sites.	Fed: None Calif: SSC, S3 USFS: S	Low (foraging), not expected (roosting); marginal potential foraging habitat, roosting not expected in proximity to human disturbance, one documented occurrence within 5 mi. from 1994 mapped in general vicinity of Idyllwild.
<i>Bassariscus astutus</i> Ringtail or ring-tailed cat	Nocturnal, widely distributed; various riparian habitats and brush stands of most forest and shrub habitats at low to middle elevations, usually not more than 0.6 mi. from permanent water; primarily carnivorous; rocky habitats preferred, avoids urbanized areas. Suitable habitat is a mixture of forest and shrubland in close association with rocky areas or riparian habitats. Not tracked in the CNDDDB.	Fed: None Calif: FP	Moderate; potentially suitable habitat.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Chaetodipus californicus femoralis</i> Dulzura pocket mouse	Variety of habitats including coastal scrub, chaparral & grassland. Attracted to grass-chaparral edges. Chaparral, coastal scrub, valley and foothill grassland.	Fed: None Calif: SSC, S3	Low; no or marginal suitable habitat, no documented occurrences within 5 mi.
<i>Chaetodipus fallax pallidus</i> Pallid San Diego pocket mouse	Sandy, herbaceous areas, usually in association with rocks or coarse gravel, desert wash, desert scrub, pinyon juniper, chaparral. San Diego, Riv, Imperial, LA, San Bern cos.	Fed: None Calif: SSC, S3S4	Low; no or marginal suitable habitat, no documented occurrences within 5 mi.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance. Broadleaved upland forest, chaparral, chenopod scrub, Joshua tree woodland, lower and upper montane coniferous forest, meadow and seep, Mojavean and Sonoran desert scrub, riparian forest/woodland, Sonoran thorn woodland, valley and foothill grassland.	Fed: None Calif: SSC, S2 USFS: S BLM: S	Low (foraging), not expected (roosting); suitable habitat but human disturbance, two documented occurrences within 5 mi.
<i>Dipodomys merriami collinus</i> Earthquake Merriam's kangaroo rat	Known only from San Diego & Riverside Co. Associated with Riversidean sage scrub, chaparral, and non-native grassland. Needs sandy loam substrates for digging of burrows.	Fed: None Calif: SA, S1S2 MSHCP: AC c	Not expected; no suitable habitat, no documented occurrences within 5 mi.
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	Alluvial floodplains and adjacent upland habitats within the San Bernardino, Menifee, and San Jacinto valleys, Riversidean alluvial fan sage scrub.	Fed: END Calif: CanE, SSC, S1 MSHCP: AC c	Absent; no suitable habitat, outside known range. Site is not within critical habitat.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	Sparse, gently sloping grassland, sometimes at margins of cultivated or disturbed lands; prefers grassland dominated by forbs rather than annual grasses, prefers sparse perennial vegetation; firm soil for burrowing (not too hard or too sandy); may use abandoned gopher burrows; W Riverside Co. and adjacent San Diego Co. San Bernardino County occurrences extirpated.	Fed: END Calif: THR, S2 MSHCP: AC	Absent; no suitable habitat, outside known range.
<i>Glaucomys oregonensis (sabrinus) californicus</i> San Bernardino flying squirrel	Mature mixed conifer forest (white fir, Jeffrey pine, & black oak) with large trees & snags, closed canopy, downed woody debris, & riparian areas. 4000-8500 ft. elev. San Bernardino & San Jacinto Mt. Ranges (may be extirpated in the San Jacinto Mts.).	Fed: None Calif: SSC, S1S2 MSHCP: NAC e	Low; potentially suitable habitat but may be extirpated in San Jacinto Mts, one documented occurrence within 5 mi., near Idyllwild from 1919.
<i>Lasiurus xanthinus</i> Western yellow bat	Valley foothill riparian, desert riparian, desert wash, palm oasis. Roosts in trees, particularly palms. Forages over water and among trees. Desert regions of the SW US. Distributed in S CA, AZ, NM, & TX, into Mexico.	Fed: None Calif: SSC, S3	Not expected; no suitable habitat, no documented occurrences within 5 mi.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Chaparral, coastal, or Riversidean sage scrub with adjacent open grassland. Los Angeles Co. S to San Quintin, Baja California, Mexico.	Fed: None Calif: SSC, S3S4 MSHCP: AC	Not expected; no suitable habitat, outside known range, no documented occurrences within 5 mi.
<i>Myotis yumanensis</i> Yuma myotis	Variety of habitats, optimal habitat is open forest with water sources over which to feed. Distribution is closely tied to bodies of water. Widespread in CA except for deserts. Elev. 0-11,000 ft but rare over 8,000 ft. Feeds over ponds and streams. Roosts in buildings, mines, caves, or crevices, under bridges. Hibernates in winter.	Fed: None Calif: SA, S4	Low; potentially suitable habitat but no open water nearby, two documented occurrences within 5 mi.
<i>Neotamias speciosus speciosus</i> Lodgepole chipmunk	Summits of isolated Piute, San Bernardino, & San Jacinto mountains. Usually found in open-canopy forests. Habitat is usually lodgepole pine forests in the San Bernardino Mts & chinquapin slopes in the San Jacinto Mts.	Fed: None Calif: SA, S2S3	Low; no or marginal suitable habitat, three documented occurrences within 5 mi. from 1908, 1916, 1954.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	Arid shrublands, rocky outcrops, & crevices. Cismontane CA., San Luis Obispo to San Diego Co. & NW Baja California. 0-7000 ft. elev. Variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Constructs elaborate middens of sticks and other materials.	Fed: None Calif: SSC, S3S4 MSHCP: AC	Not expected; no suitable habitat, no documented occurrences within 5 mi. No middens observed during surveys.
<i>Nyctinomops femorosaccus</i> Pocketed free-tailed bat	Deserts & arid lowlands, pinyon juniper woodlands, desert scrub, riparian scrub, Joshua tree woodland, rocky areas with high cliffs. E Riverside & San Diego Cos. and Imperial Co., through SW US, Baja California, mainland Mexico. Roost mainly in crevices of high cliffs. Few records in So CA. Prefers rocky desert areas with high cliffs or rock outcrops. Feeds over ponds, streams, and arid desert.	Fed: None Calif: SSC, S3	Not expected; no suitable habitat, no documented occurrences within 5 mi.
<i>Nyctinomops macrotis</i> Big free-tailed bat	Low-lying arid areas in Southern California. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Fed: None Calif: SSC, S3	Not expected; no suitable habitat, no documented occurrences within 5 mi.
<i>Onychomys torridus ramona</i> Southern grasshopper mouse	Nocturnal, active year round. Desert scrub, coastal scrub, mixed chaparral, sagebrush, especially scrub habitats with friable soil, prefers low to moderate shrub cover. LA through San Diego counties and northwest Baja.	Fed: None Calif: SSC, S3	Not expected; no suitable habitat, no documented occurrences within 5 mi.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
<i>Ovis canadensis nelson</i> pop 2 Peninsular bighorn sheep	Eastern slopes of the Peninsular Ranges below 4,600 ft elevation. This DPS of the subspecies inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the US-Mexico International Border. Optimal habitat includes steep walled canyons and ridges bisected by rocky or sandy washes, with available water. Alpine, alpine dwarf scrub, chaparral, chenopod scrub, Mojavean and Sonoran desert scrub, montane dwarf scrub, pinyon juniper woodlands, riparian woodland.	Fed: END Calif: THR, FP, S1	Absent; no suitable habitat, no documented occurrences within 5 mi.
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	Nocturnal, active Apr-Aug. Annual grassland, sage scrub, alluvial sage scrub. S California from Rancho Cucamonga (W boundary), San Geronio (E), Aguanga & Oak Grove, San Diego (S). Open ground with fine, sandy soils.	Fed: None Calif: SSC, S1S2 MSHCP: AC c	Not expected; no suitable habitat, no documented occurrences within 5 mi.
<i>Puma concolor</i> Mountain lion	Various habitats, large home ranges. Natal dens often in rocky outcrops or dense vegetation.	Fed: None Calif: CAN MSHCP: AC	High; suitable habitat, incidental reports in Idyllwild area.
<i>Taxidea taxus</i> American badger	Mountains, deserts, interior valleys where burrowing animals are available as prey & soil permits digging. Throughout Central & W North America.	Fed: None Calif: SSC, S3	Low-moderate; potentially suitable habitat, no potential burrows or diggings observed during survey.
<i>Xerospermophilus tereticaudus chlorus</i> Palm Springs round-tailed ground squirrel	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall. Chenopod scrub, Sonoran desert scrub	Fed: None Calif: SSC, S2 BLM: S	Absent; no suitable habitat, outside known range.

References: CDFW (2020b, 2020c), USFWS (2020), Dudek (2003), RCA (2019), eBird (2020).

"Documented occurrences" refers to species occurrences in the California Natural Diversity Database (CNDDDB) unless otherwise noted. For plant species that are not tracked in the CNDDDB, records from the Consortium of California Herbaria (CCH) may be used. eBird (eBird.org) is an online database of bird distribution and abundance sponsored by the Cornell Laboratory of Ornithology and compiled from observations submitted by citizen scientists. eBird records of bird observations are noted but should be interpreted with caution.

Federal designations: (Federal Endangered Species Act, U. S. Fish and Wildlife Service):

- END: Federally listed, endangered; an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
- THR: Federally listed, threatened; an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.
- Cand: Candidate for federal listing as threatened or endangered; species that has been studied by the U.S. Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.
- Prop: Proposed for federal listing as Endangered or Threatened under Section 4 of the Endangered Species Act.
- Delisted: Previously federally listed as endangered or threatened, but is no longer listed (e.g., due to recovery).
- None: The species has no federal conservation status.
- BGEPA: Federal Bald and Golden Eagle Protection Act; protects bald and golden eagles.

BCC: USFWS Bird of Conservation Concern; migratory and non-migratory bird species (beyond those already designated as Federally threatened or endangered) that represent USFWS highest conservation priorities.

State designations: (California Endangered Species Act, California Dept. of Fish and Wildlife)

END: State listed, endangered; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

CanE: Candidate Endangered; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.

CanF: Candidate Threatened; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.

THR: State listed, threatened; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.

RARE: State listed as rare: a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens (Native Plant Protection Act of 1977).

SSC: CDFW Species of Special Concern; vertebrate species of concern due to declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction.

FP: Fully Protected; California Fish and Game Code states that Fully Protected species "...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research.

Delisted: Previously state listed as threatened or endangered, but no longer listed (e.g., due to recovery).

SA: CDFW Special Animal; wildlife of state conservation concern.

SH: All California sites are historical.

PFB: Protected Fur-bearing Mammal under Title 14 of the California Code of Regulations.

None: The species has no state conservation status.

State Rank (S Rank): A reflection of the condition and imperilment of an element (plant, animal, vegetation community) throughout its range within the state. The S ranks are determined through a combination of rarity, threat, and trend factors, weighted more heavily on the rarity factors. Where correct category is uncertain, the S rank includes two categories or a question mark. Older ranks, which need to be updated, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats.

S1: Critically imperiled; imperiled in the state because of extreme rarity or some factor(s) making it especially vulnerable to extirpation from the state.

S2: Imperiled; imperiled in the state because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from the state or nation.

S3: Vulnerable; vulnerable in the state due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation. S4: Apparently secure; uncommon but not rare, some cause for long-term concern due to declines or other factors.

S5: Secure; common, widespread, and abundant in the state.

SH: Possibly extirpated; species or community occurred historically in the state, and there is some possibility that it may be rediscovered. The element has not been seen for at least 20 years, but suitable habitat still exists.

SX: Presumed extirpated; species or community is believed to be extirpated from the state.

California Rare Plant Rank (CRPR): The *California Rare Plant Ranks* are a ranking system originally developed by the California Native Plant Society (CNPS) to better define and categorize rarity in California's plants. These ranks were previously

known as the CNPS lists but were renamed to the *California Rare Plant Ranks* to better reflect the joint effort among the CNPS, the CDFW, and a wide range of botanical experts, who work together to assign a rarity ranking.

- 1A: Plants presumed extinct in California and rare/extinct elsewhere.
- 1B: Plants rare, threatened, or endangered in California and elsewhere.
- 2A: Plants presumed extirpated in California, but more common elsewhere.
- 2B: Plants rare, threatened, or endangered in California but more common elsewhere.
- 3: Plants about which we need more information.
- 4: Plants of limited distribution.
- X.1: Extension to CRPR (e.g., 1B.1); seriously threatened in California.
- X.2: Extension to CRPR (e.g., 1B.2); fairly threatened in California.
- X.3: Extension to CRPR (e.g., 1B.3); not very threatened in California.
- CBR: Considered but rejected.

U.S. Forest Service (USFS) designation:

- S: Sensitive; plant and animal species identified by a regional forester that are not listed or proposed for listing under the Federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Bureau of Land Management (BLM) designation:

- S: Sensitive; plant and animal species requiring special management consideration to promote their conservation and reduce the likelihood for future listing under the Federal Endangered Species Act. Includes species designated as sensitive by the BLM State Director and all Federal Candidate species and Federal delisted species in the 5 years following delisting. Sensitive species are managed as special status species.

Western Riverside County Multiple Species Habitat Conservation Plan: Applied to species that are covered under state and federal permits for the MSHCP.

NAC: Species Not Adequately Conserved

AC: Species Adequately Conserved

- (a): Surveys may be required for these species as part of wetlands mapping as described in Section 6.1.2 of the MSHCP.
- (b): Surveys may be required for these species within Narrow Endemic Plant Species survey area as described in Section 6.1.3 of the MSHCP.
- (c): Surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
- (d): Surveys may be required for these species within Criteria Area as described in Section 6.3.2 of the MSHCP.
- (e): These Covered Species will be considered Adequately Conserved when conservation requirements identified in species-specific conservation objectives have been met. Species-specific conservation objectives for these species are presented in Section 9.0 of the MSHCP. Please refer to Table 9-3 of the MSHCP for specific conservation objectives that must be met for these species prior to including them on the list of Covered Species Adequately Conserved.
- (f): These Covered Species will be considered Adequately Conserved when a Memorandum of Understanding is executed with the U.S. Forest Service that addresses management for these species on Forest Service Land. Refer to Table 9-3 of the MSHCP.

No entry: Not a Covered Species

Definitions of occurrence probability:

These definitions provide general guidance. Classifications for individual species may be modified based on biologists' experience and expert opinion.

Occurs: Species was detected during surveys or previously documented on the Project site or adjacent areas.

High: Species documented in the vicinity (i.e., within 5 miles) of the Project site and suitable habitat is present, but species not detected during surveys.

Moderate: Species documented in the vicinity of the Project site or suitable habitat present and site is within geographic and elevational range of the species.

Low: Species not documented in the vicinity of the Project site or suitable habitat is marginal.

- Not Expected:* Species not documented in the vicinity of the Project site and suitable habitat marginal or absent, or site is not within geographic and elevational range of the species.
- Absent:* No potential for the species to occur due to lack of habitat, geographic or elevation range, species life history, survey results, etc.
- Unknown:* No focused surveys have been performed in the region, and the species' distribution and habitat are poorly known.

APPENDIX C: SITE PHOTOGRAPHS



Existing residential units and paved parking lot on west side of Parcel 028, looking east (11.01.2019).



Southwest area of the Parcel 028, adjacent to Highway 243, looking north (11.01.2019).



View of the east side of Parcel 028 from Oakwood Street, looking east. Paved driveway goes through the parcel with disturbed vehicle parking areas on the right and left (11.01.2019).



Vehicle parking area behind (to the east) of the existing units on Parcel 028, looking southwest (11.01.2019).



View of the southeastern corner of Parcel 028, looking south (11.01.2019).



Looking north along the back (east side) of existing units on Parcel 028 (11.01.2019).



Southeast corner of Parcel 031, looking west. Two small brown structures in center are on the site (07.07.2020)



Southeast corner of Parcel 031, looking northwest. Adjacent development in background (07.07.2020).



Northeast corner of Parcel 031, looking south-southeast. Adjacent development in background (07.07.2020).



Northeast corner of Parcel 031, looking southwest. Trunk of black oak on left. Adjacent development in background (07.07.2020).



Driveway (north end) on Parcel 017, from Highway 243 looking east-northeast – prior to grading (07.07.2020).



Driveway (south end) on Parcel 017, from Highway 243 looking east-northeast – prior to grading (07.07.2020).



Relatively undisturbed habitat on Parcel 017, northwestern area of parcel, looking northeast (07.24.2020).



Pile of concrete debris and rocks in northwest corner of Parcel 017, facing east-northeast – prior to removal (07.07.2020).



Central area of Parcel 017 and "bowl" area with willows, facing south – prior to grading (07.07.2020).



Northwest area of Parcel 017 and "bowl" area with willows, facing east – prior to grading (07.24.2020).



Erosion rill on Parcel 017 where “bowl” area appears to drain toward Highway 243 – prior to grading (10.05.2020).



Bowl area on Parcel 017 after grading, facing north
 (02.19.2021).

Bowl area on Parcel 017 after grading, facing northwest
 (02.19.2021).



Area adjacent to bowl on Parcel 017 after grading, recent cut
 stumps of manzanita visible (02.19.2021).

Parcel 031, after understory plants were cleared (02.19.2021)

APPENDIX D: RIVERSIDE COUNTY DOCUMENTATION

Certification

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.

DATE: Februray 26, 2021 SIGNED: _____



Leslie Irish, Principal, L&L Environmental, Inc.
909-335-9897

1) Fieldwork Performed By:

Guy Bruyea
Name

2) Fieldwork Performed By:

Leslie Irish
Name

3) Fieldwork Performed By:

Name

4) Fieldwork Performed By:

Name

5) Fieldwork Performed By:

Name

6) Fieldwork Performed By:

Name

Check here ☐ if adding any additional names/signatures below or on other side of page.

BIOLOGICAL REPORT SUMMARY SHEET

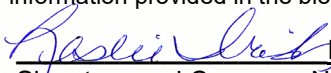
Applicant Name: WSCS Design
Assessor's Parcel Number(s): 563-250-017, 563-250-028, 563-250-031
Section, Township and Range: Section 7, Township 5 South, Range 3 East
Building and Safety Log Number: _____
Case Number: CUP190065 _____ Lot/Parcel _____ EA Number _____

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	(Mark Yes, No, or N/A regarding species findings on the referenced site)		
		Yes	No	n/a
	Arroyo Southwestern Toad	Yes	No	n/a
X	Blueline Stream(s)	Yes	No	n/a
	Burrowing Owl	Yes	No	n/a
	Coachella Valley Fringed-toed Lizard	Yes	No	n/a
	Coastal California Gnatcatcher	Yes	No	n/a
	Coastal Sage Scrub	Yes	No	n/a
	Delhi Sands Flower-loving Fly	Yes	No	n/a
	Desert Pupfish	Yes	No	n/a
	Desert Slender Salamander	Yes	No	n/a
	Desert Tortoise	Yes	No	n/a
	Flat-tailed Horned Lizard	Yes	No	n/a
X	Least Bell's Vireo (potential habitat)	Yes	No	n/a
X	Oak Woodlands (mixed conifer/oak woodland)	Yes	No	n/a
	Quino Checkerspot Butterfly	Yes	No	n/a
X	Riverside Fairy Shrimp (habitat)	Yes	No	n/a
	Santa Ana River Woollystar	Yes	No	n/a
	San Bernardino Kangaroo Rat	Yes	No	n/a
	Slender-horned Spineflower	Yes	No	n/a
	Stephens' Kangaroo Rat	Yes	No	n/a
X	Vernal Pools	Yes	No	n/a
X	Wetlands (quarry created in an upland area)	Yes	No	n/a

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	(Mark Yes, No, or N/A regarding species findings on the referenced site)		
X	Mountain yellow-legged frog (habitat)	Yes	No	n/a
X	Nuttall's woodpecker	Yes	No	n/a
X	Cooper's hawk	Yes	No	n/a
X	Oak titmouse	Yes	No	n/a
X	Johnston's rockcress (habitat)	Yes	No	n/a
X	Munz's mariposa lily	Yes	No	n/a
X	San Jacinto Mts. bedstraw	Yes	No	n/a
	Other	Yes	No	n/a

Species of concern shall be any unique, rare, endangered, or threatened species. It shall include species used to delineate wetlands and riparian corridors. It shall also include any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened, or candidate species by either state, or federal regulations, or for Riverside County as listed by the California Department of Fish and Game Natural Diversity Data Base (CNDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report or habitat assessment.


 Signature and Company Name

February 26, 2021
 Date

10(a) Permit Number (if applicable)

Permit Expiration Date

<i>County Use Only</i>	
Received By: _____ PD-B# _____	Date: _____

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
 (Submit two copies to the County)

Case Number: _CUP190065_ Lot/Parcel No. _____ EA Number _____

Assessor's Parcel Number(s): 563-250-017, 563-250-028, 563-250-031

Date: February 26, 2021

Biological Resources: (Check the level of impact that applies to the following questions.)

Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?			
☐	☒	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?			
☐	☒	☐	☐
c) 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 the California Department of Fish and Game, or U. S. Wildlife Service?			
☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?			
☐	☐	☐	☒

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
(Submit two copies to the County)

e) Have a substantial adverse effect on any riparian habitat, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game, or the U. S. Fish and Wildlife Service?

☐☒☐☐

f) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption)

☐☒☐☐

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐☒☐☐

Findings of Fact:

- The Jeffrey pine forest on the site is not a sensitive vegetation community. Willow thickets were also present and are a sensitive community. A wet or mesic meadow was present and may be considered sensitive. Willow thickets and wet meadow were removed from an upland quarry, prior to completion of surveys.
- Narrow endemic plant species Johnston's rockcress has a low potential for occurrence on the site; San Jacinto Mountains bedstraw and Munz's mariposa lily are considered absent.
- Native oaks and other native trees are present and will be impacted under current site plan.
- Most other special status plants are either not expected to occur or have low potential for occurrence onsite. A few have a low to moderate or moderate potential to occur, mainly on Parcel 017, although suitable habitat on this parcel was removed prior to completion of surveys.
- Three species status wildlife species were observed during the survey: Cooper's hawk, Nuttall's woodpecker, and oak titmouse. Most special status wildlife species have low potential for occurrence or are not expected to occur. A few have low to moderate, moderate, or high potential for occurrence.
- San Bernardino flying squirrel and California spotted owl have low potential for occurrence onsite. Southern rubber boa has a low potential. Potentially suitable southern rubber boa habitat on Parcel 017 was removed prior to completion of surveys. It is unknown if any southern rubber boa individuals were impacted.
- There is no suitable habitat for listed fairy shrimp or riparian birds.
- There is no perennial aquatic habitat on the Project site and mountain yellow-legged frog is considered absent.
- There is suitable habitat for nesting birds, including raptors, on the site.
- An ephemeral blue-line stream is just offsite. A bowl area may have ponded water seasonally and may have been jurisdictional waters/wetland and MSHCP riparian/riverine habitat. The bowl area was graded flat and all native vegetation removed prior to completion of surveys.

Proposed Mitigation:

- full season botanical surveys may be required

- Jurisdictional delineation, regulatory permitting, and DBESP may be recommended if the quarry is not maintained and habitat returns.
- Species-specific habitat assessment and focused survey for southern rubber boa is recommended within the quarry and parcel 017, if southern rubber boa returns prior to development.
- Nesting bird clearance survey prior to the start of any vegetation or ground disturbance during nesting season.
- Prepare and implement an Oak Tree Habitat Mitigation and Monitoring Plan.

Monitoring Recommended:

- Biological monitoring during initial vegetation removal and ground disturbance on Parcel 017

Source: CGP Fig. VI.36-VI.40
Revised October 1999

APPENDIX E: MSHCP TABLE 6-2

MSHCP TABLE 6-2. PLANTS THAT SHOULD BE AVOIDED ADJACENT TO THE MSHCP CONSERVATION AREA

(Taken Directly from the MSHCP Section 6.1.4)

BOTANICAL NAME	COMMON NAME
<i>Acacia</i> spp. (all species)	acacia
<i>Achillea millefolium</i> var. <i>millefolium</i>	common yarrow
<i>Ailanthus altissima</i>	tree of heaven
<i>Aptenia cordifolia</i>	red apple
<i>Arctotheca calendula</i>	cape weed
<i>Arctotis</i> spp. (all species & hybrids)	African daisy
<i>Arundo donax</i>	giant reed or arundo grass
<i>Asphodelus fistulosus</i>	asphodel
<i>Atriplex glauca</i>	white saltbush
<i>Atriplex semibaccata</i>	Australian saltbush
<i>Carex</i> spp. (all species*)	sedge
<i>Carpobrotus chilensis</i>	ice plant
<i>Carpobrotus edulis</i>	sea fig
<i>Centranthus ruber</i>	red valerian
<i>Chrysanthemum coronarium</i>	annual chrysanthemum
<i>Cistus ladanifer</i> (incl. hybrids/varieties)	gum rockrose
<i>Cortaderia jubata</i> [syn. <i>C. Atacamensis</i>]	jubata grass, pampas grass
<i>Cortaderia dioica</i> [syn. <i>C. sellowiana</i>]	pampas grass
<i>Cotoneaster</i> spp. (all species)	cotoneaster
<i>Cynodon dactylon</i> (incl. hybrids varieties)	Bermuda grass
<i>Cyperus</i> spp. (all species*)	nutsedge, umbrella plant
<i>Cytisus</i> spp. (all species)	broom
<i>Delosperma 'Alba'</i>	white trailing ice plant
<i>Dimorphotheca</i> spp. (all species)	African daisy, Cape marigold
<i>Drosanthemum floribundum</i>	rosea ice plant
<i>Drosanthemum hispidum</i>	purple ice plant
<i>Eichhornia crassipes</i>	water hyacinth
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Eucalyptus</i> spp. (all species)	eucalyptus or gum tree
<i>Eupatorium coelestinum</i> [syn. <i>Ageratina</i> sp.]	mist flower
<i>Festuca arundinacea</i>	tall fescue
<i>Festuca rubra</i>	creeping red fescue
<i>Foeniculum vulgare</i>	sweet fennel
<i>Fraxinus uhdei</i> (and cultivars)	evergreen ash, shamel ash
<i>Gaura</i> (spp.) (all species)	gaura
<i>Gazania</i> spp. (all species & hybrids)	gazania
<i>Genista</i> spp. (all species)	broom
<i>Hedera canariensis</i>	Algerian ivy
<i>Hedera helix</i>	English ivy
<i>Hypericum</i> spp. (all species)	St. John's Wort
<i>Ipomoea acuminata</i>	Mexican morning glory
<i>Lampranthus spectabilis</i>	trailing ice plant
<i>Lantana camara</i>	common garden lantana
<i>Lantana montevidensis</i> [syn. <i>L. sellowiana</i>]	lantana
<i>Limonium perezii</i>	sea lavender

BOTANICAL NAME

Linaria bipartita
Lolium multiflorum
Lolium perenne
Lonicera japonica (incl. 'Halliana')
Lotus corniculatus
Lupinus arboreus
Lupinus texanus
Malephora crocea
Malephora luteola
Mesembryanthemum nodiflorum
Myoporum laetum
Myoporum pacificum
Myoporum parvifolium (incl. 'Prostratum')
Oenothera berlandieri
Olea europea
Opuntia ficus-indica
Osteospermum spp. (all species)
Oxalis pes-caprae
Parkinsonia aculeata
Pennisetum clandestinum
Pennisetum setaceum
Phoenix canariensis
Phoenix dactylifera
Plumbago auriculata
Polygonum spp. (all species)
Populus nigra 'italica'
Prosopis spp. (all species*)
Ricinus communis
Robinia pseudoacacia
Rubus procerus
Sapium sebiferum
Saponaria officinalis
Schinus molle
Schinus terebinthifolius
Spartium junceum
Tamarix spp. (all species)
Trifolium fragiferum
Tropaeolum majus
Ulex europaeus
Vinca major
Yucca gloriosa

COMMON NAME

toadflax
 Italian ryegrass
 perennial ryegrass
 Japanese honeysuckle
 birdsfoot trefoil
 yellow bush lupine
 Texas blue bonnets
 ice plant
 ice plant
 little ice plant
 myoporum
 shiny myoporum
 ground cover myoporum
 Mexican evening primrose
 European olive tree
 Indian fig
 trailing African daisy, African daisy,
 Bermuda buttercup
 Mexican palo verde
 Kikuyu grass
 fountain grass
 Canary Island date palm
 date palm
 cape plumbago
 knotweed
 Lombardy poplar
 mesquite
 castorbean
 black locust
 Himalayan blackberry
 Chinese tallow tree
 bouncing bet, soapwort
 Peruvian pepper tree, California pepper
 Brazilian pepper tree
 Spanish broom
 tamarisk, salt cedar
 strawberry clover
 garden nasturtium
 prickly broom
 periwinkle
 Spanish dagger

An asterisk (*) indicates some native species of the genera exist that may be appropriate.

Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, *Fremontia* Vol. 26 No. 4, October 1998, *The Jepson Manual: Higher Plants of California*, and County of San Diego-Department of Agriculture.