Appendix D

Rare Plant Survey Report

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July 24, 2024
Project No: 22-15079

Brian Madigan
RPCA Solar 15, LLC
44 Montgomery Street, Suite 3150
San Fransisco, California 94104
Via email: bmadigan@renewprop.com

Subject: Rare Plant Survey Report for the Proposed Lear Avenue Solar Project, unincorporated San Bernardino County, California

Dear Mr. Madigan:

Rincon Consultants, Inc. (Rincon) is pleased to provide this Rare Plant Survey Report in support of the Lear Avenue Solar Project (Project). This Rare Plant Survey Report documents the results of a floristic survey effort for the approximate 80-acre project parcel, located in unincorporated San Bernardino County, California.

This report documents the existing conditions of the Study Area and evaluates the potential presence of rare plants. The evaluation is based on the results of a desktop assessment of site conditions including soil types and vegetation communities, reviews of rare plant observations documented in the vicinity of the Study Area in previous years, and floristic rare plant surveys conducted in spring 2024.

Project Location

The Project site encompasses 62 acres of an 80-acre privately owned parcel (County Assessor Parcel Number [APN] 0612-131-01) in the Sunfair United States Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) in the southern portion of the Mojave Desert. It is located in unincorporated San Bernardino County (County) approximately 2.8 miles north of California State Route (SR)-62, 0.75-mile northwest of the city of Twentynine Palms, and 6 miles east of the unincorporated community of Sunfair. The center point is located at 34°10'36.82"N 116° 8'44.04"W. The site is located at the northeast corner of the intersection of Lear Avenue and Cove View Road and is immediately bounded to the north by Mesa Drive, to the east by Shoshone Valley Road, to the south by Cove View Road, and to the west by Lear Avenue. Adjacent land uses include sparsely distributed rural residential properties to the north and south, open space to the east and west, and a solar farm to the southwest. The Study Area for the botanical survey includes the 80-acre parcel and a 100-foot buffer beyond the limits of the parcel, to address potential indirect Project effects, such as dust. Figure 1 below displays the regional location of the Project, and Figure 2 displays the Project boundary and overall Study Area. Figure 3 depicts the Study Area on the Sunfair, California USGS 7.5-minute topographic quadrangle map in Figure 3.

Regulatory Overview

Local, state, and federal agencies regulate protected plant species, and may require an assessment of their presence or potential presence to be conducted on site prior to the approval of a proposed development on a property. Assessments for the potential occurrence of rare plant species are based

upon geographic ranges and habitat preferences for the species, species occurrence records from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and other publicly available databases (e.g., Jepson eFlora), and species occurrence records from other sites in the vicinity of the Project.

For the purpose of this report, rare plant species are those plants listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (FESA); those listed or candidates for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA) or Native Plant Protection Act; those recognized by the CDFW under the California Native Plant Society (CNPS) CRPR system (Ranks 1 through 4, Table 1.; Rank Threat Code Extensions, Table 2); and locally significant plants, which are not rare from a statewide perspective but are rare or uncommon in a local context such as a within a county or region.

Table 1 California Rare Plant Rank Definitions

Rank	Definition
1A	Presumed Extinct in California
1B	Rare, Threatened, or Endangered in California and elsewhere
2	Rare, Threatened, or Endangered in California, but more common elsewhere
3	Need more information (a Review List)
4	Plants of Limited Distribution (a Watch List)

Table 2 California Rare Plant Rank Threat Code Extensions

Threat Rank	Definitions
.1	Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2	Fairly endangered in California (20-80% occurrences threatened)
.3	Not very endangered in California (<20% of occurrences threatened)

California Desert Native Plants Act

The California Desert Native Plants Act (CDNPA) (California Food and Agriculture Code Section 80001-80201) protects certain species of California desert native plants from unlawful harvesting on both public and privately-owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants, or any parts thereof, unless a person has a valid permit or receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

San Bernardino County

The San Bernardino Countywide Plan Policy Plan (Countywide Plan) includes a Renewable Energy and Conservation Element (RECE), which aims to maintain the natural and scenic values of the lands while providing safe and reliable renewable energy sources for California. The RECE provides goals, policies, and implementation measures to encourage sustainable energy production and consumption while protecting the environmental resources of San Bernardino County.

In accordance with Chapter 88.01 of the San Bernardino County Development Code (plant protection and management), a permit is required where protected trees or plants are proposed for removal or relocation. Within the Desert Region, where the Project site is located, protected trees or plants requiring a Tree or Plant Removal permit include the following:

- Dalea spinosa (smoketree), with stems 2 inches or greater in diameter or 6 feet or greater in height
- All species of the genus Prosopis (mesquites), with stems 2 inches or greater in diameter or 6 feet or greater in height
- All species of the family Agavaceae (century plants, nolinas, yuccas)
- Creosote rings, ten feet or greater in diameter
- All Joshua trees
- Any part of any of the following species, whether living or dead:
  a. *Olneya tesota* (desert ironwood)
  b. All species of the genus *Prosopis* (mesquites)
  c. All species of the genus *Cercidium* (palo verdes)

Chapter 88.01 also requires that removal actions of all plants protected or regulated by the CDNPA shall comply with the provisions of the CDNPA before the issuance of a development permit or approval of a land use application.

Western Joshua Tree Conservation Act

In accordance with the Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit (ITP) Permitting guidance, CDFW prohibits the importation, export, take, possession, purchase, or sale of any western Joshua tree in California unless authorized by CDFW, without first obtaining an ITP. The WJTCA authorizes CDFW to issue several types of permits under certain circumstances including:

- WJTCA Hazard Management Permits, which provide authorization to remove dead trees or trim live or dead trees that pose a risk to structures or public health and safety. No permit fees or mitigation is required for these permits.
- WJTCA ITP, which provide authorization for take in association with renewable energy, housing, public works, and other projects. The WJTCA ITP is streamlined through the option for an individual or business to choose to pay a standard mitigation fee rather than complete other compensatory mitigation actions (i.e. plant and/or translocate trees, preserve off site lands).

Methodology

The database search and literature review were conducted to identify rare plants that have been recorded in the project vicinity. The field surveys were conducted to determine whether any such species are present in the Study Area. The methods used for the database search/literature review and field surveys are described below.

Database Search and Literature Review

Prior to conducting the field surveys of the Study Area (Figure 2), recent aerial photography (Google Earth Pro 2024) was reviewed, and CNDDB (CDFW 2024a), CNPS online Inventory of Rare and Endangered Plants of California (CNPS 2024), and USFWS Critical Habitat Portal (USFWS 2024a) were consulted for information on general botanical resources, rare plant species occurrences, and critical habitat designations within the quadrangles containing the Study Area and within a 9-quad radius of

the Study Area. Additionally, the Biological Resource Assessment prepared for the Project was reviewed (Rincon 2024). Rare plant species documented within the 9-quad radius of the Study Area were preliminarily assessed for their potential to occur (Attachment 1).

In addition, the Sunfair, Deadman Lake SW, Deadman Lake SE, Twentynine Palms, Queen Mountain., Indian Cove, Joshua Tree North, Joshua Tree South, and Goat Mountain USGS 7.5-minute topographic quadrangles (USGS 2024b) and the Web Soil Survey (United States Department of Agriculture, Natural Resources Conservation Service [USDA, NRCS] 2024) were reviewed to better characterize the Study Area and their surroundings from a geologic and topographic perspective. The National Wetlands Inventory (NWI) (USFWS 2024b) and the National Hydrography Dataset (NHD) (USGS 2024a) were reviewed to understand the hydrology of the Study Area.

Nomenclature follows *The Jepson Manual, Second Edition* (Baldwin et al. 2012) with updates available in the online Jepson eFlora (Jepson Flora Project 2024), with status updates provided in *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2024d), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2024c), and the online Inventory of Rare and Endangered Plants of California (CNPS 2024).

Field Survey

The rare plant surveys were floristic in nature and generally followed the CNPS Botanical Survey Guidelines (CNPS 2001), the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018), and USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (2000).

The surveys were conducted by Rincon biologists Casey Clark and Jacob Hargis on March 20, 2024, and May 16, 2024 (Table 3). Field surveys were scheduled during the appropriate blooming period to optimize detection of rare plant species with potential to occur within the Study Area. The surveys were conducted using systematic field techniques by walking meandering transects where safe and accessible to attain 100 percent visual coverage of the Study Area. Special attention was given to areas with a high potential to support rare plant species (e.g., north-facing slopes, vegetation community interfaces, areas with unique soils). All plant species observed on site were recorded (Attachment 2).

Table 3 Field Survey Information

Date	Surveyors	Hours	Weather
March 20, 2024	Casey Clark and Jacob Hargis	0930 – 1430	61 – 76°F, winds 3-5 mph, 0% cloud cover
May 16, 2024	Casey Clark and Jacob Hargis	0700 – 1100	67 – 87°F, winds 0-7 mph, 0% cloud cover

°F = degrees Fahrenheit
mph = miles per hour
% = percent

Existing Setting

Topography and Hydrology

Topography

The southern portion of the Mojave Desert exhibits typical mountain-and-basin topography. Mountain ranges near the Study Area include Copper Mountain approximately 3 miles to the southwest and the San Bernardino Mountains approximately 30 miles to the west. The Study Area is gently sloped and contains a hill in the eastern portion. The crest of the hill is the highest point in the Study Area and is approximately 2,265 ft above mean sea level (amsl). The hill contains soft slopes on all aspects with the greatest decrease in elevation occurring to the west, where the lowest elevation point in the Study Area is located at its northwestern boundary and is at 2,195 feet amsl.

Watershed and Drainages

The Study Area is located in the southeastern portion of the Copper Mountain Subwatershed (Hydrologic Unit Code [HUC] 12-181001001801; USGS 2024), which drains into the Twentynine Palms Valley Groundwater Basin. One ephemeral stream complex is present within the northwestern portion of the Study Area, and one isolated ephemeral stream is present within the southwestern portion of the Study Area. Both features likely only convey flow during and immediately after rainfall. The ephemeral streams flow from east to northwest down the soft slope of the Study Area's hill.

Soil Types

No United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) soil survey data is available for the Study Area or its vicinity. Therefore, the nearest soil map units in areas of similar topography, elevation, and landform were referenced in combination with site specific observations and the Project's geotechnical report (Salem 2023) to provide a summary of the soil observed on site. A formal soil survey was not conducted within the Study Area and the soil observations are on a broad scale, at surface level, and do not match the level of detail or refinement that a soil survey would provide.

The topsoil throughout the Study Area is a gravelly coarse sand that occurs on the flanks and crest of hills with mild slopes. The subsurface soil encountered during the Project's geotechnical surveys appears to be typical of those found in the geologic region of the site. In general, the subsurface soil contained silty sands to depths of approximately 10 to 15 feet below site grade (bsg) and was underlain by poorly graded silty sands to the maximum depth explored of 21.5 feet bsg (Salem 2023). Available water storage is likely very low, and the runoff class high. The soil does not appear to be prone to flooding or ponding, nor does it appear to be hydric. Additionally, a moderate degree of off-highway vehicle (OHV) disturbance is present along and adjacent to a few dirt roads that cross the Project site. Desert pavement, a surface of angular interlocking fragments of pebbles, gravel, or boulders, was also observed on the soil surface along the crest of the hill within the Study Area.

Results

A total of 35 plant species were observed within the Study Area during the 2024 botanical surveys. Of these, 32 are native and three are introduced. No rare plants listed under CESA, FESA, or the CNPS CRPR were observed; however, plants protected under the CDNPA and San Bernardino County Development Code Subsection 88.01.060 were recorded within the Study Area. A comprehensive

floral compendium documenting all plant species observed is presented in Attachment 2. Representative site photographs are provided in Attachment 3.

Vegetation

The Study Area is vegetated by creosote bush scrub (*Larrea tridentata* Shrubland Alliance) with developed areas comprised of the paved and unpaved roads that transect the Study Area. Creosote bush is the dominant species and white bursage (*Ambrosia dumosa*) is present as a common associate at less than three times the cover of creosote bush. Other common associates include white rhatany (*Krameria bicolor*), western Mojave buckwheat (*Eriogonum mohavense*), little desert buckwheat (*Eriogonum trichopes*), and chollas (*Cylindropuntia* spp.). Desert pavement was observed throughout portions of the understory, along with open to sparse coverage of mediterranean grass (*Schismus* spp.) in the more disturbed portions of the Study Area. Blooming annual species observed within the herbaceous layer included red-stem filaree (*Erodium cicutarium*), bristly fiddle neck (*Amsinckia tessellata*), desert plantain (*Plantago ovata*), yellow-desert evening primrose (*Oenothera primiveris*), desert lupine (*Lupinus shockleyi*), narrowstem cryptantha (*Cryptantha gracilis*), booth's suncup (*Eremothera boothii*), desert dandelion (*Malacothrix glabrata*), whitestem blazing star (*Mentzelia albicaulis*), and Saharan mustard (*Brassica tournefortii*).

Special-Status Plants

Based on the database and literature review, 37 special-status plant species have been recorded within the vicinity (i.e., nine-quadrangle and/or five-mile radius) of the Study Area (Attachment 1). Eleven species had a low potential to occur within the Study Area. The remaining 26 species evaluated were presumed to be absent or unlikely to occur based on factors ranging from the lack of suitable soils, inappropriate hydrologic conditions, absence of appropriate vegetation communities, lack of occurrences within a 9-quad radius of the Study Area, and lack of observation of conspicuous plant species during the field survey (Attachment 1).

CNDPA Protected Plant Species

Three species protected by the CDNPA were documented within the Study Area, including silver cholla (*Cylindropuntia echinocarpa*, 39 individuals), pencil cholla (*Cylindropuntia ramosissima*, 11 individuals), and desert lily (*Hesperocallis undulata*, four individuals) (Figure 4). The pencil chollas, silver chollas, desert lilies observed within the Study Area during field surveys were the only CDNPA species, and Countywide Plan species observed in the Study Area. Western Joshua trees are not present in the Study Area.

Conclusion

No species listed as rare, threatened, or endangered under CESA or FESA, or CRPR plants were found within the Study Area during botanical surveys, conducted during the appropriate survey window for maximum detectability. Silver cholla, pencil cholla, and desert lily were documented in the Study Area and fall under the CDNPA protections. Some of these individuals lie within the Project boundary limits (Figure 4). No other special-status plant species have a moderate or high potential to occur within the Study Area based on lack of habitat suitability and the results of the botanical surveys. Other than the three species protected by the CDNPA and San Bernardino County Development Code, special-status plant species are not expected to occur within the Survey Area based on negative findings of the field survey. Removal of plants protected by the CDNPA and San Bernardino County Development Code will require a Tree or Plant Removal Permit from San Bernardino County. Prior to any ground-disturbance,

the Applicant shall obtain a permit from the San Bernardino County Agricultural Commissioner before removing any CDNPA-protected plants from the Project Site.

Rincon appreciates the opportunity to provide the information summarized in this report. Please do not hesitate in reaching out to the undersigned with questions related to the contents herein.

Sincerely,
Rincon Consultants, Inc.

Casey Clark
Botanist

Robin Murray
Certified Consulting Botanist, Supervising Biologist

Angie Harbin
Director of Natural Resources

Attachments

Figure 1 Regional Location
Figure 2 Project Location
Figure 3 Survey Area Topography
Figure 4 Survey Results
Attachment 1 Rare Plant Species Potential to Occur
Attachment 2 Floral Compendium
Attachment 3 Representative Site Photographs

References

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Figures

Figure 1 Regional Location

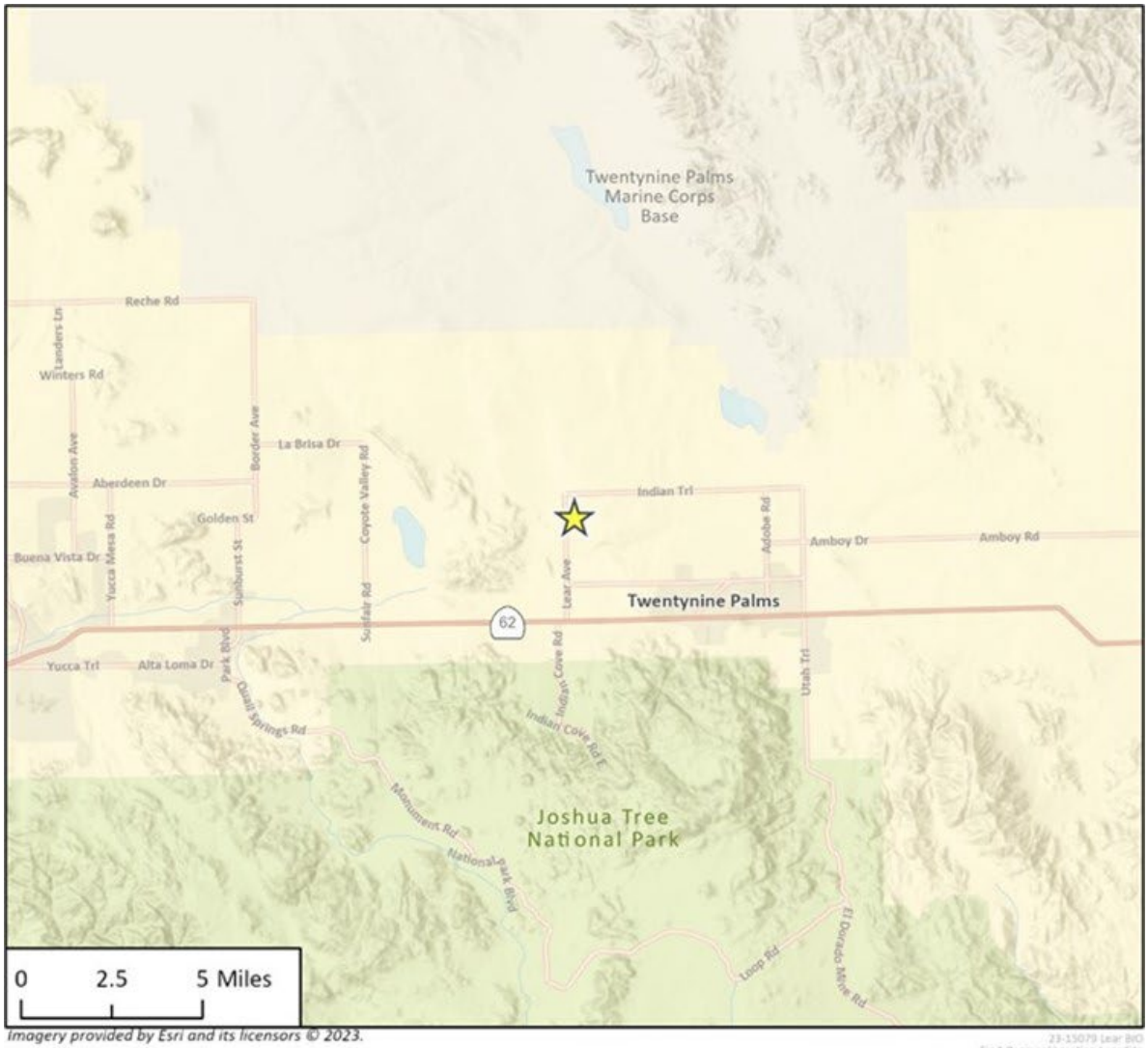

Figure 2 Project Location

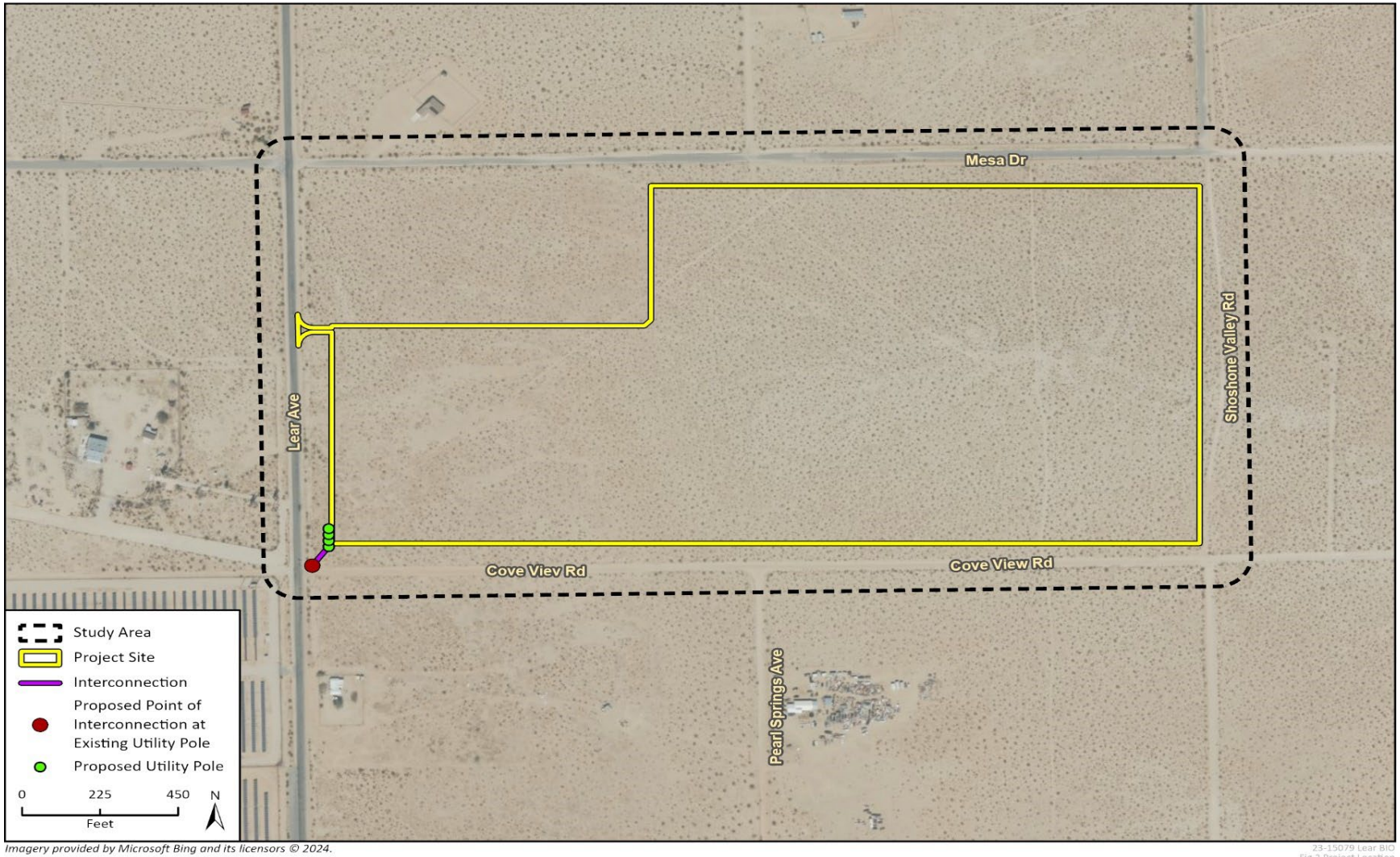

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Fig 2 Project Location

Figure 3 Survey Area Topography

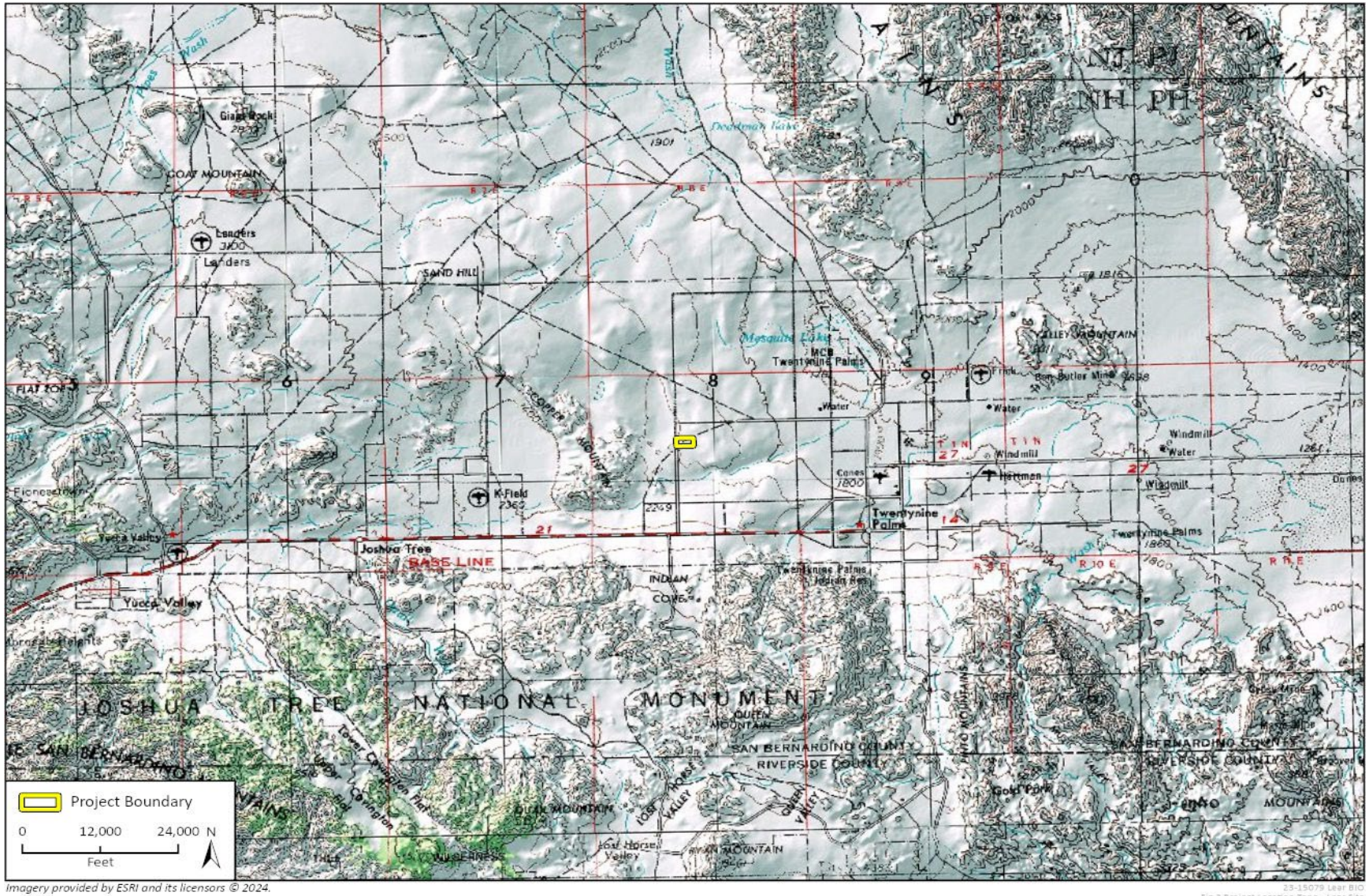
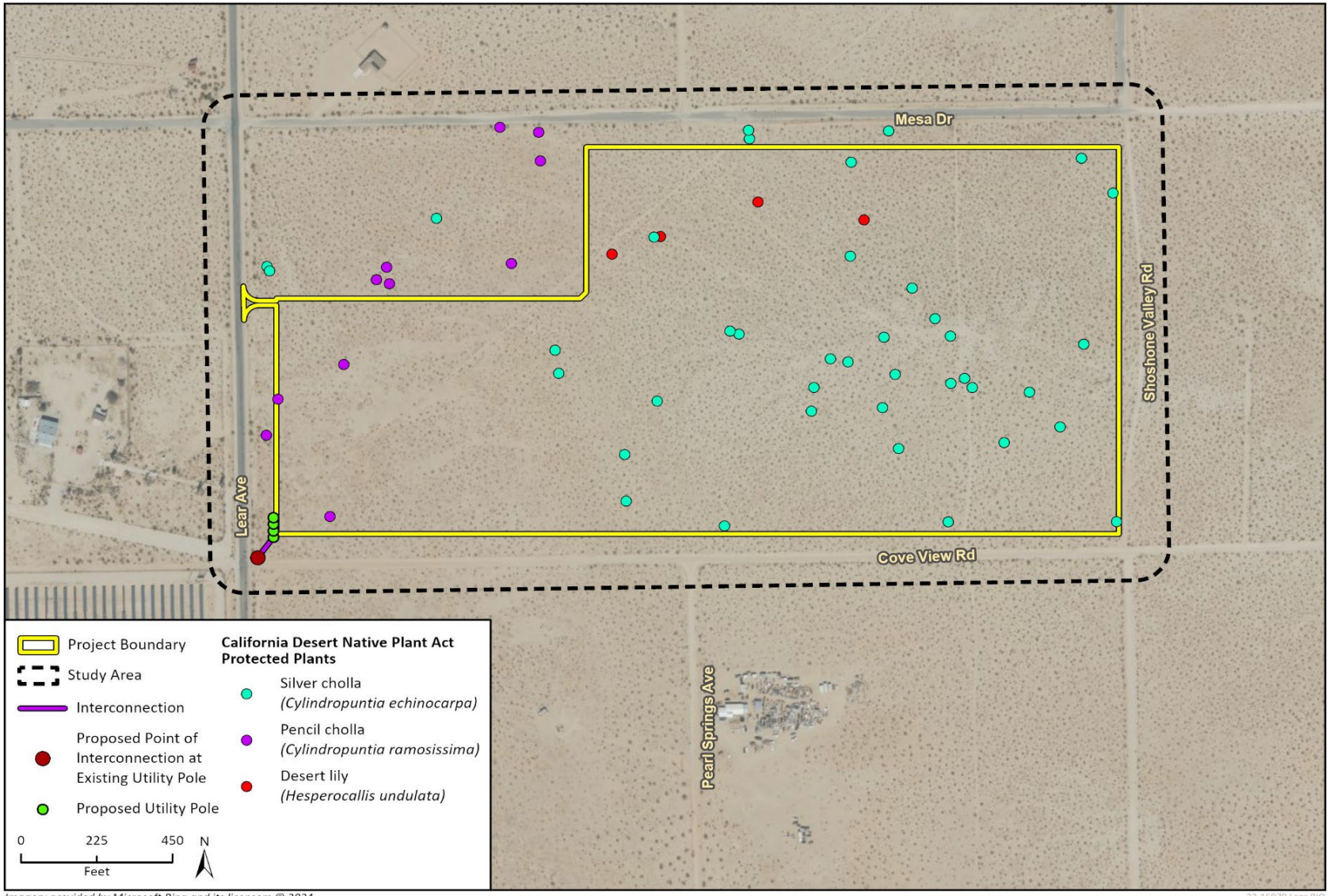


Figure 4 Survey Results



Attachment 1

Rare Plant Species Potential to Occur

Rare Plant Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Area of Potential Effects	Habitat Suitability/Observations
Plants and Lichens				
Allium parishii Parish's onion	None/None G3/S3 4.3	Perennial bulbiferous herb. Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Rocky. Elevations: 2955-5695ft. (900-1735m.) Blooms Apr-May.	Not Expected	Preferred Mojavean desert scrub habitat is present in Area of Potential Effects (Study Area) but site lacks rocky conditions and is not within elevation range of species.
Astragalus bernardinus San Bernardino milk-vetch	None/None G3/S3 1B.2	Perennial herb. Joshua tree woodland, pinyon and juniper woodland. Carbonate (often), granitic (often). Elevations: 2955-6560ft. (900-2000m.) Blooms Apr-Jun.	Not Expected	Preferred habitat is not present in Study Area and is not within elevation range of species.
Astragalus tricarinatus triple-ribbed milk-vetch	FE/None G2/S2 1B.2	Perennial herb. Joshua tree woodland, Sonoran desert scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 1475-3905ft. (450-1190m.) Blooms Feb-May.	Not Expected	Preferred habitat is not present in Study Area. Species has been observed approximately 9 miles northeast of Study Area.
Ayenia compacta California ayenia	None/None G4/S3 2B.3	Perennial herb. Mojavean desert scrub, Sonoran desert scrub. Rocky. Elevations: 490-3595ft. (150-1095m.) Blooms Mar-Apr.	Low	Preferred Mojavean desert scrub habitat is present in Study Area. Only species observation within 9 quads of Study Area occurred approximately 8 miles southeast of Study Area at the base of Queen Mtn.
Boechera dispar pinyon rockcress	None/None G3/S3 2B.3	Perennial herb. Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Granitic, gravelly. Elevations: 3935-8335ft. (1200-2540m.) Blooms Mar-Jun.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks gravelly conditions and is not within elevation range of species.
Calochortus striatus alkali mariposa-lily	None/None G3/S2S3 1B.2	Perennial bulbiferous herb. Chaparral, chenopod scrub, meadows and seeps, Mojavean desert scrub. Alkaline, mesic. Elevations: 230-5235ft. (70-1595m.) Blooms Apr-Jun.	Not Expected	Preferred habitat is not present in Study Area. Most recent species observation occurred approximately 8 miles south of Study Area in 2014 in the Indian Cove quadrant.
Castilleja montigena Heckard's paintbrush	None/None G3/S3 4.3	Perennial herb (hemiparasitic). Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Elevations: 6400-9185ft. (1950-2800m.) Blooms May-Aug.	Not Expected	Preferred habitat is not present in Study Area and Study Area is not within elevation range of species.
Coryphantha alversonii Alverson's foxtail cactus	None/None G3/S3 4.3	Perennial stem. Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky habitat; sites from gravelly slopes and dissected alluvial fans. Granite substrate. Elevations: 245-5005ft. (75-1525m.) Blooms Apr-Jun(Sep-Oct).	Low	Preferred desert scrub habitat is present within Study Area but site lacks gravelly slopes and granite substrate.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Area of Potential Effects	Habitat Suitability/Observations
Cymopterus multinervatus purple-nerve cymopterus	None/None G4G5/S2 2B.2	Perennial herb. Mojavean desert scrub, pinyon and juniper woodland. Sandy or gravelly places. Elevations: 2590-5905ft. (790-1800m.) Blooms Mar-Apr.	Not Expected	Preferred Mojavean desert scrub habitat is present but Study Area is not within elevation range of species. Only species observation within 9 quads of Study Area occurred approximately 9 miles south of Study Area on an unknown date.
Erigeron parishii Parish's daisy	FT/None G2/S2 1B.1	Perennial herb. Mojavean desert scrub, pinyon and juniper woodland. Often on carbonate; limestone mountain slopes; often associated with drainages. Sometimes on granite. Elevations: 2625-6560ft. (800-2000m.) Blooms May-Aug.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site is not within elevation range of species. Species was last observed in 2011 near Quail Mtn. in Indian Cove quadrant.
Eschscholzia androuxii Joshua Tree poppy	None/None G3/S3 4.3	Annual herb. Joshua tree woodland, Mojavean desert scrub. Desert washes, flats, and slopes. Sandy, gravelly, and/or rocky soils. Elevations: 1920-5530ft. (585-1685m.) Blooms Feb-May(Jun).	Low	Preferred Mojavean desert scrub habitat is present in Study Area. Nearest observation to Study Area occurred in Joshua Tree North quad.
Euphorbia vallis-mortae Death Valley sandmat	None/None G3/S3 4.2	Perennial herb. Mojavean desert scrub. Sandy or gravelly sites. Elevations: 755-4790ft. (230-1460m.) Blooms May-Oct.	Low	Preferred Mojavean desert scrub habitat is present in Study Area. Nearest observation to Study Area occurred in Joshua Tree North quad.
Funastrum utahense Utah vine milkweed	None/None G4/S4 4.2	Perennial herb. Mojavean desert scrub, Sonoran desert scrub. Sandy or gravelly sites in the desert. Elevations: 330-4710ft. (100-1435m.) Blooms (Mar)Apr-Jun(Sep-Oct).	Low	Preferred Mojavean desert scrub habitat is present in Study Area. Nearest observation to Study Area occurred in Joshua Tree North quad in 2008.
Galium angustifolium ssp. gracillimum slender bedstraw	None/None G5T4/S4 4.2	Perennial herb. Joshua tree woodland, Sonoran desert scrub. Shaded places among granite boulders in canyons, and on outcrops. Elevations: 425-5085ft. (130-1550m.) Blooms Apr-Jun(Jul).	Not Expected	Preferred habitat is not present in Study Area.
Galium munzii Munz's bedstraw	None/None G4G5/S4 4.3	Perennial herb. Great basin scrub, lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Dry, open, often rocky slopes; shady canyon bottoms. Elevations: 3610-10925ft. (1100-3330m.) Blooms May-Jul.	Not Expected	Preferred habitat is not present in Study Area and Study Area is not within elevation range of species.
Grusonia parishii Parish's club-cholla	None/None G3G4/S2 2B.2	Perennial stem. Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky sites. Elevations: 3013-5000ft. (300-1524m.) Blooms May-Jun(Jul).	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but Study Area is not within elevation range of species.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Area of Potential Effects	Habitat Suitability/Observations
Hulsea vestita ssp. parryi Parry's hulsea	None/None G5T4/S4 4.3	Perennial herb. Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Rocky sites; limestone or granite; sagebrush to fir forest. Elevations: 4495-9500ft. (1370-2895m.) Blooms Apr-Aug.	Not Expected	Preferred habitat is not present in Study Area and Study Area is not within elevation range of species.
Jaffueliobryum raui Rau's jaffueliobryum moss	None/None G4/S2 2B.3	Moss. Alpine dwarf scrub, chaparral, Mojavean desert scrub, Sonoran desert scrub. Dry openings, rock crevices. On dry sandstone or limestone. Elevations: 1610-6890ft. (490-2100m.)	Not Expected	Preferred dry sandstone or limestone crevices are not present in Study Area. Nearest observation to Study Area occurred in Indian Cove quad in 1981.
Jaffueliobryum wrightii Wright's jaffueliobryum moss	None/None G5/S2S3 2B.3	Moss. Alpine dwarf scrub, Mojavean desert scrub, pinyon and juniper woodland. Dry openings, rock crevices, carbonate. Elevations: 525-8205ft. (160-2500m.)	Not Expected	Preferred dry openings and rock crevices are not present in Study Area. Nearest observation to Study Area occurred in Indian Cove quad in 2011.
Johnstonella costata ribbed cryptantha	None/None G4G5/S4 4.3	Annual herb. Desert dunes, Mojavean desert scrub, Sonoran desert scrub. Sandy and gravelly places. Elevations: -195-1640ft. (-60-500m.) Blooms Feb-May.	Low	Preferred habitat is present in Study Area. Documented occurrences have been recorded near the 29 Palms Marine Corp Base within the adjacent 29 Palms quadrangle to the east. No CNDDB occurrences were recorded within the sunfair quad.
Lasthenia glabrata ssp. coulteri Coulter's goldfields	None/None G4T2/S2 1B.1	Annual herb. Marshes and swamps, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-. Elevations: 5-4005ft. (1-1220m.) Blooms Feb-Jun.	Not Expected	Preferred habitat is not present in Study Area.
Linanthus maculatus ssp. maculatus Little San Bernardino Mtns. linanthus	None/None G2T2/S2 1B.2	Annual herb. Desert dunes, Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. Elevations: 460-4005ft. (140-1220m.) Blooms Mar-May.	Low	Preferred desert scrub habitat is present in Study Area. Nearest species observation to Study Area occurred approximately 4 miles to the southwest within Sunfair quadrant.
Matelea parvifolia spear-leaf matelea	None/None G5/S3 2B.3	Perennial herb. Mojavean desert scrub, Sonoran desert scrub. Dry rocky ledges and slopes. Elevations: 1445-3595ft. (440-1095m.) Blooms Mar-May(Jul).	Low	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks rocky ledges.
Menodora spinescens var. mohavensis Mojave menodora	None/None G4T2/S2 1B.2	Perennial deciduous shrub. Mojavean desert scrub. Rocky hillsides, canyons. Andesite gravel. Elevations: 2265-6560ft. (690-2000m.) Blooms Apr-May.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks rocky hillsides and canyons and is not within elevation range of species.
Monardella robisonii Robison's monardella	None/None G3/S3 1B.3	Perennial rhizomatous herb. Pinyon and juniper woodland. Rocky desert slopes, often among granitic boulders. Elevations: 2787-4920ft. (610-1500m.) Blooms (Feb)Apr-Sep(Oct).	Not Expected	Preferred habitat is not present in Study Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Area of Potential Effects	Habitat Suitability/Observations
Muhlenbergia appressa appressed muhly	None/None G4/S3 2B.2	Annual herb. Coastal scrub, Mojavean desert scrub, valley and foothill grassland. Rocky slopes, canyon bottoms. Elevations: 65-5250ft. (20-1600m.) Blooms Apr-May.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks rocky slopes and canyons.
Muilla coronata crowned muilla	None/None G3/S3 4.2	Perennial bulbiferous herb. Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Mostly on barren flats and ridges in sandy, granitic soils. Elevations: 3280-6430ft. (670-1960m.) Blooms Mar-Apr(May).	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks barren flats and ridges and is not within elevation range of species.
Penstemon clevelandii var. mohavensis Mojave beardtongue	None/None G5T3?/S2 1B.2	Mojavean desert scrub, pinyon and juniper woodland. Rocky, granitic (often). 3035-5315ft. (925-1620m.) Blooms Mar-May.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks rocky, granitic habitat and is not within elevation range of species.
Penstemon thurberi Thurber's beardtongue	None/None G5/S3 4.2	Perennial herb. Chaparral, joshua tree woodland, pinyon and juniper woodland, Sonoran desert scrub. Dry sandy washes. Elevations: 1640-4005ft. (500-1220m.) Blooms May-Jul.	Not Expected	Preferred habitat is not present in Study Area.
Portulaca halimoides desert portulaca	None/None G5/S3 4.2	Annual herb. Joshua tree woodland. Sandy washes, flats. Elevations: 3280-3935ft. (1000-1200m.) Blooms Sep.	Not Expected	Preferred habitat is not present in Study Area and Study Area does not fall within elevation range of species.
Saltugilia latimeri Latimer's woodland-gilia	None/None G3/S3 1B.2	Annual herb. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Rocky or sandy substrate; sometimes in washes, sometimes limestone. Elevations: 1310-6235ft. (400-1900m.) Blooms Mar-Jun.	Low	Preferred desert scrub habitat is present in Study Area. Most recent species observation occurred approximately 8 miles south of Study Area in 2014 in Queen Mtn. quadrant.
Sidalcea neomexicana salt spring checkerbloom	None/None G4/S2 2B.2	Perennial herb. Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas. Alkali springs and marshes. Elevations: 50-5020ft. (15-1530m.) Blooms Mar-Jun.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but site lacks alkali spring and marshes.
Sphaeralcea rusbyi var. eremicola Rusby's desert-mallow	None/None G4T2/S2 1B.2	Perennial herb. Joshua tree woodland, Mojavean desert scrub. In creosote bush scrub, blackbush scrub, Joshua tree woodland; sometimes on carbonate; sometimes in washes. Elevations: 3200-5395ft. (975-1645m.) Blooms Mar-Jun.	Not Expected	Preferred Mojavean desert scrub habitat is present in Study Area but Study Area does not fall within elevation range of species.
Streptanthus bernardinus Laguna Mountains jewelflower	None/None G3G4/S3S4 4.3	Perennial herb. Chaparral, lower montane coniferous forest. Clay or decomposed granite soils; sometimes in disturbed areas such as streamsides or roadcuts. Elevations: 2200-8205ft. (670-2500m.) Blooms May-Aug.	Not Expected	Preferred habitat is not present in Study Area.
Tetracoccus hallii Hall's tetracoccus	None/None G4/S4 4.3	Perennial deciduous shrub. Mojavean desert scrub, Sonoran desert scrub. Elevations: 100-3935ft. (30-1200m.) Blooms Jan-May.	Low	Preferred desert scrub habitat is present in Study Area but nearest observation to Study Area occurred in 1941 more than 10 miles to the south.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Area of Potential Effects	Habitat Suitability/Observations
Wislizenia refracta ssp. refracta jackass-clover	None/None G5T5?/S1 2B.2	Annual herb. Desert dunes, Mojavean desert scrub, playas, Sonoran desert scrub. Sandy washes, roadsides, alkaline flats. Elevations: 1970-2625ft. (600-800m.) Blooms Apr-Nov.	Low	Preferred Mojavean desert scrub habitat is present in Study Area. Species was last observed within 9 quads of Study Area in 2018 approximately 6 miles southwest of Study Area in Twentynine Palms quadrant.
Yucca brevifolia Western Joshua Tree	None/SCT G3G4/SNR	Perennial Broadleaf evergreen. Joshua tree woodland, montane chaparral, pinyon and juniper woodland, Sonoran and Mojavean desert scrub. Elevation:1600-7200ft (490-823m. Blooms Mar - May.	Not Expected	No species observations were recorded during surveys.

Regional Vicinity refers to within a 9-quadrangle search radius of site.

CRPR (CNPS California Rare Plant Rank)

1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B = Rare, Threatened, or Endangered in California, but more common elsewhere

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses

G1 or S1	Critically Imperiled Globally or Subnationally (state)
G2 or S2	Imperiled Globally or Subnationally (state)
G3 or S3	Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5	Apparently secure, common and abundant
GH or SH	Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Attachment 2

Floral Compendium

Floral Compendium

Scientific Name[1]	Common Name	Status[2]	Native or Introduced
Plants			
Abronia villosa var. *villosa*	desert sand verbena	–	Native
Achyronychia cooperi	frost mat	–	Native
Ambrosia dumosa	white bursage	–	Native
Ambrosia salsola	burrobush	–	Native
Amsinckia tessellata	bristly fiddleneck	–	Native
Baileya pleniradiata	woolly desert marigold	–	Native
Brassica tournefortii	Saharan mustard	Cal-IPC High	Introduced
Chorizanthe rigida	devil's Spineflower	–	Native
Chylismia claviformis	browneyes	–	Native
Cryptantha gracilis	narrowstem cryptantha	–	Native
Cylindropuntia echinocarpa	silver cholla	SBDCP	Native
Cylindropuntia ramosissima	pencil cholla	SBDCP	Native
Dalea mollissima	downy dalea	–	Native
Eremothera boothii	Booth's sun cup	–	Native
Eriastrum eremicum	desert woollystar	–	Native
Eriogonum mohavense	western Mojave buckwheat	–	Native
Eriogonum trichopes	little desert buckwheat	–	Native
Erodium cicutarium	red stemmed filaree	Cal-IPC Limited	Introduced
Erodium texanum	Texas filaree	–	Native
Euphorbia albomarginata	rattlesnake sandmat	–	Native
Geraea canescens	desert sunflower	–	Native
Hesperocallis undulata	desert lily	–	Native
Hilaria rigida	big galleta	–	Native
Johnstonella angustifolia	narrow leaved johnstonella	–	Native
Krameria bicolor	white rhatany	–	Native
Larrea tridentata	creosote bush	–	Native
Lepidium lasiocarpum	shaggyfruit pepperweed	–	Native
Loeseliastrum matthewsii	desert calico	–	Native
Lupinus shockleyi	desert lupine	–	Native
Malacothrix glabrata	desert dandelion	–	Native
Mentzelia albicaulis	whitestem blazing star	–	Native
Oenothera primiveris	yellow desert evening primrose	–	Native
Phacelia crenulata	notch leaved phacelia	–	Native
Plantago ovata	desert plantain	–	Native
Schismus arabicus	Mediterranean grass	Cal-IPC Limited	Introduced

[1] Jepson Flora Project 2024.

[2] CNPS 2024; Cal-IPC 2024, San Bernardino Development Code Protected (SBDCP)

Attachment 3

Representative Site Photographs

Photograph 1. Overview of site showing creosote bush dominant vegetation community, view facing east. March 20, 2024.

Photograph 2. View of Study Area from the southwest corner along Cove View Road, facing northeast. March 20, 2024.

Photograph 3. View of Study Area from the central portion, showing creosote bush, white bursage, and blooming desert plantain, narrowleaf cryptantha, and bristly fiddlenecks; facing southwest. March 20, 2024.

Photograph 4. Close up view of a blooming desert lily during the first survey effort within Parcel 061213101, facing southeast. March 20, 2024.

Photograph 5. Close up view of an individual silver cholla within Study Area. May 16, 2024.

Photograph 6. Close up view of an individual pencil cholla within Study Area. May 16, 2024.

Photograph 7. View of central portion of Study Area, facing north. May 16, 2024.

Photograph 8. View of Study Area from Cove View Road, view facing northwest. May 16, 2024.

Photograph 9. View of OHV road, northeastern portion of Study Area along Mesa Drive, facing east. May 16, 2024.

Photograph 10. Northern portion of Study Area, facing west. May 16, 2024.