

BIOLOGICAL RESOURCES TECHNICAL REPORT

Tentative Tract Map (TTM) 20576 Project

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1.0 Introduction

This report was prepared by Aspen Environmental Group (Aspen) to describe biological resources at the Tentative Tract Map 20576 Project (project). The project is located within the City of Hesperia, California. Rodeo Credit Enterprises, LLC. proposes to develop approximately 64 acres of the property. Throughout this report, “project” refers to the proposed residential development, while “project site” refers to all areas that may be directly or indirectly impacted by project activities. This report provides baseline information on biological resources to support the regulatory review and permitting process.

2.0 Project and Property Description

2.1 Project Description

Rodeo Credit Enterprises, LLC proposes to develop 246 residential parcels and three additional larger parcels on the 64.9-acre project site.

2.2 Project Location

The project is located along Catapa Road south of Eucalyptus Street in the City of Victorville, California (APNs: 3136-441-01, 3136-441-02, 3136-411-04, and 3136-411-05). The project site is in Section 10, Township 4 North, Range 5 West (USGS Baldy Mesa, CA 7.5-minute quadrangle) (Figure 1, Attachment 1). The project site is surrounded by existing single family residential housing developments to the west, and natural areas to the north, south, and east.

3.0 Methods

3.1 Literature Review

Prior to conducting field surveys, Aspen biologists reviewed available literature to identify special-status biological resources known from the vicinity of the project site. The literature and databases listed below were reviewed.

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) for the project site (USFWS, 2023a).
- California Natural Diversity Database (CNDDDB) for the following 7.5-minute USGS topographic quads: Adelanto, Baldy Mesa, Cajon, Hesperia, Phelan, Shadow Mountain SE, Silverwood, Telegraph Peak, and Victorville (CDFW, 2023a).
- California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California for the same topographic quads (CNPS, 2023).

The CNDDDB results are listed in Attachment 2 and the IPaC Resource List is provided as Attachment 3. Several special-status species identified during the literature review only occur in specialized native habitats that are absent from the project site or occur at higher or lower elevations. These plants and animals are listed in Attachment 4 but are not addressed further in this report.

3.2 Field Surveys

Aspen biologists Nikolai Starzak, Haley Jensen, and Kala Barron conducted a site visit to the project site on April 3, 2023, to evaluate project impacts to vegetation and wildlife species, and to conduct a focused botanical survey, map vegetation, and conduct general wildlife surveys. Aspen senior biologist Justin Wood also visited the project site on September 27, 2023, to assess the habitat for special-status species. On October 3, 2023, Ms. Barron revisited the project site to collect additional data on western Joshua tree (*Yucca brevifolia*) within and adjacent to the site.

During the surveys, biologists conducted 100 percent coverage of the project site. All plant and wildlife species observed were recorded in field notes and special-status species locations were recorded using hand-held GPS units. All plant and wildlife species observed during the surveys are listed in Attachment 5. Representative site photos were captured during the survey and are included in Attachment 6.

The botanical surveys were conducted in conformance with California Department of Fish and Wildlife (CDFW) guidelines (CDFW, 2018). The surveys were (a) conducted during flowering seasons for the special status plants known from the area, (b) floristic in nature, (c) consistent with conservation ethics, (d) systematically covered all habitat types on the sites, and (e) well documented by this report and by voucher specimens to be deposited at the California Botanic Garden (formerly Rancho Santa Ana Botanic Garden) and other herbaria. Plants of uncertain identity were collected and identified later using keys, descriptions, and illustrations in Baldwin et al. (2012).

Vegetation mapping was done by drawing tentative boundaries onto high-resolution aerial images during the site visit on April 3, 2023. These boundaries were then digitized into Geographic Information System (GIS) shapefiles (see Attachment 1; Figure 2: Vegetation and Land Cover). Vegetation within the project site is further described below using the names and descriptions in *A Manual of California Vegetation* (Sawyer et al., 2009). Vegetation was mapped digitally using ArcGIS (version 10.7) and one-foot pixel aerial imagery. The smallest mapping unit was approximately 0.05-acre and most mapped vegetation boundaries are accurate to within approximately 5-ft. Any vegetation map is subject to imprecision for several reasons:

1. Vegetation types tend to intergrade on the landscape so that there are no true boundaries in the vegetation itself. In these cases, a mapped boundary represents best professional judgment.
2. Vegetation types as they are named and described tend to intergrade; that is, a given stand of real-world vegetation may not fit into any named type in the classification scheme used. Thus, a mapped and labeled polygon is given the best name available in the classification, but this name does not imply that the vegetation unambiguously matches its mapped name.
3. Vegetation tends to be patchy. Small patches of one named type are often included within mapped polygons of another type. The size of these patches varies, depending on the minimum mapping units and scale of available aerial imagery.

Rainfall: Rainfall is greatest during the months of November through March, with an average annual precipitation total of 5.06 inches, as reported in Victorville, approximately seven miles northeast of the project site (U.S. Climate Data, 2023). Rainfall to-date has been lower than average with approximately 3.94 inches falling in the region since October 1, 2022 (CoCoRaHS, 2023).

4.0 General Biological Survey Results

4.1 Vegetation and Cover Types

Vegetation within the project site consists of upland vegetation and other land cover types. They are described in detail below and acreages of the vegetation and land cover areas are presented in Table 1 and shown in Figure 2 (Attachment 1).

Table 1. Vegetation and Other Cover Types on the Project Site (acres)

Vegetation Type	Project Site (Acres)
Rubber rabbitbrush scrub	64.68
Joshua tree woodland	0.87
Other Cover Types	
Developed	3.80
Total	69.35

Upland Vegetation Types

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance). Rubber rabbitbrush scrub is a scrub community dominated by sparse rubber rabbitbrush (*Ericameria nauseosa*). Other species such as annual burweed (*Ambrosia acanthicarpa*), Devil's lettuce (*Amsinckia tessellata*), Nevada ephedra (*Ephedra nevadensis*), valley lessingia (*Lessingia glandulifera*), and Russian thistle (*Salsola tragus*) are also present. Rubber rabbitbrush scrub is the most common vegetation within the project site. The rubber rabbitbrush scrub within the project site has been subjected to regular clearing since approximately 2006. Rubber rabbitbrush scrub has a State rank of S5 and is therefore not recognized as a sensitive natural community by CDFW (CDFW, 2022).

Joshua tree woodland (*Yucca brevifolia* Woodland Alliance). Joshua tree woodland is a desert woodland community dominated by Joshua trees (*Yucca brevifolia*). Other species present within the understory include white bursage (*Ambrosia dumosa*), burrobrush (*Ambrosia salsola*), and California buckwheat (*Eriogonum fasciculatum*). Joshua tree woodland is located within the southeast corner of the project site. Joshua tree woodland has a State rank of S3 and is therefore recognized as a sensitive natural community by CDFW (CDFW, 2022).

Other Cover Types

Developed. This cover type includes disturbed and developed areas within the project site including unpaved roads, and unvegetated or sparsely vegetated areas. Vegetation present includes weedy species such as red stemmed filaree (*Erodium cicutarium*), brome grass (*Bromus* sp.), and shortpod mustard (*Hirschfeldia incana*). Developed is not a vegetation type and is therefore not described in *A Manual of California Vegetation* and is also not recognized as a sensitive natural community by CDFW (CDFW, 2022).

4.2 Sensitive Natural Communities

Sensitive vegetation communities are defined by CDFW (2022) as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." The literature review identified one sensitive vegetation community: southern sycamore alder

riparian woodland, near the project site (CDFW, 2023a). One sensitive vegetation community, Joshua tree woodland is present within the project site.

4.3 Wildlife Habitat

The term habitat refers to the environment and ecological conditions where a species is found. Wildlife habitat is often described in terms of vegetation, though a more thorough explanation includes detail such as availability or proximity to water, suitable nesting or denning sites, shade, foraging perches, cover sites to escape from predators, soils that are suitable for burrowing or hiding, proximity of noise and disturbance, and other factors that are unique to each species. For many wildlife species, vegetation reflects important components of habitat, including regional climate, physical structure, and biological productivity and food resources. Thus, the vegetation descriptions in Section 4.1 are useful overarching descriptors for wildlife habitat.

Wildlife and wildlife sign observed during the field surveys included species common in the region, such as horned lark (*Eremophila alpestris*), common raven (*Corvus corax*), western bluebird (*Sialia mexicana*), house finch (*Haemorhous mexicanus*), turkey vulture (*Cathartes aura*), coyote (*Canis latrans*), and California ground squirrel (*Otospermophilus beecheyi*). No special-status wildlife species were observed or otherwise detected during the surveys.

5.0 Special-Status Species Results

Based on review of the literature and databases listed above, and on local expertise with the flora and fauna of the project site, lists of special-status plants and wildlife with potential to occur on the project site or in the project vicinity were compiled (Table 3). Plant and wildlife taxa were considered to be special-status species if they were classified in one or more of the categories listed in Table 2. All special-status plants and wildlife occurring in the region in habitats similar to those found on the project site are addressed in Table 3, with brief descriptions of habitat and distribution, conservation status, and probability of occurrence on the site.

Table 2. Definitions of Special-Status Species

Species Designation	Agency	Definition
Federal Endangered	USFWS	A species that is in danger of extinction throughout all or a significant portion of its range.
Federal Threatened	USFWS	A species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Federal Candidate	USFWS	A species the US Fish and Wildlife Service (USFWS) has designated as a candidate for listing under Section 4 of the federal Endangered Species Act (ESA), published in its annual candidate review, and defined as a species that has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities.
Federal Proposed	USFWS	A species that the USFWS has proposed for listing under Section 4 of the ESA, by publishing a Proposed Rule in the Federal Register.
Protected under the federal Bald and Golden Eagle Protection Act (BGEPA)	USFWS	Bald and golden eagles are protected from take, including harassment, except as permitted by USFWS.

Table 2. Definitions of Special-Status Species

Species Designation	Agency	Definition
State Endangered	CDFW	A species that is in serious danger of becoming extinct throughout all or a significant portion of its range due to one or more causes, including loss or change in habitat, overexploitation, predation, competition, or disease.
State Threatened	CDFW	A species 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.
State Candidate	CDFW	A species that has been officially noticed by the California Fish and Game Commission as being under review by the CDFW for addition to the threatened or endangered species lists. CDFW candidate species are given no extra-legal protection under state laws.
Fully Protected	CDFW	Animal species fully protected under the California Fish and Game Code. The CDFW may not issue take authorization except for scientific purposes or as provided under SB 618 (2011).
Species of Special Concern	CDFW	A species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: - Is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role. - Is on the federal, but not state list, of threatened or endangered species. - Meets the state definition of threatened or endangered but has not formally been listed. - Is experiencing or formerly experienced serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; or - Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that if realized, could lead to declines that would qualify it for state threatened or endangered status. This is an administrative designation and carries no formal legal status. This designation is intended to focus attention on animals at conservation risk, to stimulate research on poorly known species, and to achieve conservation and recovery before these species meet the California Endangered Species Act (CESA) criteria for listing. California Species of Special Concern are considered under the California Environmental Quality Act (CEQA) and require a discussion of impacts and appropriate mitigation to reduce impacts.
Watch List	CDFW	Taxa that were previously Species of Special Concern, but no longer merit that status or which do not meet criteria for designation as Species of Special Concern, but for which there is concern and a need for additional information to clarify status.
Special Animal	CDFW	An animal species that is tracked in the CNDDDB but has no other status at the state or federal level.
California Rare Plant Rank (CRPR) 1A	CDFW	Plants presumed to be extinct in California.
CRPR 1B	CDFW	Plants rare or endangered in California and elsewhere.
CRPR 2A	CDFW	Plants presumed extinct in California but more common elsewhere.
CRPR 2B	CDFW	Plants rare or endangered in California but more common elsewhere.
CRPR 3	CDFW	Plants about which more information is needed – a review list.

Table 2. Definitions of Special-Status Species

Species Designation	Agency	Definition
CRPR 4	CDFW	Plants of limited distribution – a watch list.

Plants or wildlife may be ranked as special-status species due to declining populations, vulnerability to habitat change, or restricted distributions. Certain species have been listed as threatened or endangered under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). Others have not been listed, but declining populations or habitat availability cause concern for their long-term viability. These species of conservation concern appear on lists compiled by resource agencies or private conservation organizations. In this report, “special-status species” includes all plants and wildlife listed as threatened or endangered or included in these other compilations. All special-status plants and wildlife occurring in the region in habitats similar to those found on the project site are addressed in Table 3, with brief descriptions of habitat and distribution, conservation status, and probability of occurrence on the site.

Table 3. Special-Status Species Addressed

Species Name	Habitat Requirements	Flowering or Activity Season	Conservation Status	Potential to Occur
PLANTS				
<i>Canbya Candida</i> White pygmy-poppy	Annual shrub; Joshua tree woodland, Mojavean desert scrub, pinyon/juniper woodland. 600-4790 ft elev.; Inyo, Kern, Los Angeles, and San Bernardino Cos.	Mar-Jun	Fed: None CA: S3S4, 4.2	Low: suitable habitat is present. Historic records are present within two miles of the project site.
<i>Muilla coronata</i> Crowned muilla	Perennial bulb; desert shrublands and woodlands; Mar-Apr; 3,300-5,300 ft. elev.; San Bernardino Co. north to Tulare and Inyo Cos.	Mar-Apr (May)	Fed: None CA: S3, 4.2	Present: 20 individuals observed within the project site, additional plants expected.
<i>Opuntia basilaris</i> var. <i>brachyciada</i> Short-joint beavertail	Perennial stem; open chaparral, Joshua tree woodland, pinyon/juniper woodland, or Mojavean desert scrub. 425-5905 ft elev.; Los Angeles and San Bernardino Cos.	Apr-Jun (Aug)	Fed: None CA: S3, 1B.2	Low: Marginally suitable habitat present, nearest known occurrence about five miles.
<i>Pediomelum castoreum</i> BeaverDam breadroot	Perennial herb; Joshua tree woodland, Mojavean desert scrub. 610-1525 ft elev.; Inyo and San Bernardino Co.	Apr-May	Fed: None CA: S2, 1B.2	Low: Minimally suitable habitat present, nearest historic occurrence about 10 miles.
<i>Syntrichopappus lemmonii</i> Lemmon's syntrichopappus	Annual; open sandy areas, chaparral & desert shrubland, about 1,700-6,000 ft. elev.; cent. Coast Ranges (Monterey Co.), W Mojave Des, Transverse Ranges, to San Jacinto Mtns.	Apr-Jun	Fed: None CA: S4, 4.3	Low: Minimally suitable habitat present, nearest occurrence about 10 miles south and west.

Table 3. Special-Status Species Addressed

Species Name	Habitat Requirements	Flowering or Activity Season	Conservation Status	Potential to Occur
<i>Yucca brevifolia</i> Western Joshua tree	Tree; desert flats and slopes within Joshua tree woodland, montane chaparral, pinyon and juniper woodland, Sonoran and Mojavean desert scrub; about 2,400-7,300 ft. elev.; Mojave Desert from north slopes of the San Bernardino and San Gabriel Mountain ranges, and Antelope Valley	Apr-May	Fed: None CA: SCT, SNR, WJTCA	Present: Four individuals observed in southeast corner of project site; several individuals were also observed just outside of project site.
INVERTEBRATES				
<i>Bombus crotchii</i> Crotch bumble bee	Colonial insect; open grassland and scrub; underground colonies, often in old rodent burrows. Many food plants including <i>Chaenactis</i> , <i>Lupinus</i> , <i>Phacelia</i> , <i>Salvia</i> , and <i>Eriogonum</i> . Much of southern and central CA, SW Nevada, and Baja.	Spring – Summer	Fed: None CA: CAN END , S2	Low: Suitable habitat and food plants present; historical records from within about 10 miles.
REPTILES				
<i>Gopherus agassizii</i> Desert tortoise	Mohave population. Sandy flats, rocky foothills, alluvial fans, washes, and canyons; Arid land with sparse vegetation. Hibernated in burrows for 9 months each year, most active from march to June/ September to October.	Year-round	Fed: THR CA: THR , S2S3	Low: Marginally suitable habitat present, nearest known occurrence about 5 miles.
<i>Phrynosoma blainvillii</i> Coast horned lizard	Forest, shrubland or grassland; sandy soils; W Calif. from LA Co S through N Baja Calif., below about 6000 ft. elev.	Spring – Summer	Fed: None CA: S3S4, CSC	Moderate: Marginally suitable habitat present. Multiple occurrences within a mile radius.
BIRDS				
<i>Accipiter cooperii</i> Cooper's hawk	Nests in forest and woodland, hunts in woods and open areas; breeds through most of US, winters south through Mexico	Year-round	Fed: None CA: S4, WL	Minimal (nesting); Moderate (foraging); suitable foraging habitat present.
<i>Aquila chrysaetos</i> Golden eagle	Nests in remote trees and cliffs; forages over shrublands and grasslands; breeds throughout W N America, winters to E coast	Year-round	Fed: BGEPA CA: S3, FP	Minimal (nesting), Moderate: (foraging); no suitable nesting habitat, suitable foraging habitat present.
<i>Artemisiospiza belli belli</i> Bell's sparrow	Coastal sage scrub, chaparral, saltbush scrub, cismontane central and southern Calif. NW Baja Calif	Year-round	Fed: None CA: S3, WL	Low (nesting), Low (foraging); no suitable nesting habitat, no suitable foraging habitat present.

Table 3. Special-Status Species Addressed

Species Name	Habitat Requirements	Flowering or Activity Season	Conservation Status	Potential to Occur
<i>Athene cunicularia</i> Burrowing owl	Nests mainly in rodent burrows, usually in open grassland or shrubland; forages in open habitat; increasingly uncommon in S Calif.; through W US and Mexico	Year-round	Fed: None CA: S3, CSC	Moderate (nesting), High (foraging); suitable nesting and foraging habitat present. Records within 2 miles.
<i>Buteo swainsonii</i> Swainson's hawk	Breeds in open habitats (e.g., grassland), Central Valley and W Mojave Desert (Calif.) and east to cent. US, S. Canada, New Mexico; winters in S America	Spring – Summer	Fed: None CA: THR, S3	Minimal (nesting), Low (foraging); outside of nesting range of this species, suitable foraging habitat present.
<i>Lanius ludovicianus</i> Loggerhead shrike	Broken woodland, savannah pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes; prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting.	Year-round	Fed: None CA: S4, CSC	Moderate (nesting), High (foraging); some suitable nesting habitat, minimal suitable foraging habitat present. Records within 2 miles.
<i>Toxostoma lecontei</i> Le Conte's thrasher	Low, Sandy Open deserts, preferring open areas with shrubs and bushes. Stays perching and eats insects and other arthropods. Nests usually concealed in cholla cactus and other desert shrubs.	Year-round	Fed: None CA: S3, CSC	Low (nesting), Moderate (foraging); some suitable nesting habitat, minimal suitable foraging habitat present. Records are within 1 mile.
MAMMALS				
<i>Antrozous pallidus</i> Pallid bat	Desert, grassland, shrubland, woodland, forest; most common in open, dry habitats with rocky areas for roosting.	Spring – Summer	Fed: None CA: S2, CSC	Low (roosting) Minimal (foraging). Suitable foraging habitat is present; suitable roosting habitat is absent.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	Coastal conifer and broadleaved forests, oak and conifer woodlands, arid grasslands and deserts, and high-elevation forests and meadows. Primarily roosts in caves and abandoned mines, but may roost in buildings, bridges, rock crevices, and hollow trees in many habitat types.	Year-round	Fed: None CA: S2, CSC	Minimal (roosting) Low (foraging). Suitable foraging habitat is present; suitable roosting habitat is absent.
<i>Eumops perotis californicus</i> Western mastiff bat	Lowlands (with rare exceptions); cent. and S Calif., S Ariz., NM, SW Tex., N Mexico; roost in deep rock crevices, forage over wide area.	Year-round	Fed: None CA: S3S4, CSC	Minimal (roosting); Low (foraging); suitable roosting habitat absent, marginally suitable foraging habitat present.

Table 3. Special-Status Species Addressed

Species Name	Habitat Requirements	Flowering or Activity Season	Conservation Status	Potential to Occur
<i>Lasiurus cinereus</i> Hoary bat	Prefers deciduous and coniferous woodlands, primarily roosts in tree foliage. Widespread throughout most of North America into Central America.	Year-round	Fed: None CA: S4	Minimal (roosting): Low (foraging): suitable roosting habitat absent, marginally suitable foraging habitat present.
<i>Taxidea badger</i> American badger	Mountains, deserts, interior valleys where burrowing animals are avail as prey and soil permits digging; throughout cent and W N Amer	Year-round	Fed: None CA: S3, CSC	Minimal : suitable habitat present. No near occurrences.
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Primarily desert species, spends majority of the year underground. Endemic to Western Mohave Desert.	Year-round	Fed: None CA: THR , S2S3	Low : Marginally suitable habitat present. Records one mile west of project site.

General references (botany): Baldwin et al., 2012; CDFW, 2023a; CDFW, 2023b; CNPS, 2023; and CCH, 2023. General references (wildlife): American Ornithologists Union, 1998 (including supplements through 2013); Barbour and Davis, 1969; eBird.org, 2023; Feldhamer et al., 2003; Garrett and Dunn, 1981; Hall, 1981; iNaturalist, 2023; Jennings and Hayes, 1994; Stebbins, 2003; Wilson and Ruff, 1999; and Zeiner et al., 1990b.

Conservation Status

Federal designations (Fed): (federal ESA, USFWS).

THR: Federally listed, threatened.

BGEPA: Bald and Golden Eagle Protection Act

State designations (CA): (CESA, CDFW)

END: State listed, endangered.

THR: State listed, threatened.

CAND: Sufficient data are available to support federal listing, but not yet listed.

CSC: California Species of Special Concern. Considered vulnerable to extinction due to declining numbers, limited geographic ranges, or ongoing threats.

WL: Species that were either previously listed as SC and have not been state listed under CESA; or were previously state or federally listed and now are on neither list; or are on the list of "Fully Protected" species.

FP: Fully protected. May not be taken or possessed without permit from CDFW.

WJTCA: Western Joshua Tree Conservation Act

CDFW Natural Diversity Data Base Designations: Applied to special-status plants and sensitive plant communities; where correct category is uncertain, CDFW uses two categories or question marks.

S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.

S2: 6-20 occurrences or 1,000-3,000 individuals or 2,000-10,000 acres (decimal suffixes same as above).

S3: 21-100 occurrences or 3,000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).

S4: Apparently secure in California; this rank is clearly lower than S3 but factors exist to cause some concern, i.e., there is some threat or somewhat narrow habitat. No threat rank.

S5: Demonstrably secure or ineradicable in California. No threat rank.

SNR: State rank not yet assessed

California Rare Plant Rank designations. Note: According to the California Native Plant Society

(<http://www.cnps.org/cnps/rareplants/ranking.php>), plants ranked as CRPR 1A, 1B, and 2 meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

1A: Plants presumed extinct in California.

1B: Plants rare and endangered in California and throughout their range.

2A: Plants presumed extinct in California but more common elsewhere in their range.

2B: Plants rare, threatened or endangered in California but more common elsewhere in their range.

3: Plants about which we need more information; a review list.

4: Plants of limited distribution; a watch list.

California Rare Plant Rank Threat designation extensions:

.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Definitions of occurrence probability: Estimated occurrence probabilities are based on literature sources cited earlier, field surveys, and habitat analyses reported here.

Present: Observed on the site by qualified biologists.

High: Habitat is a type often utilized by the species and the site is within the known range of the species.

Moderate: Site is within the known range of the species and habitat on the site is a type occasionally used.

Low: Site is within the species' known range but habitat is rarely used, or the species was not found during focused surveys covering less than 100% of potential habitat or completed in marginal seasons.

Minimal: No suitable habitat on the site; or well outside the species' known elevational or geographic ranges; or a focused study covering 100% of all suitable habitat, completed during the appropriate season and during a year of appropriate rainfall, did not detect the species.

5.1 Special-Status Plants

5.1.1 Listed Threatened or Endangered Plants

This section describes plant species reported from the region that are listed as threatened or endangered under the federal ESA or CESA and are present or have a potential to be present on the project site. Several listed plant species were identified during the literature review. Only one listed plant species was observed or found to have at least a moderate potential to occur.

Western Joshua tree (*Yucca brevifolia*). The western Joshua tree is a State candidate for listing under the CESA. The western Joshua tree is predominantly found in the Mojave Desert, with its northern range extending into Nevada and its southern range extending into the San Gabriel Mountains (USFWS, 2018). They can be found in desert grasslands and shrublands within alluvial fans, plains, bajadas, mesas, and gentle slopes (Gucker, 2006). Western Joshua trees are usually associated with creosote bush and white bursage scrublands at lower elevations (2,461 feet) and with juniper and pinyon woodlands at higher elevations (7,218 feet) (USFWS, 2018). Soils in prime habitat include silts, loams, and/or sands, which are variously described as fine, loose, well drained, and/or gravelly (Gucker, 2006).

Five western Joshua trees were observed within the project site. Four western Joshua trees were observed in the southeastern portion of the project site. One dead individual is located near the center of the project site. Additional western Joshua trees are located along the northern and eastern edges of the project site. Based on CDFW guidance for obtaining take coverage through CESA, it is assumed that the seed bank associated with these trees extends 186-feet from the source trees. Based on this guidance, approximately 13.90 acres of western Joshua tree seedbank are present on the project site in addition to the four live western Joshua trees. The Western Joshua Tree Conservation Act, passed in July of 2023, requires documentation of western Joshua trees within 50 feet of the project footprint in order to limit incidental take of the species. There are currently 19 additional western Joshua trees within 50 feet of the project site. If take coverage is obtained through the Western Joshua Tree Conservation Act, this would include the five trees within the project site and the 19 additional trees within the buffer.

5.1.2 Other Special-Status Plants

In addition to the federal and state endangered species regulations noted above, CDFW and CNPS maintain lists of plants of conservation concern. The CDFW compiles these species including CDFW and CNPS rankings as CRPR 1, 2, 3, or 4 in its compendium of "Special Plants" (CDFW, 2023b). These plants are treated here as "special-status species" and are discussed below. No CRPR 1, 2, or 3 species were identified or have at least a moderate potential to be present. One CRPR 4 species (i.e., a "watch list," not indicating rarity), crowned muilla (*Muilla coronata*), was observed on the northern portion of the project

site and included twenty individual plants scattered among five locations (Attachment 1, Figure 3). No other CRPR 4 species were determined to have at least a moderate potential to occur.

5.2 Special-Status Wildlife

5.2.1 Listed Threatened or Endangered Wildlife

This section includes species listed as threatened or endangered under CESA or FESA which were detected or have a low to high potential to be present on the project site. No listed species are known from the project site, and none were observed during the surveys described in this report. Four State or federally listed species with a low potential to be present are discussed below because they were once more widespread in the region. No designated critical habitat for federally listed wildlife species is present within the project site but is located nearby and is discussed below.

Crotch bumble bee (*Bombus crotchii*). Crotch bumble bee is a State candidate for listing under the CESA. Crotch bumble bee is a widespread secretive species that is known from more than two hundred locations over a broad geographic range (CDFW, 2023a). It is typically found in openings in grassland and scrub habitats where it burrows into the ground and lives in colonies. It feeds on native plants including milkweed, pincushion, lupine, phacelia, sage, snapdragon, clarkia, bush poppy, and buckwheat. Many of these food plants are present on the project site or in the project vicinity, and suitable burrowing habitat is also present. Crotch bumblebee has a low potential to be present on the project site and is known from numerous observations in the region.

Desert tortoise (*Gopherus agassizii*). The desert tortoise is listed as threatened under CESA, and the Mojave population (i.e., west of the Colorado River) is listed as threatened under the federal ESA. The desert tortoise occupies a variety of habitats from flats and slopes, typically characterized by creosote bush scrub at lower elevations, to rocky slopes in blackbrush scrub and juniper woodland ecotones (transition zones) at higher elevations. Throughout most of the Mojave Desert, tortoises occur most commonly on gently sloping terrain with sandy-gravel soils and where there is herbaceous (non-woody) plants and sparse cover of low-growing shrubs. However, surveys at the Nevada Test Site revealed that tortoise sign (e.g., scat, burrows, tracks, shells) was more abundant on upper alluvial fans and lower mountain slopes than on the valley bottom. Soils must be friable (easily crumbled) enough for digging burrows, but firm enough so that burrows do not collapse. In general, desert tortoise populations do not occur above about 4,000 feet, although reliable sources have reported desert tortoises as high as 7,300 feet elevation in Death Valley National Monument. Marginal habitat is present within the project site due to the disturbed nature of the habitat and low amount of suitable forage. No desert tortoise or their burrows were observed during surveys. There are several records of desert tortoise within five miles of the project site but the habitat in the area has been heavily disturbed and fragmented in the recent past. Desert tortoise has a low potential to be present on the project site.

Swainson's Hawk (*Buteo swainsoni*). Swainson's hawks are listed as threatened under the CESA (CDFW, 2023a). In California, they nest in the San Joaquin Valley, western Antelope Valley, western Mojave Desert, and Owens Valley. They migrate to South America every fall and return to California every spring. The foraging habitat of Swainson's hawks is relatively open stands of grass-dominated vegetation and relatively sparse shrublands. Trees are typically widely scattered or found in bands along riparian corridors. Much of the original habitat has been converted to either urban development or cultivated agricultural uses. Swainson's hawks forage in agricultural fields with many types of crops. However, some studies have found that this species is more abundant in areas of moderate agricultural development than in either grassland or areas of extensive agricultural development. Alfalfa fields are routinely used by

foraging Swainson's hawks. Orchards and vineyards in general are not suitable foraging habitat for Swainson's hawk due to the dense woody cover (Zeiner et al, 1990a). The primary nest trees in the western Mojave Desert are Joshua trees and Fremont cottonwoods (*Populus fremontii*), but other large trees could also be used, especially were planted in narrow bands such as agricultural windbreaks (e.g., cottonwoods).

Swainson's hawks are observed occasionally in the vicinity of the project site during migration. Several Swainson's hawks have been reported from the region during the nesting season (eBird, 2023). The project site lacks suitable nesting habitat, but Joshua trees suitable for nesting are present to the north and east of the project site. Swainson's hawks have a low potential to nest and forage within 0.5-miles of the project site.

Mohave ground squirrel (*Xerospermophilus mohavensis*). The Mohave ground squirrel is a small rodent endemic to the western Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo Counties (Best, 1995). It was first listed as rare under the CESA in 1971 and was later reclassified as "Threatened" in 1984 (§670.5(b)(6)(A), T14, CCR) (Leitner, 2008). Generally, little is still known about the habitat requirements and extent of the current range of this species, especially in the southwestern Mojave (Leitner, 2015; Leitner and Leitner, 2017). The Mohave ground squirrel is rare throughout its range and typically occurs in desert scrub habitats, usually on flat to gently sloping terrain with alluvial soils (Best, 1995). They can also be found in alkali desert scrub, Joshua tree woodland, and annual grassland habitats (CDFW, 2023a). Optimal habitats typically have sandy to gravelly soils which allows them to dig burrows, which are frequently excavated at the base of shrubs. Mohave ground squirrels can be found between 1,800- and 5,000-feet elevation. They typically forage on perennial shrub foliage such as winterfat (*Krascheninnikovia lanata*), spiny hopsage (*Grayia spinosa*), and saltbushes (*Atriplex* spp.), as well as annual leaves, seeds, flowers, and pollen from annual forbs and herbaceous plants (Leitner and Leitner, 2017).

Suitable habitat for Mojave ground squirrel is limited within the project site and is highly disturbed. There is also a lack of forage species, and the presence of California ground squirrel (*Otospermophilus beecheyi*) presents strong competition. No Mohave ground squirrels, or potential burrows were observed on the project site. A recent record for the species is located approximately one mile to the west of the project site, but the habitat has been heavily developed and fragmented and Mohave ground squirrel has a low potential to occur within the project site.

5.2.2 Species Protected Under the Federal Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d; BGEPA) prohibits take of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*). The BGEPA defines *take* to include "pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, and disturbing." The USFWS (2007) further defines *disturb* as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Both bald eagle and golden eagle are observed periodically in the region but are not expected to utilize the project site for nesting because no nesting habitat is present. Bald eagles are not expected to forage on the site because of a lack of suitable prey items and golden eagles have a moderate potential to forage on the site given the small area of the project site and the limited amount of prey items.

5.2.3 California Wildlife Species of Special Concern

Coast Horned Lizard (*Phrynosoma blainvillii*). The coast horned lizard is a CDFW Species of Special Concern. The coast horned lizard occurs in a wide variety of habitats throughout its range, though is found primarily in chaparral and mixed chaparral-coastal sage scrub, to stands of pure coastal sage scrub. It is also known to occur in riparian habitats, washes, and most desert habitats. They are occasionally locally abundant in conifer-hardwood and conifer forests. This species is most common in open, sandy areas where abundant populations of native ant species (e.g., *Pogonomyrmex* and *Messor* spp.) are present. Suitable habitat is present at the project site for this species, and multiple records of the species are located within a mile of the project site. There is a moderate potential for coast horned lizard to be present on the project site.

Burrowing owl (*Athene cunicularia*). The burrowing owl is a CDFW Species of Special Concern. Burrowing owl are uncommon throughout much of southern California with the highest densities occurring near agricultural lands in the Imperial Valley. Burrowing owls are yearlong residents of flat, open, dry grassland and desert habitats at lower elevations (Bates, 2006). They typically inhabit annual and perennial grasslands and scrublands characterized by low-growing vegetation and may occur in areas that include trees and shrubs if the cover is less than 30% (Bates, 2006); however, they prefer treeless grasslands. Although burrowing owls prefer large, contiguous areas of treeless grasslands, they have also been observed in fallow agriculture fields, golf courses, cemeteries, road allowances, airports, vacant lots in residential areas, and fairgrounds when nest burrows are present (Bates 2006). The availability of numerous small mammal burrows, such as those of California ground squirrel (*Otospermophilus beecheyi*), is a major factor in determining whether an area with apparently suitable habitat supports burrowing owls (Coulombe, 1971). No burrowing owl or their burrows were observed on the project site. However, the habitat at the project site is suitable for this species and more than 40 ground squirrel burrows were observed within the project site that provide suitable burrowing owl burrows (see Figure 3). Records of breeding and wintering burrowing owls are located within a mile of the project site. There is a moderate potential for burrowing owls to nest within the project site and high potential for them to forage or overwinter on the project site.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a CDFW Species of Special Concern. The loggerhead shrike prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. This species most often occurs in open-canopied valley foothill hardwood forests, valley-foothill hardwood-conifer forests, valley foothill riparian, pinyon-juniper woodlands, desert riparian, and Joshua tree habitats. Nests are typically constructed in well-concealed microsites in densely foliated trees or shrubs (Miller, 1931; Bent, 1950). This species preys primarily on large insects, but will also take small birds, mammals, amphibians, reptiles, fish, carrion, and various invertebrates. Loggerhead shrikes often impale their prey on barbed wire or other sharp objects. Suitable habitat is present at the project site for this species, and multiple records of the species are located within two miles of the project site. There is a moderate to high potential for loggerhead shrike to be present on the site.

Le Conte's thrasher (*Toxostoma lecontei*). The Le Conte's thrasher is a CDFW Species of Special Concern. Sparse desert scrub such as creosote bush, Joshua tree, and saltbush scrubs, or sandy-soiled cholla-dominated vegetation. Nests in dense, spiny shrubs or densely branched cactus in desert wash habitat. The Le Conte's thrasher forages on the ground for insects and spiders, as well as some seeds and berries. Suitable habitat is present at the project site for this species, and records of the species are located within two miles of the project site. There is a low to moderate potential for Le Conte's thrasher to be present on the site.

5.2.3 Other Special-Status Wildlife Species

Raptors: One additional special-status bird of prey is found throughout the region. Cooper's hawk (*Accipiter cooperii*; CDFW Watch List species), is known to nest in urban areas of Southern California and forages on birds. Suitable foraging habitat for Cooper's hawk is present within the project site. Cooper's hawks have a moderate potential to forage within the project site.

5.3 Designated Critical Habitat

The literature review conducted prior to conducting field surveys determined that the project site is not within federally designated critical habitat for any species. The nearest designated critical habitat is for arroyo toad (*Anaxyrus californicus*) and is located approximately nine miles south of the project site (USFWS, 2023b).

5.4 Native Birds: Migratory Bird Treaty Act (MBTA) / California Fish and Game Code

The federal MBTA prohibits take of any migratory bird, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting of waterfowl or upland game species). Under the MBTA, "migratory bird" is broadly defined as "any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle" and thus applies to most native bird species. California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs; Section 3503.5 prohibits take or possession of birds of prey or their eggs; and Section 3513 prohibits take or possession of any migratory nongame bird. Except for a few non-native birds, such as European starling (*Sturnus vulgaris*), the take of any birds or loss of active bird nests or young is regulated by these statutes. Most of these species have no other special conservation status as defined above.

The project site has trees, shrubs, and open areas that may provide nesting habitat. Numerous common and special-status birds are known to nest in the area and many of these are likely to nest on the project site. No active nests were observed during the biological surveys.

Many adult birds would flee from equipment during project construction; however, nestlings and eggs would be vulnerable. If project activities include site grading or brush removal during nesting season, then it would likely destroy bird nests, including eggs or nestling birds. For most birds, these impacts can be avoided by scheduling initial clearing and grading outside the nesting season. Or, if initial clearing and grading are undertaken during nesting season, work may be limited only to areas where no nesting birds are present, as documented by pre-construction nest surveys.

Some birds are likely to nest in the project site during construction, even after initial grading and clearing have been completed. Depending on the species, birds may nest on the ground; in adjacent vegetation; or on construction equipment that is left overnight or during a long weekend. The species most likely to nest in the project site during construction are common ravens (*Corvus corax*), house finches (*Haemorhous mexicanus*), killdeer (*Charadrius vociferus*), and mourning doves (*Zenaida macroura*), all of which are protected by the MBTA and Fish and Game Code. Due to the high probability that birds may nest on site during construction, regular monitoring and nest site management may be necessary throughout the breeding season.

5.5 Wildlife Movement

The ability for wildlife to move freely among populations and habitat areas is important to long-term genetic variation and demography. Fragmentation and isolation of natural habitat may cause loss of native species diversity in fragmented habitats. In the short term, wildlife movement may also be important to individual animals' ability to occupy their home ranges, if their ranges extend across a potential movement barrier. These considerations are especially important for rare, threatened, or endangered species, and wide-ranging species such as large mammals, which exist in low population densities.

The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation (Caltrans) and CDFW to create a statewide assessment of essential habitat connectivity to be used for conservation and infrastructure planning (Caltrans and CDFW, 2010). One of its goals was to create the Essential Connectivity Map, which depicts large, relatively natural habitat blocks that support native biodiversity (natural landscape blocks) and areas essential for ecological connectivity between them (essential connectivity areas). This map does not reflect the needs of particular species but is based on overall biological connectivity and ecological integrity. A more detailed analysis is required to assess local and regional needs for connectivity and develop linkage designs based on the requirements of individual species (Caltrans and CDFW, 2010). The project site is not located within any identified Essential Habitat Connectivity Areas or Natural Landscape Blocks. The project site is more likely to support more localized movement within the region, with some species such as coyotes (*Canis latrans*), black-tailed jackrabbits (*Lepus californicus*), and desert cottontails (*Sylvilagus audubonii*) occupying the project site and radiating out into the adjacent development to forage.

6.0 Conclusions

No State and federally listed wildlife species are known from the project site or the immediate vicinity. Several State and federally listed species are known from the region and have a low potential to be present. These include Crotch's bumble bee, desert tortoise, Swainson's hawk, and Mohave ground squirrel.

No special-status wildlife species were observed, but several species have at least a moderate potential to be present and include coast horned lizard, burrowing owl, loggerhead shrike, Le Conte's thrasher, and Cooper's hawk (refer to Table 3).

In addition to special-status wildlife, one State listed special-status plant, western Joshua tree, was identified within the project site. No additional State or federally listed species are known from the project site or the immediate vicinity. One CNPS Rank 4 species, crowned muilla, is present on the project site. No additional special-status plants were identified within the vicinity of the project were determined to have at least a moderate potential to occur.

One sensitive natural community, Joshua Tree Woodland was identified within the project. The project site is not within any designated wildlife corridors but is expected to provide localized wildlife movement in the immediate surrounding. The project site is likely to be used as a forage or dispersal area for wildlife in the immediate vicinity of the project site.

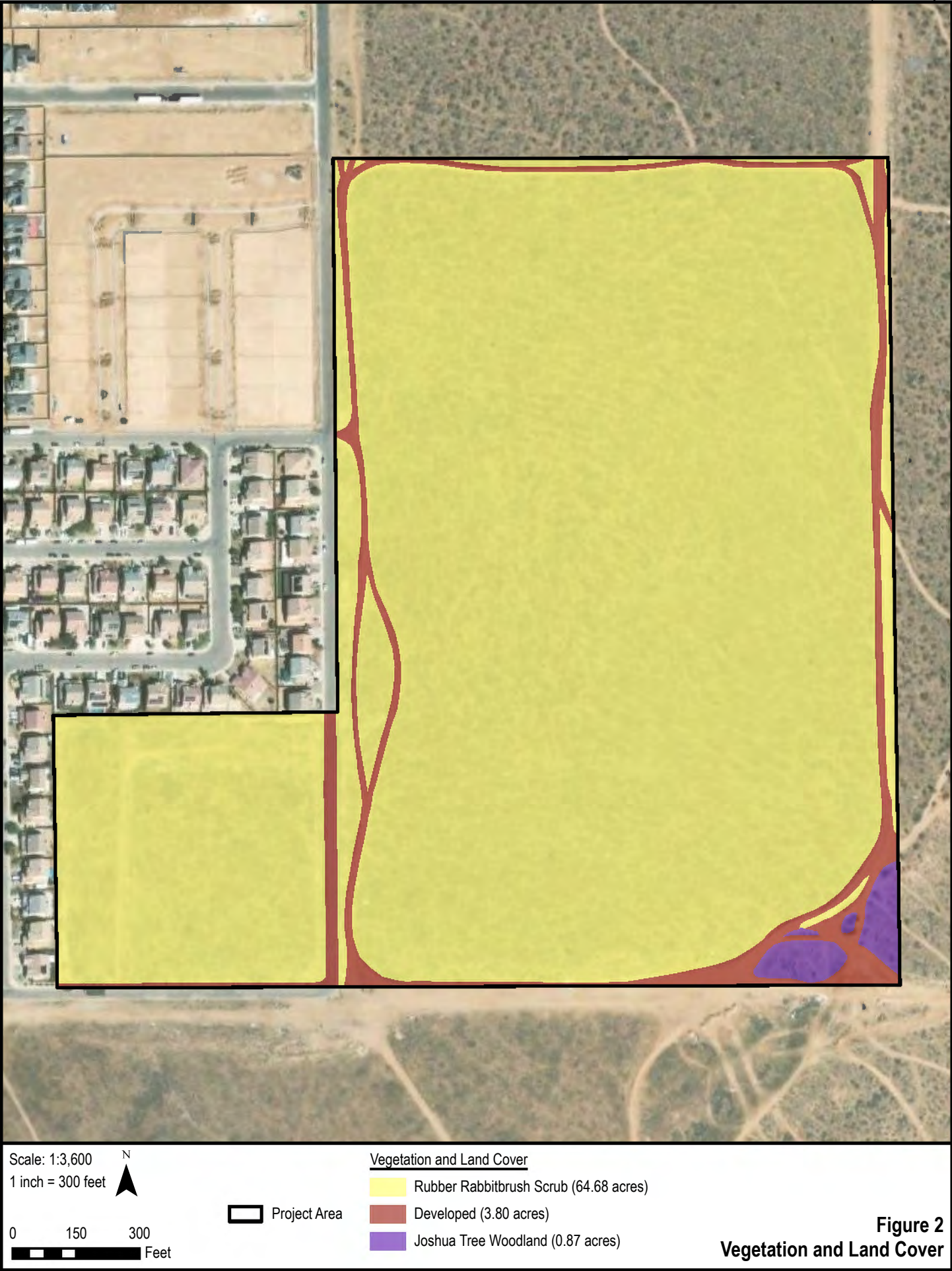
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Attachment 1 – Figures





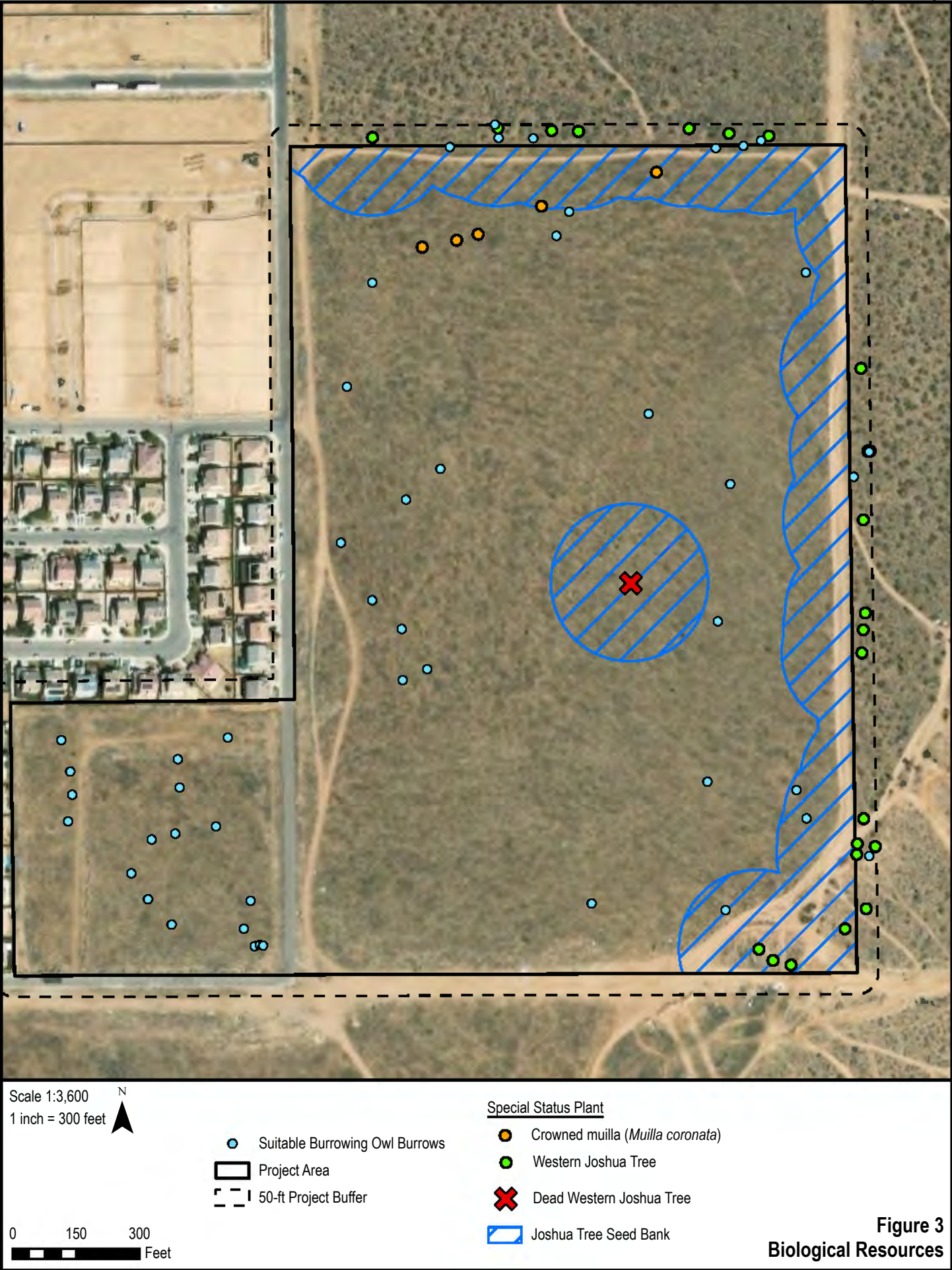


Figure 3
Biological Resources

Attachment 2 – CNDDDB Query Results



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad> IS (Adelanto (3411754)> OR Baldy Mesa (3411744)> OR Cajon (3411734)> OR Hesperia (3411743)> OR Phelan (3411745)> OR Shadow Mountains SE (3411755)> OR Silverwood Lake (3411733)> OR Telegraph Peak (3411735)> OR Victorville (3411753))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Anaxyrus californicus</i> arroyo toad	AAABB01230	Endangered	None	G2G3	S2	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aphyllon validum ssp. validum</i> Rock Creek broomrape	PDORO040G2	None	None	G4T2	S2	1B.2
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Artemisiospiza belli belli</i> Bell's sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
<i>Asclepias nyctaginifolia</i> Mojave milkweed	PDASC02190	None	None	G4?	S2	2B.1
<i>Asio otus</i> long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
<i>Astragalus lentiginosus var. antonius</i> San Antonio milk-vetch	PDFAB0FB92	None	None	G5T2	S2	1B.3
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S2	SSC
<i>Batrachoseps gabrieli</i> San Gabriel slender salamander	AAAAD02110	None	None	G2G3	S2S3	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Botrychium ascendens</i> upswept moonwort	PPOPH010S0	None	None	G4	S2	2B.3
<i>Botrychium crenulatum</i> scalloped moonwort	PPOPH010L0	None	None	G4	S3	2B.2
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>Calochortus palmeri var. palmeri</i> Palmer's mariposa-lily	PMLIL0D122	None	None	G3T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Calochortus plummerae</i> Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
<i>Canbya candida</i> white pygmy-poppy	PDPAP05020	None	None	G3G4	S3S4	4.2
<i>Castilleja lasiorhyncha</i> San Bernardino Mountains owl's-clover	PDSCR0D410	None	None	G2?	S2?	1B.2
<i>Chaetodipus fallax pallidus</i> pallid San Diego pocket mouse	AMAFD05032	None	None	G5T3T4	S3S4	
<i>Charina umbratica</i> southern rubber boa	ARADA01011	None	Threatened	G2G3	S2	
<i>Chorizanthe xanti var. leucotheca</i> white-bracted spineflower	PDPGN040Z1	None	None	G4T3	S3	1B.2
<i>Claytonia peirsonii ssp. peirsonii</i> Peirson's spring beauty	PDPOR03121	None	None	G2G3T2	S2	1B.2
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Deinandra mohavensis</i> Mojave tarplant	PDAST4R0K0	None	Endangered	G3	S3	1B.3
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
<i>Diplacus mohavensis</i> Mojave monkeyflower	PDSCR1B1V0	None	None	G2	S2	1B.2
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S3	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremothera boothii ssp. boothii</i> Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
<i>Euchloe hyantis andrewsi</i> Andrew's marble butterfly	IILEPA5032	None	None	G4G5T1	S2	
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
<i>Euphydryas editha quino</i> quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
<i>Glaucomys oregonensis californicus</i> San Bernardino flying squirrel	AMAFB09021	None	None	G5T1T2	S1S2	SSC
<i>Gopherus agassizii</i> desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
<i>Helminthoglypta mohaveana</i> Victorville shoulderband	IMGASC2340	None	None	G1	S1	
<i>Helminthoglypta taylori</i> westfork shoulderband	IMGASC2640	None	None	G1	S1	
<i>Heuchera parishii</i> Parish's alumroot	PDSAX0E1F0	None	None	G3	S3	1B.3
<i>Icaricia saepiolus aureolus</i> San Gabriel Mountains blue butterfly	IILEPG6011	None	None	G5T1	S1	
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S4	SSC
<i>Juniperella mirabilis</i> juniper metallic wood-boring beetle	IICOLX9010	None	None	G1	S1	
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lilium parryi</i> lemon lily	PMLIL1A0J0	None	None	G3	S3	1B.2
<i>Linanthus concinnus</i> San Gabriel linanthus	PDPLM090D0	None	None	G2	S2	1B.2
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i> sagebrush loeflingia	PDCAR0E011	None	None	G5T3	S2	2B.2
<i>Lycium parishii</i> Parish's desert-thorn	PDSOL0G0D0	None	None	G4	S1	2B.3
<i>Microtus californicus mohavensis</i> Mohave river vole	AMAFF11031	None	None	G5T1	S1	SSC
<i>Monardella australis</i> ssp. <i>jokerstii</i> Jokerst's monardella	PDLAM18112	None	None	G4T1?	S1?	1B.1
<i>Muhlenbergia californica</i> California muhly	PMPOA480A0	None	None	G4	S4	4.3
<i>Neotamias speciosus speciosus</i> lodgepole chipmunk	AMAFB02172	None	None	G4T3T4	S2	
<i>Opuntia basilaris</i> var. <i>brachyclada</i> short-joint beavertail	PDCAC0D053	None	None	G5T3	S3	1B.2
<i>Oreonana vestita</i> woolly mountain-parsley	PDAP1G030	None	None	G3	S3	1B.3
<i>Ovis canadensis nelsoni</i> desert bighorn sheep	AMALE04013	None	None	G4T4	S3	FP
<i>Palaeoxenus dohrni</i> Dohrn's elegant eucnemid beetle	IICOL5K010	None	None	G3?	S1S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Pedimelum castoreum</i> Beaver Dam breadroot	PDFAB5L050	None	None	G3	S2	1B.2
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G4	S4	SSC
<i>Piranga rubra</i> summer tanager	ABPBX45030	None	None	G5	S1	SSC
<i>Plebulina emigdionis</i> San Emigdio blue butterfly	IILEPG7010	None	None	G1G2	S1S2	
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Rana muscosa</i> southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S2	WL
<i>Rhinichthys osculus ssp. 8</i> Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
<i>Schoenus nigricans</i> black bog-rush	PMCYP0P010	None	None	G4	S2	2B.2
<i>Scutellaria bolanderi ssp. austromontana</i> southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3	SSC
<i>Siphateles bicolor mohavensis</i> Mohave tui chub	AFCJB1303H	Endangered	Endangered	G4T1	S1	FP
<i>Southern Sycamore Alder Riparian Woodland</i> Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
<i>Symphyotrichum defoliatum</i> San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
<i>Symphyotrichum greatae</i> Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis hammondi</i> two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
<i>Toxostoma lecontei</i> Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
<i>Vireo vicinior</i> gray vireo	ABPBW01140	None	None	G5	S2	SSC
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	AMAFB05150	None	Threatened	G3	S2	

Record Count: 81

Attachment 3 – IPaC Resource List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

<https://ipac.ecosphere.fws.gov/location/IVZKGG4DBVERDK4JZCHM2SESUM/resources>

Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Desert Tortoise <i>Gopherus agassizii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad <i>Anaxyrus californicus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3762	Endangered

Insects

NAME	STATUS
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Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date

range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Western Grebe <i>Aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

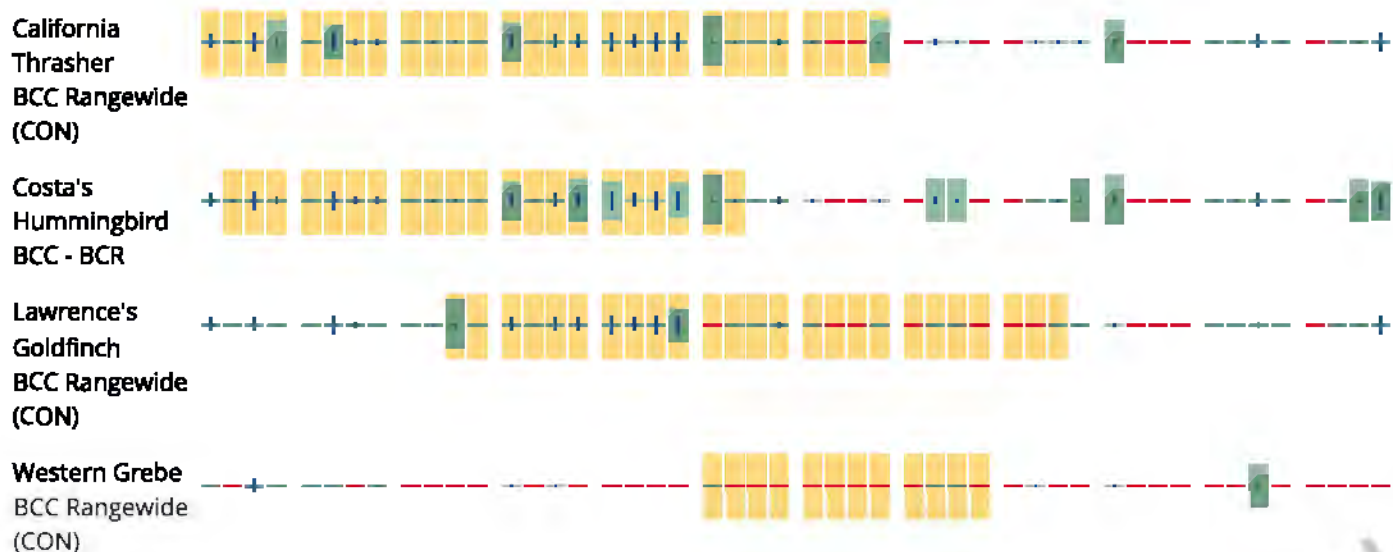
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

(NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should

seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment 4 – Special-status Species Not Addressed

Attachment 4. Special-Status Species Not Addressed¹

Latin Name	Common Name	Reason for Exclusion
PLANTS		
<i>Acanthoscyphus parishii</i> var. <i>parishii</i>	Parish's oxytheca	Well below elevational range.
<i>Allium howellii</i> var. <i>clokeyi</i>	Mt. Pinos onion	Well below elevational range.
<i>Allium parishii</i>	Parish's onion	No suitable rocky soils.
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	Well outside of the geographic range.
<i>Aphyllon validum</i> ssp. <i>validum</i>	Rock Creek broomrape	Well outside of the geographic range.
<i>Asclepias nyctaginifolia</i>	Mojave milkweed	Well outside of the geographic range.
<i>Astragalus lentiginosus</i> var. <i>antonius</i>	San Antonio milk-vetch	No suitable coniferous forest habitat.
<i>Azolla microphylla</i>	Mexican mosquito fern	No suitable wetland habitat.
<i>Boechera dispar</i>	Pinyon rockcress	Well below elevational range.
<i>Botrychium ascendens</i>	Upswept moonwort	Well below elevational range.
<i>Botrychium crenulatum</i>	Scalloped moonwort	Well below elevational range.
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa-lily	Well outside of the geographic range.
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	Well outside of the geographic range.
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's-clover	Well below elevational range.
<i>Castilleja plagiotoma</i>	Mojave paintbrush	No suitable woodland habitat.
<i>Chorizanthe spinosa</i>	Mojave spineflower	No suitable alkaline soils.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	White-bracted spineflower	Well outside of the geographic range.
<i>Claytonia peirsonii</i> ssp. <i>peirsonii</i>	Peirson's spring beauty	Well below elevational range.
<i>Cymopterus deserticola</i>	Desert cymopterus	No suitable sandy soils.
<i>Deinandra mohavensis</i>	Mojave tarplant	No suitable chaparral, coastal or riparian scrub habitat.
<i>Diplacus johnstonii</i>	Johnston's monkeyflower	No suitable montane coniferous forest.
<i>Diplacus mohavensis</i>	Mojave monkeyflower	No suitable gravelly soils or washes.
<i>Dudleya abramsii</i> ssp. <i>affinis</i>	San Bernardino Mountains dudleya	Well below elevational range.
<i>Eremothera boothii</i> ssp. <i>boothii</i>	Booth's evening-primrose	No suitable woodland habitat.
<i>Erigeron parishii</i>	Parish's daisy	No suitable carbonate soils.
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	Southern Sierra woolly sunflower	Well below elevational range.
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	Southern Sierra woolly sunflower	No suitable coniferous forest habitat.
<i>Fimbristylis thermalis</i>	Hot springs fimbristylis	No suitable hot spring habitat.
<i>Frasera neglecta</i>	Pine green-gentian	Well below elevational range.
<i>Galium johnstonii</i>	Johnston's bedstraw	No suitable chaparral or woodland habitat.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	No suitable wetland habitat.
<i>Heuchera parishii</i>	Parish's alumroot	Well below elevational range.
<i>Ivesia argyrocoma</i> var. <i>argyrocoma</i>	Silver-haired ivesia	Well below elevational range.
<i>Johnstonella costata</i>	Ribbed cryptantha	Well above elevational range.
<i>Juglans californica</i>	Southern California black walnut	No suitable chaparral or woodland habitat.
<i>Juncus duranii</i>	Duran's rush	No suitable wetland habitat.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Ocellated Humboldt lily	No suitable chaparral or woodland habitat.
<i>Lilium parryi</i>	Lemon lily	Well below elevational range.
<i>Linanthus concinnus</i>	San Gabriel linanthus	Well below elevational range.
<i>Loetlingia squarrosa</i> var. <i>artemisiarum</i>	Sagebrush loetlingia	No suitable sandy soils.
<i>Lycium parishii</i>	Parish's desert storm	Conspicuous species not observed.
<i>Lycium torreyi</i>	Torrey's box-thorn	Conspicuous species not observed.

Attachment 4. Special-Status Species Not Addressed¹

Latin Name	Common Name	Reason for Exclusion
<i>Monardella australis</i> ssp. <i>jokerstii</i>	Jokerst's monardella	Well below elevational range.
<i>Muhlenbergia californica</i>	California muhly	No suitable streambanks or rocky slopes.
<i>Nemacladus gracilis</i>	Slender nemacladus	No suitable cismontane or grassland habitat.
<i>Oreonana vestita</i>	Woolly mountain-parsley	Well below elevational range.
<i>Orobanche valida</i> ssp. <i>valida</i>	Rock creek broomrape	No suitable granite soils.
<i>Packera ionophylla</i>	Tehachapi ragwort	No suitable montane coniferous forest.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	Golden-rayed pentachaeta	No suitable woodland, chaparral, or coastal scrub habitat.
<i>Perideridia parishii</i> ssp. <i>parishii</i>	Parish's yampah	No suitable montane coniferous forest.
<i>Phacelia exilis</i>	Transverse Range phacelia	No suitable montane coniferous forest.
<i>Phacelia mohavensis</i>	Mojave phacelia	No suitable woodland habitat.
<i>Romneya coulteri</i>	Coulter's matilija poppy	No suitable coastal scrub or chaparral habitat.
<i>Saltugilia latimeri</i>	Latimer's woodland-gilia	No suitable arid mountains and foothill habitat.
<i>Schoenus nigricans</i>	Black bog-rush	No suitable wetland habitat.
<i>Sclerocactus polyancistrus</i>	Mojave fish-hook cactus	Conspicuous species not observed.
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	Southern mountains skullcap	No mesic chaparral and woodlands.
<i>Selaginella asprella</i>	Bluish spike-moss	No suitable montane coniferous forest.
<i>Sidothea caryophylloides</i>	Chickweed oxytheca	No suitable montane coniferous forest.
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	No suitable chaparral habitat.
<i>Symphyotrichum defoliatum</i>	San Bernardino aster	No suitable meadow habitat.
<i>Symphyotrichum greatae</i>	Greata's aster	No suitable mesic canyon habitat.
<i>Trichostema micranthum</i>	Small-flowered bluecurls	No suitable montane coniferous forest.
INVERTEBRATES		
<i>Euchloe hyantis andrewsi</i>	Andrew's marble butterfly	No suitable shrubland and woodland habitat.
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	No suitable coastal scrub and chaparral habitat.
<i>Helminthoglypta mohaveans</i>	Victorville shoulderband	No suitable rock outcrops.
<i>Helminthoglypta taylori</i>	Westfork shoulderband	Well outside of geographical range.
<i>Icaricia saepiolus aureolus</i>	San Gabriel Mountains blue butterfly	No suitable wet meadow habitat.
<i>Juniperella mirabilis</i>	Juniper metallic wood-boring beetle	No Juniper woodland habitat.
<i>Palaeoxenus dohrni</i>	Dohrn's elegant eucernid beetle	No suitable coniferous woodland habitat.
<i>Plebulina emigdonis</i>	San Emigdio blue butterfly	No suitable saltbush scrub habitat.
FISHES		
<i>Rhinichthys osculus</i> ssp. 8	Santa Ana Speckled dace	No suitable aquatic habitat.
<i>Siphateles bicolor mohavnesis</i>	Mohave tui chub	No suitable aquatic habitat.
AMPHIBIANS		
<i>Anaxyrus californicus</i>	Arroyo toad	No suitable wash habitat.
<i>Batrachoseps gabrielli</i>	San Gabriel slender salamander	No suitable talus habitat.
<i>Rana draytonii</i>	California red-legged frog	No suitable aquatic habitat.
<i>Rana mucosa</i>	Southern mountain yellow-legged frog	No suitable aquatic habitat.
REPTILES		

Attachment 4. Special-Status Species Not Addressed¹

Latin Name	Common Name	Reason for Exclusion
<i>Aspidoscelis tigris stejnegeri</i>	Coastal whiptail	Well outside of geographical range.
<i>Charina umbratica</i>	Southern rubber boa	Well below elevation range.
<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake	No suitable moist habitat.
<i>Emys marmorata</i>	Western pond turtle	No suitable aquatic habitat.
<i>Thamnophis hammondi</i>	Two-striped gartersnake	No suitable aquatic habitat.
BIRDS		
<i>Agelaius tricolor</i>	Tricolored blackbird	No suitable wetland habitat.
<i>Asio otus</i>	Long-eared owl	Not adequately sized trees to support nesting.
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	No suitable riparian habitat.
<i>Empidonax trailii extimus</i>	Southwestern willow flycatcher	No suitable riparian habitat.
<i>Haliaeetus leucocephalus</i>	Bald eagle	No suitable nesting or foraging habitat.
<i>Icteria virens</i>	Yellow-breasted chat	No suitable riparian habitat.
<i>Pandion haliaetus</i>	Osprey	Not adequately sized trees to support nesting.
<i>Piranga rubra</i>	Summer tanager	No suitable riparian habitat.
<i>Setophaga petechia</i>	Yellow warbler	No suitable riparian habitat.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	No suitable riparian scrub habitat.
<i>Vireo vicinior</i>	Gray vireo	No suitable chaparral habitat.
MAMMALS		
<i>Chaetodipus fallax pallidus</i>	Pallid San Diego pocket mouse	No suitable sandy soils.
<i>Glaucomys oregonensis californicus</i>	San Bernardino flying squirrel	No suitable montane coniferous forest.
<i>Microtus californicus mohavensis</i>	Mohave river vole	No suitable riparian habitat.
<i>Neotamias speciosus speciosus</i>	Lodgepole chipmunk	No suitable montane coniferous forest.
<i>Ovis canadensis nelsoni</i>	Desert bighorn sheep	Well outside of geographic range.

Note:

¹ Special-status species reported from the region, but not addressed in this report due to habitat or geographic range.

Attachment 5 – Project Species List

Attachment 5. Project Species List

Latin Name	Common Name
VASCULAR PLANTS	
Gymnosperms	
EPHEDRACEAE	EPHEDRA FAMILY
<i>Ephedra nevadensis</i>	Nevada ephedra
Dicotyledons	
AMARANTHACEAE	AMARANTH FAMILY
<i>Amaranthus fimbriatus</i>	Fringed amaranth
ASTERACEAE	ASTER FAMILY
<i>Ambrosia acanthicarpa</i>	Annual bur-sage
<i>Ambrosia dumosa</i>	White bur-sage
<i>Ambrosia salsola</i>	Burrobrush
<i>Ericameria nauseosa</i>	Rubber rabbitbrush
<i>Lessingia glandulifera</i>	Valley lessingia
<i>Pectis papposa</i> var. <i>papposa</i>	Chinch-weed
<i>Stephanomeria pauciflora</i>	Wire-lettuce
BORAGINACEAE	BORAGE OR WATERLEAF FAMILY
<i>Amsinckia tessellata</i>	Fiddleneck
BRASSICACEAE	MUSTARD FAMILY
<i>Caulanthus lasiophyllus</i>	California mustard
* <i>Hirschfeldia incana</i>	Shortpod mustard
* <i>Sisymbrium altissimum</i>	Tumble mustard
CACTACEAE	CACTUS FAMILY
<i>Cylindropuntia echinocarpa</i>	Silver cholla
CHENOPODIACEAE	GOOSEFOOT FAMILY
* <i>Salsola tragus</i>	Russian thistle
EUPHORBIACEAE	SPURGE FAMILY
<i>Croton setiger</i>	Turkey-mullein
FABACEAE	PEA FAMILY
<i>Acemisson strigosus</i>	Strigose lotus
GERANIACEAE	GERANIUM FAMILY
* <i>Erodium cicutarium</i>	Red stemmed filaree
HYDROPHYLLACEAE	WATERLEAF FAMILY
<i>Phacelia distans</i>	Common phacelia
LAMIACEAE	MINT FAMILY
<i>Salvia carduacea</i>	Thistle sage
<i>Scutellaria mexicana</i>	Bladder-sage
LILIACEAE	LILY FAMILY
** <i>Muilla coronata</i>	Crowned muilla
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Plantago ovata</i>	Desert plantain
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Eriogonum</i> sp.	Unid. annual buckwheat
<i>Eriogonum fasciculatum</i>	California buckwheat
PORTULACACEAE	PURSLANE FAMILY
* <i>Portulaca oleracea</i>	Common purslane
SOLANACEAE	NIGHTSHADE FAMILY
<i>Datura wrightii</i>	Jimsonweed
Monocotyledons	
AGAVACEAE	AGAVE FAMILY
<i>Yucca brevifolia</i> var. <i>brevifolia</i>	Joshua tree
POACEAE	GRASS FAMILY

* <i>Bromus tectorum</i>	Cheat grass
* <i>Bromus rubens</i>	Red brome
* <i>Schismus barbatus</i>	Mediterranean schismus
ZYGOPHYLLACEAE	CALTROP FAMILY
<i>Larrea tridentata</i>	Creosote bush
VERTEBRATE ANIMALS	
AVES	BIRDS
COLUMBIDAE	PIGEONS AND DOVES
<i>Columba livia</i>	Rock dove
CORVIDAE	CROWS AND JAYS
<i>Corvus corax</i>	Common raven
ALAUDIDAE	LARKS
<i>Eremophila alpestris</i>	Horned lark
PHASIANIDAE	GROUSE AND QUAIL
<i>Callipepla californica</i>	California quail
TROGLODYTIDAE	WRENS
<i>Campylorhynchus brunneicapillus</i>	Cactus wren
TURDIDAE	THRUSHES AND ALLIES
<i>Sialia mexicana</i>	Western bluebird
TYRANNIDAE	TYRANT FLYCATCHERS
<i>Sayornis saya</i>	Say's phoebe
EMBERIZIDAE	SPARROWS, WARBLERS, TANAGERS
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
FRINGILLIDAE	FINCHES
<i>Haemorhous mexicanus</i>	House finch
MAMMALIA	MAMMALS
SCIURIDAE	SQUIRRELS
<i>Otospermophilus beecheyi</i>	California ground squirrel

Species introduced to California are indicated by an asterisk. This list includes only species observed on the site. Other species may have been overlooked or unidentifiable due to season (amphibians are active during rains, reptiles during summer, some birds (and bats) migrate out of the area for summer or winter, some mammals hibernate, many plants are identifiable only in spring). Plants were identified using keys, descriptions, and illustrations in Baldwin et al (2012). Plant taxonomy and nomenclature generally follow Baldwin et al. (2012). Wildlife taxonomy and nomenclature generally follow Stebbins (2003) for amphibians and reptiles, AOU (1998) for birds, and Wilson and Ruff (1999) for mammals.

Attachment 6 – Project Photos



Photo 1: Western portion of project site facing southeast on April 3, 2023.



Photo 2: Western portion of project site facing northeast from southwest corner on April 3, 2023.



Photo 3: Eastern portion of project site facing south from northeast corner on April 3, 2023.



Photo 4: Overview of project site on September 27, 2023.



Photo 5: Typical western Joshua tree in project area.



Photo 6: Suitable burrowing owl burrow found within project site.



Photo 7: View of habitat in southeast corner of project site.



Photo 8: View of habitat in southeast corner of project site.

Attachment 7 – Western Joshua Tree Data Table

Attachment 7. Western Joshua Tree Census Data

Tree ID	Latitude	Longitude	Size Class	Height of Tree (m)	Live or Dead	Branched	Flowering or Fruiting Stage	Impact to Tree	Project activities within 15 meters of tree?	Relocation Site	Additional Notes
1	34.454005	-117.385701	C	8.5	Live	Y	None	None	Yes	Not Applicable	
2	34.454061	-117.384715	C	5.7	Live	Y	Flowers	None	Yes	Not Applicable	
3	34.454043	-117.384294	B	4.5	Live	Y	Flowers	None	Yes	Not Applicable	
4	34.454036	-117.384084	B	3.7	Live	Y	None	None	Yes	Not Applicable	
5	34.454049	-117.383214	B	2.7	Live	Y	Flowers	None	Yes	Not Applicable	
6	34.454017	-117.382901	B	4.4	Live	Y	None	None	Yes	Not Applicable	
7	34.453999	-117.382589	B	4.6	Live	Y	None	None	Yes	Not Applicable	
8	34.453449	-117.381759	A	0.4	Live	N	None	None	Yes	Not Applicable	
9	34.451947	-117.381827	B	4	Live	Y	None	None	Yes	Not Applicable	
10	34.4515	-117.381865	A	0.7	Live	Y	None	None	Yes	Not Applicable	
11	34.450895	-117.381855	B	1.1	Live	Y	None	None	Yes	Not Applicable	
12	34.450786	-117.381871	B	2.8	Live	Y	Flowers	None	Yes	Not Applicable	
13	34.450635	-117.381884	C	5.8	Live	Y	Flowers	None	Yes	Not Applicable	
14	34.449558	-117.381877	B	4.2	Live	Y	None	None	Yes	Not Applicable	
15	34.449395	-117.381929	C	6.5	Live	Y	Flowers	None	Yes	Not Applicable	
16	34.449376	-117.381788	B	4	Live	Y	None	None	Yes	Not Applicable	

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17	34.449326	-117.381934	C	5	Live	Y	None	None	Yes	Not Applicable
18	34.448972	-117.381862	C	5.5	Live	Y	Flowers	None	Yes	Not Applicable
19	34.448843	-117.382029	C	6	Live	Y	None	Removal	Yes	Not Applicable
20	34.44861	-117.382454	B	1.5	Live	Y	None	Removal	Yes	Not Applicable
21	34.44864	-117.3826	C	5	Live	Y	Flowers	Removal	Yes	Not Applicable
22	34.448714	-117.382706	B	2.2	Live	Y	Flowers	Removal	Yes	Not Applicable
23	34.451097	-117.383693	A	0.1	Dead	N	None	Removal	Yes	Not Applicable
24	34.451947	-117.381810	B	4.8	Live	Y	Flowers	None	Yes	Not Applicable