



# Biological Resources Assessment

Bear Valley Solar Energy Project

PREPARED FOR

EDF Renewables Distribution-Scale  
Power

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0739207



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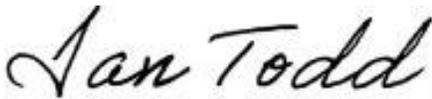
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## ACRONYMS AND ABBREVIATIONS

AC	Alternating Current
APN	Assessor's Parcel Number
APT	Antecedent Precipitation Tool
CCH	Consortium of California Herbaria
CDFW	California Department of Fish and Wildlife
CDWR	California Department of Water Resources
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWHR	California Wildlife Habitat Relationships
EDFR-DSP	EDF Renewables Distribution Scale Power
ERM	Environmental Resources Management
FEMA	Federal Emergency Management Agency
IPaC	Information for Planning and Conservation
MW	Megawatt
NHD	National Hydrology Dataset
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration's

NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Project	Bear Valley Solar Energy Project
Project Area	Assessor's Parcel Number 031440129
PV	Photovoltaic
RPI	Rare Plant Inventory
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Services
USFS	United States Forest Service
USGS	United States Geological Survey

## 1. INTRODUCTION

Environmental Resources Management, Inc. (ERM), was retained by EDF Renewables Distribution-Scale Power to provide biological services in support of the Bear Valley Solar Energy Project (Project) located on a privately owned parcel, near the City of Big Bear Lake in unincorporated San Bernardino County, California (Appendix A, Figure 1, *Regional Map*; Appendix A, Figure 2, *Vicinity Map*). ERM was tasked with conducting a biological resources assessment for the 29.53-acre parcel where the Project is proposed to be developed ([Project Area] Appendix A, Figure 3). The purpose of this assessment was to evaluate the site's potential to support special-status species or sensitive habitats, to identify any potential biological site constraints related to permits needed to execute Project-related activities, and to assess the potential for significant impacts to biological resources and propose recommendations. This assessment is part of the environmental review process to comply with the California Environmental Quality Act (CEQA). To complete this assessment, ERM reviewed publicly available data from the Project vicinity and conducted a reconnaissance-level ecological survey of the site. This report summarizes the results of these assessments.

### 1.1 PROJECT DESCRIPTION

The Project proposes to construct a new, approximately 5-megawatt (MW) alternating current (AC) solar photovoltaic (PV) facility. The Project is owned by Bear Valley Electric Service, Inc. (BVES; Applicant) and being designed, permitted, and developed by EDF Renewables Distribution-Scale Power (EDFR-DSP).

### 1.2 LOCATION

The Project is situated within a 29.53-acre parcel, referred to as Assessor's Parcel Number (APN) 031440129, located at 2151 Erwin Ranch Road, near the City of Big Bear Lake in unincorporated San Bernardino County, California. The Project is approximately 2.5 miles to the southeast of Big Bear City, California, approximately 4 miles to the southeast of Big Bear Lake, approximately 1.5 miles to the south of Baldwin Lake, and approximately 0.6 miles northwest of Erwin Lake (Appendix A, Figure 1, *Regional Map*; Appendix A, Figure 2, *Vicinity Map*). Local access is provided by Erwin Ranch Road and Lakewood Drive, and regional access is provided by State Route 38. The Project is in the United States Geological Survey (USGS) 7.5-minute quadrangle for Big Bear City, California, within Section 17 of Township 2 North, Range 2 East. The San Bernardino National Forest borders the Project Area on the north but does not extend into the bounds of the Project Area. Additionally, the Project Area does not contain residential properties but is visible from Erwin Ranch Road, Lakewood Drive, and the neighboring rural residences on the east, west, and south.

## 2. REGULATORY FRAMEWORK

Table 1 summarizes the regulatory framework relevant to the potential biological resources within the Project Area that could be triggered by the development of the proposed Project.

**TABLE 1 REGULATORY SETTING**

<b>Regulations</b>	<b>Responsible Agency</b>
<b>Federal Regulations</b>	
Federal Endangered Species Act	United States Fish and Wildlife Service
Bald and Golden Eagle Protection Act	United States Fish and Wildlife Service
Migratory Bird Treaty Act	United States Fish and Wildlife Service
<b>State Regulations</b>	
California Endangered Species Act	California Department of Fish and Wildlife
California Environmental Quality Act	San Bernardino County
California Desert Native Plants Act; California Food and Agriculture Code Sections 80001-80201	California Department of Fish and Wildlife
Native Plant Protection Act; California Fish and Game Code Sections 1900-1913	California Department of Fish and Wildlife
Natural Community Conservation Plan; California Fish and Game Code Section 2800	California Department of Fish and Wildlife
Fully Protected Species; California Fish and Game Code Sections 3511, 3515, 3800, 4700, 5050 and 5515	California Department of Fish and Wildlife
Fully Protected Fur Bearing Mammals; California Code of Regulations Title 14, § 460, and California Fish and Game Code Section 4000	California Department of Fish and Wildlife
Protection of Birds, Eggs and Nests; California Fish and Game Code Section 3503, 3503.5 and 3513	California Department of Fish and Wildlife
Western Joshua Tree Conservation Act; California Fish and Game Code Section 1927	California Department of Fish and Wildlife
<b>Local Regulations/Planning Documents</b>	
San Bernardino County Countywide Plan – Natural Resources Element; Goal NR-5: Biological Resources	San Bernardino County
San Bernardino Countywide Plan - Renewable Energy and Conservation Element; Goal RE-4 Environmental Compatibility	San Bernardino County

### 3. BASELINE CONDITIONS

#### 3.1 TOPOGRAPHY & REGIONAL CONTEXT

The Project Area is located within the U.S. Environmental Protection Agency (USEPA) Level IV Ecoregion 8f, also known as the Southern California Montane Conifer Forest, which occurs on the igneous-dominated mountains of the eastern Transverse Range and the Peninsular Ranges. The Project Area is located within the USGS Baldwin Lake Sub-Watershed (Hydrologic Unit Code 12 180702030101) and California's Regional Water Quality Control Board (RWQCB) / State Water Resources Control Board (SWRCB) Baldwin Hydrologic Subarea (801.73). The Project Area is in the Big Bear Valley and consists of a sloped pinyon-juniper woodland in the north, a minor topographic depression comprised of upland mustards and other ruderal vegetation in the northwestern to north central area, and a flat big sagebrush plant community in the south (Appendix A, Figure 1, *Regional Map*, Figure 2, *Vicinity Map*, Figure 5, *Vegetation Community and Land Cover Map*). The sloped pinyon-juniper woodland is characterized by 30 to 50 percent slopes and occurs between approximately 6,785 and 6,875 feet above mean sea level (Google Earth 2024). The minor topographic depression is characterized by 0 to 2 percent slopes at the toe-of-slope of the wooded hillside and occurs between approximately 6,780 and 6,785 feet above mean sea level. The flat big sagebrush community is characterized by 0 to 2 percent slopes and occurs between approximately 6,785 and 6,790 feet above mean sea level. The minor topographic depression is demarcated by slight changes in elevation (approximately 1 to 2 feet) associated with the toe of slope at the base of the woodland to the north, Lakewood Drive to the west, the residence with the equestrian facility to the southwest, the flat big sagebrush community to the south, and a 5-foot by 5-foot abandoned mineshaft and associated mining facilities to the east (Google Earth 2024).

#### 3.2 CLIMATE

Big Bear Valley has warm summers and cold winters with precipitation occurring as rainfall in the warmer months and snowfall in the colder months. Average daily summer temperatures range between 60 to 70 degrees Fahrenheit, and average daily winter temperatures range between 35 to 40 degrees Fahrenheit (PRISM Climate Group 2024; USGS 2012). Due to the rain shadow effect of the San Bernardino Mountains, annual precipitation distribution within the valley is variable, ranging from approximately 35 inches on the western edge of Big Bear Lake to approximately 18 inches on the eastern edge of Baldwin Lake (USGS 2012).

Thirty-year climatological normals (1991-2020) for the 4-square-kilometer grid cell containing the Project Area interpolated by the data values among the surrounding grid cells indicate an annual average precipitation of 20.88 inches, (ranging from 0.12 inches in June, the driest month, to 4.73 inches in February, the wettest month) with an average July maximum temperature of 80.1 degrees Fahrenheit, and an average December minimum temperature of 23.1 degrees Fahrenheit (PRISM Climate Group 2024). Historical precipitation data from 2014 to 2023 indicates the most winter precipitation occurred in February 2019 (11.76 inches) and the most summer precipitation occurred in August 2023 (4.31 inches). The U.S. Army Corps of Engineers (USACE) Antecedent Precipitation Tool (APT) Version 2.0, which is a desktop tool that compares antecedent precipitation with normal ranges based on National Oceanic and Atmospheric Administration's

(NOAA) Daily Global Historical Climatology Network, indicates that weather conditions at the time of the field investigation represent normal conditions (USACE 2023).

## 4. METHODS

### 4.1 DESKTOP INVESTIGATION

A database and literature review were conducted to assess biological resources and habitats with potential to occur in the Project Area and form a list of target special-status species to assess during the reconnaissance-level survey. The following databases and resources were queried for the USGS 7.5-minute quadrangle within which the Project Area is located, Big Bear City, as well as the 8 surrounding quadrangles: Big Bear Lake, Cougar Buttes, Fawnskin, Lucerne Valley, Moonridge, Old Woman Springs, Onyx Peak, and Rattlesnake Canyon (Appendix A, Figure 1, *Regional Map*).

- Calflora: a database providing information on wild California plants (Calflora 2024);
- California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB) (CDFW 2024a);
- California Department of Fish and Wildlife's (CDFW) California Wildlife Habitat Relationships (CWHR) (CDFW 2024d);
- California Native Plant Society (CNPS) Rare Plant Inventory (RPI) (CNPS 2024a);
- Consortium of California Herbaria (CCH) (CCH 2024);
- eBird: a citizen-based bird observation network (eBird 2024);
- Google Earth Imagery (Google 2024);
- iNaturalist: a citizen-based organism observation network (iNaturalist 2024);
- United States Fish and Wildlife Service (USFWS) Critical Habitat (USFWS 2024a);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2024b);
- USFWS National Wetland Inventory (NWI) (USFWS 2024c);
- National Marine Fisheries Service (NMFS) Critical Habitat (NMFS 2024);
- USGS's National Hydrology Dataset (NHD) (USGS 2024); and
- United States Department of Agriculture's (USDA) Natural Resources Conservation Service's (NRCS) Web Soil Survey (Soil Survey Staff 2024);

A list of special-status species was produced by querying special-status species occurrence data in the vicinity of the Project Area. For environmental reviews, conducting a nine-quadrangle (9-quad) search for special-status species surrounding a Project Area serves as a baseline for evaluating potential species' occurrence data and follows the regulatory guidance set forth by CDFW (CDFW 2018a; CDFW 2019; CNPS 2024c). The CNDDDB and the CNPS RPI were queried using a 9-quad search from the Project Area. A federal special-level species list report was also produced by the USFWS IPaC system.

### 4.2 FIELD SURVEY

ERM biologists Nicholas Smith and Marissa Juarez conducted an aquatic resource delineation and site constraints survey within the Project Area (Appendix A, Figure 3) on Monday, 01 July 2024. The purpose of the initial site visit was to determine whether wetlands and non-wetlands waters potentially subject to federal jurisdiction under Section 404 of the Clean Water Act (CWA) and

potentially subject to state jurisdiction under Section 401 of the CWA, the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and Section 1600 of the California Fish and Game Code (CFGC) are present, and if so, their extent within the Project Area (ERM 2024b).

Nicholas Smith returned to the Project Area to conduct a general biological resources survey on Wednesday, 04 September 2024. The focus of both the aquatic resources and biological resources surveys was to map the existing vegetation communities and aquatic resources, if present, document the presence of habitat that could support special-status species, if present, and develop a compendium of floral and faunal species present at the time of the survey. The surveys were conducted via meandering transects on foot with use of binoculars for wildlife observation. During the time of the surveys, temperatures ranged from 51 degrees Fahrenheit in the early morning to 83 degrees Fahrenheit in the afternoon. Vegetation classification and mapping was conducted in accordance with the Survey of California Vegetation Classification and Mapping Standards (CDFW 2022) and Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Sensitive Natural Communities (CDFW 2018a), using CDFW's Vegetation Classification and Mapping Program's current list of natural communities (CDFW 2024b) and the membership rules published in the Manual of California Vegetation (CNPS 2024b). Wildlife and plants were identified using relevant field guides and dichotomous keys (Jepson eFlora 2024, Sibley 2014, Nafis 2024). Geospatial information was recorded using a global position system unit with 15-foot accuracy. Representative site photographs are provided in Appendix B (Photos 1 and 2). Floral and faunal compendia are provided in Appendix C.

## 5. RESULTS

### 5.1 GENERAL SITE CONDITION

The overall site condition was moderately disturbed. During the July 2024 survey, most of the vegetation was intact; however, during the September 2024 visit, approximately one-third of the vegetation in the western portion of the parcel had been mowed. Furthermore, approximately thirty wild donkeys were observed grazing vegetation during the time of the September 2024 survey. Anecdotal claims by a neighboring resident described the site as a former pastureland for Erwin Ranch. Foot paths traversed the site, and an unpaved access road runs along the eastern boundary of the extent of the property.

In terms of historical land use, aerial photographs from between the late 1940s to the late 1960s, show what appears to be ground disturbance onsite due to mining operations within the pinyon-juniper woodland along the northern hillside of the Project Area (NETROnline 2024). The USGS Mineral Resource Data System indicates that the Gold Hill Mine, developed in 1942 and no longer active, is located near the northeast corner of the Project Area. The record indicates that the mine workings include surface and underground openings with an overall depth of 16.46 meters and comprised of shafts, 100 feet of trenches, and a crosscut adit at 1,200 feet long with 200 feet of drifts plus several additional adits. At the time of ERM's July 2024 site visit, a partially backfilled excavation approximately 5 feet by 5 feet wide and 10 feet deep was observed on the northeastern portion of the Project Impact Footprint. The excavation appears to be an abandoned mineshaft (Appendix A, Figure 7, and Appendix B, Photo 13). The opening of the shaft is partially blocked with heavily weathered and degraded wooden planks and was flooded to within 10 or 15 feet of the surface. What appears to be a small tailing pile was observed adjacent to the mineshaft (Appendix A, Figure 7, and Appendix B, Photo 14). A former ventilation shaft within a 10-foot by 10-foot concrete slab and production shaft with subgrade machinery were also observed on the hillslope near the northeastern corner of the Project Site approximately 250-300 feet northeast of the mineshaft. The ventilation shaft was capped, and the production shaft was backfilled with soil and covered with a metal grate.

### 5.2 SOILS

Based on the USDA NRCS online Web Soil Survey data (Soil Survey Staff 2024 Appendix A, Figure 4, *Soils Map*) the Project area consists of three different soil types including:

- **Aquents-Grunney complex, 0 to 4 percent slopes (2dvmq)** – This complex of poorly drained soils is comprised of Aquents and Grunney soils. Aquents soils formed in mixed alluvium and occur in floodplains and treads. They are typically comprised of sandy loam, have an occasional frequency of flooding, and are characterized as hydric soils. Grunney soils formed in mixed alluvium and occur in floodplains and treads. They are typically comprised of muck, mucky loam, and sandy loam, have an occasional frequency of flooding and ponding, range from non-saline to very slightly saline, and are characterized as hydric soils (Soil Survey Staff 2024).

- **Moonridge-Shayroad-Cariboucreek complex, 0 to 4 percent slopes (2dvn1)** – This complex of well-drained soils is comprised of Moonridge, Shayroad, and Cariboucreek soils. Moonridge soils formed in alluvium derived primarily from granite and related rocks and occur within alluvial fans and treads. They are typically comprised of loam, have an occasional frequency of flooding, and are not characterized as hydric soils. Shayroad soils formed in alluvium derived primarily from granite and related rocks and occur within alluvial fans and treads. They are typically comprised of sandy loam, range from non-saline to very slightly saline, and are not characterized as hydric soils. Cariboucreek soils formed in mixed alluvium and occur within alluvial fans and treads. They are typically comprised of loam and clay loam, have an occasional frequency of flooding, and are not characterized as hydric soils (Soil Survey Staff 2024).
- **Goldmountain-Deadmansridge-Deadpan complex, 30 to 50 percent slopes (2dvn6)** – This complex of well-drained is comprised of Goldmountain, Deadmansridge, and Deadpan soils. Goldmountain soils formed in colluvium derived from metasedimentary rock and occur on mountain slopes. They are typically comprised of very gravelly loam to extremely gravelly loam with lithic bedrock restriction at approximately 20 and 30 inches of depth and are not characterized as hydric soils. Deadmansridge soils formed in colluvium derived from igneous and metamorphic rock and occur on mountain slopes. They are typically comprised of very gravelly loam to very cobbly loam and are not characterized as hydric soils. Deadpan soils formed in formed in colluvium derived from igneous and metamorphic rock and occur on mountain slopes. They are typically comprised of cobbly loam to cobbly clay loam and are not characterized as hydric soils (Soil Survey Staff 2024).

### 5.3 CRITICAL HABITAT

No areas designated as Critical Habitat overlap the Project Area; the nearest Critical Habitat is located approximately 0.4 miles northeast of the Project Area (for the species Bear Valley sandwort, *Eremogone ursina*).

### 5.4 AQUATIC RESOURCES

ERM conducted an aquatic resources delineation in 2024 (ERM 2024b) and did not identify any USACE jurisdictional wetlands in the project site or within 200 feet of the project site. No NHD or NWI features occurred within the Project Area. However, NWI imagery depicts a seasonally flooded, riverine intermittent stream bed (R4SBC) approximately 65 feet from the northwestern area of the parcel, a semi-permanently flooded riverine system with an unconsolidated bottom (R5UBF) approximately 125 feet from the northwestern area of the Project Area, and a seasonally saturated palustrine emergent wetland (PEM1B) approximately 290 feet from the northwestern area of the Project Area (USFWS 2024) (Appendix A, Figure 2, *Vicinity Map*). Historic aerial imagery from 1938 indicates inundation and surface hydrologic connectivity between the northern sections of the Project Area and the adjacent seasonally saturated palustrine emergent wetland; however, all subsequent aerial imagery displays no evidence of surface hydrologic connectivity (NETROnline 2024).

The Federal Emergency Management Agency (FEMA) mapped floodplain classifies the entire Project Area as an area of minimal flood hazard (FEMA 2024). However, the California Department of Water Resources (DWR) Best Available Maps (BAM) Awareness dataset mapped the northwestern area of the parcel as within a 100-year floodplain (DWR 2024). While DWR BAM Awareness 100-year floodplains are not intended to replace FEMA regulatory floodplains, these maps identify areas where storm flows have a 1% chance of being equaled or exceeded in any year (DWR 2024).

## 5.5 VEGETATION COMMUNITIES & LAND COVER TYPES

Forty-seven plants (Appendix C, Table 4, *Floral Compendium*) were documented on site during the surveys. Following the dichotomous key and membership rules as defined in the Manual of California Vegetation (CNPS 2024b), three vegetative communities were also determined to occur within the Project Area, none of which are designated as sensitive by CDFW (see Table 2 below).

An overview of the spatial composition of the vegetation communities and land cover types can be viewed on the Appendix A, Figure 5, *Vegetation Communities and Land Cover Map*. Figure 5 depicts the vegetation communities from the Manual of California Vegetation (CNPS 2024b) in relation to the USDA NRCS soils mapped within the Project Area. Table 2 below includes the acreages for each natural community based on the Manual of California Vegetation schema within the Project Area, including their full scientific name and CDFW code. None of the communities identified on site are sensitive.

**TABLE 2 VEGETATION COMMUNITIES, LAND COVER TYPES AND ACREAGES**

Common Name	Scientific Name	Primary Life Form	Rarity Rank*	CDFW Sensitive	CDFW Natural Community Code	Acres
Big Sagebrush	<i>Artemisia tridentata</i> Shrubland Alliance	Shrub	G5S5	No	35.110.01	12.8
Upland Mustards or Star-Thistle Fields	<i>Brassica nigra</i> - <i>Centaurea (solstitialis, melitensis)</i> Herbaceous Semi-Natural Alliance	Herbaceous	GNA / SNA	No	42.013.00	7.1
Singleleaf Pinyon – Utah Juniper Woodlands	<i>Pinus monophylla</i> – ( <i>Juniperus osteosperma</i> ) Woodland	Tree	G5S4	No	87.040.16	9.6

**\*Rarity Rank Definitions**

GNA/SNA = Not Applicable — Global/State rank not applicable because ecosystem is not a suitable target for conservation activities.

G4/S4 = Global/State Apparently Secure — At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

G5/S5 = Global/State Secure — At very low risk of extinction or elimination due to a very extensive range, abundant populations, or occurrences, and little to no concern from declines or threats.

### 5.5.1 BIG SAGEBRUSH

The Project Area consists of approximately 12.8 acres of big sagebrush shrubland. Big sagebrush shrublands are natural communities dominated by big sagebrush (*Artemesia tridentata*) with open to continuous canopies that occur on plains, alluvial fans, bajadas, pediments, lower slopes, valley bottoms, hills, ridges, seasonal and perennial stream channels, and dry washes within well-drained, deep, sandy to loamy soils (CNPS 2024). Within the Project Area, big sagebrush is the dominant species with rubber rabbitbrush (*Ericameria nauseosa*), tansy mustard (*Descurainia sophia*), quack grass (*Elymus repens*), and Pacific lupine (*Lupinus lepidus*) occurring in subdominant proportions. Numerous individuals of California primrose (*Oenothera californica*) were observed along the eastern boundary of this community. Blue flag iris (*Iris missouriensis*) was observed in minor topographic depressions within this section of the site. Representative photos are included in Appendix B, Photo 3.

### 5.5.2 UPLAND MUSTARD FIELDS

The Project Area consists of approximately 7.1 acres of upland mustard fields. Upland mustard fields are semi-natural herbaceous communities with an open to continuous canopy that occur in fallow fields, rangelands, grasslands, roadsides, levee slopes, disturbed coastal scrub, riparian areas, cleared roadsides, and waste places. Soils typically consist of clays or sandy loams. Members of this community are highly variable though often contain over 80% relative cover of non-native ruderal forbs (CNPS 2024). During the July 2024 survey, the Project Area was dominated by non-native mustards such as tansy mustard and tumble mustard (*Sisymbrium altissimum*). However, during the September survey, most of the desiccated mustard stalks were absent, and the site was dominated by other non-native species including pigweed amaranth (*Amaranthus albus*), strawberry blite (*Amaranthus biltoides*), dwarf mallow (*Malva neglecta*), intermediate wheatgrass (*Elymus hispidus*), and quack grass. Substantial patches of bare ground were also present. The dominant native species within this community is western mountain aster (*Symphyotrichum spathulatum*), and trace occurrences of other native plants include mugwort (*Artemesia ludoviciana*), Pacific lupine, yarrow (*Achillea millefolium*), and rattlesnake sandmat (*Euphorbia albomarginata*). Representative photos are included in Appendix B, Photos 4 through 7, depicting these communities as observed in both July 2024 and September 2024.

### 5.5.3 SINGLELEAF PINYON – UTAH JUNIPER WOODLANDS

The Project Area consists of approximately 9.6 acres of singleleaf pinyon – Utah juniper woodlands. Singleleaf pinyon – Utah juniper woodlands are natural communities with an open to intermittent canopy that typically occur on alluvial fans, pediments, slopes, ridges, canyons, and ravines with well drained soils. Within the Project Area, this community dominates the sloping hillside in the northern section of the site. Singleleaf pinyon (*Pinus monophylla*) is dominant in the tree canopy with lower relative canopy cover of California juniper (*Juniperus californica*). Individuals of Jeffrey pine (*Pinus jeffreyi*) and Sierra juniper (*Juniperus grandis*) occur at higher elevations along the hillside. The intermittent to continuous shrub layer includes big sagebrush, rubber rabbitbrush, plains pricklypear (*Opuntia polyacantha*), and bitterbrush (*Purshia tridentata*).

Vegetation in the herbaceous layer is sparse and is dominated by cheatgrass (*Bromus tectorum*). Representative photos are included in Appendix B, Photo 8.

## 5.6 SPECIAL-STATUS SPECIES

Desktop investigations produced a list of 198 special-status species (132 vascular plants and 66 animals) to analyze for occurrence potential from previously existing records in the vicinity of the Project site (Appendix A, Figure 6, *Special Status Species Occurrence Map*). Likelihood of Occurrence determinations were made by analyzing specific required habitat components (e.g., vegetation community, vegetation density/structure, correct soils/soil friability, water resources, salinity, substrates, food availability, etc.) and other relevant information such as geographic range, elevation range, disturbance regime, and quality of records. The comprehensive evaluation of all 198 special-status species in conjunction with their record sources, habitat requirements, and their Likelihood of Occurrence designations can be viewed in Appendix D, Table 6. Biologists conducting this review used their best professional judgment to designate each species' Likelihood of Occurrence to one of the categories below:

- **Present:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal positive results for species occurrence.
- **High Potential:** Project Area is within the range of the species and suitable habitat is present, and/or there is reasonably high certainty to assume a high potential to occur based on existing data. Bird and bat species have potential for occurrence further categorized as breeding, nesting, foraging, and/or wintering.
- **Moderate Potential:** Project Area is within the range of the species and moderately suitable habitat is present, and/or there is reasonably high certainty to assume a moderate potential to occur based on existing data. Bird and bat species have potential for occurrence further categorized as breeding, nesting, foraging, and/or wintering.
- **Low Potential:** Project Area is within the range of the species, but habitat is marginal, nearby records are historic/unreliable, or there is reasonably high certainty to assume a low potential to occur based on existing data. Bird and bat species have potential for occurrence further categorized as breeding, nesting, foraging, and/or wintering.
- **Does Not Occur:** Project Area is outside the range of the species, lacks suitable habitat, and/or there is reasonable certainty to assume the species does not occur based on existing data and range distribution.
- **Absent:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal negative results for species occurrence.

An abbreviated table is provided in Table 3 below, which only includes the species that were found to be Present or have a Moderate-to-High potential to occur within the Project Area, omitting species that are Absent, Do Not Occur, or have a Low potential to occur within the Project Area. In total, 15 special-status species are present or have a moderate to high potential to occur within the Project area, including 5 plant species and 10 animal species.

TABLE 3 SPECIAL-STATUS SPECIES WITH A POTENTIAL TO OCCUR ONSITE

Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<b>Plants</b>					
<i>Astragalus lentiginosus</i> var. <i>sierrae</i>	Big Bear Valley milk-vetch	CRPR 1B.2	Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: gravelly (sometimes), rocky (sometimes). Blooming Period: April through August. Elevation: 5,905 to 8,530 feet.	CNDDDB, RPI	<b>Present.</b> A population comprised of two individuals was observed within the Project Area during the July 2024 field visit within the Upland Mustards- Herbaceous Semi-Natural Alliance near the toe of the south-facing slope that occupies the northeastern portion of the site.
<i>Boechnera dispar</i>	Pinyon rockcress	CRPR 2B.3	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: granitic, gravelly. Blooming period: March through June. Elevation: 3,935 to 8,335 feet.	CNDDDB, RPI	<b>Moderate Potential.</b> There are 14 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). One CNDDDB record occurs within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.8 miles southeast. The Project Area is located along the western margin of the species range. Gravelly areas within the pinyon and juniper woodland and big sagebrush shrubland on site may provide suitable habitat.
<i>Boechnera parishii</i>	Parish's rockcress	CRPR 1B.2	Pebble (pavement) plain, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: quartzite on clay, carbonate (sometimes), rocky. Blooming Period: April through May. Elevation: 5,805 to 9,810 feet.	CNDDDB, RPI	<b>High Potential.</b> There are 7 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Four CNDDDB records occur within a 1-mile radius of the Project Area with the nearest specific area occurrence (2012) overlapping the eastern section of



Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
					the Project Area. Rocky areas within the big sagebrush shrubland – pinyon and juniper woodland ecotone on-site may provide suitable habitat.
<i>Dudleya abramsii</i> <i>ssp. affinis</i>	San Bernardino Mountains dudleya	CRPR 1B.2, FT	Pebble (Pavement) plain, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: quartzite (sometimes), carbonate (sometimes), granitic (sometimes). Blooming period: April through June. Elevation: 4,100 to 8,530 feet.	CNDDDB, RPI	<b>High Potential.</b> There are 18 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.25 miles east. South-facing slopes within the pinyon and juniper woodland on site may provide suitable habitat. However, this habitat type would not be affected by project activities because it occurs on a hillside and will not be developed.
<i>Linanthus killipii</i>	Baldwin Lake linanthus	CRPR 1B.2	Joshua tree "woodland", meadows and seeps (alkaline), pebble (pavement) plain, pinyon and juniper woodland. Blooming period: May through July. Elevation: 5,580 to 7,875 feet.	CNDDDB, RPI	<b>Present.</b> A population comprised of eight desiccated individuals was observed within the Project Area during the September 2024 field visit on the south-facing slope that occupies the northeast portion of the site. However, this habitat type would not be affected by project activities because it occurs on a hillside and will not be developed.
Reptiles					
<i>Charina umbratica</i>	Southern rubber boa	ST	Meadow & seep, riparian forest, riparian woodland, upper montane coniferous forest, wetland. Found in a variety of montane forest habitats.	CNDDDB	<b>Moderate Potential.</b> There are 29 CNDDDB records within a 10-mile radius of the site. There are four records from the Big Bear



Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
			Requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under leaf litter and debris.		City Quad. If present, the species is most likely to occur on the south-facing slope in association with rock outcrops. If present, they could move through the northwest corner of the Project Area to reach the perennial damp meadows to the west of the Project Area. However, shelter within this portion of the site is limited. Leaf litter, logs, and debris are generally absent, so the species would not be anticipated to shelter within project footprint.
<i>Phrynosoma blainvillii</i>	Coast horned lizard	SSC	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, valley & foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	CNDDDB	<b>Moderate Potential.</b> Pinyon-juniper woodland within the Project Area may provide some suitable habitat for this species. Four CNDDDB records (1907 to 2004) occur within a 10-mile radius of site. The nearest CNDDDB record (2004) occurred 3.6 miles north of the site.
<b>Birds</b>					
<i>Aquila chrysaetos</i>	Golden eagle	FP, WL	Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinon & juniper woodlands, upper montane coniferous forest, valley & foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting	CNDDDB, IPaC	<b>Moderate Potential – Foraging.</b> No eagle nests were observed during biological surveys. Four CNDDDB records (from 1992 to 2010) occur within a 10-mile radius of the site. Pinyon-juniper woodlands within the Project Area may provide suitable foraging habitat for this species. However, this habitat type would not be

Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
			habitat in most parts of range; also, large trees in open areas.		affected by project activities because it occurs on a hillside and will not be developed.
<i>Spinus lawrencei</i>	Lawrence's goldfinch	SA	Broadleaved upland forest, chaparral, pinyon & juniper woodlands, riparian woodland. Nests in open oak or other arid woodland and chaparral, near water. Nearby herbaceous habitats used for feeding. Closely associated with oaks.	CNDDDB	<b>Moderate Potential – Breeding, Nesting, Foraging.</b> While this species is closely associated with oaks, which are absent within the Project Area, pinyon-juniper woodlands may provide suitable nesting and foraging habitat. One unprocessed CNDDDB record (2024) occurs within the Project Area's USGS 7.5-minute quadrangle (Big Bear City).
Mammals					
<i>Callospermophilus lateralis bernardinus</i>	San Bernardino golden-mantled ground squirrel	SA	Mixed conifer, ponderosa pine, Jeffrey pine, lodgepole pine, limber pine, pinyon-juniper, montane riparian, aspen, and alpine meadow. Prefer open canopy without dense understory, with logs, stumps, talus, and other rocks for cover. Digs burrows or may use pocket gopher burrows.	CNDDDB	<b>Moderate Potential.</b> Pinyon-juniper woodlands and open areas may provide suitable habitat within the Project Area, however, the project footprint does not support this habitat type. Two of five unprocessed CNDDDB records (2024) list occurrences of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City).
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley & foothill grassland. Roosts in caves and	CNDDDB	<b>Moderate Potential.</b> Four of five CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the project footprint may provide short-term roosting habitat but would not provide the necessary

Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
			mines. Extremely sensitive to human disturbance.		microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the project footprint may provide bats with access to the mine for longer-term roosting.
<i>Myotis ciliolabrum</i>	Western small-footed myotis	SA	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Roosts individually or in small numbers. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.	CNDDDB	<b>Moderate Potential.</b> Two of three CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the project footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the project footprint may provide bats with access to the mine for longer-term roosting.
<i>Myotis evotis</i>	Long-eared myotis	SA	Found in all brush, woodland and forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands and forests. Forms small nursery colonies in buildings, caves, mines, crevices, spaces under bark, and snags. Also switch roosts frequently (Snider et. al. 2013).	CNDDDB	<b>Moderate Potential.</b> One CNDDDB record (1998) approximately 8.2 miles east of the Project Area identified a maternity roost for this species in an abandoned mine surrounded by pinyon-juniper woodland. The flooded mine shaft within the project footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or

Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
					<p>hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the project footprint may provide bats with access to the mine for longer-term roosting.</p>
<i>Myotis thysanodes</i>	Fringed myotis	SA	<p>In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.</p>	CNDDDB	<p><b>Moderate Potential.</b> Three of four CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in pinyon-juniper woodlands. The flooded mine shaft within the project footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the project footprint may provide bats with access to the mine for longer-term roosting.</p>
<i>Myotis volans</i>	Long-legged myotis	SA	<p>Upper montane coniferous forest. Most common in woodland and forest habitats above 4000 ft. Trees are important day roosts; caves and mines are night roosts. Maternity habitat is usually under bark or in hollow trees and changes every few days (Baker and Lacki 2006). Occasionally roosts in crevices, mines or buildings.</p>	CNDDDB	<p><b>Moderate Potential.</b> Two of three CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the project footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the project</p>

Scientific Name	Common Name	Special Status <sup>a</sup>	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
					footprint may provide bats with access to the mine for longer-term roosting.

<sup>a</sup> Habitat descriptions source: California Department of Fish and Wildlife, Biogeographic Data Branch (2023) and Rare Plant Inventory, California Native Plant Society (2023)

<sup>b</sup> Special-Status Definitions (CDFW 2023c, CDFW 2023d):

CRPR = California Rare Plant Rank

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California but more common elsewhere

3 = Review List: Plants about which more information is needed

4 = Watch List: Plants of limited distribution

0.1 = Seriously threatened in California

0.2 = Moderately threatened in California

0.3 = Not very threatened in California

SA = California Department of Fish and Wildlife - Special Animal

WL = California Department of Fish and Wildlife - Watch List

FP = California Department of Fish and Wildlife - Fully Protected

SSC = California Department of Fish and Wildlife - Species of Special Concern

FE = Federal Endangered Species Act - Endangered

FT = Federal Endangered Species Act - Threatened

FD = Federal Endangered Species Act - Delisted

FC = Federal Endangered Species Act - Candidate

ST = California Endangered Species Act - Threatened

SE = California Endangered Species Act - Endangered

SCE = California Endangered Species Act - Candidate Endangered

FTP = Federal Endangered Species Act - Proposed Threatened

<sup>c</sup> Record Source Definitions:

CNDDDB = California Natural Diversity Database (California Department of Fish and Wildlife)

IPaC = Information for Planning and Consultation (U.S. Fish and Wildlife Service)

RPI = Rare Plant Inventory (California Native Plant Society)

<sup>d</sup> Potential to Occur Definitions:

**Present:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal positive results for species occurrence.



**High Potential:** Project Area is within the range of the species and suitable habitat is present, and/or there is reasonably high certainty to assume a high potential to occur based on existing data. Bird species are further categorized as breeding, foraging and/or wintering.

**Moderate Potential:** Project Area is within the range of the species and moderately suitable habitat is present, and/or there is reasonably high certainty to assume a moderate potential to occur based on existing data. Bird species are further categorized as breeding, foraging and/or wintering.

**Low Potential:** Project Area is within the range of the species, but habitat is marginal, nearby records are historic/unreliable, or there is reasonably high certainty to assume a low potential to occur based on existing data. Bird species are further categorized as breeding, foraging and/or wintering.

**Does Not Occur:** Project Area outside the range of the species, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume species does not occur based on existing data and range distribution.

**Absent:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal negative results for species occurrence.

### 5.6.1 SPECIAL- STATUS PLANTS

Two special-status plants (Big Bear Valley milk-vetch and Baldwin Lake linanthus) were observed within the Project Area during biological surveys conducted by ERM in July and September, 2024, respectively (Appendix A, Figure 7, *Biological Resources and Potential Habitat Features* and Appendix B, Photos 9 and 10). Big Bear Valley milk-vetch was observed within flat terrain (Aquents-Grunney complex), which will be developed; Baldwin Lake linanthus was observed on sloping habitat (Goldmountain-Deadmansridge-Deadpan complex) consisting of pinyon-juniper woodland, which will not be affected by Project activities. Three additional species have potential to occur based on the presence of suitable habitat including San Bernardino Mountains dudleya (*Dudleya abramsii* ssp. *affinis*), Parish's rockcress (*Boechea parishii*) and pinyon rockcress (*Boechea dispar*). Like the Baldwin Lake linanthus, San Bernardino Mountains dudleya would occur on the south-facing slope that will not be developed. Therefore, neither species would be affected by Project activities. However, like Bear Valley milk-vetch, Parish's rockcress and pinyon rockcress have potential to occur within the flat terrain, which will be subject to development. Therefore, Project activities have potential to directly impact all three of these species.

Due to the disturbed nature of the site including historic mining activities and intensive grazing, the site is not anticipated to support large populations of any of the three species as suggested by the single Bear Valley milk-vetch that was observed within the Project Area. The Project Area also represents a small proportion of suitable habitat available for these species. Specifically, the range for the Bear Valley milk-vetch in the San Bernardino Mountains alone totals approximately 350 square miles much of which consists of suitable habitat communities (Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, upper montane coniferous forest). Additional populations are recorded in the San Gabriel Mountains, Tehachapi Mountains, Santa Rosa Mountains and on Frazier Mountain. The loss of two individuals and a small amount of disturbed habitat (less than 20 acres which equates to less than 0.008-percent of suitable habitat within the species range within the San Bernardino Mountains) would not significantly affect the species' long-term survival.

Similarly, pinyon rockcress is dispersed across Riverside, San Bernardino, Tulare, Kern, Inyo, and Mono Counties in California and Nye County in Nevada. With such a broad range, the potential loss of 20 acres of suitable habitat, even if occupied, would not significantly affect the species' long-term sustainability.

Parish's rockcress exhibits a slightly more restricted range. It is known only from San Bernardino County, but it occupies a range of approximately 500 square miles based on 199 CCH and 44 CNDDDB records. According to data associated with the records, the overall population numbers exceed 30,000 individuals with the core of the population concentrated on approximately 250 square miles surrounding Big Bear Lake and Baldwin Lake. The record that overlaps the eastern portion of the project site indicates that approximately 16,730 individuals were observed in 2005 over an area of approximately 420 acres or approximately 40 individuals/acre. Approximately 1 acre of that area overlays the property which suggests that approximately 40 individuals (or approximately 0.1-percent of the existing population), may be lost due to project construction.

The loss of such a small proportion of the population is not anticipated to significantly affect the species' long-term sustainability.

### 5.6.2 SOUTHERN RUBBER BOA

Based on species records depicted in the USFWS 2021 Special Status Assessment Report for the Southern Rubber Boa, the nearest records for the species occur north of Baldwin Lake. The next nearest records occur approximately 1.3 miles to the southeast near Deadman's Ridge. The Project Area does contain habitat features that are consistent with suitable habitat for southern rubber boa, such as rock outcrops, surface rock, logs, forest litter, and rodent burrows. However, these features are generally limited to the south-facing hillslope which will not be impacted. Damp or moist soil and associated wet meadow or seep habitat does not occur within the Project Area. Additionally, within the flat terrain that characterizes the southern three-quarters of the site where development would occur, tree canopy is absent, the soil is somewhat compacted and large areas of ground are bare due to intensive grazing by donkeys. Although some small mammal burrows were observed, moisture-retaining leaf litter, logs, and bark are also generally absent in these areas, so the species is unlikely to shelter on site. However, if the species is present on the hillside along the northern portion of the site in association with rock outcrops, it could pass through the extreme northwest corner of the Project Area to reach the perennial wet meadows to the west of the site.

Because southern rubber boa is nocturnal, if an individual did pass through the site, it would do so when no construction activities were occurring. Therefore, the potential for ground-disturbing activities and vehicle traffic during construction or vehicle traffic during operations to harm or kill a southern rubber boa is limited. However, if such an impact occurred, it would be considered significant.

### 5.6.3 COAST HORNED LIZARD

Although there was no evidence of loose sandy soil due to compaction by wild donkeys in the development footprint, surrounding habitat on slopes could provide suitable habitat for this species. However, the Project will not develop in this habitat type. Therefore, the Project is not expected to affect this species.

### 5.6.4 GOLDEN EAGLE AND NESTING BIRDS PROTECTED BY THE MIGRATORY BIRD TREATY ACT

If present, Lawrence's goldfinch may forage within areas that would be developed; however, this species would nest in the pinyon and juniper woodland that will not be affected by project activities. Therefore, the species is unlikely to be impacted by this Project.

Similarly, golden eagle is known to occur in the region (four CNDDDB records within 10 miles of the Project Area) and nests in trees. Golden eagle could forage within the pinyon pine habitat that will not be affected by Project activities. Therefore, golden eagle is unlikely to be affected by Project activities.

Birds protected by the Migratory Bird Treaty Act have the potential to nest within or near the development footprint and therefore could be affected by Project activities.

### 5.6.5 SPECIAL-STATUS BATS

Potential roosting habitat for special-status bats (Townsend's big-eared bat, western small-footed myotis, long-eared myotis, fringed myotis, and long-legged myotis) within the Project Site include the flooded mineshaft within the Project Impact Footprint, the mine shaft on the south-facing slope near the northeast corner of the Project Site and within logs or snags and under exfoliating bark on that same hillslope (see Appendix A, Figure 7, *Biological Resources and Potential Habitat Features*). However, the upper 10-15 feet of the flooded mine shaft within the Project Impact Footprint would provide only low-quality, short-term bat roosting habitat due to the lack of suitable airflow and shelter. The loss of short-term bat roosting habitat provided by the flooded mine shaft would not be significant given that mines similar to Gold Hill occur throughout the area surrounding Baldwin Lake.

However, if project construction directly disturbed a colony of hibernating individuals or an active maternity colony, the impacts could be significant for those species that do gather in large numbers. For bat species that roost individually or in small numbers, often change roosts, and use a wide variety of roost habitat, such as western small-footed myotis, long-legged myotis, and long-eared myotis, potential short-term disturbance to a few isolated roosting individuals would not significantly affect their long-term sustainability given their wide ranges. However, for those species that may roost in larger colonies, like fringed myotis, or roost in larger colonies and exhibit lower genetic diversity and utilize a narrower variety of roosts, like Townsend's big-eared bat, disturbance of a hibernating colony or active maternity colony could be significant depending upon the number of individuals impacted.

Project noise and vibration produced by construction activities have potential to affect bats if they forage or roost in the immediate vicinity of the Project Impact Footprint. However, like many species, bats can become accustomed to low levels of disturbance and avoid disturbance by seeking alternative foraging and roosting habitat, which is plentiful in the vicinity of the Project. Additionally, nearby colonial roosts in mine shafts, if present, benefit from the dampening of both noise and vibrational disturbances due to the depth of the underground structures they may be utilizing. For example, the Gold Hill Mine Tunnel and underground passageways (adits) are up to 16.5 meters deep. Therefore, construction and operational noise and vibrations are not anticipated to significantly disturb hibernations or maternity roosting, if occurring in the vicinity of the Project. Construction and operational lighting could be disorienting for bats as they exit and return for foraging; however, construction and operational lighting will not be needed during the Project and is therefore not likely to have an adverse impact. Additionally, the photovoltaic solar panels will be angled to the south and away from the potentially suitable bat habitat north of the Project, and, given that bat activity would peak near dusk when bats would exit the roost to forage, disorientation from reflected light is not anticipated. Therefore, no significant impacts to bats are anticipated.

### 5.6.6 SAN BERNARDINO GOLDEN-MANTLED GROUND SQUIRREL

Potential habitat for San Bernardino golden-mantled ground squirrel exists in the pinyon pine forest habitat on the slope; however, the Project will not develop in this habitat type. Therefore, the Project is not expected to affect this species.

## 5.7 WILDLIFE MOVEMENT

In the broader context, the Project is located within historically disturbed lands previously used for mining and grazing and continues to provide habitat for wild donkeys, although it has regained some of its natural characteristics. The Project Area is bound by Lakewood Drive to the west, Erwin Ranch Road to the south, an unpaved access road to the east, and San Bernardino National Forest to the north. Residential development occurs immediately south, southwest, and approximately 0.1 miles east of the Project Area, with the residence bordering to the southwest also containing an equestrian facility. Existing uses surrounding the site would largely remain unchanged. Therefore, the site will not likely prevent wildlife movement through the region as the adjacent pinyon pine habitat will remain unfenced and accessible.

## 6. CONCLUSIONS

The Project Area does not contain any sensitive Natural Communities as designated by CDFW, and it also does not overlap with any federally designated Critical Habitat. Therefore, no impacts are anticipated to these resources.

As indicated in Table 3 above, the Project Area is known to support or have moderate-to-high potential to support 15 special-status species. The proposed Project has potential to significantly affect three species: Fringed myotis, Townsend's big-eared bat, and southern rubber boa. The Project also has the potential to impact nesting birds that are protected under the Migratory Bird Treaty Act. However, with the implementation of the below avoidance and minimization measures, impacts on special-status species and nesting birds would be less than significant.

### 6.1 RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES

ERM recommends the following avoidance and minimization measures to comply with the state, federal, and local regulations related to biological resources. These measures are typical for projects in San Bernardino County that have potential to impact similar biological resources such as the proposed Project. Environmental regulatory agencies may provide additional recommendations through the CEQA Process:

#### 6.1.1 DESIGN

- Shield any necessary lighting and angle away from adjacent undeveloped land to the north of the Project to avoid disturbing wildlife, including rare bats.
- Construct a reptile exclusion fence around the perimeter of the Project area to avoid potential impacts to rubber boa.

#### 6.1.2 PRE-CONSTRUCTION

- Prior to construction, conduct the following pre-construction clearance surveys:
  - A qualified biologist will conduct pre-construction surveys for nesting birds (including raptors) on and closely adjacent to the Project site no more than 10 days prior to any ground disturbance, if ground disturbance is to occur during the breeding season (February 1 through August 31).
    - If an active nest is detected, a 100-foot work avoidance buffer will be implemented for non-raptors and a 500-foot work avoidance buffer will be implemented for raptors.
    - nesting buffers may be reduced based upon the judgment of the biological monitor and should include monitored to detect any behavioral changes due to the reduced buffer. If behavioral changes are observed, the buffer will be restored to the original radii.
  - A qualified biologist will conduct pre-construction surveys for southern rubber boa within all disturbance areas plus a 100-foot buffer no more than 3 days prior to any ground disturbance during the active/breeding season (April 1 through October 31). Should southern rubber boa be observed, work shall be halted within 100 feet of the individual until it has moved out of area.

### 6.1.3 CONSTRUCTION

- A qualified biologist will conduct an education program for construction personnel. Topics to be discussed will include occurrence and distribution of special-status plants, rubber boa and bats; take avoidance measures being implemented during the Project, reporting requirements if incidental take occurs; and applicable definitions and prohibitions under the California Endangered Species Act. A fact sheet conveying this information will be prepared for distribution to Project personnel.
- A qualified biologist shall be on-site to conduct daily pre-construction sweeps for rubber boa during ground-disturbing activities initiated between April 1 and October 31. Once a reptile exclusion fence around the perimeter of the Project is constructed, daily pre-construction sweeps would not be required. In the event of unanticipated discovery of rubber boa within the site, construction personnel shall follow the guidance within the worker education program, including but not limited to halting construction and contacting a qualified biologist, etc.
- Project-related vehicles will observe a daytime speed limit of 15 miles per hour throughout the site in all Project Areas, except on county roads and state and federal highways. Nighttime construction will be minimized to the extent possible; however, if it does occur, then the speed limit shall be reduced to 10 miles per hour. Off-road traffic outside of designated Project Areas will be prohibited.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep will be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks will be installed. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals.
- All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in securely closed containers and removed at least once a week from the Project site.
- No firearms will be allowed on the Project Area, excluding law enforcement personnel.
- No pets, such as dogs or cats, will be permitted on the Project Area.
- All spills of hazardous materials will be cleaned up immediately.
- Use of rodenticides and herbicides in Project Areas will be restricted.
- Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow tubes or poles be utilized on the Project site, the poles will be capped immediately after installation to prevent entrapment of birds.

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APPENDIX A MAPS

FIGURE 1 REGIONAL MAP



FIGURE 2 VICINITY MAP

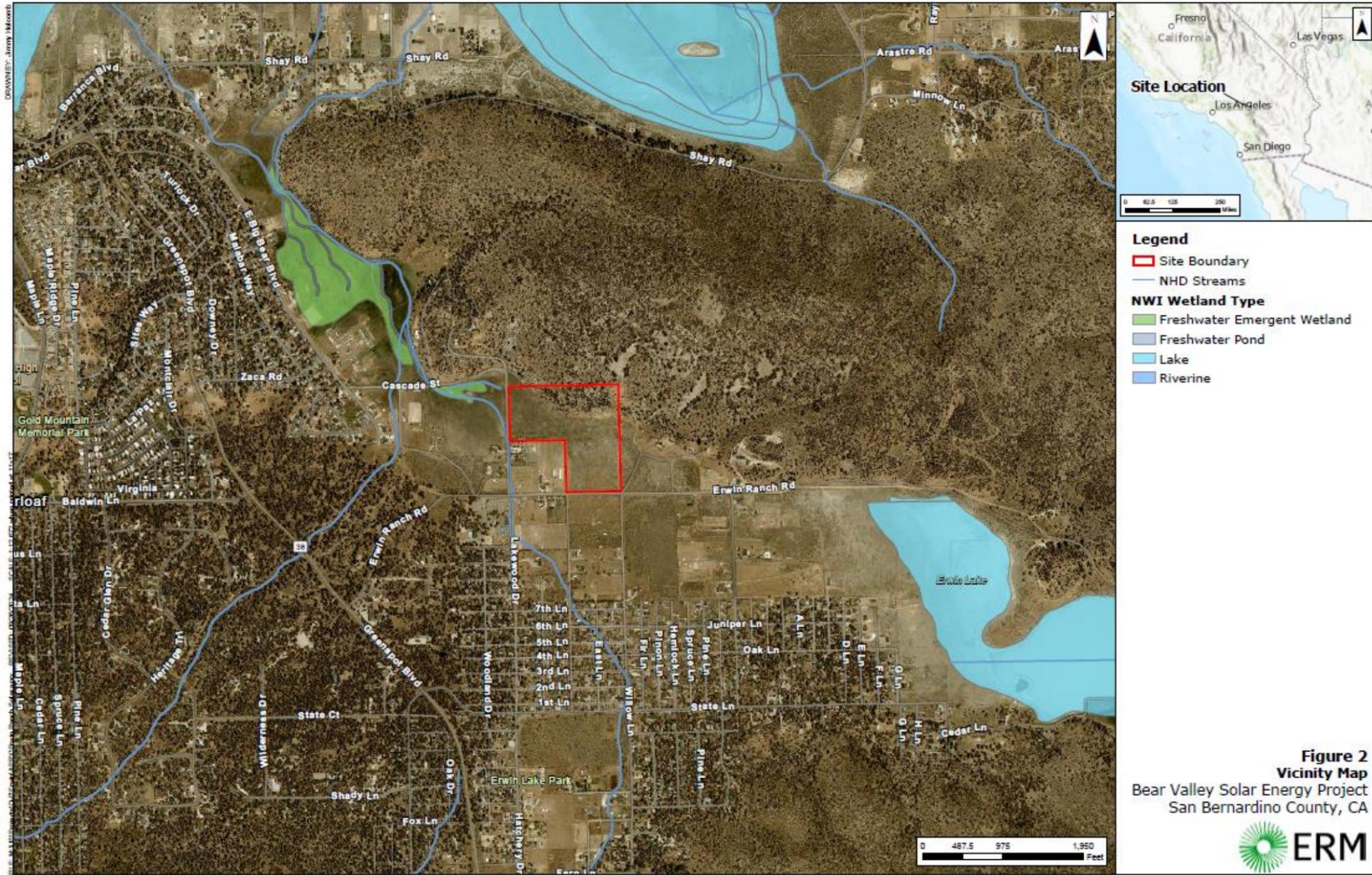


FIGURE 3 PROJECT AREA MAP



FIGURE 4 SOIL MAP

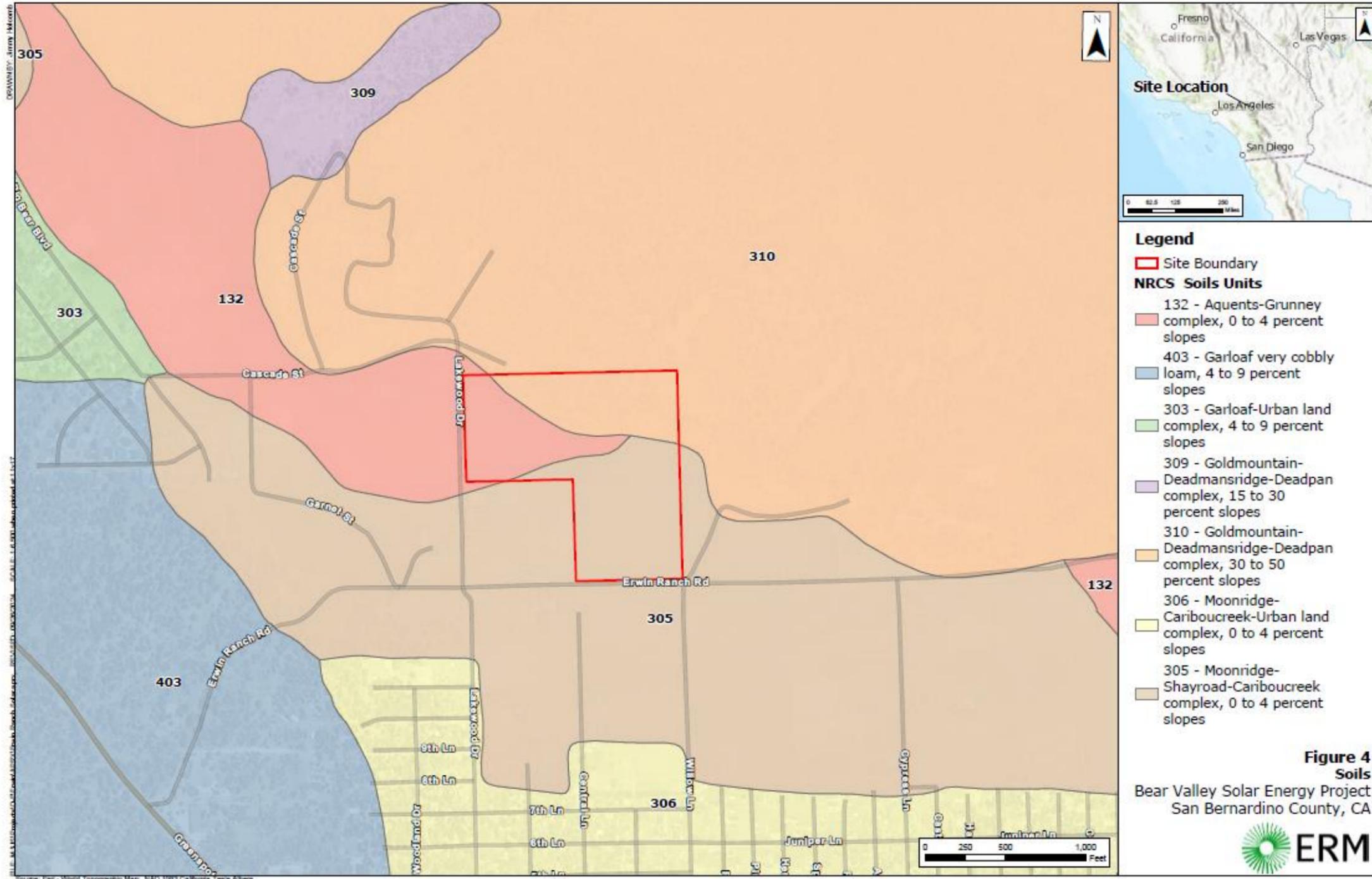


FIGURE 5 VEGETATION COMMUNITY AND LAND COVER MAP

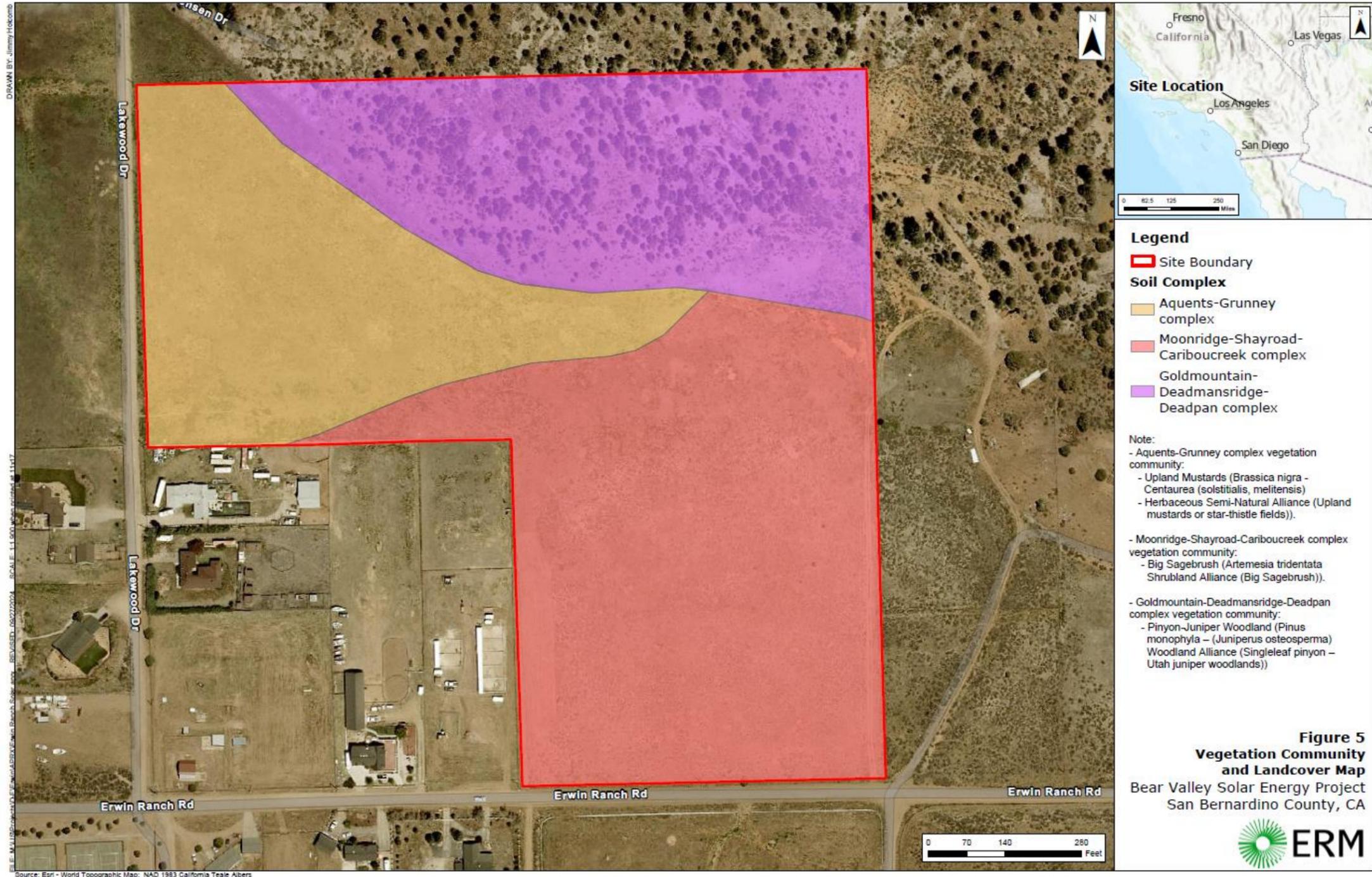


FIGURE 6 SPECIAL STATUS SPECIES RECORDS MAP

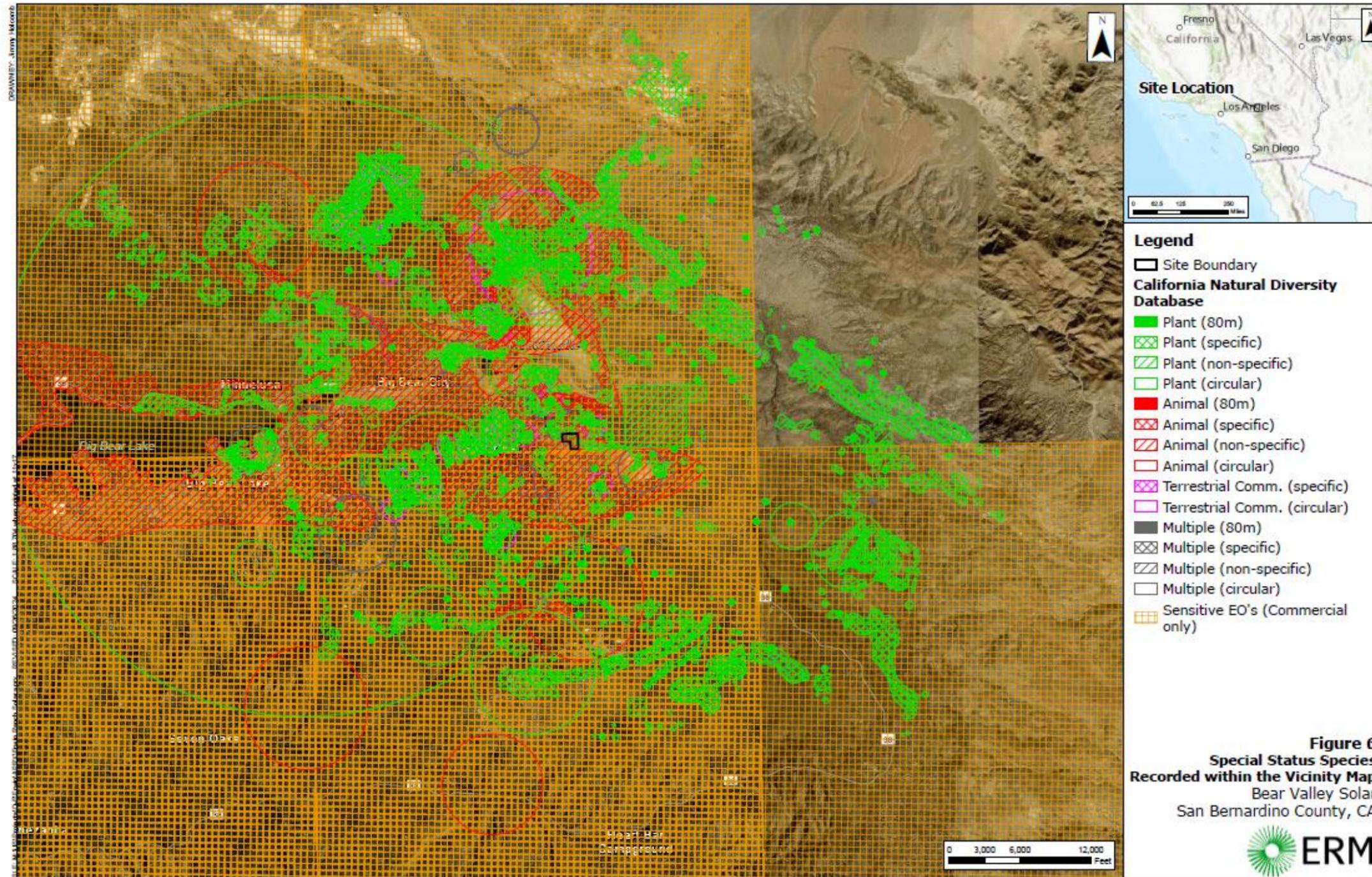
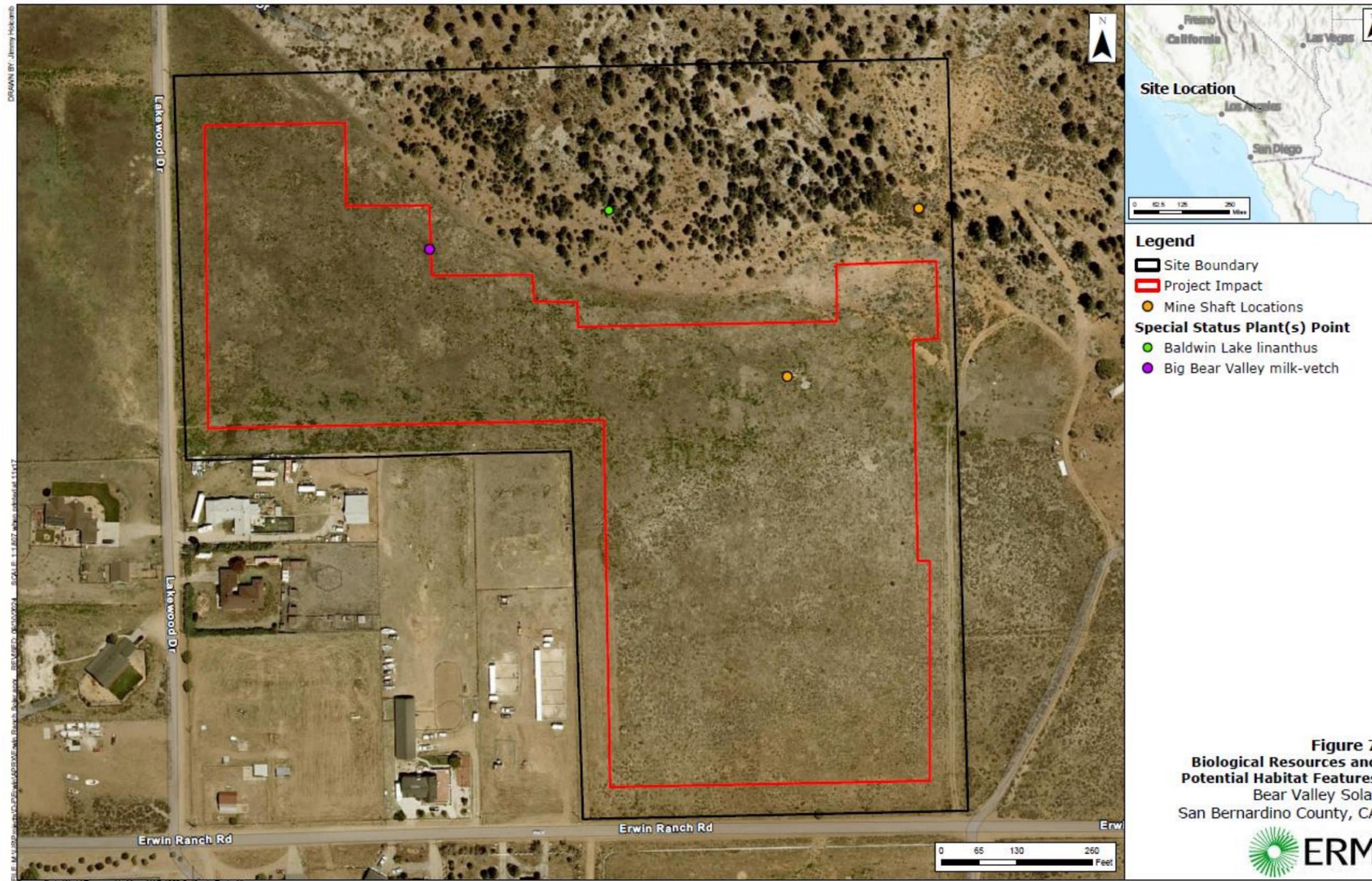


FIGURE 7 BIOLOGICAL RESOURCES AND POTENTIAL HABITAT FEATURE





## APPENDIX B PHOTOGRAPHS



Photo 1. Overview photo of the proposed solar development site taken from the hillside near the northern boundary of the Project Area facing south.

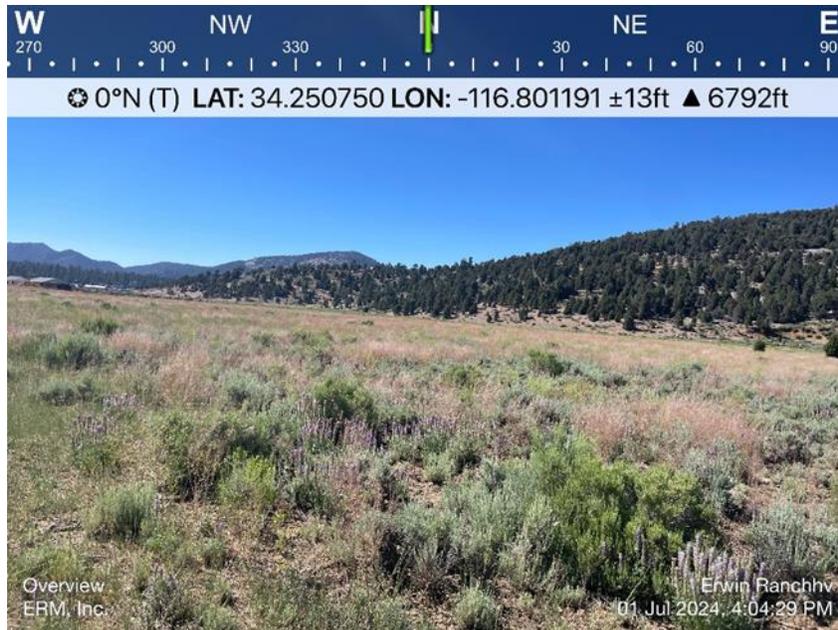


Photo 2. General site overview photo taken from the southeastern area of the site, facing north.



# ERM

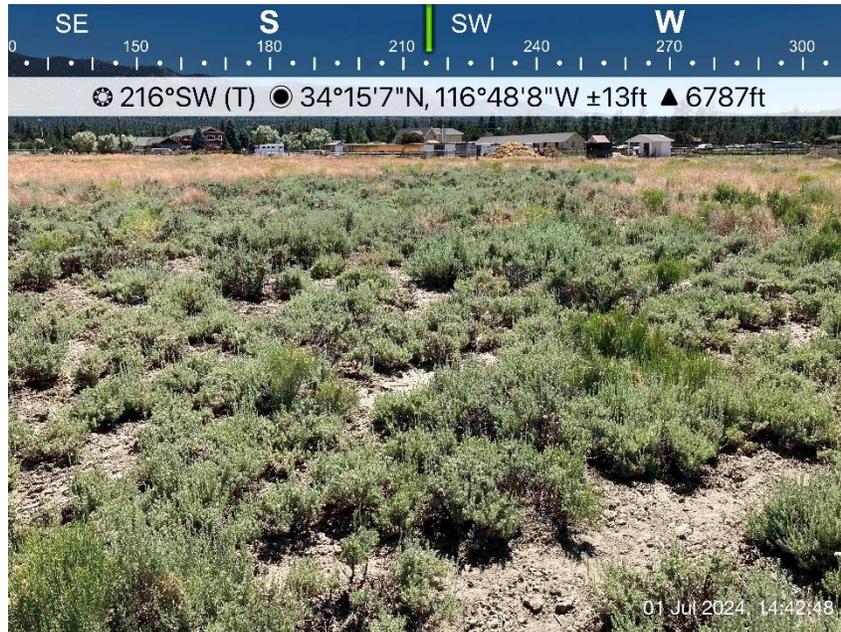


Photo 3. Representative photo of the Big Sagebrush vegetation community with the neighboring equestrian facility in the background facing southwest.



Photo 4. Representative photo of the outer boundary of the Upland Mustard Field vegetation community taken in July 2024, facing east.



# ERM



Photo 5. Representative photo of the outer boundary of the Upland Mustard Field vegetation community taken in September 2024, facing east.

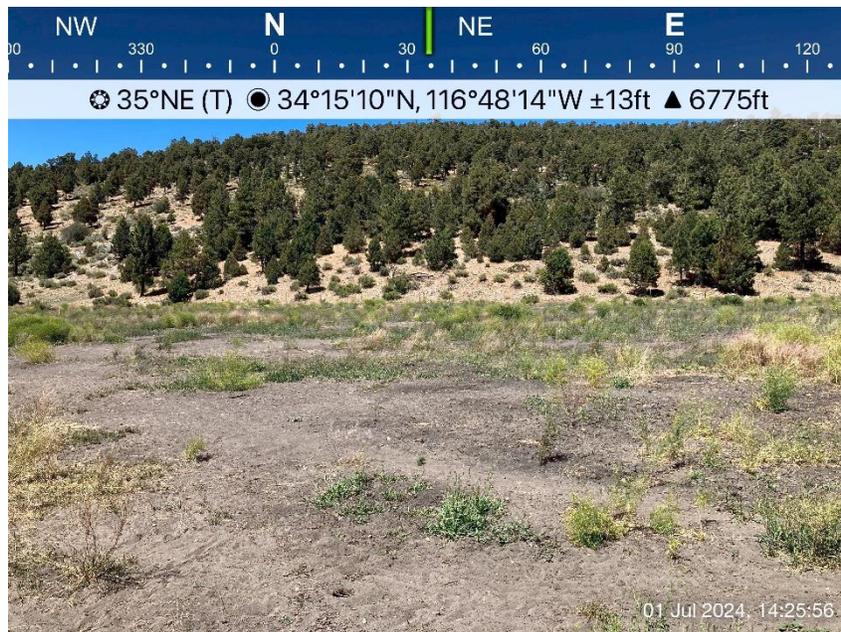


Photo 6. Representative photo of the sparsely vegetated western margin of the Upland Mustard Field vegetation community taken in July 2024, facing northeast.



# ERM



Photo 7. Representative photo of the sparsely vegetated western margin of the Upland Mustard Field vegetation community inhabited by wild donkeys taken in September 2024, facing west.



Photo 8. Representative photo of the Singleleaf Pinyon – Utah Juniper Woodland on the hillside near the northern boundary of the Project Area, facing north.



# ERM



Photo 9. Close-up of Big Bear Valley milk vetch (*Astragalus lentiginosus* var. *sierrae*), a CRPR 1B.2 Special Status Plant, facing southeast.

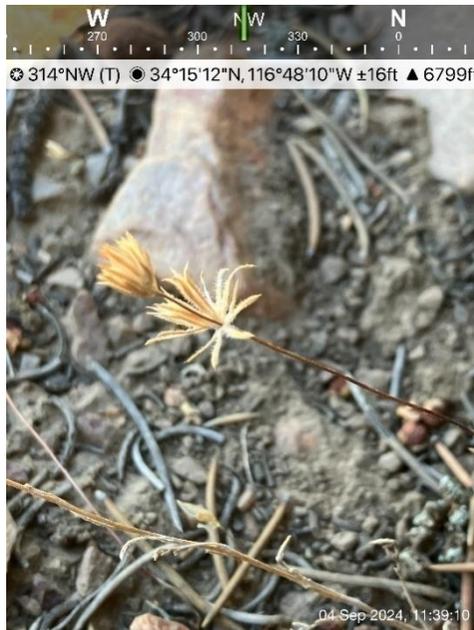


Photo 10. Close-up of desiccated remains of Baldwin Lake linanthus (*Linanthus killpii*), a CRPR 1B.2 Special Status Plant, facing northwest.



# ERM



Photo 11. Close-up of burrow within the sparsely vegetated area of the Upland Mustard Field, facing southeast.



Photo 12. Close-up of Southern Pacific rattlesnake (*Crotalus oreganus helleri*) within thatch at the base of the Singleleaf Pinyon – Utah Juniper Woodland, facing north.



# ERM



Photo 13. Abandoned mineshaft containing standing water at a depth of 10 to 15 feet at the time of the field investigation, facing northwest.



Photo 14. Suspected tailing pipe (foreground) emerging from the abandoned mineshaft (background) in the north central section of the Project Area, facing northeast.



## APPENDIX C FLORAL & FAUNAL COMPENDIA

TABLE 4 FLORAL COMPENDIUM

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	Native Status
Angiosperms (Eudicots)	Amaranthaceae	<i>Amaranthus albus</i>	pigweed amaranth	annual herb	non-native
		<i>Amaranthus biltoides</i>	mat amaranth	annual herb	non-native
	Asteraceae	<i>Achillea millefolium</i>	common yarrow	perennial herb	native
		<i>Artemesia ludoviciana</i>	mugwort	perennial herb	native
		<i>Artemesia tridentata</i>	big sagebrush	shrub	native
		<i>Ericameria nauseosa</i>	rubber rabbitbrush	shrub	native
		<i>Gutierrezia sarothrae</i>	broom snakeweed	shrub	native
		<i>Pseudognaphalium canescens</i>	Wright's cudweed	perennial herb	native
		<i>Stephanomeria exigua</i>	small wirelettuce	annual herb	native
		<i>Symphotrichum spathulatum</i>	western mountain aster	perennial herb	native
	Boraginaceae	<i>Helitropium curassavicum</i>	salt heliotrope	perennial herb	native
		<i>Lappula redowskii</i>	stickweed	annual herb	native
	Brassicaceae	<i>Descurainia sophia</i>	flix weed	annual herb	non-native
		<i>Sisymbrium altissimum</i>	tall tumble mustard	annual herb	non-native
	Cactaceae	<i>Echinocereus triglochidiatus mojaviensis</i>	Mojave kingcup cactus	shrub (stem succulent)	native
		<i>Opuntia polyacantha</i>	plains pricklypear	shrub (stem succulent)	native



# ERM

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	Native Status
	Chenopodiaceae	<i>Chenopodium berlandieri</i>	pit seed goosefoot	annual herb	native
		<i>Chenopodium capitatum</i>	strawberry blite	annual herb	non-native
		<i>Krascheninnikovia lanata</i>	winterfat	shrub	native
	Cupressaceae	<i>Juniperus californica</i>	California juniper	shrub	native
		<i>Juniperus grandis</i>	sierra juniper	tree	native
	Ephedraceae	<i>Ephedra viridis</i>	Mormon tea	shrub	native
	Euphorbiaceae	<i>Euphorbia albomarginata</i>	rattlesnake sandmat	perennial herb	native
		<i>Euphorbia lurida</i>	woodland spurge	perennial herb	native
	Fabaceae	<i>Astragalus lentiginosus</i> var. <i>sierrae</i>	Bear Valley milkvetch	perennial herb	native
		<i>Lupinus excubitus</i>	grape lupine	shrub	native
		<i>Lupinus lepidus</i>	Pacific lupine	perennial herb	native
	Malvaceae	<i>Malva neglecta</i>	dwarf mallow	annual, perennial herb	non-native
		<i>Sphaeralcea ambigua</i>	apricot mallow	perennial herb	native
	Namaceae	<i>Eriodictyon trichocalyx</i>	hairy yerba santa	shrub	native
	Nyctaginaceae	<i>Mirabilis laevis</i>	desert wishbone bush	perennial herb	native
	Onagraceae	<i>Oenothera californica</i>	California primrose	perennial herb	native
	Pinaceae	<i>Pinus jeffreyi</i>	Jeffrey pine	tree	native
		<i>Pinus monophylla</i>	single leaf pinyon pine	tree	native
	Polemoniaceae	<i>Linanthus killpii</i>	Baldwin lake linanthus	annual herb	native



# ERM

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	Native Status
	Polygonaceae	<i>Eriogonum davidsonii</i>	Davidson's buckwheat	annual herb	native
	Pteridaceae	<i>Pellaea mucronata</i>	birdfoot fern	fern	native
	Rosaceae	<i>Amelanchier utahensis</i>	western serviceberry	shrub	native
		<i>Cercocarpus ledifolius</i>	desert mountain mahogany	tree, shrub	native
		<i>Purshia tridentata</i>	antelope bitterbrush	shrub	native
		<i>Rosa woodsii</i>	Woods' rose	shrub	native
	Scophulariaceae	<i>Verbascum thapsus</i>	common mullein	perennial herb	non-native
Angiosperms (Monocots)	Iridaceae	<i>Iris missouriensis</i>	blue flag iris	perennial herb	native
	Poaceae	<i>Bromus tectorum</i>	cheatgrass	annual grass	invasive
		<i>Elymus hispidus</i>	intermediate wheatgrass	perennial grass	non-native
		<i>Elymus repens</i>	quackgrass	perennial grass	non-native
		<i>Poa secunda</i>	one-sided bluegrass	perennial grass	native

TABLE 5 FAUNAL COMPENDIUM

Phylogenetic Category	Scientific Name	Common Name	Native Status
Bird	<i>Buteo jamaicensis</i>	Red-tailed hawk	native
	<i>Cathartes aura</i>	Turkey vulture	native
	<i>Calypte anna</i>	Anna's hummingbird	native
	<i>Cyanocitta stelleri</i>	Steller's jay	native
	<i>Gymnorhinus cyanocephalus</i>	Pinyon jay	native
	<i>Haemorhous mexicanus</i>	House finch	native
	<i>Poecile gambeli</i>	Mountain chickadee	native



# ERM

Phylogenetic Category	Scientific Name	Common Name	Native Status
	<i>Sayornis nigricans</i>	Black phoebe	native
	<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow	native
	<i>Tachycineta thalassina</i>	Violet-green swallow	native
	<i>Tyrannus vociferans</i>	Cassin's kingbird	native
	<i>Zenaida macroura</i>	Mourning dove	native
Invertebrate	<i>Heliopetes ericetorum</i>	Northern white skipper	native
	<i>Vanessa cardui</i>	Painted lady	native
Mammal	<i>Equus asinus</i>	Donkey	non-native
	<i>Sciurus griseus</i>	Western gray squirrel	native
	<i>Sylvilagus audubonii</i>	Desert cottontail	native
Reptile	<i>Crotalus oreganus helleri</i>	Southern Pacific rattlesnake	native



## APPENDIX D SPECIAL-STATUS SPECIES OCCURRENCE POTENTIALS

TABLE 6 SPECIAL-STATUS SPECIES EVALUATED FOR POTENTIAL OCCURRENCE

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<b>Plants</b>						
<i>Abronia nana</i> var. <i>covillei</i>	Coville's dwarf abronia	CRPR 4.2	Plant (perennial herb)	Great Basin scrub, Joshua tree "woodland", pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest. Microhabitat: carbonate, sandy. Blooming period: May through August. Elevation: 5,000 to 10,170 feet.	CNDDDB, RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. There are 16 records (from 1937 to 2014) of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City) (Calflora 2024, CCH 2024). However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Acanthoscyphus parishii</i> var. <i>cienezensis</i>	Cienaga Seca oxytheca	CRPR 1B.3	Plant (annual herb)	Joshua tree "woodland", pinyon and juniper woodland, upper montane coniferous forest (granitic, sandy). Blooming period: (May) June through September. Elevation: 6,905 to 8,040 feet.	CNDDDB, RPI	<b>Low Potential.</b> Pinyon and juniper woodland on site may provide suitable habitat for this species; however, the Project Area is slightly below the elevation range for this species and the nearest known populations are



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						highly localized near Cienega Seca and Coon Creek (Calflora 2024, Jepson eFlora 2024).
<i>Acanthoscyphus parishii</i> var. <i>goodmaniana</i>	Cushenbury oxytheca	CRPR 1B.1, FE	Plant (annual herb)	Pinyon and juniper woodland (carbonate, talus). Microhabitat: carbonate, sandy. Blooming period: June through September. Elevation: 4,000 to 7,800 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> Pinyon-juniper woodland within Project Area may provide suitable habitat for this species. Fifteen CNDDDB records (from 1994 to 2019) occur within a 10-mile radius of the site. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Acanthoscyphus parishii</i> var. <i>parishii</i>	Parish's oxytheca	CRPR 4.2	Plant (annual herb)	Chaparral, lower montane coniferous forest. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: May through August. Elevation: 4,005 to 8,530 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (chapparal or lower montane coniferous forest) for this species.
<i>Allium parishii</i>	Parish's onion	CRPR 4.3	Plant (perennial bulbiferous herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: rocky. Blooming period: April through May. Elevation: 2,955 to 5,695 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	CRPR 4.2	Plant (annual herb)	Chaparral, cismontane woodland, coastal scrub, meadows and seeps,	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				pinyon and juniper woodland, valley and foothill grassland. Blooming period: March through June. Elevation: 490 to 4,280 feet.		the elevational range for this species.
<i>Antennaria marginata</i>	White-margined everlasting	CRPR 2B.3	Plant (perennial stoloniferous herb)	Lower montane coniferous forest, upper montane coniferous forest. Blooming period: May through August. Elevation: 6,955 to 11,000 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (lower montane coniferous forest and upper montane coniferous forest) for this species absent.
<i>Arctostaphylos parryana</i> ssp. <i>tumescens</i>	Interior manzanita	CRPR 4.3	Plant (perennial evergreen shrub)	Chaparral (montane), cismontane woodland. Blooming period: February through April. Elevation: 6,890 to 7,580 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chaparral [montane] and cismontane woodland) for this species absent.
<i>Arenaria lanuginosa</i> var. <i>saxosa</i>	Rock sandwort	CRPR 2B.3	Plant (perennial herb)	Subalpine coniferous forest, upper montane coniferous forest. Microhabitat: mesic, sandy. Blooming period: July to August. Elevation: 4,775 to 8,350 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (subalpine coniferous forest, upper montane coniferous forest) for this species.
<i>Astragalus albens</i>	Cushenbury milk-vetch	CRPR 1B.1, FE	Plant (perennial herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: carbonate (usually), granitic (rarely).	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				Blooming Period: March through June. Elevation: 3,595 to 6,560 feet.		
<i>Astragalus bernardinus</i>	San Bernardino milk-vetch	CRPR 1B.2	Plant (perennial herb)	Joshua tree "woodland", pinyon and juniper woodland. Microhabitat: carbonate (often), granitic (often). Blooming Period: April through June. Elevation: 2,955 to 6,560 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Astragalus bicristatus</i>	Crested milk-vetch	CRPR 4.3	Plant (perennial herb)	Lower montane coniferous forest, upper montane coniferous forest. Microhabitat: carbonate (usually), rocky (sometimes), sandy (sometimes). Blooming period: May through August. Elevation: 5,580 to 9,005 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (lower montane coniferous forest, upper montane coniferous forest) for this species.
<i>Astragalus lentiginosus</i> var. <i>sierrae</i>	Bear Valley milk-vetch	CRPR 1B.2	Plant (perennial herb)	Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: gravelly (sometimes), rocky (sometimes). Blooming Period: April through August. Elevation: 5,905 to 8,530 feet.	CNDDDB, RPI	<b>Present.</b> A population comprised of two individuals was observed within the Project Area zone mapped as containing hydric soils during the July 2024 field visit.
<i>Astragalus leucolobus</i>	Big Bear Valley woollypod	CRPR 1B.2	Plant (perennial herb)	Lower montane coniferous forest, pebble (Pavement) plain, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: rocky. Blooming Period: May through July. Elevation: 3,600 to 9,465 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 25 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Six CNDDDB records occur within a 1-mile radius of the Project



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						Area with the nearest occurrence (2001) documented approximately 0.1 miles northwest. Pinyon and juniper woodland on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Astragalus tidestromii</i>	Tidestrom's milk-vetch	CRPR 2B.2	Plant (perennial herb)	Mojavean desert scrub. Microhabitat: carbonate, gravelly (sometimes), sandy (sometimes). Blooming Period: (January) April through July. Elevation: 1,970 to 5,855 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Atriplex parishii</i>	Parish's brittlescale	CRPR 1B.1	Plant (annual herb)	Chenopod scrub, playas, vernal pools. Microhabitat: alkaline. Blooming period: June through October. Elevation: 80 to 6,235 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chenopod scrub, playas, vernal pools, alkaline soils) for this species absent.
<i>Berberis fremontii</i>	Fremont barberry	CRPR 2B.3	Plant (perennial evergreen shrub)	Joshua tree "woodland", pinyon and juniper woodland. Microhabitat: granitic (sometimes), rocky. Blooming period: March through May. Elevation: 3,755 to 5,645 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Boechnera dispar</i>	Pinyon rock cress	CRPR 2B.3	Plant (perennial herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: granitic, gravelly. Blooming period: March through June. Elevation: 3,935 to 8,335 feet.	CNDDDB, RPI	<b>Moderate Potential.</b> There are 14 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). One CNDDDB record occurs within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.8 miles southeast. Gravelly areas within the pinyon and juniper woodland on site may provide suitable habitat.
<i>Boechnera lincolnensis</i>	Lincoln rockcress	CRPR 2B.3	Plant (perennial herb)	Chenopod scrub, Mojavean desert scrub. Microhabitat: carbonate. Blooming period: March through May. Elevation: 3,610 to 8,875 feet.	RPI	<b>Low Potential.</b> Suitable habitat (chenopod scrub, Mojavean desert scrub) for this species absent. While CNDDDB considers this species presumed extant, the last CNDDDB occurrence record was documented in 1928.
<i>Boechnera parishii</i>	Parish's rock cress	CRPR 1B.2	Plant (perennial herb)	Pebble (Pavement) plain, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: quartzite on clay, carbonate (sometimes), rocky. Blooming Period: April through	CNDDDB, RPI	<b>High Potential.</b> There are 7 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Four CNDDDB records occur within a 1-



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				May. Elevation: 5,805 to 9,810 feet.		mile radius of the Project Area with the nearest specific area occurrence (2012) overlapping the eastern section of the Project Area. Rocky areas within the big sagebrush shrubland – pinyon and juniper woodland ecotone on site may provide suitable habitat.
<i>Boechera peirsonii</i>	San Bernardino rock cress	CRPR 1B.2	Plant (perennial herb)	Subalpine coniferous forest (rocky). Blooming period: March through August. Elevation: 8,860 to 10,500 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Boechera shockleyi</i>	Shockley's rock cress	CRPR 2B.2	Plant (perennial herb)	Pinyon and juniper woodland (carbonate, gravelly, quartzite, rocky). Blooming Period: May through June. Elevation: 2,870 to 7,580 feet.	CNDDDB, RPI	<b>Low Potential.</b> One CNDDDB record occurs approximately 1.2 miles west of Project Area. Pinyon and juniper woodland on site may provide suitable habitat.
<i>Botrychium crenulatum</i>	Scalloped moonwort	CRPR 2B.2	Plant (perennial rhizomatous herb)	Bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps (freshwater), upper montane coniferous forest. Blooming period: June through September. Elevation: 4,160 to 10,760 feet.	RPI	<b>Low Potential.</b> Aside for the hydric soils in the northwestern portion of the Project Area, this site does not contain suitable habitat (bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps (freshwater), upper montane

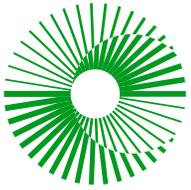


Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						coniferous forest) for this species.
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa lily	CRPR 1B.2	Plant (perennial bulbiferous herb)	Chaparral, lower montane coniferous forest, meadows and seeps. Microhabitat: mesic. Blooming Period: April through July. Elevation: 2,330 to 7,840 feet.	CNDDDB, RPI	<b>Low Potential.</b> Project Area does not contain suitable habitat (chaparral, lower montane coniferous forest, meadows and seeps) for this species.
<i>Calochortus plummerae</i>	Plummer's mariposa lily	CRPR 4.2	Plant (perennial bulbiferous herb)	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Microhabitat: granitic, rocky. Blooming Period: May through July. Elevation: 330 to 5,580 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland) for this species absent.
<i>Calochortus striatus</i>	Alkali mariposa lily	CRPR 1B.2	Plant (perennial bulbiferous herb)	Chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps. Microhabitat: alkaline, mesic. Blooming period: April through June. Elevation: 230 to 5,235 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps) for this species absent.
<i>Calyptidium pygmaeum</i>	Pygmy pussypaws	CRPR 1B.2	Plant (annual herb)	Subalpine coniferous forest, upper montane coniferous forest. Microhabitat: gravelly	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				(sometimes), sandy (sometimes). Blooming Period: June through August. Elevation: 6,495 to 10,205 feet.		(subalpine coniferous forest, upper montane coniferous forest) for this species.
<i>Camissonia integrifolia</i>	Kern River evening primrose	CRPR 1B.3	Plant (annual herb)	Chaparral, Mojavean desert scrub. Toeslopes and terraces along drainages. Microhabitat: openings, sandy. Blooming period: (April) May. Elevation: 2,295 to 3,935 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chaparral, chenopod scrub, Mojavean desert scrub, toeslopes and terraces along drainages) for this species absent.
<i>Canbya candida</i>	White pygmy poppy	CRPR 4.2	Plant (annual herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: granitic, gravelly, sandy. Blooming period: March through June. Elevation: 1,970 to 4,790 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Carex occidentalis</i>	Western sedge	CRPR 2B.3	Plant (perennial rhizomatous herb)	Lower montane coniferous forest, meadows and seeps. Blooming period: June through August. Elevation: 5,395 to 10,285 feet.	RPI	<b>Absent.</b> Although the Project Area contains suitable habitat (hydric soils) for this species, no hydrophytic graminoids were detected during the site visit.
<i>Carex scirpoidea</i> ssp. <i>pseudoscirpoidea</i>	Western single-spiked sedge	CRPR 2B.2	Plant (perennial rhizomatous herb)	Alpine boulder and rock field, meadows and seeps, subalpine coniferous forest (rocky). Microhabitat: carbonate (often),	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.



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				mesic. Blooming period: July through September. Elevation: 9,810 to 12,140 feet.		
<i>Castilleja cinerea</i>	Ash-gray Indian paintbrush	CRPR 1B.2, FT	Plant (perennial hemi-parasitic herb)	Mojavean desert scrub, meadows and seeps, pebble (pavement) plain, pinyon and juniper woodland, upper montane coniferous forest (clay, openings). Blooming period: June through August. Elevation: 5,905 to 9,710 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> There are 14 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Eight CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.3 miles northeast. Rocky areas within the pinyon and juniper woodland on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's clover	CRPR 1B.2	Plant (annual hemi-parasitic herb)	Chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland, upper montane coniferous forest. Microhabitat: mesic. Blooming period: May through August. Elevation: 4,265 to 7,840 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 5 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Two CNDDDB records occur within a 1-mile radius of the Project Area with the nearest



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						occurrence (1982) documented approximately 0.3 miles southwest. Open areas along the upland mustard-pinyon and juniper woodland ecotone on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Castilleja montigena</i>	Heckard's paintbrush	CRPR 4.2	Plant (perennial hemi-parasitic herb)	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Blooming period: May through August. Elevation: 6,400 to 9,185 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within Project Area may provide suitable habitat for this species. There are three records (2019-2021) approximately 2.3 miles south of the site (Calflora 2024, CCH 2024). However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Castilleja plagiotoma</i>	Mojave paintbrush	CRPR 4.3	Plant (perennial hemi-parasitic herb)	Great Basin scrub (alluvial), Joshua tree "woodland", lower montane coniferous forest, pinyon and juniper woodland. Blooming period: April through June. Elevation: 985 to 8,205 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. There is one record (Calflora



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						2024) of this species occurring within the Big Bear City USGS 7.5-minute quadrangle.
<i>Chorizanthe spinosa</i>	Mojave spineflower	CRPR 4.2	Plant (annual herb)	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, playas. Microhabitat: alkaline (sometimes). Blooming period: March through July. Elevation: 20 to 4,265 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, playas) for this species absent.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	White-bracted spineflower	CRPR 1B.2	Plant (annual herb)	Coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: April through June. Elevation: 985 to 3,935 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Claytonia peirsonii</i> ssp. <i>bernardinus</i>	San Bernardino spring beauty	CRPR 1B.1	Plant (perennial herb)	Pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: carbonate, openings (usually), rocky, talus. Blooming Period: March through April. Elevation: 7,745 to 8,090 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Claytonia peirsonii</i> ssp. <i>californacis</i>	Furnace spring beauty	CRPR 1B.1	Plant (perennial herb)	Pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: carbonate, openings (usually), rocky, talus. Blooming	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				Period: March through May. Elevation: 7,545 feet.		
<i>Cleomella brevipes</i>	Short-pedicelled cleomella	CRPR 4.2	Plant (annual herb)	Meadows and seeps, marshes and swamps, playas. Microhabitat: alkaline. Blooming period: May through October. Elevation: 1,295 to 7,200 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (meadows and seeps, marshes and swamps, playas) for this species.
<i>Cordylanthus eremicus</i> ssp. <i>eremicus</i>	Desert bird's-beak	CRPR 4.3	Plant (annual hemi-parasitic herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Blooming period: July through October. Elevation: 3,280 to 9,845 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. The nearest record (1998) occurs approximately 5.3 miles northeast of the site (Calflora 2024, CCH 2024).
<i>Cymopterus multinervatus</i>	Purple-nerve cymopterus	CRPR 2B.2	Plant (perennial herb)	Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: March through April. Elevation: 2,590 to 5,905 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Delphinium parryi</i> ssp. <i>purpureum</i>	Mt. Pinos larkspur	CRPR 4.3	Plant (perennial herb)	Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Blooming period: May through June. Elevation: 3,280 to 8,530 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. However, the nearest record (1927), which occurred



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						approximately 6.9 miles west of the site, is 97 years old, suggesting the likelihood of this species occurring on site is low.
<i>Diplacus johnstonii</i>	Johnston's monkey-flower	CRPR 4.3	Plant (annual herb)	Lower montane coniferous forest (disturbed areas, gravelly, roadsides, rocky, scree). Blooming period: May through August. Elevation: 3,200 to 9,580 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland around the mining disturbance within the Project Area may provide suitable habitat for this species. The nearest record (2011) occurred 10.1 miles northwest of the site (Calflora 2024, CCH 2024).
<i>Diplacus mohavensis</i>	Mojave mokey-flower	CRPR 1B.2	Plant (annual herb)	Joshua tree "woodland", Mojavean desert scrub. Microhabitat: gravelly (sometimes), sandy (sometimes), washes (often). Blooming period: April through June. Elevation: 1,970 to 3,935 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Dryocallis cuneifolia</i> var. <i>cuneifolia</i>	Wedgeleaf woodbeauty	CRPR 1B.1	Plant (perennial herb)	Riparian scrub, upper montane coniferous forest. Microhabitat: carbonate (sometimes). Blooming period: June through August. Elevation: 5,905 to 7,925 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (riparian scrub, upper montane coniferous forest) for this species.
<i>Dryopteris filix-mas</i>	Male fern	CRPR 2B.3	Plant (perennial)	Upper montane coniferous forest (granitic, rocky). Blooming period:	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
			rhizomatous herb)	July through September. Elevation: 7,875 to 10,170 feet.		species. Suitable habitat (upper montane coniferous forest) for this species absent.
<i>Dudleya abramsii</i> <i>ssp. affinis</i>	San Bernardino Mountains live-forever	CRPR 1B.2	Plant (perennial fern)	Pebble (Pavement) plain, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: quartzite (sometimes), carbonate (sometimes), granitic (sometimes). Blooming period: April through June. Elevation: 4,100 to 8,530 feet.	CNDDDB, RPI	<b>High Potential.</b> There are 18 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.25 miles east. South facing slopes within the pinyon and juniper woodland on site may provide suitable habitat.
<i>Elymus salina</i>	Salina Pass wild-rye	CRPR 2B.3	Plant (perennial grass)	Pinyon and juniper woodland (rocky). Blooming period: May through June. Elevation: 4,430 to 7,005 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside the Jepson geographic range (Desert Mountains) for this species.
<i>Eremogone ursina</i>	Big Bear Valley sandwort	CRPR 1B.2, FT	Plant (perennial herb)	Meadows and seeps, pebble (pavement) plain, pinyon and juniper woodland. Microhabitat: mesic, rocky. Blooming period: May through August. Elevation: 5,905 to 9,515 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> There are 9 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Four CNDDDB records occur within a 1-



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						<p>mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.2 miles northeast within USFWS final critical habitat for this species. The most recent occurrence (2021) documented approximately 0.6 miles west. Pinyon and juniper woodland on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.</p>
<i>Eremothera boothii</i> ssp. <i>boothii</i>	Booth's evening primrose	CRPR 2B.3	Plant (annual herb)	Joshua tree "woodland", pinyon and juniper woodland. Blooming period: April through September. Elevation: 2,675 to 7,875 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside the Jepson geographic range (East of Sierra Nevada, White and Inyo Mountains) for this species.
<i>Erigeron breweri</i> var. <i>jacinteus</i>	San Jacinto Mountains daisy	CRPR 4.3	Plant (perennial rhizomatous herb)	Subalpine coniferous forest, upper montane coniferous forest. Microhabitat: rocky. Blooming period: June through September. Elevation: 8,860 to 9,515 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (subalpine coniferous forest, upper montane coniferous forest) for this species absent.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Erigeron parishii</i>	Parish's fleabane	CRPR 1B.1, FT	Plant (perennial herb)	Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: carbonate (usually), granitic (sometimes). Blooming period: May through August. Elevation: 2,625 to 6,560 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> Although the Project Area is just over 200 feet outside of the elevational range for this species, there are 7 CNDDDB records (1988-2014) within a 5-mile radius of the site.
<i>Eriogonum evanidum</i>	Vanishing wild buckwheat	CRPR 1B.1	Plant (annual herb)	Chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: July through October. Elevation: 3,610 to 7,300 feet.	CNDDDB, RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. Four CNDDDB records (1929 to 2008) occur within a 10-mile radius of the Project Area. However, the nearest occurrence approximately 1.4 miles west of site was recorded in 1929. Thus, the probability of this species occurring on site is low.
<i>Eriogonum kennedyi</i> var. <i>alpigenum</i>	Southern alpine buckwheat	CRPR 1B.3	Plant (perennial herb)	Alpine boulder and rock field, subalpine coniferous forest. Microhabitat: granitic, gravelly. Blooming period: July through September. Elevation: 8,530 to 11,485 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>	Southern mountain buckwheat	CRPR 1B.2, FT	Plant (perennial herb)	Lower montane coniferous forest (gravelly), pebble (pavement) plain. Blooming period: June	CNDDDB, RPI, IPaC	<b>Low Potential.</b> There are 9 CNDDDB records of this species within the Project Area's USGS 7.5-



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				through September. Elevation: 5,805 to 9,480 feet.		minute quadrangle (Big Bear City). Five CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2008) documented approximately 0.2 miles northeast. Gravelly soils on the periphery of the pinyon and juniper woodland on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Eriogonum microthecum</i> var. <i>johnstonii</i>	Johnston's buckwheat	CRPR 1B.3	Plant (perennial deciduous shrub)	Subalpine coniferous forest, upper montane coniferous forest. Microhabitat: rocky. Blooming period: July through September. Elevation: 6,000 to 9,600 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (subalpine coniferous forest, upper montane coniferous forest) for this species.
<i>Eriogonum microthecum</i> var. <i>lacus-ursi</i>	Bear Lake buckwheat	CRPR 1B.1	Plant (perennial shrub)	Great Basin scrub, lower montane coniferous forest. Microhabitat: clay outcrops, clay. Blooming period: July through August. Elevation: 6,560 to 6,890 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (Great Basin scrub, lower montane coniferous forest, clay outcrops, clay soils) for this species.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Eriogonum microthecum</i> var. <i>lapidicola</i>	Inyo Mountains buckwheat	CRPR 4.3	Plant (perennial deciduous shrub)	Pinyon and juniper woodland, subalpine coniferous forest. Microhabitat: carbonate, rocky. Blooming period: July through September. Elevation: 8,530 to 10,170 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	CRPR 1B.1, FE	Plant (perennial herb)	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: carbonate. Blooming period: May through August. Elevation: 4,595 to 8,005 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. Ten CNDDDB records (1979 to 2021) occur within a 5-mile radius of the Project Area, with the nearest occurrence approximately 2.6 miles northeast. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Eriogonum umbellatum</i> var. <i>minus</i>	Alpine sulfur-flowered buckwheat	CRPR 4.3	Plant (perennial herb)	Subalpine coniferous forest, upper montane coniferous forest. Microhabitat: gravelly. Blooming period: June through September. Elevation: 5,905 to 10,065 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (subalpine coniferous forest, upper montane coniferous forest) for this species.
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	Southern Sierra woolly sunflower	CRPR 4.3	Plant (perennial herb)	Lower montane coniferous forest, upper montane coniferous forest. Microhabitat: loam, sandy. Blooming period: June through	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (lower montane coniferous



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				July. Elevation: 3,655 to 8,205 feet.		forest, upper montane coniferous forest) for this species.
<i>Erythranthe exigua</i>	San Bernardino Mountains monkey-flower	CRPR 1B.2	Plant (annual herb)	Meadows and seeps, pebble (pavement) plain, upper montane coniferous forest. Microhabitat: clay, mesic. Blooming period: May through July. Elevation: 5,905 to 7,595 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area. Two occurrences documented in 1980 observed approximately 0.4 miles north and southwest; however, not observed in subsequent surveys. The nearest recent occurrence (2000) occurred 0.7 miles west. Suitable substrate is not present.
<i>Erythranthe purpurea</i>	Little purple monkey-flower	CRPR 1B.2	Plant (annual herb)	Meadows and seeps, pebble (pavement) plain, upper montane coniferous forest. Blooming Period: May through June. Elevation: 6,235 to 7,545 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). One CNDDDB record occurs within a 1-mile radius of the Project Area with the nearest occurrence (1980) approximately 0.4 miles southwest. The Project



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						site is east of all but one record for the species and meadow/ seep, pebble (pavement) plain, upper montane coniferous forest habitat is absent.
<i>Euphorbia platysperma</i>	Flat-seeded spurge	CRPR 1B.2	Plant (annual herb)	Desert dunes, Sonoran desert scrub (sandy). Blooming period: February through September. Elevation: 215 to 330 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and Jepson geographic range (Sonoran Desert) for this species.
<i>Frasera neglecta</i>	Pine green gentian	CRPR 4.3	Plant (perennial herb)	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Blooming period: May through July. Elevation: 4,595 to 8,205 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. The nearest recent record (2017) occurs approximately 3.1 miles northwest of the site (Calflora 2024).
<i>Fritillaria pinetorum</i>	Pine fritillary	CRPR 4.3	Plant (perennial bulbiferous herb)	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest. Microhabitat: granitic (sometimes), metamorphic (sometimes). Blooming period: May through July (September). Elevation: 5,695 to 10,825 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within the Project Area may provide suitable habitat for this species. The nearest record (2020) occurs approximately 1.5 miles southwest of the site (Calflora 2024, CCH 2024).



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Funastrum utahense</i>	Utah vine milkweed	CRPR 4.2	Plant (perennial herb)	Mojavean desert scrub, Sonoran desert scrub. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: (March) April through June (September to October). Elevation: 330 to 4,710 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and Jepson geographic range (Desert Mountains, Mojave Desert, Sonoran Desert) for this species.
<i>Galium angustifolium</i> ssp. <i>gabrielense</i>	San Antonio Canyon bedstraw	CRPR 4.3	Plant (perennial herb)	Chaparral, lower montane coniferous forest. Microhabitat: granitic, rocky (sometimes), sandy (sometimes). Blooming period: April through August. Elevation: 3,935 to 8,695 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (chaparral, lower montane coniferous forest) for this species.
<i>Galium angustifolium</i> ssp. <i>gracillimum</i>	Slender bedstraw	CRPR 4.2	Plant (perennial herb)	Joshua tree "woodland", Sonoran desert scrub. Microhabitat: granitic, rocky. Blooming period: April through June (July). Elevation: 425 to 5,085 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Galium jepsonii</i>	Jepson's bedstraw	CRPR 4.3	Plant (perennial rhizomatous herb)	Lower montane coniferous forest, upper montane coniferous forest. Microhabitat: granitic, gravelly (sometimes), rocky (sometimes). Blooming period: July through August. Elevation: 5,055 to 8,205 feet.	RPI	<b>Does Not Occur.</b> Project Area does not contain suitable habitat (lower montane coniferous forest, upper montane coniferous forest) for this species.
<i>Galium johnstonii</i>	Johnston's bedstraw	CRPR 4.3	Plant (perennial herb)	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland. Blooming period: June through July. Elevation: 4,005 to 7,545 feet.	RPI	<b>Low Potential.</b> Pinyon-juniper woodland within Project Area may provide suitable habitat for this species. The nearest record (2006) occurs approximately 2.7 miles



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						southwest of the site (Calflora 2024, CCH 2024).
<i>Gentiana fremontii</i>	Fremont's gentian	CRPR 2B.3	Plant (annual herb)	Meadows and seeps (mesic), upper montane coniferous forest. Blooming period: June through August. Elevation: 7,875 to 8,860 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Gilia leptantha</i> ssp. <i>leptantha</i>	Fine flower gilia	CRPR 1B.3	Plant (annual herb)	Lower montane coniferous forest (gravelly, sandy). Blooming period: June through August. Elevation: 4,920 to 8,400.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area does not provide suitable habitat (gravelly, sandy lower montane coniferous forest) for this species.
<i>Gilia leptantha</i> ssp. <i>pinetorum</i>	Pine gilia	CRPR 4.3	Plant (annual herb)	Lower montane coniferous forest (rocky, sandy). Blooming period: May through July. Elevation: 4,920 to 9,185 feet.	RPI	<b>Does Not Occur.</b> Project Area does not provide suitable habitat (rocky, sandy lower montane coniferous forest) for this species. Only one quadrangle level record for this species in Moonridge USGS 7.5-minute quadrangle (CalFlora 2024).
<i>Heuchera caespitosa</i>	Urn-flowered alumroot	CRPR 4.3	Plant (perennial rhizomatous herb)	Cismontane woodland, lower montane coniferous forest, riparian forest (montane), upper montane coniferous forest. Microhabitat: rocky. Blooming period: May through August. Elevation: 3,790 to 8,695 feet.	RPI	<b>Does Not Occur.</b> Project Area does not provide suitable habitat (cismontane woodland, lower montane coniferous forest, riparian forest (montane), upper



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						montane coniferous forest) for this species. Only one quadrangle level record for this species in Moonridge USGS 7.5-minute quadrangle (CalFlora 2024).
<i>Heuchera parishii</i>	Parish's alumroot	CRPR 1B.3	Plant (perennial herb)	Alpine boulder and rock field, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Blooming period: June through August. Elevation: 4,920 to 12,470 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area does not provide suitable habitat (alpine boulder and rock field, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest) for this species.
<i>Horkelia wilderae</i>	Barton Flats horkelia	CRPR 1B.1	Plant (perennial herb)	Chaparral (edges), lower montane coniferous forest, upper montane coniferous forest. Blooming period: May through September. Elevation: 5,495 to 9,595 feet.	RPI	<b>Does Not Occur.</b> Project Area does not provide suitable habitat (chapparal, lower montane coniferous forest, upper montane coniferous forest) for this species. The nearest CNDDDB record (2009) is approximately 6.4 miles southwest.
<i>Hulsea vestita</i> ssp. <i>parryi</i>	Parry's sunflower	CRPR 4.3	Plant (perennial herb)	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Microhabitat: carbonate (sometimes), granitic	RPI	<b>Low Potential.</b> Pinyon-juniper woodlands in Project Area may provide suitable habitat for this species. However, the



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				(sometimes), openings, rocky. Blooming period: April through August. Elevation: 4,495 through 9,500 feet.		nearest record (2006) is approximately 2.7 miles southwest (CalFlora 2024, CCH 2024).
<i>Hulsea vestita</i> ssp. <i>pygmaea</i>	Pygmy hulsea	CRPR 1B.3	Plant (perennial herb)	Alpine boulder and rock field, subalpine coniferous forest. Microhabitat: granitic, gravelly. Blooming period: June through October. Elevation: 9,300 to 12,795 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and suitable habitat (alpine boulder and rock field, subalpine coniferous forest) does not occur for this species.
<i>Ivesia argyrocoma</i> var. <i>argyrocoma</i>	Silver-haired ivesia	CRPR 1B.2	Plant (perennial herb)	Meadows and seeps (alkaline), pebble (pavement) plain, upper montane coniferous forest. Blooming period: June through August. Elevation: 4,800 to 9,710 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Six CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2008) approximately 0.3 miles northeast. Alkaline meadow/ seep, pebble (pavement) plain, upper montane coniferous forest habitat is absent.
<i>Johnstonella</i> <i>holoptera</i>	Winged cryptantha	CRPR 4.3	Plant (annual herb)	Mojavean desert scrub, Sonoran desert scrub. Blooming period: March through April. Elevation: 330 to 5,545 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and does not include suitable habitat (Mojavean desert



# ERM

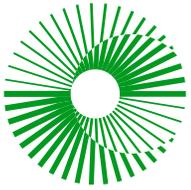
Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						scrub, Sonoran desert scrub) for this species.
<i>Juncus duranii</i>	Duran's rush	CRPR 4.3	Plant (perennial rhizomatous herb)	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest. Microhabitat: mesic. Blooming period: July through August. Elevation: 5,800 to 9,200 feet.	RPI	<b>Low Potential.</b> Hydric soil associated with seep on site may provide suitable habitat for this species. However, the nearest records (2016) occur in the southern section of the Big Bear Lake USGS 7.5-minute quadrangle, approximately 9.1 miles southwest of site (CalFlora 2024, CCH 2024). Thus, the probability for this species to occur is unlikely.
<i>Lewisia brachycalyx</i>	Short-sepaled lewisia	CRPR 2B.2	Plant (perennial herb)	Lower montane coniferous forest, meadows and seeps. Microhabitat: mesic. Blooming Period: (February) April through June (July). Elevation: 4,495 to 7,545 feet.	CNDDB, RPI	<b>Low Potential.</b> Hydric soil associated with seep on site may provide suitable habitat for this species. However, the nearest CNDDB record (1981) occurs approximately 1.8 miles northwest of Project Area and consists of a single individual (CalFlora 2024, CCH 2024). Thus, the probability for this species to occur is unlikely.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Ocellated Humboldt lily	CRPR 4.2	Plant (perennial bulbiferous herb)	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. Microhabitat: openings. Blooming period: March through July (August). Elevation: 100 to 5,905 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and does not include suitable habitat (chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland) for this species.
<i>Lilium parryi</i>	Lemon lily	CRPR 1B.2	Plant (perennial herb)	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Microhabitat: mesic. Blooming period: July through August. Elevation: 4,005 to 9,005 feet.	CNDDDB, RPI	<b>Low Potential.</b> Hydric soil associated with seep on site may provide suitable habitat for this species. However, the nearest CNDDDB record (2014) occurs approximately 2.3 miles south of Project Area and consists of a single individual. Thus, the probability for this species to occur is unlikely.
<i>Linanthus killipii</i>	Baldwin Lake linanthus	CRPR 1B.2	Plant (annual herb)	Joshua tree "woodland", meadows and seeps (alkaline), pebble (pavement) plain, pinyon and juniper woodland. Blooming period: May through July. Elevation: 5,580 to 7,875 feet.	CNDDDB, RPI	<b>Present.</b> A population comprised of eight desiccated individuals was observed within the Project Area during the September 2024 field visit. Although the field survey was conducted outside the blooming period, surveyors were



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						able to identify the remains of the fruiting structures.
<i>Linanthus maculatus</i> ssp. <i>maculatus</i>	Little San Bernardino Mountains linanthus	CRPR 1B.2	Plant (annual herb)	Desert dunes, Joshua tree "woodland", Mojavean desert scrub, Sonoran desert scrub. Microhabitat: sandy. Blooming period: March through May. Elevation: 460 to 4,005 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and does not include suitable habitat (desert dunes, Joshua tree "woodland", Mojavean desert scrub, Sonoran desert scrub) for this species.
<i>Malaxis monophyllos</i> var. <i>brachypoda</i>	White bog adder's-mouth	CRPR 2B.1	Plant (perennial bulbiferous herb)	Bogs and fens, meadows and seeps, upper montane coniferous forest. Microhabitat: mesic. Blooming period: June through August. Elevation: 7,220 to 9,000 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Furthermore, seeps within the Project Area are marginal and would doubtfully support this species.
<i>Mentzelia tridentata</i>	Creamy blazing star	CRPR 1B.3	Plant (annual herb)	Mojavean desert scrub. Microhabitat: gravelly, rocky, sandy. Blooming period: March through May. Elevation: 2,295 to 3,855 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (Mojavean desert scrub) not present on site.
<i>Monardella exilis</i>	Mojave monardella	CRPR 4.2	Plant (annual herb)	Chenopod scrub, desert dunes, Great Basin scrub, Joshua tree "woodland", lower montane coniferous forest, Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: sandy.	RPI	<b>Does Not Occur.</b> Project Area is slightly above the elevation range for this species. Although the site contains pinyon-juniper woodland, the nearest



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				Blooming period: April through September. Elevation: 1,970 to 6,725 feet.		documented occurrence (1927) is approximately 10 miles northwest in the Mojave Desert Region (CalFlora 2024, CCH 2024).
<i>Muilla coronata</i>	Crowned muilla	CRPR 4.2	Plant (perennial bulbiferous herb)	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Blooming period: March through April (May). Elevation: 2,200 to 6,430 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Myosurus minimus</i> ssp. <i>apus</i>	Little mousetail	CRPR 3.1	Plant (annual herb)	Valley and foothill grassland, vernal pools (alkaline). Blooming period: March through June. Elevation: 65 to 2,100 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Navarretia peninsularis</i>	Baja navarretia	CRPR 1B.2	Plant (annual herb)	Chaparral (openings), lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Microhabitat: mesic. Blooming period: (May) June through August. Elevation: 4,920 to 7,545 feet.	CNDDDB, RPI	<b>Moderate Potential.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Two CNDDDB records occurs within a 2-mile radius of the Project Area with the nearest occurrence (2010) documented approximately 1.7 miles southwest. Hydric soils and the pinyon and juniper woodland on site



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						may provide suitable habitat for this species.
<i>Nemacladus gracilis</i>	Slender nemacaldus	CRPR 4.3	Plant (annual herb)	Cismontane woodland, valley and foothill grassland. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: March through May. Elevation: 395 to 6,235 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat for this species (cismontane woodland, valley and foothill grassland) not present.
<i>Oreonana vestita</i>	Woolly mountain parsley	CRPR 1B.3	Plant (perennial herb)	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Microhabitat: gravelly (sometimes), talus (sometimes). Blooming period: March through September. Elevation: 5,300 to 11,485 feet.	CNDDDB, RPI	<b>Low Potential.</b> Nearest CNDDDB occurrence (2015) recorded approximately 3.7 miles southwest of Project Area in mixed conifer forest associated with <i>Pinus monophylla</i> , the dominant species in the Project Area's pinyon and juniper woodland.
<i>Oxytropis oreophila</i> var. <i>oreophila</i>	Mountain oxytrope	CRPR 2B.3	Plant (perennial herb)	Alpine boulder and rock field, subalpine coniferous forest. Microhabitat: gravelly (sometimes), rocky (sometimes). Blooming period: June through September. Elevation: 11,155 feet to 12,470 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Packera bernardina</i>	San Bernardino ragwort	CRPR 1B.2	Plant (perennial herb)	Meadows and seeps (mesic, sometimes alkaline), pebble (pavement) plain, upper montane coniferous forest. Blooming	CNDDDB, RPI	<b>Low Potential.</b> Although there are 7 CNDDDB records of this species within the Project Area's



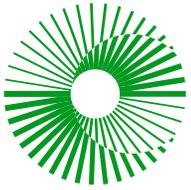
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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				period: May through July. Elevation: 5,905 to 7,545 feet.		USGS 7.5-minute quadrangle (Big Bear City) and 2 CNDDDB records within a 1-mile radius of the Project Area, populations of this species tend to occur within wet meadows associated with the mesic shorelines of Baldwin and Erwin Lakes.
<i>Packera ionophylla</i>	Tehachapi ragwort	CRPR 4.3	Plant (perennial herb)	Lower montane coniferous forest, upper montane coniferous forest. Microhabitat: granitic, rocky. Blooming period: June through July. Elevation: 4,920 to 8,860 feet.	RPI	<b>Low Potential.</b> One historic occurrence recorded approximately 0.5 miles south of Project Area (CalFlora 2024, CCH 2024). Numerous recent records (from 2008 to 2010) identified populations of this species in the vicinity of Sugarloaf Mountain. Suitable microhabitat conditions (rocky soils) present on site.
<i>Perideridia parishii</i> ssp. <i>parishii</i>	Parish's yampah	CRPR 2B.2	Plant (perennial herb)	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest. Blooming period: June through August. Elevation: 4,805 to 9,845 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 3 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City) and one CNDDDB record (1984) within a 1-mile radius of the Project Area.



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						Populations of this species tend to occur within wet meadows associated with the mesic shorelines of Baldwin and Erwin Lakes.
<i>Phacelia exilis</i>	Transverse Range phacelia	CRPR 4.3	Plant (annual herb)	Lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, upper montane coniferous forest. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: May through August. Elevation: 3,610 to 8,860 feet.	RPI	<b>Low Potential.</b> Pinyon and Juniper woodland may provide suitable habitat based on a CCH record in similar habitat and soils 0.4-mile northwest of the Project Area. Six records (from 1941 to 2020) occur within a 1-mile radius of Project Area (CalFlora 2024, CCH 2024). However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Phacelia mohavensis</i>	Mojave phacelia	CRPR 4.3	Plant (annual herb)	Cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Microhabitat: gravelly (sometimes), sandy (sometimes). Blooming period: April through August. Elevation: 4,595 to 8,205 feet.	RPI	<b>Low Potential.</b> Pinyon and juniper woodlands and hydric soils may provide suitable habitat for this species within Project Area. Nearest occurrence (1979) approximately 2.8 miles north along northern shore of Baldwin Lake in sagebrush scrub (CalFlora



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						2024, CCH 2024). Lack of recent records suggests likelihood of occurrence on site is low.
<i>Phacelia parishii</i>	Parish's phacelia	CRPR 1B.1	Plant (annual herb)	Mojavean desert scrub, playas. Microhabitat: alkaline (sometimes), clay (sometimes). Blooming period: April through May (June to July). Elevation: 1,770 to 3,935 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range and does not contain suitable habitat (Mojavean desert scrub, playas) for this species.
<i>Phlox dolichantha</i>	Big Bear Valley phlox	CRPR 1B.2	Plant (perennial herb)	Pebble (Pavement) plain, upper montane coniferous forest (openings). Blooming period: May through July. Elevation: 6,005 to 9,745 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 10 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). One CNDDDB record occurs within a 1-mile radius of the Project Area with the nearest occurrence (1991) documented approximately 0.7 miles southwest. Rocky soils in the pinyon and juniper woodland on site may provide suitable habitat. However, the species was not observed during surveys, which occurred during the blooming period for this species.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Physaria kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains bladderpod	CRPR 1B.1, FE	Plant (perennial herb)	Lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest. Microhabitat: carbonate (usually). Blooming period: May through June. Elevation: 6,070 to 8,860 feet.	CNDDDB, RPI, IPaC	<b>Does Not Occur.</b> There are 2 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). One CNDDDB record (2009) occurs within a 1-mile radius of the Project Area. Carbonate substrate is absent.
<i>Plagiobothrys parishii</i>	Parish's popcorn-flower	CRPR 1B.1	Plant (annual herb)	Great Basin scrub, Joshua tree "woodland". Microhabitat: alkaline, mesic. Blooming period: March through June (November). Elevation: 2,460 to 4,595 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Poa atropurpurea</i>	San Bernardino bluegrass	CRPR 1B.2, FE	Plant (perennial rhizomatous grass)	Meadows and seeps (mesic). Blooming period: (April) May through July (August). Elevation: 4,460 to 8,055 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> There are 7 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (1981) documented in the palustrine emergent wetland immediately west of Lakewood Drive. However, the species was not observed during surveys, which occurred



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						during the blooming period for this species.
<i>Podistera nevadensis</i>	Sierra podistera	CRPR 4.3	Plant (perennial herb)	Alpine boulder and rock field. Blooming period: July through September. Elevation: 9,845 to 13,125 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (alpine boulder and rock field) for this species not present.
<i>Poliomintha incana</i>	Frosted mint	CRPR 2A	Plant (perennial shrub)	Lower montane coniferous forest (mesic). Blooming period: June through July. Elevation: 5,250 to 5,580 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (lower montane conifer forest [mesic]) for this species not present.
<i>Puccinellia parishii</i>	Parish's alkali grass	CRPR 1B.1	Plant (annual grass)	Meadows and seeps (alkaline springs, seeps). Blooming period: April through May. Elevation: 2,295 to 3,280 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Puccinellia simplex</i>	California alkali grass	CRPR 1B.2	Plant (annual grass)	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Microhabitat: alkaline, flats, lake margins, vernal mesic. Blooming period: March through May. Elevation: 5 to 3,050 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Pyrrocoma uniflora</i> var. <i>gossypina</i>	Bear Valley pyrrocoma	CRPR 1B.2	Plant (perennial herb)	Meadows and seeps, pebble (pavement) plain. Blooming period: July through September. Elevation: 5,250 to 7,545 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 7 CNDDDB records of this species within the Project Area's USGS 7.5-



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the most recent occurrence (1999) documented on the shores of Baldwin Lake approximately 0.9 miles northeast. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Rhinotropis acanthoclada</i>	Thorny milkwort	CRPR 2B.3	Plant (perennial shrub)	Chenopod scrub, Joshua tree "woodland", pinyon and juniper woodland. Blooming period: May through August. Elevation: 2,495 to 7,495 feet.	RPI	<b>Does Not Occur.</b> Despite the potential for pinyon and juniper woodlands to provide suitable habitat for this species, Project Area is outside of Jepson geographic range (East of Sierra Nevada). Four CNDDDB occurrences (from 1981 to 2008) recorded approximately 12 to 14.5 miles north/northwest of Project Area in Mojave Desert Region.
<i>Rhinotropis intermontana</i>	Inter-mountain milkwort	CRPR 2B.1	Plant (perennial shrub)	Pinyon and juniper woodland. Blooming period: June through July (October). Elevation: 6,595 to 10,105 feet.	RPI	<b>Does Not Occur.</b> Despite the potential for pinyon and juniper woodlands to provide suitable habitat



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						for this species, Project Area is outside of Jepson geographic range (East of Sierra Nevada). Nearest CNDDDB occurrence (2013) approximately 11.5 miles north in Mojave Desert Region.
<i>Rosa woodsii</i> var. <i>glabrata</i>	Cushenbury rose	CRPR 1B.1	Plant (perennial shrub)	Mojavean desert scrub (springs). Blooming period: (April) May through August. Elevation: 2,985 to 4,710 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (Mojavean desert scrub [springs]) lacking on site.
<i>Rupertia rigida</i>	Parish's rupertia	CRPR 4.3	Plant (annual herb)	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foothill grassland. Blooming period: June through August. Elevation: 2,295 to 8,205 feet.	RPI	<b>Low Potential.</b> Hydric soils may provide suitable habitat for this species. Six occurrences (from 1930 to 2020) recorded approximately 1.3 miles south of Project Area (CalFlora 2024).
<i>Saltugilia latimeri</i>	Latimer's woodland gilia	CRPR 1B.2	Plant (annual herb)	Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Microhabitat: granitic (often), rocky (sometimes), sandy (sometimes), washes (sometimes). Blooming period: March through June. Elevation: 1,310 to 6,235 feet.	CNDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Sedum niveum</i>	Davidson's stonecrop	CRPR 4.2	Plant (perennial)	Lower montane coniferous forest, subalpine coniferous forest, upper	RPI	<b>Low Potential.</b> Project Area at the lower limits of



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
			rhizomatous herb)	montane coniferous forest. Microhabitat: rocky. Blooming period: June through August. Elevation: 6,810 to 9,845 feet.		this species' elevation range. Numerous occurrences (from 1904 to 2010) documented near Sugarloaf Mountain in Project Area's adjacent USGS 7.5-minute quadrangle (Moonridge) (CalFlora 2024). Suitable habitat (lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest) lacking on site.
<i>Selaginella asprella</i>	bluish spike-moss	CRPR 4.3	Plant (lycophyte)	Cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest. Microhabitat: granitic, rocky. Blooming period: July. Elevation: 5,250 to 8,860 feet.	RPI	<b>Low Potential.</b> Pinyon and juniper woodlands may provide suitable habitat for this species. Numerous occurrences documented within a 2-mile radius of Project Area (CalFlora 2024).
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's checkerbloom	CRPR 1B.2	Plant (perennial herb)	Chaparral, cismontane woodland, lower montane coniferous forest. Blooming period: (May) June through August. Elevation: 3,200 to 8,200 feet.	RPI	<b>Low Potential.</b> Suitable habitat (chaparral, cismontane woodland, lower montane coniferous forest) does not occur within Project Area. Nearest CNDDDB occurrence (2005) approximately 5.5 miles southwest.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Sidalcea malviflora</i> ssp. <i>dolosa</i>	Dwarf checker-bloom	CRPR 1B.2	Plant (perennial rhizomatous herb)	Lower montane coniferous forest (meadows, seeps), meadows and seeps, riparian woodland, upper montane coniferous forest (meadows, seeps). Blooming period: May through August. Elevation: 4,905 to 8,810 feet.	CNDDDB, RPI	<b>Low Potential.</b> Relict hydric soils and open areas within Project Area may provide suitable habitat; however, lack of persistent hydrologic conditions may preclude this species' presence. Nearest CNDDDB occurrence (2010) recorded approximately 2.5 miles south.
<i>Sidalcea neomexicana</i>	Salt spring checker-bloom	CRPR 2B.2	Plant (perennial herb)	Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas. Microhabitat: alkaline, mesic. Blooming period: March through June. Elevation: 50 to 5,020 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species. Suitable habitat (chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas) for this species does not occur.
<i>Sidalcea pedata</i>	Birdfoot checker-bloom	CRPR 1B.1, SE, FE	Plant (perennial herb)	Meadows and seeps (mesic), pebble (pavement) plain. Blooming period: May through August. Elevation: 5,280 to 8,205 feet.	CNDDDB, RPI	<b>Low Potential.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Two CNDDDB records occur within a 1-mile radius of the Project Area with the most recent occurrence (2009) documented on the shores of Baldwin Lake approximately 0.9 miles



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						northeast. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Sidotheca caryophylloides</i>	Chickweed oxytheca	CRPR 4.3	Plant (annual herb)	Lower montane coniferous forest (sandy). Blooming period: July through September (October). Elevation: 3,655 to 8,530 feet.	RPI	<b>Low Potential.</b> Presumed extant within Project Area's adjacent USGS 7.5-minute quadrangle (Big Bear Lake, Fawnskin) (RPI 2024). Lack of suitable habitat (lower montane coniferous forest) and location in a distinct HUC12 subwatershed reduce the likelihood of this species' presence within the Project Area.
<i>Sisyrinchium longipes</i>	Timberland blue-eyed grass	CRPR 2B.2	Plant (perennial herb)	Meadows and seeps. Microhabitat: mesic. Blooming period: June through August. Elevation: 6,760 feet.	RPI	<b>Low Potential.</b> Hydric soils and open areas within Project Area may provide suitable habitat for this species. A cluster of 13 occurrences (from 1905 to 2018) documented in a distinct HUC 12 subwatershed approximately 5.2 miles southeast of site (CalFlora 2024; USGS 2024). This difference in watershed location



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						reduces the likelihood of the species' presence on the project site.
<i>Sphenopholis obtusata</i>	Prairie wedge grass	CRPR 2B.2	Plant (perennial herb)	Cismontane woodland, meadows and seeps. Microhabitat: mesic. Blooming period: April through July. Elevation: 985 to 6,560 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Streptanthus bernardinus</i>	Laguna Mountains jewel flower	CRPR 4.3	Plant (perennial herb)	Chaparral, lower montane coniferous forest. Blooming period: May through August. Elevation: 2,200 to 8,205 feet.	RPI	<b>Low Potential.</b> One record (CalFlora 2024, CCH 2024) from 1937 documented approximately 3.4 miles northwest of Project Area. Despite the presence of suitable habitat (pinyon and juniper woodland), the lack of subsequent records suggests this species is unlikely to occur on site.
<i>Streptanthus campestris</i>	Southern jewel flower	CRPR 1B.3	Plant (perennial herb)	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Microhabitat: rocky. Blooming period: (April) May through June. Elevation: 2,955 to 7,545 feet.	CNDDDB, RPI	<b>Low Potential.</b> Six records (CalFlora 2024) of this species occur within a 10-mile radius of the Project Area. However, only one occurrence documented after the year 2000. Despite the presence of suitable habitat (pinyon and juniper woodland), the lack of recent records



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						suggests this species is unlikely to occur on site.
<i>Streptanthus juneae</i>	June's jewel flower	CRPR 1B.2	Plant (perennial herb)	Chaparral (montane), lower montane coniferous forest. Microhabitat: openings. Blooming period: June through August. Elevation: 7,070 to 7,775 feet.	RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Symphotrichum defoliatum</i>	San Bernardino aster	CRPR 1B.2	Plant (perennial rhizomatous herb)	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Microhabitat: streambanks, near ditches, streams, springs. Blooming period: July through November. Elevation: 5 to 6,695 feet.	CNDDDB, RPI	<b>Does Not Occur.</b> Project Area is outside of the elevational range for this species.
<i>Taraxacum californicum</i>	California dandelion	CRPR 1B.1, FE	Plant (perennial herb)	Meadows and seeps (mesic). Blooming period: May through August. Elevation: 5,315 to 9,185 feet.	CNDDDB, RPI, IPaC	<b>Low Potential.</b> There are 8 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (1988) documented approximately 0.6 miles northwest in the palustrine emergent wetland complex on the western side of Lakewood

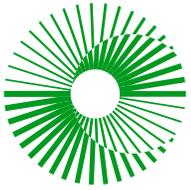


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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						Drive. However, the species was not observed during surveys, which occurred during the blooming period for this species.
<i>Thelypodium stenopetalum</i>	Slender-petaled thelypodium	CRPR 1B.1, SE, FE	Plant (perennial herb)	Meadows and seeps (mesic, alkaline). Blooming period: May through September. Elevation: 5,250 to 8,205 feet.	CNDDDB, RPI, IPaC	<b>Does Not Occur.</b> There are 4 CNDDDB records of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City). Three CNDDDB records occur within a 1-mile radius of the Project Area with the nearest occurrence (2019) documented approximately 0.7 miles northwest. Suitable alkaline substrate is absent.
<i>Trichostema micranthum</i>	Small-flowered bluecurls	CRPR 4.3	Plant (annual herb)	Lower montane coniferous forest Meadows and seeps. Microhabitat: mesic. Blooming period: June through September. Elevation: 5,005 to 7,545 feet.	RPI	<b>Low Potential.</b> One record (CalFlora 2024, CCH 2024) from 1946 documented approximately 0.3 miles southeast of Project Area. Absence of suitable habitat and subsequent records suggests this species is unlikely to occur on site.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Viola pinetorum</i> <i>ssp. grisea</i>	Grey-leaved violet	CRPR 1B.2	Plant (perennial herb)	Meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Blooming period: April through July. Elevation: 4,920 to 11,155 feet.	CNDDDB, RPI	<b>Low Potential.</b> One CNDDDB record of this species (1886) occurs within the Project Area's USGS 7.5-minute quadrangle (Big Bear City) and overlaps the Project Area. However, the record is from 1886 and the exact location from which it was collected is unknown. Therefore, the record is represented by the CNDDDB as occurring somewhere within a 5-mile radius of Big Bear City and described by CNDDDB as a "best guess" area. The Project Area is more than 5 miles east of all CCH records and is likely outside of the range for the species.
<b>Invertebrates</b>						
<i>Bombus caliginosus</i>	Obscure bumble bee	SA	Insect	Coastal areas from Santa Barbara County north to Washington state. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> , and <i>Phacelia</i> .	CNDDDB	<b>Low Potential.</b> While <i>Lupinus</i> spp. within the Project Area may provide a food source for this species, the majority of CNDDDB records occur along the coast from Santa Barbara northward. One CNDDDB record



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						(1933) occurs approximately 9.6 miles southwest of site; however, the age of this record and absence of subsequent occurrences suggests it is unlikely that this species will occur on site.
<i>Bombus crotchii</i>	Crotch's bumble bee	SA	Insect	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Asclepias</i> , <i>Antirrhinum</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Salvia</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	CNDDDB	<b>Low Potential.</b> While <i>Lupinus</i> spp. and <i>Eriogonum</i> spp. within the Project Area may provide a food source for this species, their concentrations are low, suggesting it is unlikely this species will occur on site. Only two CNDDDB records (1940, 2019) occur within a 10-mile radius of the site, and the most recent record observed a single individual.
<i>Bombus morrisoni</i>	Morrison bumble bee	SA	Insect	From the Sierra-Cascade ranges eastward across the intermountain west. Food plant genera include <i>Cirsium</i> , <i>Cleome</i> , <i>Helianthus</i> , <i>Lupinus</i> , <i>Chrysothamnus</i> , and <i>Melilotus</i> .	CNDDDB	<b>Low Potential.</b> While <i>Lupinus</i> spp. within the Project Area may provide a food source for this species, there is only one CNDDDB record (1999) within a 10-mile radius of the site.



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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Danaus plexippus</i>	Monarch Butterfly	FC	Insect	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Closed-cone coniferous forests.	IPaC	<b>Does Not Occur.</b> Project Area does not provide suitable wintering habitat or provide foraging habitat, as no milkweeds ( <i>Asclepias</i> spp.) were observed on site. Furthermore, the nearest known CNDDDB overwintering sites are located approximately 67 miles southwest of Project Area.
<i>Euchloe hyantis andrewsi</i>	Andrew's marble butterfly	SA	Insect	Lower montane coniferous forest. Inhabits yellow pine forest near Lake Arrowhead and Big Bear Lake, San Bernardino Mtns, San Bernardino Co, 5000-6000 ft. Host plants are <i>Streptanthus bernardinus</i> and <i>Arabis holboellii</i> var <i>pinetorum</i> ; larval foodplant is <i>Descurainia richardsonii</i> .	CNDDB	<b>Low Potential.</b> While the Project Area is within the geographic range for this species, the absence of suitable larval foodplants on site may limit its potential to occur. Only two CNDDDB records (1935, 1970) occur within a 10-mile radius of the Project Area, and both records are over 50 years old.
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	SA, FE	Insect	Chaparral and coastal scrub. Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants <i>Plantago erecta</i> , <i>P.</i>	CNDDB	<b>Does Not Occur.</b> Suitable habitat for this species (chaparral, coastal scrub habitats, high densities of food plants) does not occur within the Project Area.

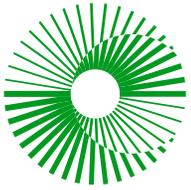


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Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				<i>insularis</i> , and <i>Orthocarpus purpurescens</i> .		
<i>Hydroporus simplex</i>	Simple hydroporus diving beetle	SA	Insect	Aquatic, Sacramento/San Joaquin flowing waters. Known from aquatic habitats in Tuolumne and San Bernardino counties.	CNDDDB	<b>Does Not Occur.</b> No water or aquatic habitat available on site; therefore, this species does not occur within the Project Area.
<i>Paranomada californica</i>	California cuckoo bee	SA	Insect	Nest parasite of other solitary, ground-nesting bees. Do not excavate their own nests or collect pollen for their larvae. Instead, the females enter the nests of pollen-collecting species and lay their eggs in the open, unfinished cells while the host females are absent.	CNDDDB	<b>Low Potential.</b> There are only two known occurrences of this species, one in Yucca Valley (1971) and the other in Pioneertown (2006). However, given that this organism relies on solitary, ground-nesting bees, which could inhabit the Project Area, there is a low probability that this species could occur on site.
<i>Psychomastax deserticola</i>	Desert monkey grasshopper	SA	Insect	Chaparral. Occurs in very arid environments in the vicinity of the San Bernardino Mtns. Known to occur on chamise ( <i>Adenostoma fasciculatum</i> ).	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (chaparral, chamise) for this species does not occur on site. Only two CNDDDB records (1919) occur within a 10-mile radius of the Project Area; however, both records are over 100 years old.



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<b>Fishes</b>						
<i>Gasterosteus aculeatus williamsoni</i>	Unarmored threespine stickleback	SE, FE, FP	Fish	Aquatic, south coast flowing waters. Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 C), clear water with abundant vegetation.	CNDDDB, IPaC	<b>Does Not Occur.</b> Suitable habitat (aquatic, flowing waters, weedy pools, backwaters, cool and clear water) for this species does not occur within the Project Area.
<i>Oncorhynchus mykiss irideus pop. 10</i>	steelhead - southern California DPS	FE, SC, FP	Fish	Aquatic, south coast flowing waters. Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (aquatic, flowing waters, weedy pools, backwaters, cool and clear water) for this species does not occur within the Project Area.
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub	FE, SE, FP	Fish	Aquatic, artificial flowing waters, artificial standing waters. Endemic to the Mojave River basin, adapted to alkaline, mineralized waters. Needs deep pools, ponds, or slough-like areas. Needs vegetation for spawning.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (aquatic, artificial flowing waters, artificial standing waters) for this species does not occur within the Project Area.
<b>Amphibians</b>						
<i>Ensatina eschscholtzii klauberi</i>	Large-blotched salamander	WL	Amphibian	Found in conifer and woodland associations. Found in leaf litter, decaying logs and shrubs in heavily forested areas. Woodland overstory habitat includes canyon	CNDDDB	<b>Low Potential.</b> Pinyon-juniper woodland may provide suitable habitat for this species; however, the absence of abundant



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				live oak, coulter pine, yellow pine, and incense cedar; oak, toyon, and buckwheat are also common.		leaf litter, a dense overstory, and preferred tree species suggests this species potential to occur within Project Area is low.
<i>Rana muscosa</i>	Southern mountain yellow-legged frog	SE, FE	Amphibian	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt. May overwinter under frozen lakes. Often encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	CNDDDB	<b>Low Potential.</b> Hydric soils in the northwest corner of the Project Area may provide suitable habitat for this species, as it abuts an off-site NWI feature. Additionally, six CNDDDB records (1908 to 2024) occur within a 10-mile radius of the site. However, this species is typically found within a couple meters of water, and the nearest aquatic feature is approximately 350 feet west of the northwestern boundary.
<b>Reptiles</b>						
<i>Anniella stebbinsi</i>	Southern California legless lizard	SSC	Reptile	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub. Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats;	CNDDDB	<b>Low Potential.</b> Hydric soils in the sparsely vegetated section of the meadow and seep area within the Project Area may provide suitable habitat for this species. However, only one CNDDDB record (1961) occurs within a 10-mile

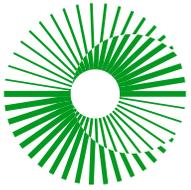


Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				generally in moist, loose soil. They prefer soils with a high moisture content.		radius of the site, and only one specimen was documented.
<i>Aspidoscelis tigris stejnegeri</i>	Coastal whiptail	SSC	Reptile	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	CNDDDB	<b>Low Potential.</b> Suitable habitat (desert and semi-arid areas with sparse vegetation) may be lacking within Project Area. There are no CNDDDB records (2024) within a 10-mile radius of the site.
<i>Charina umbratica</i>	Southern rubber boa	SA, ST	Reptile	Meadow & seep, riparian forest, riparian woodland, upper montane coniferous forest, wetland. Found in a variety of montane forest habitats. Previously considered morphologically intermediate, recent (2022) genomic analysis clarifies individuals from Mt Pinos, Tehachapi Mts, and southern Sierra Nevada are southern rubber boa. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter.	CNDDDB	<b>High Potential.</b> Hydric soils in the northwest corner of the Project Area may provide suitable habitat for this species, as it abuts an off-site NWI stream and wetland. Furthermore, there are 29 CNDDDB records within a 10-mile radius of the site.
<i>Crotalus ruber</i>	Red-diamond rattlesnake	SSC	Reptile	Chaparral, Mojavean desert scrub, Sonoran desert scrub. Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky	CNDDDB	<b>Low Potential.</b> Suitable habitat (eastern slopes of mountains) for this species is marginal within the Project Area. There are no CNDDDB records



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.		within a 10-mile radius of the site, suggesting its likelihood to occur is low.
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	Reptile	Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub. Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	CNDDDB, IPaC	<b>Does Not Occur.</b> Suitable habitat (Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub, creosote bush) for this species does not occur within Project Area. Although two CNDDDB records (1986) occur within a 10-mile radius of the site, both records occur at lower elevations in the Mojave Desert.
<i>Phrynosoma blainvillii</i>	Coast horned lizard	SSC	Reptile	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, valley & foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	CNDDDB	<b>Moderate Potential.</b> Pinyon-juniper woodland within the Project Area may provide some suitable habitat for this species. Four CNDDDB records (1907 to 2004) occur within a 10-mile radius of site. The nearest CNDDDB record (2004) occurred 3.6 miles north of the site.
<i>Thamnophis hammondi</i>	Two-striped gartersnake	SSC	Reptile	Marsh & swamp, riparian scrub, riparian woodland, wetland. Coastal California from vicinity of	CNDDDB	<b>Low Potential.</b> Suitable habitat (riparian areas and wetlands) for this



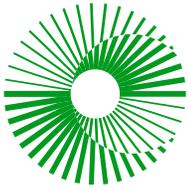
# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.		species do not occur on site. However, the proximity to a stream to the west of the northwest corner of the Project Area suggests there is a low potential for this species to occur on site. Only one CNDDDB record (2001) occur within a 10-mile radius of the site.
<i>Uma scoparia</i>	Mojave fringe-toed lizard	SSC	Reptile	Desert dunes, desert wash, Mojavean desert scrub. Fine, loose, wind-blown sand in sand dunes, dry lakebeds, riverbanks, desert washes, sparse alkali scrub and desert scrub. Shrubs or annual plants may be necessary for arthropods found in the diet.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (desert dunes, desert wash, Mojavean desert scrub) for this species does not occur within the Project Area. There are no CNDDDB records within a 10-mile radius of the site.
<b>Birds</b>						
<i>Accipiter cooperii</i>	Cooper's hawk	WL	Bird	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	CNDDDB	<b>Low Potential - Foraging.</b> Pinyon-juniper woodland within the Project Area could provide suitable foraging habitat for this species; however, the absence of riparian area suggests the likelihood of occurring is low. There are no CNDDDB records within a 10-mile radius of the site.



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Accipiter striatus</i>	Sharp-shinned hawk	WL	Bird	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (riparian areas with north-facing slopes within 275 ft of water) for this species is not present within the Project Area.
<i>Aquila chrysaetos</i>	Golden eagle	FP, WL	Bird	Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinon & juniper woodlands, upper montane coniferous forest, valley & foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	CNDDDB, IPaC	<b>Moderate Potential – Foraging.</b> Pinyon-juniper woodlands within the Project Area may provide suitable foraging habitat for this species. Four CNDDDB records (from 1992 to 2010) occur within a 10-mile radius of the site.
<i>Asio otus</i>	Long-eared owl	SSC	Bird	Cismontane woodland, Great Basin scrub, riparian forest, riparian woodland, upper montane coniferous forest. Riparian bottomlands with tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (cismontane woodlands, Great Basin scrub, riparian woodlands) for this species is not present within the Project Area.



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<i>Athene cunicularia</i>	Burrowing owl	SSC	Bird	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, valley & foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, valley & foothill grassland) for this species is not present within Project Area.
<i>Chaetura vauxi</i>	Vaux's swift	SSC	Bird	Lower montane coniferous forest, North coast coniferous forest, old-growth redwood forests. Redwoods, Douglas-fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	CNDDDB	<b>Low Potential - Foraging.</b> Pinyon-juniper woodland within Project Area may provide suitable foraging habitat for this species. One unprocessed CNDDDB record (2024) occurs within Big Bear Lake USGS 7.5-minute quadrangle.
<i>Chilodnias niger surinamensis</i>	Black tern	SSC	Bird	Freshwater marsh, Great Basin standing waters, wetland. Freshwater lakes, ponds, marshes and flooded ag fields. At coastal lagoons and estuaries during migration. Breeding range reduced. Breeds primarily in Modoc Plateau region, with some breeding in Sacramento and San Joaquin valleys.	CNDDDB, IPaC	<b>Does Not Occur.</b> Suitable habitat (freshwater marsh, Great Basin standing waters, wetlands) for this species is not present within Project Area.



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<i>Circus hudsonius</i>	Northern harrier	SSC	Bird	Annual grasslands, lodgepole pine, and alpine meadow habitats. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses, moist or dry shrubs, and edges for nesting, cover, and feeding. Mostly nests in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water.	CNDDDB	<b>Low Potential - Nesting.</b> Sagebrush flats within Project Area may provide suitable habitat for this species. There are no CNDDDB records within a 10-mile radius of the site.
<i>Contopus cooperi</i>	Olive-sided flycatcher	SSC	Bird	Lower montane coniferous forest, redwood, upper montane coniferous forest. Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain.	CNDDDB	<b>Low Potential - Foraging.</b> Pinyon-juniper woodlands adjacent to open terrain within the Project Area may provide suitable foraging habitat. One unprocessed CNDDDB record (2024) occurs within Big Bear Lake USGS 7.5-minute quadrangle.
<i>Cypseloides niger</i>	Black swift	SSC	Bird	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (cliffs adjacent to waterfalls, canyons) not present within the Project Area. There are no CNDDDB



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				canyons and sea-bluffs above the surf; forages widely.		records within a 10-mile radius of the site.
<i>Epidonax traillii</i>	Willow flycatcher	SE	Bird	Meadow & seep, riparian scrub, riparian woodland, wetland. Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2000-8000 ft elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (riparian woodlands with populations of willow) is not present within Project Area.
<i>Epidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	Bird	Riparian woodland, riparian woodlands in Southern California.	CNDDDB, IPaC	<b>Does Not Occur.</b> Suitable habitat (riparian woodlands with populations of willow) is not present within Project Area.
<i>Eremophila alpestris actia</i>	California horned lark	WL	Bird	Marine intertidal & splash zone communities, meadow & seep. Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	CNDDDB	<b>Low Potential - Foraging.</b> Meadow and seep within Project Area may provide suitable foraging habitat for this species. One unprocessed CNDDDB record (2024) occurs within the Big Bear Lake USGS 7.5-minute quadrangle.
<i>Falco mexicanus</i>	Prairie falcon	WL	Bird	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, valley & foothill grassland. Inhabits dry,	CNDDDB	<b>Low Potential - Foraging.</b> Although this species typically inhabits lower elevation



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				open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.		grasslands and deserts, open terrain within the Project Area may provide suitable habitat. Two CNDDDB nesting records (1977, 1978) occur within 10-miles of the Project Area.
<i>Haliaeetus leucocephalus</i>	Bald Eagle	FD, SE, FP	Bird	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	CNDDDB, IPaC	<b>Low Potential – Nesting, Foraging, Wintering.</b> No eagle nests were observed during biological surveys. One CNDDDB nesting and wintering record (2013) occurs on the south-facing slope of the pinyon-juniper woodland hillside, approximately 0.5 miles north of site and adjacent to Baldwin Lake. Large conifers (Jeffrey pine) within Project Area may provide suitable nesting habitat for this species; however, the site is not adjacent to a persistent water body. Therefore, the project is unlikely to support nesting habitat (tall features near persistent water bodies with prey/fish) or foraging



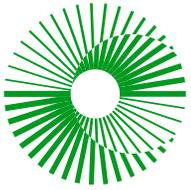
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						habitat (persistent water bodies with prey/fish).
<i>Icteria virens</i>	Yellow-breasted chat	SSC	Bird	Riparian forest, riparian scrub, riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (riparian forests, scrub, and woodlands) for this species are not present within the Project Area.
<i>Lanius ludovicianus</i>	Loggerhead shrike	SSC	Bird	Broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, pinyon & juniper woodlands, riparian woodland, Sonoran desert scrub. Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	CNDDDB	<b>Low Potential - Foraging.</b> Pinyon-juniper woodlands within the Project Area may provide suitable foraging habitat for this species. However, most mapped CNDDDB records occur at lower elevations the Project Area, so it is unlikely this species will occur on site.
<i>Leiothlypis virginiae</i>	Virginia's warbler	WL	Bird	Chaparral, riparian scrub, east slope of Southern Sierra Nevada to San Bernardino Mountains. In arid, shrubby, mixed-conifer, pinyon-juniper, montane-chaparral. 7000-9000 ft. Nests on arid slopes with stands of tall shrubs/scattered trees; also, riparian thickets of willow/wild rose along streams.	CNDDDB	<b>Low Potential - Nesting, Foraging.</b> Pinyon-juniper woodlands within Project Area may provide suitable habitat, although the site is slightly outside of the elevation range for this species. One unprocessed CNDDDB record occurs



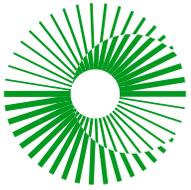
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						within the Moonridge USGS 7.5-minute quadrangle.
<i>Pandion haliaetus</i>	Osprey	WL	Bird	Riparian forest, ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	CNDDDB	<b>Low Potential - Nesting.</b> While the Project Area is located approximately 5 miles east of Big Bear Lake, more optimal nesting habitat occurs within a closer proximity to Big Bear Lake. One unprocessed CNDDDB record (2024) occurs within the Big Bear Lake USGS 7.5-minute quadrangle.
<i>Pelecanus erythrorhynchos</i>	American white pelican	SSC	Bird	Colonial nester on large interior lakes. Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.	CNDDDB	<b>Does Not Occur.</b> Suitable wintering habitat (large interior lakes, well-sequestered islets) for this species does not occur within the Project Area.
<i>Piranga flava</i>	Hepatic tanager	WL	Bird	Upper montane coniferous forest, white fir-pinyon forest on desert peaks, 5300-8100 ft elevation. Understory of xerophytic shrubs.	CNDDDB	<b>Low Potential - Foraging.</b> Pinyon-juniper woodlands within the Project Area may provide suitable foraging habitat for this species within the Project Area. While there is one unprocessed CNDDDB record (2024)



# ERM

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						within the Project Area's USGS 7.5-minute quadrangle (Big Bear City), the nearest mapped CNDDDB record is approximately 100 miles east of the site.
<i>Piranga rubra</i>	Summer tanager	SSC	Bird	Riparian forest. Summer resident of desert riparian along lower Colorado River, and locally elsewhere in California deserts. Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (riparian forest, cottonwood-willow associations, deserts) for this species is not present within Project Area. While two CNDDDB records (1987, 1989) occurred within a 10-mile radius of the Project Area, both records are over 35 years old and occurred in desert habitat.
<i>Plegadis chihi</i>	White-faced ibis	WL	Bird	Marsh & swamp, wetland, shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	CNDDDB	<b>Does Not Occur.</b> Although one unprocessed CNDDDB record (2024) occurs within the Project Area's USGS 7.5-minute quadrangle (Big Bear City), suitable habitat (marsh, swamp, wetland, shallow freshwater marsh, dense tule thickets) is absent for this species on site.



# ERM

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<i>Polioptila melanura</i>	Black-tailed gnatcatcher	WL	Bird	Mojavean desert scrub, Sonoran desert scrub. Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, palo verde, ironwood, acacia; absent from areas where salt cedar introduced.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (desert scrub and desert washes) for this species does not occur within the Project Area. One unprocessed CNDDDB (2024) record occurs within the Old Woman Springs USGS 7.5-minute quadrangle, which is in the Mojave Desert Region.
<i>Psiloscops flammeolus</i>	Flammulated owl	SA	Bird	Lower montane coniferous forest, subalpine coniferous forest. Need montane forests with some understory brush for breeding. In California, the breeding range is closely associated with the presence of ponderosa pine and Jeffery pine.	CNDDDB	<b>Low Potential - Breeding.</b> Jeffrey pines within the Project Area may provide suitable breeding habitat for this species. One unprocessed CNDDDB record (2024) occurs within the USGS Big Bear Lake 7.5-minute quadrangle.
<i>Selasphorus rufus</i>	Rufous hummingbird	SA	Bird	North coast coniferous forest, oldgrowth. Breeds in Transition life zone of northwest coastal area from Oregon border to southern Sonoma County. Nests in berry tangles, shrubs, and conifers. Favors habitats rich in nectar-producing flowers.	CNDDDB	<b>Low Potential - Wintering.</b> While the Project Area is far from the breeding zone for this species, conifers on site may provide suitable habitat for this species. One unprocessed CNDDDB record (2024) occurs within the USGS Big Bear Lake 7.5-minute quadrangle.



# ERM

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<i>Setophaga petechia</i>	Yellow warbler	SSC	Bird	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	CNDDDB	<b>Does Not Occur.</b> Riparian habitat is not present within the Project Area. There are no CNDDDB records within a 10-mile radius of the site.
<i>Spinus lawrencei</i>	Lawrence's goldwinch	SA	Bird	Broadleaved upland forest, chaparral, pinyon & juniper woodlands, riparian woodland. Nests in open oak or other arid woodland and chaparral, near water. Nearby herbaceous habitats used for feeding. Closely associated with oaks.	CNDDDB	<b>Moderate Potential – Nesting, Foraging.</b> While this species is closely associated with oaks, which are absent within the Project Area, pinyon-juniper woodlands may provide suitable nesting and foraging habitat. One unprocessed CNDDDB record (2024) occurs within the Project Area's USGS 7.5-minute quadrangle (Big Bear City).
<i>Strix occidentalis occidentalis</i>	California spotted owl	SSC, FC	Bird	Broadleaved upland forest, lower montane coniferous forest, upper montane coniferous forest, mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure >40%. Most often found in deep-shaded canyons, on	CNDDDB, IPaC	<b>Low Potential – Nesting, Foraging.</b> While numerous CNDDDB occurrences have been observed within a 10-mile radius of the Project Area, the lack of a dense canopy cover and south-



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				north-facing slopes, and within 300 meters of water.		facing slope on site suggest the probability of this species occurring on site is low.
<i>Toxostoma lecontei</i>	Le Conte's thrasher	SSC	Bird	Desert wash, Mojavean desert scrub, Sonoran desert scrub, desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	CNDDDB	<b>Does Not Occur.</b> Suitable habitat (desert wash, Mojavean desert scrub, Sonoran desert scrub) for this species is absent within the Project Area. There are no CNDDDB records within a 10-mile radius of the Project Area.
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	SSC	Bird	Marsh & swamp, wetlands. Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	CNDDDB	<b>Low Potential – Foraging.</b> Suitable nesting habitat (wetlands with deep water, dense vegetation and aquatic macroinvertebrates) for this species is absent within Project Area; however, foraging can occur in uplands. Two unprocessed CNDDDB records (2024) list occurrences of this species within Big Bear City and Big Bear Lake USGS 7.5-minute quadrangles.

**Mammals**



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
<i>Callospermophilus lateralis bernardinus</i>	San Bernardino golden-mantled ground squirrel	SA	Mammals	Mixed conifer, ponderosa pine, Jeffrey pine, lodgepole pine, limber pine, pinyon-juniper, montane riparian, aspen, and alpine meadow. Prefer open canopy without dense understory, with logs, stumps, talus, and other rocks for cover. Digs burrows, or may use pocket gopher burrows.	CNDDDB	<b>Moderate Potential.</b> Pinyon-juniper woodlands and open areas on site may provide suitable habitat. Two of five unprocessed CNDDDB records (2024) list occurrences of this species within the Project Area's USGS 7.5-minute quadrangle (Big Bear City).
<i>Chaetodipus fallax pallidus</i>	Pallid San Diego pocket mouse	SA	Mammals	Desert wash, pinyon & juniper woodlands, Sonoran desert scrub. Desert border areas of San Diego, Riverside, San Bernardino, and Los Angeles counties in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	CNDDDB	<b>Low Potential.</b> Pinyon-juniper woodlands on site may provide suitable habitat for this species. One CNDDDB record for this species (2002) occurs approximately 5.0 miles north of the Project Area.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Mammals	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley & foothill grassland. Throughout California, in a wide variety of	CNDDDB	<b>Moderate Potential.</b> Four of five CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the Project Impact Footprint may provide short-term



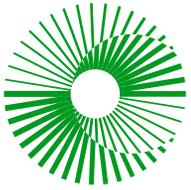
# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.		roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the Project Impact Footprint may provide bats with access to the mine for longer-term roosting.
<i>Eumops perotis californicus</i>	Western mastiff bat	SSC	Mammals	Chaparral, cismontane woodland, coastal scrub, valley & foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	CNDDDB	<b>Low Potential.</b> Suitable habitat for this species (chaparral, cismontane woodland, coastal scrub, valley & foothill grassland) is not present within Project Area. No CNDDDB records occurred within a 10-mile radius of the site.
<i>Glaucomys oregonensis californicus</i>	San Bernardino flying squirrel	SSC	Mammals	Broadleaved upland forest, lower montane coniferous forest. Known from black oak or white fir dominated woodlands between 5200 - 8500 ft in the San Bernardino and San Jacinto ranges. May be extirpated from San Jacinto range. Needs cavities in trees/snags for nests and cover. Needs nearby water.	CNDDDB	<b>Low Potential.</b> Suitable habitat for this species (broadleaved upland forest, lower montane coniferous forest, black oak or white fir woodlands) is not present within Project Area. The nearest CNDDDB record (1934) is approximately 6.1 miles southwest of



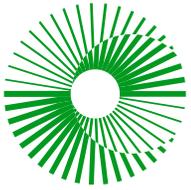
# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						the site; however, the age of the occurrence suggests the probability to occur on site is low.
<i>Lasionycteris noctivagans</i>	Silver-haired bat	SA	Mammals	Lower montane coniferous forest, old growth, riparian forest. Primarily a coastal and montane forest dweller, feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	CNDDDB	<b>Low Potential.</b> Suitable habitat for this species (lower montane coniferous forest, old growth, riparian forest) is not present within Project Area. Furthermore, the nearest CNDDDB record is approximately 15.7 miles northeast in the Mojave Desert Region.
<i>Myotis ciliolabrum</i>	Western small-footed myotis	SA	Mammals	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.	CNDDDB	<b>Moderate Potential.</b> Two of three CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the Project Impact Footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						hillslope to the north and outside of the Project Impact Footprint may provide bats with access to the mine for longer-term roosting.
<i>Myotis evotis</i>	Long-eared myotis	SA	Mammals	Found in all brush, woodland and forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands and forests. Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.	CNDDDB	<p><b>Moderate Potential.</b></p> <p>One CNDDDB record (1998) approximately 8.2 miles east of the Project Area identified a maternity roost for this species in an abandoned mine surrounded by pinyon-juniper woodlands. The flooded mine shaft within the Project Impact Footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation.</p> <p>The partially backfilled production shaft on the hillslope to the north and outside of the Project Impact Footprint may provide bats with access to the mine for longer-term roosting.</p>
<i>Myotis thysanodes</i>	Fringed myotis	SA	Mammals	In a wide variety of habitats, optimal habitats are pinyon-	CNDDDB	<p><b>Moderate Potential.</b></p> <p>Three of four CNDDDB</p>



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.		records (all from 1998) within a 10-mile radius of the site documented occurrences in pinyon-juniper woodlands. The flooded mine shaft within the Project Impact Footprint may provide short-term roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the Project Impact Footprint may provide bats with access to the mine for longer-term roosting.
<i>Myotis volans</i>	Long-legged myotis	SA	Mammals	Upper montane coniferous forest. Most common in woodland and forest habitats above 4000 ft. Trees are important day roosts; caves and mines are night roosts. Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	CNDDDB	<b>Moderate Potential.</b> Two of three CNDDDB records (all from 1998) within a 10-mile radius of the site documented occurrences in abandoned mines surrounded by pinyon-juniper woodlands. The flooded mine shaft within the Project Impact Footprint may provide short-term



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
						<p>roosting habitat but would not provide the necessary microhabitat for longer-term maternity roosting or hibernation. The partially backfilled production shaft on the hillslope to the north and outside of the Project Impact Footprint may provide bats with access to the mine for longer-term roosting.</p>
<i>Myotis yumanensis</i>	Yuma myotis	SA	Mammals	<p>Lower montane coniferous forest, riparian forest, riparian woodland, upper montane coniferous forest. Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.</p>	CNDDDB	<p><b>Low Potential.</b> The absence of suitable habitat (lower montane coniferous forest, riparian forests and woodlands, and upper montane coniferous forests) and water does not provide optimal habitat requirements for this species. However, one CNDDDB record (1998) occurred within a 10-mile radius of the Project Area, where a single female of this species was captured and released by mist net.</p>
<i>Neotamias speciosus speciosus</i>	Lodgepole chipmunk	SA	Mammals	<p>Chaparral, upper montane coniferous forest. Summits of isolated Piute, San Bernardino,</p>	CNDDDB	<p><b>Does not Occur.</b> Suitable habitat is not present within the Project</p>



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				and San Jacinto mountains. Usually found in open-canopy forests. Habitat is usually lodgepole pine forests in the San Bernardino Mts and chinquapin slopes in the San Jacinto Mts.		Area. Although a CNDDDB record (1991) overlaps the Project Area, it is described as a “non-specific area” and represents a single capture of the species in 1926 somewhere in the vicinity of Baldwin Lake, likely where suitable habitat is present.
<i>Ovis canadensis nelsoni</i>	Desert bighorn sheep	FP	Mammals	Alpine, alpine dwarf scrub, chaparral, chenopod scrub, Great Basin scrub, Mojavean desert scrub, montane dwarf scrub, pinyon & juniper woodlands, riparian woodland, Sonoran desert scrub. Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	CNDDDB	<b>Low Potential.</b> This species prefers steeper, rocky terrains typically found in more rugged mountainous areas, which may not be present on site. The nearest CNDDDB occurrence (1986) is 22 miles southeast of the Project Area, straddling the boundary of the Jepson geographic Desert Mountains Subregion and Sonoran Desert Region. Given the lack of occurrences within Bear Valley, it is unlikely this species will occur on site.
<i>Taxidea taxus</i>	American badger	SSC	Mammals	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog & fen, brackish marsh, broadleaved upland forest, chaparral, chenopod	CNDDDB	<b>Low Potential.</b> Soils within Project Area are suitable for digging burrows. Open areas



# ERM

Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub, desert dunes, desert wash, freshwater marsh, Great Basin grassland, Great Basin scrub, interior dunes, Ione formation, Joshua tree woodland, limestone lower montane coniferous forest, marsh & swamp, meadow & seep, Mojavean desert scrub, montane dwarf scrub, North coast coniferous forest, old growth, pebble (pavement) plain, redwood, riparian forest, riparian scrub, riparian woodland, salt marsh, Sonoran desert scrub, Sonoran thorn woodland, ultramafic, upper montane coniferous forest, upper Sonoran scrub, valley & foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.		within the Project Area may provide suitable foraging habitat. A single CNDDDB occurrence (2004) within 10 miles is noted as "Presumed Extant". However, human development and grazing activities in the open meadow may limit this species' occurrence.
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	ST	Mammals	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, open desert scrub, alkali scrub and Joshua tree woodland. Also feeds in annual grasslands.	CNDDDB	<b>Does Not Occur.</b> This species is restricted to lower elevations within the Mojave Desert; therefore, the Project



Scientific Name	Common Name	Special Status <sup>a</sup>	Taxon Group	Habitat <sup>b</sup>	Record Source <sup>c</sup>	Potential to Occur <sup>d</sup>
				Restricted to Mojave Desert. Has been found from 1,800 - 5,000 ft in elevation. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover. Nests are in burrows.		Area is outside of its habitat range.

<sup>a</sup> Habitat descriptions source: California Department of Fish and Wildlife, Biogeographic Data Branch, 2023 & Rare Plant Inventory, California Native Plant Society, 2023

<sup>b</sup> Special-status Definitions (CDFW 2023c, CDFW 2023d):

CRPR = California Rare Plant Rank

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California but more common elsewhere

3 = Review List: Plants about which more information is needed

4 = Watch List: Plants of limited distribution

0.1 = Seriously threatened in California

0.2 = Moderately threatened in California

0.3 = Not very threatened in California

SA = California Department of Fish and Wildlife - Special Animal

WL = California Department of Fish and Wildlife - Watch List

FP = California Department of Fish and Wildlife - Fully Protected

SSC = California Department of Fish and Wildlife - Species of Special Concern

FE = Federal Endangered Species Act - Endangered

FT = Federal Endangered Species Act - Threatened

FD = Federal Endangered Species Act - Delisted

FC = Federal Endangered Species Act - Candidate

ST = California Endangered Species Act - Threatened

SE = California Endangered Species Act - Endangered

SCE = California Endangered Species Act - Candidate Endangered

FTP = Federal Endangered Species Act - Proposed Threatened

<sup>c</sup> Record Source Definitions:



CNDDDB = California Natural Diversity Database (California Department of Fish and Wildlife)

IPaC = Information for Planning and Consultation (U.S. Fish and Wildlife Service)

RPI = Rare Plant Inventory (California Native Plant Society)

<sup>d</sup> Potential to Occur Definitions:

**Present:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal positive results for species occurrence.

**High Potential:** Project area is within the range of the species and suitable habitat is present, and/or there is reasonably high certainty to assume a high potential to occur based on existing data. Bird species are further categorized as breeding, foraging only, and/or transients (migratory, overwintering etc.).

**Moderate Potential:** Project area is within the range of the species and moderately suitable habitat is present, and/or there is reasonably high certainty to assume a moderate potential to occur based on existing data. Bird species are further categorized as breeding, foraging only, and/or transients (migratory, overwintering etc.).

**Low Potential:** Project area is within the range of the species, but habitat is marginal, nearby records are historic/unreliable, or there is reasonably high certainty to assume a low potential to occur based on existing data. Bird species are further categorized as breeding, foraging only, and/or transients (migratory, overwintering etc.).

**Does not Occur:** Project area outside the range of the species, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume species does not occur based on existing data and range distribution.

**Absent:** Appropriate species-specific survey methodology and protocols were followed by qualified biologist(s) during an appropriate time of year and produced unequivocal negative results for species occurrence.



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