ATTACHMENT B: SPECIAL-STATUS PLANT SPECIES SURVEY REPORT

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Special-Status Plant Species Survey Report

for the

Eldorado-Lugo-Mohave Series Capacitor Project

Prepared for:

SOUTHERN CALIFORNIA EDISON®
An *EDISON INTERNATIONAL*® Company

Prepared by:

INSIGNIA ENVIRONMENTAL

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1 – INTRODUCTION

Southern California Edison Company (SCE) is proposing to construct two new mid-line series capacitors and other improvements to increase capacity and power flow along three of SCE's existing 500 kilovolt (kV) transmission lines in San Bernardino County, California, and Clark County, Nevada, for the Eldorado-Lugo-Mohave Series Capacitor Project (Proposed Project). This Special-Status Plant Species Survey Report (report) describes the special-status plant surveys that Insignia Environmental (Insignia) conducted for the Proposed Project. This report provides an overview of the Proposed Project, summarizes the field methods, presents the results of Insignia's 2016 surveys, discusses survey limitations, and provides recommendations.

2 – PROJECT DESCRIPTION

2.0 PROJECT OVERVIEW

The main activity associated with the Proposed Project involves the construction of two new 500 kV mid-line series capacitors—the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor. The proposed mid-line series capacitors would each be located on an approximately 3.1-acre site adjacent to the Eldorado-Lugo and Lugo-Mohave 500 kV Transmission Line rights-of-way (ROWs).

SCE currently operates various 500 kV transmission lines, 220 kV transmission lines, 115 kV subtransmission lines, 12 kV distribution lines, telecommunications lines, and a substation in the vicinity of the proposed Newberry Springs and Ludlow Series Capacitors. As part of the Proposed Project, SCE would connect the proposed mid-line series capacitors to SCE's existing system by installing dead-end towers, distribution facilities, and telecommunications facilities. In addition, the Proposed Project involves the modification of existing transmission, subtransmission, and distribution facilities (including minor grading) at approximately 14 locations along the Eldorado-Lugo, Eldorado-Mohave, and Lugo-Mohave 500 kV Transmission Lines to address 16 potential overhead clearance discrepancies.[1] The Proposed Project would also include the installation of optical ground wire (OPGW) on approximately 235 miles of the Eldorado-Mohave and Lugo-Mohave 500 kV Transmission Lines. Lastly, the Proposed Project would include modifications within the existing Eldorado, Lugo, and Mohave Substations, including the replacement of mid-line series capacitor banks and installation of new terminal equipment.

The Proposed Project consists of the following major components:

- Construction of two new 500 kV mid-line series capacitors—the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor—under the Eldorado-Lugo and

[1] SCE has defined "discrepancies" as potential clearance problems between an energized conductor and its surroundings, such as the structure, another energized conductor on the same structure, a different line, or the ground. SCE has identified approximately 16 discrepancies along the Eldorado-Lugo, Eldorado-Mohave, and Lugo-Mohave 500 kV Transmission Lines where minor grading or relocation, replacement, or modification of transmission, subtransmission, or distribution facilities are needed to address California Public Utilities Commission General Order 95 and National Electrical Safety Code overhead clearance requirements.

Lugo-Mohave 500 kV Transmission Lines, respectively, near Pisgah Substation in unincorporated San Bernardino County, California

- Installation of up to two dead-end towers adjacent to each of the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor sites to connect to SCE's existing system in unincorporated San Bernardino Country, California

- Correction of 16 overhead clearance discrepancies involving relocation, replacement, or modification of existing transmission, subtransmission, and distribution facilities (including minor grading) along the Eldorado-Lugo, Eldorado-Mohave, and Lugo-Mohave 500 kV Transmission Lines within San Bernardino County, California, and Clark County, Nevada

- Installation of distribution facilities in the vicinity of the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor sites to provide station light and power in unincorporated San Bernardino County, California

- Installation of distribution facilities to provide station light and power to three proposed fiber optic repeater sites in unincorporated San Bernardino County, California

- Installation of telecommunications facilities to connect the Proposed Project to SCE's existing telecommunications system, including the following:

  – Installation of overhead and underground fiber optic cable to connect the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor, including installation of three fiber optic repeater sites adjacent to the Lugo-Mohave 500 kV Transmission Line ROW, within unincorporated San Bernardino County, California

  – Removal of the existing overhead ground wire, modification of existing towers to support OPGW, and installation of OPGW and underground fiber optic cable on approximately 235 miles of SCE's existing Eldorado-Mohave and Lugo-Mohave 500 kV Transmission Lines

  – Installation of fiber optic cable within the existing Eldorado, Lugo, and Mohave Substations

- Modifications within the existing Eldorado, Lugo, and Mohave Substations within San Bernardino County, California; Clark County, Nevada; and the City of Boulder City, Nevada, including the following:

  – Upgrade of the existing mid-line series capacitor banks at Eldorado and Lugo Substations
  – Installation of new terminal equipment at Eldorado, Lugo, and Mohave Substations
  – Replacement of the existing mid-line series capacitor bank at Mohave Substation
  – Removal of two existing tubular steel poles (TSPs) and installation of two new TSPs at Lugo Substation

2.1 PROJECT LOCATION AND SETTING

The Proposed Project is located in California and Nevada, within the Mojave Basin and Range. As shown in Figure 1: Proposed Project Overview Map, the Proposed Project would extend northeast from Lugo Substation (located in San Bernardino County, California) to Eldorado Substation (located in the City of Boulder City, Nevada) and Mohave Substation (located in Clark County, Nevada), and from Mohave Substation northwest to Eldorado Substation. Portions of the Proposed Project would also cross the City of Hesperia, California, the unincorporated community of Lucerne Valley in California, as well as the unincorporated communities of Searchlight and Laughlin in Nevada.

The Proposed Project would serve the Electrical Needs Area of the entire Los Angeles Basin. The Los Angeles Basin, in the context of transmission facilities, consists of SCE-owned 500 kV and 220 kV facilities that serve major metropolitan areas in Orange, Riverside, San Bernardino, Los Angeles, Ventura, and Santa Barbara Counties. The boundary of the Los Angeles Basin is marked by the existing Vincent, Lugo, and Valley 500 kV Substations and San Onofre 220 kV Substation.

3 – METHODOLOGY

3.0 BACKGROUND RESEARCH

Botanical resources data for the Biological Resources Survey Area (BRSA) were obtained through a background literature review and database searches to provide botanists with a general understanding of the special-status plant species that have the potential to occur within the BRSA. For the purposes of this report, special-status plant species are defined as follows:

- Federally listed species (i.e., plants listed as threatened or endangered under the federal Endangered Species Act [FESA]).
- Species considered to be “sensitive” by the Bureau of Land Management (BLM).
- State-listed species (i.e., plants listed as threatened or endangered under the California Endangered Species Act [CESA]). Species that are candidates for possible future listing as threatened or endangered under the FESA (50 Code of Federal Regulations Part 17; Federal Register Vol. 64, No. 205, pages 57533-57547, October 25, 1999) and under the CESA (California Fish and Game Code § 2068).
- State-listed species considered to be critically imperiled, imperiled, or vulnerable under the Nevada Natural Heritage Program (NNHP).
- Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) (14 California Code of Regulations [CCR] § 15380 [b] and [d]), including the following:
  - Species considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered in California (i.e., California Rare Plant Ranks [CRPRs] 1A, 1B, 2A, and 2B).

- Some species included on the California Natural Diversity Database's (CNDDB's) Special Plants, Bryophytes, and Lichens List (California Department of Fish and Wildlife [CDFW] 2015b).

- Plants that are considered a locally significant species, which is a species that is not rare from a statewide perspective, but is rare or uncommon in a local context, such as within a county or region (14 CCR § 15125 [c]), or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G).

This included a review of spatial data, including aerial imagery and United States (U.S.) Geological Survey (USGS) topographic maps, as well as local guides, and survey protocols. The CNDDB (CDFW 2015a) and the NNHP databases (NNHP 2016) were queried for special-status plant species occurrences within 5 miles of the Proposed Project. Additionally, a nine-quad search of the CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2015) was conducted over the entire length of the BRSA. This search generated a list of special-status plant species documented from the 147 USGS quads[2] that overlap or are adjacent to the BRSA. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation system (USFWS 2014) was also queried for a list of federally endangered, threatened, proposed, and candidate plant species that may occur within or near the BRSA. Following the database searches, records for all known special-status plants within 0.25 mile, 1 mile, and 5 miles of the Proposed Project were compiled and reviewed. Species were then categorized by their likelihood to occur in the BRSA. These categories are as follows:

- **High Potential:** Habitat for the species is present; the geographic and elevation ranges within the Proposed Project are consistent with those documented for the species; and the species has been documented within 1 mile of the BRSA.

[2] The CNPS nine-quad search covered 147 quadrangles, including Apple Valley North, Apple Valley South, Ash Hill, Baldy Mesa, Bannock, Big Bear City, Bighorn Basin, Blind Hills, Boulder City, NW, Boulder City SE, Boulder City SW, Bridge Canyon, Broadwell Lake, Broadwell Mesa, Brown Buttes, Budweiser Wash, Burning Springs, Butler Peak, Cajon, Camp Rock Mine, Castle Peak, Cave Mountain, Cima, Cima Dome, Colton Well, Columbia Mountain, Cougar Buttes, Cow Cove, Cowhole Mountain, Crescent Peak, Crucero Hill, Davis Dam, Davis Dam SE, Desert, Desert Spring, Devore, East of Broadwell Lake, East of Grotto Hills, East of Homer Mtn., East of Siberia, Emerson Lake, Fairview Valley, Fawnskin, Fenner, Fenner Hills, Fenner Spring, Fifteenmile Valley, Flattop Mountain, Fountain Peak, Fourth of July Mountain, Fry Mountains, Galway Lake, Glasgow, Goffs, Grand View Mine, Granite Spring, Grotto Hills, Hackberry Mountains, Halloran Spring, Harrison Mtn., Hart Peak, Hayden, Hector, Hesperia, Hidden Valley, Hidden Valley East, Hidden Valley West, Highland Spring, Homer, Homer Mountain, Hopps Well, Indian Spring, Ireteba Peaks, Iron Ridge, Ivanpah, Ivanpah Lake, Joshua, Juniper Mine, Keller Peak, Kelso, Kelso Dunes, Keyhole Canyon, Lake Arrowhead, Lavic Lake, Lavic SE, Lucerne Valley, Ludlow, Ludlow SE, Manix, Marl Mountains, McCullough Mountain, McCullough Mountain NE, McCullough Pass, Melville Lake, Mescal Range, Mid Hills, Mineral Hill, Morgans Well, Mount Manchester, Needles NE, Needles NW, Needles SW, Nelson, Nelson SW, Newberry Springs, Nipton, Oatman, Old Dad Mountain, Old Woman Springs, Ord Mountain, Pinto Valley, Roach, San Bernardino North, Searchlight, Searchlight SE, Seventeenmile Point, Siberia, Signal Hill, Silver Bell Mine, Silverwood Lake, Sleeping Beauty, Soda Lake North, Soda Lake South, Spirit Mountain, Spirit Mountain NW, Spirit Mountain SE, Stoddard Well, Sunshine Peak, Tenmile Well, Troy Lake, Union Pass, Valley Wells, Van Winckle Spring, Victorville, West of Blind Hills, West of Broadwell Mesa, West of Budweiser Wash, West of Flat Top Mountain, West of Glasgow, West of Juniper Mine, West of Soda Lake, West Ord Mountain, White Horse Mountain, and Woods Mountains.

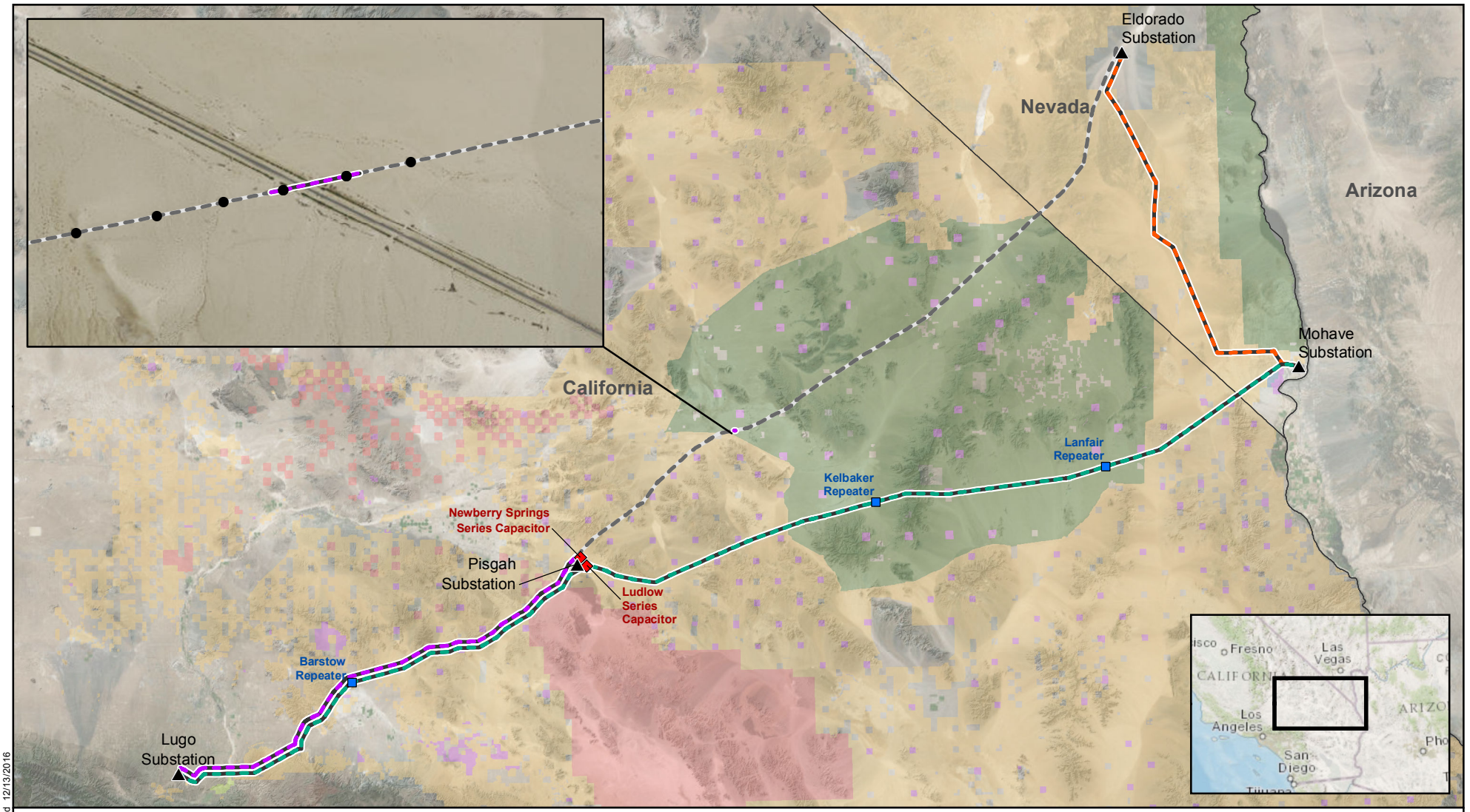

Figure 1: Proposed Project Overview Map **Eldorado-Lugo-Mohave Series Capacitor Project**

- Substation
- Mid-Line Capacitor Location
- Fiber Optic Repeater Location
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project

Land Administration

- County Park
- Bureau of Reclamation
- Bureau of Land Management
- Military
- National Park Service
- Other State Park

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- **Moderate Potential:** Habitat for the species is present; the geographic and elevation ranges within the Proposed Project are consistent with those documented for the species; and the species has been documented within 1 to 5 miles of the BRSA.

- **Low Potential:** Habitat for the species is present, but the geographic and/or elevation ranges within the BRSA vary from those documented for the species. Specifically, the species occurs between 5 and 15 miles of the BRSA, if all occurrences within 5 miles are more than 30 years old, or the elevation range where the species occurs is between 100 and 300 feet above or below the elevation range of the BRSA.

- **No Potential:** No suitable habitat exists or a species is not known to occur in the general area of the BRSA (i.e., generally more than 15 miles outside of the BRSA). The definition of habitat includes the major vegetation communities (e.g., chaparral or coastal scrub), as well as microhabitat conditions, such as specific edaphic (i.e., soil) requirements. In addition, the elevation range where the species occurs may be more than 300 feet above or below the elevation range within the BRSA, or the species is known to be extirpated from the BRSA.

3.1 SURVEY METHODOLOGY

Special-status plant surveys were conducted in two passes during the spring of 2016 on approximately 2,511 acres of the BRSA.[3] The BRSA includes the Proposed Project work areas and environmental buffers applied to work areas, which allow for needed flexibility on the design of the Proposed Project. The surveys were conducted in accordance with guidelines published by the CNPS (2001), CDFW (2009), and USFWS (2000), which state the following:

- Surveys should be conducted at the proper time of year when locally significant plants are both evident and identifiable
- Surveys must be floristic in nature, and the species, subspecies, or variety must be identified for every observed plant to determine the rarity status
- Surveys must be conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques

Following these guidelines, surveys were conducted during the months when special-status plant species from the region are known to be evident and flowering. All areas of the BRSA were examined by walking transects through potential habitat, and by closely examining any existing microhabitats that are more likely to support special-status plants. Surveys were also conducted in areas of disturbed habitat as some special-status species associated with disturbance. Nomenclature used for plant names follow *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). Nomenclature changes made after the publication date of *The Jepson Manual* follow the Jepson eFlora (2016) website.

On March 27 and March 28, 2016, Insignia botanists Makela Mangrich and Sheryl Creer used CNDDB and NNHP reference data to conduct a reference population check near the Proposed

[3] In subsequent fieldwork, the BRSA acreage was eventually reduced as the Proposed Project design progressed, which also reduced the original environmental buffers.

Project for potentially occurring special-status plant species. This reference population check was conducted to ensure that these species were blooming, which would increase the likelihood of detection, and it was only conducted for species with a high or moderate potential to occur in the BRSA. These species include white-margined beardtongue (*Penstemon albomarginatus*), Harwood's eriastrum (*Eriastrum harwoodii*), and playa milk-vetch (*Astragalus allochrous* var. *playanus*). During the spring 2016 reference population check, none of the reference populations were found, due to inaccurate occurrence data, vague location data, and dry conditions. Dry locations were noted during the special-status plant surveys and are further discussed in Section 5.0 Survey Limitations. Although no special-status plants were observed during the reference population check, Insignia biologists observed the phenology of numerous plant species at this time and noted that many associated annual and perennial plant species were in peak bloom. As a result of these observations, it was determined that special-status plant surveys could commence.

The first pass of special-status plant surveys started on March 28, 2016 and was completed on April 15, 2016. The second pass of surveys began on May 2, 2016 and was completed on May 18, 2016. Table 1: Special-Status Plant Species Survey Schedule provides the names of the botanists conducting the special-status plant surveys and the survey schedule.

Table 1: Special-Status Plant Species Survey Schedule

Survey Pass	Dates	Botanists
First Pass	March 28 through April 15, 2016	Makela Mangrich, Sheryl Creer, Rebecca Crowe, Gina Robinson, Adam Hamburg, Eli Bernstein, Glen Clifton, Richard Crawford, Karin Edwards, Timothy Sullivan
Second Pass	May 2 through May 18, 2016	Gina Robinson, Adam Hamburg, Eli Bernstein, Kevin Thomas, Richard Crawford, Karin Edwards, Timothy Sullivan, Camille Fawne

Following the surveys, the special-status plants were re-categorized as present, not observed, not present, and no potential. The special status categories are defined as follows:

- **Present:** This species has been documented with the BRSA during special-status plant surveys. Habitat for the species is present; the geographic and elevation ranges within the Proposed Project are consistent with those documented for the species.

- **Not Observed:** This species had a high potential to occur within the BRSA. Habitat for the species is present; the geographic and elevation ranges within the Proposed Project are consistent with those documented for the species; and the species has been documented within 1 to 5 miles of the BRSA. However, this species was not observed during special-status plant surveys.

- **Not Present:** This species had a low to moderate potential to occur within the BRSA. Habitat for the species is present, but the geographic and/or elevation ranges within the BRSA vary from those documented for the species. Specifically, the species occurs between 5 and 15 miles of the BRSA, if all occurrences within 5 miles are more than 30

years old, or the elevation range where the species occurs is between 100 and 300 feet above or below the elevation range of the BRSA. This species was not observed during either pass of the special-status surveys.

- **No Potential:** This species had no potential to occur within the BRSA. No suitable habitat exists and this species is not known to occur from the general area of the BRSA (i.e., generally more than 15 miles outside of the BRSA). The definition of habitat includes the major vegetation communities (e.g., chaparral or coastal scrub), as well as microhabitat conditions, such as specific edaphic (i.e., soil) requirements. In addition, the elevation range where the species occurs may be more than 300 feet above or below the elevation range within the BRSA, or the species is known to be extirpated from the BRSA.

4 – RESULTS

Based on the background literature review and the database queries, 126 special-status plant species were identified to have the potential to occur within the BRSA. Attachment A: California Natural Diversity Database Occurrences for Special-Status Plant Species shows the CNDDB occurrences of special-status plant species within 5 miles of the Proposed Project. NNHP occurrences of special-status plant species within 5 miles of the Proposed Project are shown in Attachment B: Nevada Natural Heritage Program Occurrences for Special-Status Plant Species. The 126 special-status plant species that were identified to have the potential to occur within the BRSA are listed in Attachment C: Special-Status Plant Species with the Potential to Occur, along with their listing status, life history, blooming period, habitat requirements, and a brief assessment of the potential to occur within the BRSA.

4.0 VEGETATION COMMUNITIES

The BRSA consists mostly of undeveloped lands with few urbanized areas. The BRSA is located within close vicinity to—and in some cases, within—BLM-managed lands that are used for grazing, energy development, and recreation, among other uses. The BRSA also crosses approximately 49 miles of the Mojave National Preserve (MNP), which is managed by the NPS. Land use is further restricted within the MNP. Urbanized areas within the BRSA were greatly restricted to lands within the immediate vicinity of the Lugo and Mohave Substations in the City of Hesperia, California and the community of Laughlin, Nevada, respectively. The following 37 vegetation alliances and land cover types occur in the BRSA:

- *Juniperus californica* woodland alliance
- *Psorothamnus spinosus* woodland alliance
- *Salix exigua* woodland alliance
- *Yucca brevifolia* woodland alliance
- *Acacia greggii* shrubland alliance
- *Adenostoma fasciculatum* shrubland alliance
- *Ambrosia dumosa* shrubland alliance
- *Ambrosia salsola* shrubland alliance
- *Atriplex confertifolia* shrubland alliance

- *Atriplex polycarpa* shrubland alliance
- *Cercocarpus montanus* shrubland alliance
- *Coleogyne ramosissima* shrubland alliance
- *Cylindropuntia bigelovii* shrubland alliance
- *Encelia* (*actoni, virginensis*) shrubland alliance
- *Encelia farinosa* shrubland alliance
- *Ephedra funerea provisional* shrubland alliance
- *Ephedra nevadensis* shrubland alliance
- *Ephedra viridis* shrubland alliance
- *Ericameria cooperi* provisional shrubland alliance
- *Ericameria linearifolia* provisional shrubland alliance
- *Ericameria nauseosa* shrubland alliance
- *Ericameria paniculata* shrubland alliance
- *Eriogonum fasciculatum* shrubland alliance
- *Hyptis emoryi* shrubland alliance
- *Larrea tridentata* shrubland alliance
- *Larrea tridentata – Ambrosia dumosa* shrubland alliance
- *Larrea tridentata – Encelia farinosa* shrubland alliance
- *Prunus fasciculata* shrubland alliance
- *Purshia tridentata* shrubland alliance
- *Tamarix* spp. shrubland semi-natural alliance
- *Salazaria mexicana* shrubland alliance
- *Suaeda moquinii* shrubland alliance
- *Yucca schidigera* shrubland alliance
- *Achnatherum speciosum* herbaceous alliance
- *Pleuraphis rigida* herbaceous alliance
- Desert pavement/Barrens
- Developed land

Vegetation is a prime factor in assessing the suitability of a site for use by certain wildlife species and the potential for occurrence of certain plant species. The following subsections describe each vegetation community within the BRSA. The vegetation alliances descriptions are consistent with *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009).

4.0.0 *Juniperus californica* Woodland Alliance

The *Juniperus californica* woodland alliance is dominated by California juniper (*Juniperus californica*), an evergreen tree that reaches up to 14 feet in height. California juniper can be found from 1,900 to 8,000 feet in elevation. Habitats include ridges, slopes, valleys, alluvial fans, and valley bottoms. It can be found in soils that are often very shallow and can be porous, rocky, coarse, sandy, or silty. In the Mojave Desert, California juniper may be co-dominant in the small tree canopy with singleleaf pinyon pine (*Pinus monophylla*) or Joshua tree (*Yucca brevifolia*). The canopy is open to intermittent. The shrub layer is open to intermittent and may include big sagebrush (*Artemisia tridentata*), blackbrush (*Coleogyne ramosissima*), ephedra (*Ephedra* spp.), and Mohave yucca (*Yucca schidigera*). The herbaceous component is sparse or grassy.

This woodland alliance was observed in the extreme western, relatively high-elevation portions of the BRSA, specifically in the Little San Bernardino Mountains near Lugo Substation. All occurrences of this alliance were documented between 3,000 and 4,800 feet in elevation. These areas were classified by the presence of California juniper, with the absence of any other tree species. Of the approximately 2,511 acres surveyed, this woodland alliance was observed in approximately 21.2 acres.

Disturbed California juniper stands were noted where recent fires had burned California juniper individuals and no apparent successional alliance was established. This was noted in approximately 0.1 acre of the BRSA.

4.0.1 *Psorothamnus spinosus* Woodland Alliance

The *Psorothamnus spinosus* woodland alliance is dominated by smoke tree (*Psorothamnus spinosus*), a drought deciduous tree that is relatively short-lived. Smoke tree grows to a maximum height of 26 feet. It is found in desert washes and arroyos at elevations from sea level to 3,200 feet. Soils are sandy and well-drained. This woodland alliance has an absolute cover of more than 2 percent in the tree canopy; however, it may be co-dominant with desert willow (*Chilopsis linearis*). The shrub layer is open to intermittent and may be inhabited by catclaw acacia (*Acacia greggii*[4]), rabbitbrush (*Chrysothamnus* spp.), and creosote (*Larrea tridentata*), among others. The herbaceous layer is sparse to seasonally abundant with annuals. This alliance is considered riparian and is restricted to sandy wash and intermittent channel bottoms because of the dependence of smoke tree on minor flooding events to initiate stand establishment.

This woodland alliance was observed in one occurrence in the Bristol Mountains in approximately 3.5 acres of the BRSA. The stand was noted in an unnamed tributary to the Budweiser Wash in the East of Broadwell Lake USGS quad at 2,300 feet in elevation.

4.0.2 *Salix exigua* Woodland Alliance

The *Salix exigua* woodland alliance is dominated by narrow-leaf willow (*Salix exigua*), a deciduous shrub or small tree. The shrub layer may be intermittent to continuous and the herbaceous layer is variable. In the Mojave Desert, this woodland alliance inhabits temporary floodplains, rivers, streams, and springs. Narrow-leaf willow sprouts from underground shoot buds, as well as stems and roots allowing for clonal growth. Clones regenerate following fire. Narrow-leaf willow revegetates areas that have experienced disturbance.

Within the BRSA, this woodland alliance was observed exclusively within the Ord Mountains. Specifically, occurring in one stand at the bottom of an unnamed steep canyon, which was located approximately 350 feet north of the intersection of Bowen Ranch Road and the Sierra Madre Trail. In total, this alliance was observed in approximately 0.3 acre within the BRSA.

4.0.3 *Yucca brevifolia* Woodland Alliance

The *Yucca brevifolia* woodland alliance is indicated by the presence of Joshua tree, an evergreen, branching tree that can reach 45 feet in height with a coverage of 1 percent or more. This alliance

[4] The scientific name for catclaw acacia has been changed from *Acacia greggii* to *Senegalia greggii* following nomenclatural changes by the Jepson eFlora (2016) website.

is found on gentle slopes and ridges from 2,500 to 6,000 feet in elevation. Soils are generally coarse sands, very fine sands, gravel, or sandy loams. The alliance may often include other tree species, including California juniper and singleleaf pinyon pine, at low cover and can include white bur-sage (*Ambrosia dumosa*), creosote, and Mojave yucca (*Yucca schidigera*), among other species in the shrub and grass layers. The shrub layer and herbaceous layer are open to intermittent because of the relatively low cover of the tree canopy.

This woodland alliance was observed in various stretches in the BRSA. In total, this alliance was observed in 69.1 acres of the BRSA. An approximately 25-acre stand of Joshua trees was observed in the vicinity of Lugo Substation. The alliance was otherwise contained to isolated areas within the BRSA. It occurred in small patches on the slopes of the Ord Mountains at 4,000 feet in elevation, and on the basin floor of nearby Fifteenmile Valley at 3,000 feet in elevation. The woodland alliance was also observed in two approximately 25-acre patches, as well as several smaller areas, on the gentle slopes of the Highland Range near the community of Searchlight, Nevada. These occurrences were documented between 3,000 and 3,600 feet in elevation.

4.0.4 *Acacia greggii* Shrubland Alliance

The *Acacia greggii* shrubland alliance is dominated by catclaw acacia, a long-lived, winter deciduous, tall shrub or small tree that may reach up to 10 feet tall. Co-dominants in the shrub layer may include bur-sage (*Ambrosia* spp.), ephedra, and creosote, among other species. The herbaceous layer is sparse to intermittent with seasonal annuals. Catclaw acacia inhabits washes and arroyos, while upland stands occur on south-facing slopes at elevations up to 5,000 feet. Soils are generally coarse, well-drained, and moderately acidic to slightly saline. Catclaw acacias are strongly associated with ephemeral desert washes. Individuals have deep root systems and can likely withstand all but the largest 100-year floods. Lower flood intervals and intensities may serve to establish seedlings in favorable microsites.

This shrubland alliance was observed in many desert wash and canyon systems east of Pisgah Substation within the BRSA, and is often a preliminary indicator of drainage systems. In the Dead and Providence mountains, the shrubland alliance was documented on canyon floors. It was observed in a total of approximately 51.0 acres throughout the BRSA.

4.0.5 *Adenostoma fasciculatum* Shrubland Alliance

The *Adenostoma fasciculatum* shrubland alliance is defined by chamise (*Adenostoma fasciculatum*), a shrub that can grow up to 12 feet tall with a relative coverage of more than 60 percent in the shrub canopy. Other plant species associated with this alliance contribute little to no vegetative cover, and there is little to no understory. Chamise are most often found at elevations ranging from 2,500 to 3,500 feet above sea level. Chamise chaparral is fire-adapted through stump sprouting. This community is often associated with soils that are shallow and dry, and often on xeric slopes and ridges.

This shrubland alliance was observed in two localized stands in the BRSA. Both were in the far western portion of the BRSA and west of the California Aqueduct in the Little San Bernardino Mountains. One stand was located atop a ridge at approximately 3,600 feet elevation. The other

smaller, stand occurred on an east-facing slope near the Aqueduct. In total, this shrubland alliance covered approximately 8.9 acres.

4.0.6 *Ambrosia dumosa* Shrubland Alliance

The *Ambrosia dumosa* shrubland alliance is dominated by white bur-sage, a short-lived, drought deciduous shrub. White bur-sage can grow up to 3 feet tall and occurs in alluvial fans, rocky hills, and stabilized sand fields at elevations up to 5,500 feet. Soils are sandy or clay-rich and may have desert pavement surfaces. White bur-sage is dominant in the shrub layer, which is open to intermittent. The herbaceous layer is open to intermittent, with seasonal annuals. Co-dominants include saltbush (*Atriplex* spp.), creosote, and cholla (*Cylindropuntia* spp.), among others. Membership in the shrubland alliance requires white bur-sage occurring at twice the absolute cover of creosote when both species are present.

This shrubland alliance was observed in approximately 9.5 acres of the BRSA. These areas were characterized where white bur-sage represented more than twice the absolute cover of creosote. Though white bur-sage is relatively common, it is often associated with creosote, and this distinction explains the small acreage covered by this shrubland alliance. It was observed in two isolated areas near the community of Lucerne Valley and Fenner Valley. Both alliance occurrences were observed at elevations of approximately 3,000 feet.

4.0.7 *Ambrosia salsola* Shrubland Alliance

Cheesebush (*Ambrosia salsola*)—a short-lived, small shrub with shallow roots—dominates this shrubland alliance, though other shrubs and emergent trees may be present at low cover. The herbaceous layer is sparse or seasonally present. The alliance is found in valleys, flats, and intermittent washes and channels at lower elevations and up to 4,900 feet above sea level in the Mojave Desert. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. The alliance is often associated with heavily disturbed areas, including active washes, burned and heavily grazed areas, military camps, off-highway vehicle (OHV) areas, and roadsides.

This shrubland alliance was observed in approximately 17.1 acres within the BRSA. All stands occurred on the eastern edge of the BRSA, with only two stands documented west of the Providence Mountains. Most occurrences were documented within wash systems, with varying degrees of disturbance. In the Providence Mountains, one stand occurred in a relatively undisturbed wash, while an adjacent stand was documented on a roadside. Similarly, the shrubland alliance was observed on a pull-off on the west side of Needles Highway and in the spillway of the Hiko Springs Wash Detention Basin in the community of Laughlin, Nevada. Another large stand was observed in wash bottom conditions at the mouth of Bridge Canyon.

Disturbed cheesebush stands were noted where physical land disturbance was observed. This accounted for approximately 0.6 acre within the BRSA.

4.0.8 *Atriplex confertifolia* Shrubland Alliance

The *Atriplex confertifolia* shrubland alliance is dominated by shadscale (*Atriplex confertifolia*), a short, short-lived shrub. Other shrubs—including white bur-sage, creosote, and brittlebush (*Encelia* spp.)—may be present at lower coverages, and the herbaceous layer may be abundant.

The shrubland alliance is found in bajadas, flats, and lower slopes in variable soils that may be covered with desert pavement.

Within the BRSA, one stand of this shrubland alliance was observed, and it was documented on a ridge that had been previously graded. The ridge was located on Iron Ridge near the Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC). The alliance covered approximately 0.6 acre within the BRSA.

4.0.9 *Atriplex polycarpa* Shrubland Alliance

The *Atriplex polycarpa* shrubland alliance is defined by an absolute cover of more than 2 percent of allscale saltbush (*Atriplex polycarpa*), a drought- and alkaline-tolerant shrub that can reach up to 6 feet in height. Other shrubs, including bur-sage and creosote, may be present and the herbaceous layer is variable and includes seasonal annuals. This alliance is found in washes, playa lake beds, dissected alluvial fans, and rolling hills with carbonate rich, alkaline, sandy, or sandy clay loam soils. The USFWS National Wetland Inventory includes allscale saltbush as a facultative upland plant species. Due to the drought and alkaline resistance of allscale saltbush, this alliance is abundant in the western sections of the Mojave Desert.

This shrubland alliance was observed exclusively in the community of Lucerne Valley and the adjacent Fifteenmile Valley within the BRSA. Two stands in the community of Lucerne Valley were documented within approximately 1 mile of the dry lakebed of Lucerne Lake. The remaining stands were observed within approximately 1.5 miles of the dry lakebed of Rabbit Lake in Fifteenmile Valley. In total, the alliance covered approximately 54.7 acres of the BRSA.

4.0.10 *Cercocarpus montanus* Shrubland Alliance

The *Cercocarpus montanus* shrubland alliance is dominated by birch leaf mountain mahogany (*Cercocarpus montanus*),[5] a tall shrub or short tree. Other shrubs are generally present and the herbaceous layer is sparse or grassy. Emergent trees, including California juniper and singleleaf pinyon pine, may also be present. It is found on ridges and north-facing slopes in soils that are shallow, rocky, and well-drained. This alliance is usually found in montane and coastal regions, and stands along the western desert margins may be co-dominant with shorter shrubs.

This shrubland alliance was observed exclusively in the Little San Bernardino Mountains in the far western portion of the BRSA. Two stands were documented on north-facing slopes west of the California Aqueduct, at approximately 3,600 feet above sea level. In total, the shrubland alliance covered approximately 3.1 acres within the BRSA.

4.0.11 *Coleogyne ramosissima* Shrubland Alliance

The *Coleogyne ramosissima* shrubland alliance is defined by an absolute coverage of more than 2 percent of blackbrush, a small, long-lived shrub. Other shrubs—including ephedra, creosote, and Mojave yucca—and emergent trees may be present. The herbaceous layer is sparse to open with cryptogrammic crusts. This alliance is found in slopes, upper bajadas, and rocky highlands

[5] The scientific name for birch leaf mountain mahogany has been changed from *Cercocarpus montanus* to *Cercocarpus betuloides* var. *betuloides* following nomenclatural changes by the Jepson eFlora (2016) website.

at elevations above 3,200 feet. Soils are thin and sandy with abundant exposed rock, and often have a shallow caliche layer and moderate alkalinity.

This shrubland alliance was observed exclusively in the Lava Bed Mountains near the Twentynine Palms MCAGCC. Three stands occurred on the exposed rock on the ridges. In total, this alliance covered approximately 4.1 acres in the BRSA.

4.0.12 *Cylindropuntia bigelovii* Shrubland Alliance

The *Cylindropuntia bigelovii* shrubland alliance exists where teddy-bear cholla (*Cylindropuntia bigelovii*), a distinctive cholla that grows up to 5 feet tall, has a relative cover of more than 50 percent in the shrub layer. Other shrubs may be present at lower coverages, and the herbaceous layer is open with a crytobiotic crust and seasonal annuals. This alliance is found on alluvial fan deposits and gentle to moderate, south- or southwest-facing slopes of rocky highlands with soils ranging from coarse sands to loams. Stands occupy the warmest southerly sections of the Mojave Desert.

One stand of the teddy-bear cholla was observed within the BRSA. This stand was documented on the southern end of the Newberry Mountains. It was located on a south-facing slope, approximately 1.8 miles northeast of the intersection of Old Government Road and Powerline Road. In total, this shrubland alliance covered approximately 0.3 acre within the BRSA.

4.0.13 *Encelia (actoni, virginensis)* Shrubland Alliance

Virgin River brittlebush (*Encelia virginensis*) dominates the *Encelia (actoni, virginensis)* shrubland alliance, though other shrubs—including cheesebush and rubber rabbitbrush (*Ericameria nauseosa*)—may co-dominate. This alliance is found in road cuts, washes, and other substrates with recent and repeated disturbance. Soils are alluvial with cobble and gravel, and it is relatively common on cobbled calcareous substances. Virgin River brittlebush is found at elevations up to 6,200 feet.

This shrubland alliance was observed in one isolated stand within the BRSA. This stand was documented on a south-facing slope near the dry lakebed of Rabbit Lake at the north end of Fifteenmile Valley. This area has been generally disturbed due to vehicle and equipment activity related to power line construction and maintenance. In total, the alliance covered approximately 6.5 acres within the BRSA.

4.0.14 *Encelia farinosa* Shrubland Alliance

The *Encelia farinosa* shrubland alliance is dominated by brittlebush (*Encelia farinosa*), an extremely drought-tolerant, short-lived shrub. Although it may occur with creosote or white bur-sage, this alliance requires a relative cover of more than 30 percent by brittlebush in the shrub canopy. The herbaceous layer is open with seasonal annuals. It often occurs on south-facing, rocky hillsides, and slopes of small washes, and in well-drained rocky soils that may be covered by desert pavement. Stands are strongly associated with heavily disturbed areas, and are often observed on roadsides.

The shrubland alliance was observed exclusively in the Newberry Mountains, in the easternmost portion of the BRSA. Two occurrences were observed on south-facing slopes, near the unnamed

pass between the Dead and the Newberry mountains. Two large stands were observed at the mouth of Bridge Canyon, west of the community of Laughlin, Nevada. Another occurrence was documented on a large, south-facing slope, located immediately west of Nevada State Route (SR-) 163. In total, the shrubland alliance covered approximately 70.4 acres of the BRSA.

4.0.15 *Ericameria cooperi* Provisional Shrubland Alliance

The *Ericameria cooperi*[6] provisional shrubland alliance is characterized by an even and dominant distribution of Cooper's goldenbush (*Ericameria cooperi*) across the landscape, though other shrubs may be present. This alliance often shows signs of recent fire or other disturbance.

This provisional shrubland alliance was observed in the Little San Bernardino Mountains in the westernmost section of the BRSA. The largest stands of Cooper's goldenbush occurred in the immediate vicinity of the Lugo Substation. Another stand was documented on a ridge due west of Telephone Canyon Road near Antelope Valley. In total, the provisional shrubland alliance covered approximately 5.1 acres in the BRSA.

4.0.16 *Ericameria linearifolia* Provisional Shrubland Alliance

Narrowleaf goldenbush (*Ericameria linearifolia*), a small shrub, dominates this provisional shrubland alliance. Other shrubs and emergent trees may be present at low cover. The herbaceous layer is intermittent and seasonally abundant. Narrowleaf goldenbush inhabits dry slopes and ridges with shallow soils. It may become abundant following disturbances in the Mojave Desert.

This provisional shrubland alliance occurred in two localized stands in the BRSA. One stand of narrowleaf goldenbush was observed on the slopes of a small valley in the Little San Bernardino Mountains near the California Aqueduct. The other stand was documented on the northeast-facing slope of a small, unnamed drainage east of Foshay Pass in the Providence Mountains. In total, the provisional shrubland alliance covered approximately 8.9 acres within the BRSA.

4.0.17 *Ericameria nauseosa* Shrubland Alliance

Rubber rabbitbrush is a fast-growing shrub that covers more than 50 percent of the shrub canopy in the *Ericameria nauseosa* shrubland alliance. Emergent trees may be present, and the herbaceous layer is sparse or grassy. In the Mojave Desert, this alliance inhabits all topographic settings at higher, cooler elevations. Soils are well-drained sands and gravels. It is found in areas disturbed naturally through flooding, and artificially through mining, grazing, and agriculture.

This shrubland alliance was restricted to the Little San Bernardino and Ord mountains in the far western, high-elevation sections of the BRSA. All stands of rubber rabbitbrush were observed along the power line access roads, or other areas associated with the power lines that had been previously disturbed. These results may be skewed because most survey sections within the BRSA were in close proximity to, or otherwise associated with, the power lines and had been previously disturbed. However, many of the vegetation communities in this section of the

[6] The scientific name for Cooper's goldenbush has been changed from *Ericameria cooperi* to *Ericameria cooperi* var. *cooperi* following nomenclatural changes by the Jepson eFlora (2016) website.

Mojave Desert have been greatly affected by OHV use and development. In total, the shrubland alliance covered approximately 23.9 acres within the BRSA.

Disturbed rubber rabbitbrush stands were noted where physical land disturbance was observed. This accounted for approximately 9.6 acres within the BRSA.

4.0.18 *Ericameria paniculata* Shrubland Alliance

The *Ericameria paniculata* shrubland alliance is dominated by black-banded rabbitbrush (*Ericameria paniculata*), a medium shrub; however, brittlebush, ephedra, catclaw acacia, and other shrubs may be present at lower coverages. The shrub canopy may be closed and the herbaceous layer is open with seasonal annuals. This alliance occurs in intermittently flooded washes, and soils are sandy and usually well-drained. It is common in medium and large washes where flooding events occur every few years. It can be found from 300 to 3,600 feet in elevation.

This shrubland alliance was observed in approximately 13.5 acres of the BRSA. It was restricted to wash systems east of the Providence Mountains. Several stands of black-banded rabbitbrush were documented in or near the Piute Wash. One stand was observed in the southern portion of Piute Wash, along U.S. Route 95 near the community of Arrowhead Junction, California. Another stand was documented in the northern section of Piute Wash, south of the community of Searchlight, Nevada. Two stands occurred in unnamed washes in Eldorado Valley.

4.0.19 *Eriogonum fasciculatum* Shrubland Alliance

The *Eriogonum fasciculatum* shrubland alliance is defined by California buckwheat (*Eriogonum fasciculatum*), an evergreen shrub that can grow up to 6 feet tall with a relative cover of more than 50 percent. Other shrubs may be present, including creosote and brittlebush, and the herbaceous layer is open and may be grassy. This alliance occurs in upland slopes and intermittently flooded arroyos, channels, and washes. Soils are coarse and well-drained, and may be rocky and shallow. Stands may establish following physical disturbance or fire. This alliance exists at mid-elevations in the Mojave Desert and can be found at elevations up to 4,000 feet.

This shrubland alliance was observed in the portions of the BRSA west of the community of Lucerne Valley. Two approximately 10-acre areas of this alliance, along with several smaller areas, were documented in the Ord Mountains, at approximately 3,600 feet above sea level. Another large area was found in the Granite Mountains north of the community of Lucerne Valley, at an elevation of approximately 3,300 feet. Several other occurrences of this alliance were observed in the Little San Bernardino Mountains in the vicinity of Lugo Substation. In total, the shrubland alliance accounted for approximately 100.9 acres of the BRSA.

4.0.20 *Ephedra funerea* Provisional Shrubland Alliance

The *Ephedra funerea* provisional shrubland alliance is dominated by Death Valley ephedra (*Ephedra funerea*), a short shrub that grows up to 3 feet tall. Other shrubs may be present, and the herbaceous layer is sparse. This alliance occurs on rocky slopes and ridges in shallow and calcareous soils. Damage from falling rocks and other mechanical disturbances may initiate sprouting.

This provisional shrubland alliance was restricted to an isolated section of the BRSA, located off of the Lugo-Mohave 500 kV Transmission Line. The single stand was observed on the slopes of Jackass Canyon in the Kelso Mountains. In total, the provisional shrubland alliance covered approximately 7.9 acres in the BRSA.

4.0.21 *Ephedra nevadensis* Shrubland Alliance

Nevada ephedra (*Ephedra nevadensis*)—a short, long-lived shrub—is usually a strong dominant, with greater than twice the coverage of other shrub species in this shrubland alliance. Joshua tree may be present at a low cover, and the herbaceous layer is open with seasonal annuals. Nevada ephedra is found on dry, open slopes and ridges at elevations from 3,200 to 5,900 feet. Soils are well-drained and gravelly or rocky. This alliance may be related in part to disturbance from grazing or clearing.

One stand of the Nevada ephedra was observed within the BRSA. This stand was documented in the far western portion of the BRSA, in the Ord Mountains, and approximately 1 mile east of the Mojave River. It was observed on a north-facing slope at an elevation of approximately 3,500 feet. The slope was relatively disturbed due to vehicle and heavy equipment use associated with power line construction and maintenance. In total, the shrubland alliance covered approximately 1.1 acres within the BRSA.

4.0.22 *Ephedra viridis* Shrubland Alliance

Green ephedra (*Ephedra viridis*), an evergreen shrub, dominates this shrubland alliance; however, other shrubs, including big sagebrush, and emergent trees may be present. Perennial grasses may also be present in the herbaceous layer. The shrubland alliance is found on ridges and steep slopes in soils that are shallow and rocky. In the Mojave Desert, this alliance occurs at higher elevations, generally above 4,000 feet. Stands are usually small and localized, and may be impacted by falling rocks or avalanches.

This shrubland alliance covered approximately 4.3 acres within the BRSA. It was observed as one isolated stand in the Little San Bernardino Mountains. The stand was documented on a north-facing ridge above an unnamed wash.

4.0.23 *Hyptis emoryi* Shrubland Alliance

The *Hyptis emoryi* shrubland alliance is dominated by desert lavender (*Hyptis emoryi*),[7] a tall shrub or short tree. Other shrubs may be present, but desert lavender represents the greatest coverage in the shrub canopy. Catclaw acacia and smoke tree may also be present at low coverage, and the herbaceous layer is open with seasonal annuals. Desert lavender occurs in drainages, seeps, and steep, as well as in rocky colluvium on lower canyon slopes in soils that are gravelly sands or loam surrounding bedrock and boulders. It is found at relatively low elevations, from sea level to 2,600 feet. In the Mojave Desert, this alliance occurs in drainages that are too narrow or steep to support other desert wash-associated alliances. Desert lavender appears to also

[7] The scientific name for desert lavender has been changed from *Hyptis emoryi* to *Condea emoryi* following nomenclatural changes by the Jepson eFlora (2016) website.

withstand a high degree of flood disturbance. It also may be limited by temperature, as shrubs are killed by temperatures below 32 degrees Fahrenheit.

This shrubland alliance was observed in two stands in the far eastern portion of the BRSA. These occurrences were both documented in the Newberry Mountains. One stand of desert lavender was observed in a steep wash on the southern end of the Newberry Mountains, approximately 3 miles west of the intersection of Needles Highway and West Casino Drive. This stand was documented at approximately 1,600 feet above sea level. The other observed stand occurred on a south-facing slope at the mouth of Bridge Canyon, in possible colluvium soils at approximately 1,450 feet above sea level. In total, the shrubland alliance covered approximately 1.0 acre within the BRSA.

4.0.24 *Larrea tridentata* Shrubland Alliance

The *Larrea tridentata* shrubland alliance is characterized by the presence of creosote, and white bur-sage or brittlebush is absent or has a cover of less than 1 percent. Other shrubs may be present, but none may have more than twice the cover of creosote. Creosote is an extremely long-lived, drought deciduous shrub that can grow to a height of 9 feet. It inhabits alluvial fans, bajadas, and upland slopes with well-drained soils. Mature plants may be allelopathic to their own seedlings, which encourages an open community structure. Creosote also has a deep root system, which makes it relatively drought-resistant. It can be found from 250 feet below sea level to 3,300 feet above sea level. Co-dominants in the shrub layer may include white bur-sage, brittlebush, and ephedra, among others. The herbaceous layer is open or intermittent with seasonal annuals or perennial grasses.

This shrubland alliance covered approximately 249.2 acres within the BRSA. As such, it was observed across much of the BRSA and in many different upland areas. This alliance was observed near Chimney Rock in the Granite Mountains near the community of Lucerne Valley, as the westernmost extent of its range within the BRSA. This was observed at approximately 3,000 feet elevation, and all records to the east were documented below 4,000 feet. Most observations were in bajadas and alluvial fans, or were associated with washes.

Disturbed creosote habitat were noted where physical land disturbance was observed. This area accounted for approximately 38.3 acres within the BRSA.

4.0.25 *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance

The *Larrea tridentata – Ambrosia dumosa* shrubland alliance is the major vegetation type in the Mojave Desert, representing approximately 67 percent of the central Mojave Desert (CNPS 2016). This shrubland alliance is co-dominated by white bur-sage and creosote in the shrub canopy. Saltbush, brittlebush, Mojave yucca, and other shrubs may also occur, but creosote and white bur-sage represent twice the coverage of any other species. Emergent trees may be present at low cover. The herbaceous layer is open to intermittent with seasonal annuals. This alliance inhabits minor, ephemeral washes, alluvial fans, bajadas, and upland slopes from 250 feet below sea level to 3,300 feet in elevation. Soils are well-drained, alluvial, sandy, and sometimes covered with desert pavement.

This shrubland alliance accounted for approximately 1,128.7 acres in the BRSA, by far the most observed vegetation alliance. This alliance was documented in most terrain types. However, it was absent through the Ord Mountains. This section represented the highest elevation of the BRSA, from 3,800 to 4,800 feet above sea level. This absence may have been due in part to relatively few survey sections through this area, which is due to limited access for heavy equipment.

Disturbed creosote and white bur-sage habitat were noted where physical land disturbance was observed. This accounted for approximately 26.3 acres within the BRSA.

4.0.26 *Larrea tridentata – Encelia farinosa* Shrubland Alliance

The *Larrea tridentata – Encelia farinosa* shrubland alliance is co-dominated by creosote and brittlebush, though other shrubs may be present. This alliance is found in small washes, alluvial fans and colluvium on upland slopes in well-drained, rocky soils. Soils are often derived from volcanic or granitic rock and may have desert pavement surfaces. It is not found in sandy or clayey soils. The herbaceous layer is open with seasonal annuals, but often is less diverse than other desert scrub vegetation types. The shrubland alliance occurs at elevations ranging from sea level to 4,600 feet. It is widespread throughout the western and central Mojave Desert.

This shrubland alliance was observed on approximately 17.3 acres within the BRSA. One stand was documented on a south-facing slope of an unnamed outcrop at the northern end of the community of Lucerne Valley. Another stand was observed on a southeast-facing slope of Homer Mountain. The shrubland alliance was documented on relatively disturbed land within the fenceline of the Mojave Substation. All other observed stands occurred on south-facing or southeast-facing rocky slopes in the Newberry Mountains.

Disturbed creosote and brittlebush habitat were noted where physical land disturbance was observed. This accounted for approximately 13.0 acres within the BRSA.

4.0.27 *Prunus fasciculata* Shrubland Alliance

The *Prunus fasciculata* shrubland alliance is characterized by a total cover of 25 percent or more of desert almond (*Prunus fasciculata*), a winter deciduous shrub. Desert almond can grow up to 9 feet tall and has a deep tap root that allows it to survive minor flood events. This alliance occurs in washes, arroyos, canyons, and on disturbed upland sites on granitic and calcareous substrates. Other shrubs, including catclaw acacia, may occur, but desert almond provides at least twice the cover of other species. This alliance receives higher precipitation and lower temperatures than other vegetation types, and is often found in upper washes and canyons at elevations up to 6,200 feet.

This shrubland alliance was observed in approximately 83.2 acres of the BRSA, and was entirely restricted to the Ord Mountains. These occurrences were documented at elevations ranging from 4,000 to 4,600 feet. Although the stands of desert almond were localized within this region, it accounted for the majority of vegetation cover surveyed in the Ord Mountains.

4.0.28 *Purshia tridentata* Shrubland Alliance

Bitterbrush (*Purshia tridentata*)—a large, long-lived shrub—covers more than 50 percent of the shrub canopy in this shrubland alliance. Other shrubs and emergent trees, including California juniper and Joshua tree, may be present at low coverages. The shrubland alliance is found in various topographic settings, and small stands occur on the east side of the San Bernardino Mountains. Soils are generally highly permeable and well-drained at elevations above 3,200 feet.

Within the BRSA, one stand of bitterbrush occurred in the Ord Mountains. This stand was observed on a north-facing slope near the north end of Arrastre Canyon at an elevation of approximately 4,100 feet. In total, the shrubland alliance covered approximately 0.5 acre within the BRSA.

4.0.29 *Salazaria mexicana* Shrubland Alliance

Bladder-sage (*Salazaria mexicana*),[8] a medium shrub, dominates this shrubland alliance; however, other shrubs—including purple sage (*Salvia dorii*), bur-sage, and catclaw acacia—may be present or co-dominant. Bladder-sage is found along washes, in alluvial fans and bajadas, and on uplands with soils that are sands, gravels, or clay. It is found at elevations from 2,800 to 5,500 feet. In the Mojave Desert, this alliance is often associated with areas recently disturbed by livestock grazing or OHV activity.

Within the BRSA, this shrubland alliance occurred in one isolated stand in the Ord Mountains, approximately 1 mile west of the Mojave River. The stand was documented on a ridge and adjacent north-facing slope at approximately 3,630 feet above sea level. The immediate area had been disturbed by heavy equipment and vehicle use associated with power line construction and maintenance. In total, the *Mexicana* bladder-sage shrubland alliance covered approximately 2.0 acres within the BRSA.

4.0.30 *Suaeda moquinii* Shrubland Alliance

The *Suaeda moquinii* shrubland alliance is dominated by bush seepweed (*Suaeda moquinii*),[9] a small, short-lived shrub. Other shrubs, including saltbush, may be present, and the herbaceous layer is sparse to intermittent. This alliance is found in bajadas, playas, and toe slopes adjacent to alluvial fans at elevations from sea level to 4,200 feet. Soils are deep and saline or alkaline. Bush seepweed appears opportunistic in occupying roadsides and other recently disturbed areas. The USFWS National Wetland Inventory recognizes bush seepweed as a facultative plant species.

This shrubland alliance was observed in two stands in Fifteenmile Valley within the BRSA. Stands of bush seepweed were documented on two adjacent, south-facing toe slopes above the dry lakebed of Rabbit Lake. These slopes are relatively disturbed from vehicle and equipment use associated with power line construction and maintenance. In total, the shrubland alliance covered approximately 5.7 acres within the BRSA.

[8] The scientific name for bladder-sage has been changed from *Salazaria mexicana* to *Scutellaria mexicana* following nomenclatural changes by the Jepson eFlora (2016) website.

[9] The scientific name for bush seepweed has been changed from *Suaeda moquinii* to *Suaeda nigra*, following nomenclatural changes by the Jepson eFlora (2016) website.

4.0.31 *Tamarix* spp. Shrubland Semi-Natural Alliance

The *Tamarix* spp. shrubland semi-natural alliance is a weedy, virtual monoculture of several tamarisk species (*Tamarix chinensis* or *Tamarix ramosissima*), which usually supplant native vegetation following major disturbance. This vegetation community occurs on sandy or gravelly braided washes or intermittent streams, often in areas where high evaporation increases the stream's salinity. Tamarisk is a prolific seeder, which predisposes the species to be an aggressive competitor in disturbed riparian corridors. Characteristic species associated with tamarisk scrub include big saltbush (*Atriplex lentiformis*), salt grass (*Distichlis spicata*), arrow-weed (*Pluchea sericea*), and narrow-leaf willow. Tamarisk scrub is widely distributed and is increasing its range. The USFWS National Wetland Inventory recognizes tamarisk as a facultative plant species.

This semi-natural alliance was observed twice within the BRSA. Both stands of tamarisk occurred along the Union Pacific Railroad tracks, approximately 19 miles west of Kelso, California. The stands were most likely originally planted as windbreaks for the railroad. In total, the shrubland semi-natural alliance covered approximately 0.9 acre within the BRSA.

4.0.32 *Yucca schidigera* Shrubland Alliance

The *Yucca schidigera* shrubland alliance is characterized by the presence of Mojave yucca, an evergreen shrub or small tree that can grow up to 16 feet tall. This alliance requires absolute cover of more than 2 percent of Mojave yucca. Other shrubs may be present at equal or higher coverage, and the grass layer may be open to intermittent. Mojave yucca inhabits alluvial fans, rocky slopes, and upper bajadas with well-drained, sandy loams. It is characteristic of mid-elevations of desert mountain ranges and can be found at elevations from 3,000 to 6,000 feet.

This shrubland alliance covered approximately 140.3 acres within the BRSA. It was observed in various stretches east of the community of Lucerne Valley and extending to the community of Laughlin, Nevada. These occurrences were associated with greater elevations in the Fry, Providence, and the Newberry mountains, although multiple occurrences were documented in Fenner Valley.

4.0.33 *Achnatherum speciosum* Herbaceous Alliance

Desert needlegrass (*Achnatherum speciosum*)[10]—a native, perennial bunchgrass—occurs at a relative coverage of more than 50 percent in this herbaceous alliance. Emergent trees and shrubs may be present at a lower coverage. This alliance is found on lower slopes, in canyons, and on sandy or gravelly alluvial fans. Small stands are found in Antelope Valley in the Mojave Desert, but heavy historical grazing and exclusion from non-native annual grasses have likely reduced its range in mid- to upper-elevation desert areas.

Disturbed desert needlegrass was noted for habitat that showed signs of physical disturbance. Within the BRSA, this alliance occurred in one stand in the Little San Bernardino Mountains. This stand was observed on the valley floor of Antelope Valley, approximately 0.8 mile west of the California Aqueduct. The stand had been disturbed by heavy equipment and vehicle use

[10] The scientific name for desert needlegrass has been changed from *Achnatherum speciosum* to *Stipa speciosa* following nomenclatural changes by the Jepson eFlora (2016) website.

associated with power line construction and maintenance, as well as fairly regular OHV use. In total, this alliance covered 0.3 acre within the BRSA.

4.0.34 *Pleuraphis rigida* Herbaceous Alliance

The *Pleuraphis rigida* herbaceous alliance is covered in the herbaceous layer by big galleta (*Pleuraphis rigida*),[11] a perennial grass. Emergent trees and shrubs—including yucca, catclaw acacia, and creosote—may be present at low relative cover. Big galleta is found on flat ridges, lower bajadas, slopes, and various dune features in soils that are sandy, clayey, or rocky. In the Mojave Desert, it occurs mostly in the eastern and southern sections, where summer rainfall is relatively common.

This herbaceous alliance was observed in two isolated stands within the BRSA. One stand of big galleta was documented in Piute Valley near the community of Searchlight, Nevada. It occurred in uplands on the east side of Gulch Road, approximately 1.5 miles south of Nipton Road. Another small stand was observed along the side of the power line access road, on the far eastern edge of the Highland Range and approximately 7.5 miles north of Nipton Road. In total, the herbaceous alliance covered 0.6 acre within the BRSA.

4.0.35 Developed Land

Developed land includes areas that have been built or otherwise physically altered to the extent that it no longer supports native vegetation. Developed land is characterized by the presence of permanent or semi-permanent structures, pavement or hardscape, and/or landscaped areas that require irrigation.

Developed land also includes agricultural land, which is comprised of annual and perennial crops grown in openly spaced rows. Row crops are often planted in floodplains or upland areas with high-quality soil, and are rotated on a seasonal or yearly basis. Agricultural land in the Mojave Desert is nearly always artificially irrigated.

Within the BRSA, agricultural land was observed exclusively in Sunset Cove, which is located in the far western portion of the community of Lucerne Valley. One field of unidentified row crops was documented on the south side of Exeter Street, near the intersection of Sussex Avenue. The crops were not identified, in part, due to the heavy gang presence in this area and close proximity to potentially dangerous residents.

Developed land cover was observed on approximately 90.9 acres within the BRSA. In general, developed land was documented along access roads, near relatively populated areas, including the community of Lucerne Valley and the community of Laughlin, Nevada; and in and around Lugo, Pisgah, Mojave and Eldorado Substations.

4.0.36 Desert Pavement/Barrens

Desert pavement consists of a thin, relatively flat layer of nearly interlocking rocks or pebbles that have been worn down by erosional processes over thousands of years. Desert pavement is

[11] The scientific name for big galleta has been changed from *Pleuraphis rigida* to *Hilaria rigida* following nomenclatural changes by the Jepson eFlora (2016) website.

usually devoid of any vegetation, though the gaps in the topmost rock layer may provide habitat for ephemeral annuals in response to precipitation. Desert pavement occurs throughout the Mojave Desert, usually in flat basins, valley bottoms, and occasionally alluvial fans where extreme temperatures and high wind conditions exist. Desert pavement is still poorly understood and mapped in the Mojave Desert. Due to the erosional factors involved in its formation, desert pavement is an extremely sensitive land cover that small physical disturbances can irreversibly affect. OHV traffic and foot traffic can disturb the topmost layer of rock and expose the nutrient-rich soil below to wind.

Desert pavement was observed in multiple locations between Pisgah Substation and Homer Mountain within the BRSA. This section is relatively remote and experiences lower levels of disturbance than the more populated sections in the far western and far eastern limits of the BRSA. Desert pavement was restricted to lower elevations, with each patch occurring at elevations between 1,900 and 2,900 feet. All observed patches of desert pavement were also located within lowland, braided, ephemeral channels associated with bajadas or playas. In total, desert pavement covered approximately 13.6 acres within the BRSA.

Disturbed desert pavement habitat was noted in patches of desert pavement that had been physically disturbed. One disturbed patch was observed in the lowland between East Ord and Fry mountains, near the intersection of Powerline Road and Camp Rock Road. In total, disturbed desert pavement covered approximately 0.8 acre within the BRSA.

Barrens are defined by a lack of vegetation. Specifically, any land with a vegetative cover of less than 2 percent of herbaceous, desert, or non-wildland species and less than 10 percent of tree or shrub species is considered barren. In the Mojave Desert, this includes land where vegetation is widely spaced.

Within the BRSA, there were approximately 201.6 acres of barrens, which occurred in various settings east of the community of Lucerne Valley. One notable patch of barrens was documented in an unnamed wash bed between the East and Fry mountains and near the intersection of Powerline Road and Camp Rock Road. Another large stretch of barrens covered the area within the fenceline of Mohave Substation.

4.1 SPECIAL-STATUS PLANT SURVEY RESULTS

During the spring 2016 surveys, 645 taxa, including subspecies and varieties, were observed. A complete list of plant species is presented in Attachment D: Plant Species Observed. Sixteen special-status plant species were observed during focused botanical surveys conducted in the spring of 2016, as summarized in Table 2: Special-Status Plant Species Occurrences and described in the following subsections. Of these species, nine species were observed only in California, one species was observed only in Nevada, and six species were observed in both California and Nevada. The observation locations are shown in Attachment E: Special-Status Plant Species Occurrences Map.[12] Three special-status plant species found in the Proposed

[12] Attachment E: Special-Status Plant Species Occurrences Map only displays survey locations where special-status species were observed.

Table 2: Special-Status Plant Species Occurrences

Plant Species	State	Listing Status[13]	Number of Plants Identified
Appressed muhly (*Muhlenbergia appressa*)	CA	2B.2	327
Clokey's cryptantha (*Cryptantha clokeyi*)	CA	1B.2	122
Coves' cassia (*Senna covesii*)	NV	2B.2	298
Johnson's bee-hive cactus (*Sclerocactus johnsonii*)	NV	2B.2	25
Matted cholla (*Grusonia parishii*)	CA/NV	2B.2	399
Mojave menodora (*Menodora spinescens* var. *mohavensis*)	CA	BLM 1B.2	1,423
Mojave milkweed (*Asclepias nyctaginifolia*)	NV	2B.1	77
Narrow-leaved yerba santa (*Eriodictyon angustifolium*)	CA	2B.3	99
Playa milk-vetch (*Astragalus allochrous* var. *playanus*)	CA	2B.2	1
Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*)	NV	BLM S3 1B.2	12
Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*)	CA	1B.2	2,149
Salina Pass wild-rye (*Elymus salina*)	CA	2B.3	1,055
Short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*)	CA	BLM 1B.2	122

[13] Explanation of listing codes:

BLM species:

-BLM: species considered to be "sensitive" by the BLM

CRPRs:

-1B: Rare or endangered in California and elsewhere
-2B: Rare, threatened, or endangered in California, but more common elsewhere

CRPR Threat Codes:

-0.1: Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
-0.2: Fairly endangered in California (20 to 80 percent of occurrences threatened)
-0.3: Not very endangered in California (less than 20 percent of occurrences threatened or no current threats known)

NNHP codes:

-S1: State-listed as critically imperiled
-S2: State-listed as imperiled
-S3: State-listed as vulnerable

Plant Species	State	Listing Status[13]	Number of Plants Identified
Slender cottonheads (*Nemacaulis denudate* var. *gracilis*)	CA	2B.2	22
Spiny cliff-brake (*Pellaea truncata*)	CA	2B.3	25
Spiny-hair blazing star (*Mentzelia tricuspis*)	CA/NV	2B.1	20

Project area are ranked as "sensitive" by the BLM—Mojave menodora (*Menodora spinescens* var. *mohavensis*), rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*), and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*). Photographs of the special-status plant species are included in Attachment F: Special-Status Plant Species Photographs. The following determinations were made for each state for special-status plant species within the BRSA:

- California
  - Twelve special-status plant species were present
  - Sixteen special-status plant species were not present
  - Twenty-one special-status plant species were not observed
  - Seventy-seven special-status plant species had no potential to occur
- Nevada
  - Six special-status plant species were present
  - Twenty-three special-status plant species were not present
  - Seven special-status plant species were not observed
  - Ninety-two special-status plant species had no potential to occur

4.1.0 Special-Status Species Identified in the BRSA

The following subsections describe the 16 special-status plant species found within the BRSA. The majority of the special-status plant species identified were located in the San Bernardino Mountains, Providence Mountains, Rodman Mountains, Eldorado Valley, and Piute Valley. Plant species names are consistent with *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012).

Appressed Muhly

Appressed muhly (*Muhlenbergia appressa*) is a CRPR 2B.2 annual herb species in the grass family that occurs on rocky slopes and open canyon bottoms in coastal scrub, Mojavean desert scrub, and valley/foothill grasslands from 65 to 5,250 feet in elevation. The blooming period is from April to May. Within the BRSA, appressed muhly was observed in the Providence Mountains, California. A population of 327 individuals of appressed muhly was observed on the steep, rocky, north-facing slopes and canyons of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley.

Clokey's Cryptantha

Clokey's cryptantha (*Cryptantha clokeyi*) is a CRPR 1B.2 annual herb in the waterleaf family that is endemic to the Mojave Desert in California, although it may occur in other areas where conditions are favorable. This annual herb inhabits Mojavean desert scrub on rocky to gravelly slopes and ridges at elevations from 2,300 to 4,500 feet. The blooming period for Clokey's cryptantha is April to May. Approximately 122 Clokey's cryptantha individuals were observed on rocky, south- and southwest-facing slopes in the BRSA in California. One population was observed near Chimney Rock in the Granite Mountains, approximately 0.5 mile northeast of the dry lakebed of Rabbit Lake. Another population of was observed on a small, unnamed, rocky,

south-facing slope in North Lucerne Valley, California, approximately 0.8 mile east of the intersection of Powerline Road and Huff Road.

Coves' Cassia

Coves' cassia (*Senna covesii*) is a CRPR 2B.2 perennial herb in the legume family that occurs on dry, sandy desert washes and on slopes in the Sonoran desert scrub of Southern California, southern Nevada, Arizona, southwestern New Mexico, and northern Baja California at elevations from 1,080 to 2,500 feet. The blooming period for Cove's cassia is March to April. This species can also be identified by its characteristic white-hairy leaf. Approximately 298 individuals of Coves' cassia were observed in the northeastern section of the BRSA in Eldorado Valley, Nevada. This species was found on dry rocky slopes and desert washes along the Eldorado-Mohave 500 kV Transmission Line and west of Veterans Memorial Highway.

Johnson's Bee-Hive Cactus

Johnson's bee-hive cactus (*Sclerocactus johnsonii*) is a CRPR 2B.2 perennial stem succulent in the cactus family that occurs in granite substrates of Mojavean desert scrub at elevations between 1,600 to 4,000 feet. The blooming period for Johnson's bee-hive cactus is from April to May. This species is identifiable by its growth form and its diagnostic straight to curved central spine. A population of 25 Johnson's bee-hive cactus was observed in the northeastern section of the BRSA in Eldorado and Piute Valleys in Nevada. This species was identified between the community of Searchlight, Nevada, and Steel Tower Transmission Line Road along the Eldorado-Mohave 500 kV Transmission Line, west of Veterans Memorial Highway.

Matted Cholla

Matted cholla (*Grusonia parishii*) is a CRPR 2B.2 perennial stem succulent in the cactus family that occurs in sandy, rocky substrates of Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub at elevations from 1,000 to 5,000 feet. The blooming period for matted cholla is from May to July. Approximately 399 matted cholla individuals were observed in the northeastern section of the BRSA in Eldorado Valley and Piute Valley. This species was observed from the community of Cal-Nev-Ari, Nevada to the southern edge of Eldorado Valley Road along the Eldorado-Mohave 500 kV Transmission Line. Additional matted cholla individuals were observed approximately 3 miles southwest of Homer Mountain in Fenner Valley, California, along the Eldorado-Mohave 500 kV Transmission Line.

Mojave Menodora

Mojave menodora (*Menodora spinescens* var. *mohavensis*) is a BLM sensitive species and a CRPR 1B.2 perennial deciduous shrub in the olive family that occurs in andesite substrates of rocky desert hillsides and canyons of Mojavean desert scrub at elevations from 2,200 to 6,500 feet. The blooming period for Mojave menodora is from April to May. Approximately 1,423 Mojave menodora individuals were observed growing in mountainous areas between the community of Lucerne Valley and Interstate 40 in the BRSA in California. One population was growing on rocky hillsides in the Rodman and Lava Mountains. Another population was observed growing on Iron Ridge, approximately 1 mile southwest of the Eldorado-Mohave 500 kV Transmission Line.

Mojave Milkweed

Mojave milkweed (*Asclepias nyctaginifolia*) is a CRPR 2B.1 perennial herb in the dogbane family that occurs in California, Arizona, New Mexico, and Nevada. It typically inhabits desert scrub and pinyon and juniper woodlands at elevations between 2,800 and 5,600 feet, though it may occur in other areas if conditions are favorable. The blooming period for Mojave milkweed is May to June. Approximately 77 Mojave milkweed individuals were observed in the northeastern section of the BRSA in Piute Valley and near the community of Searchlight, Nevada. One of the populations was documented on the west side of Gulch Road, approximately 1.3 miles south of Nevada SR-164 in a small, unnamed side channel of the larger Piute Wash system. Another population was observed on the southern end of the Highland Range along Gas Pipeline Road, approximately 2.2 miles north of Nevada SR-164. These plants were seen in desert scrub habitat between Gas Pipeline Road to the east and the Eldorado-Mohave 500 kV Transmission Line to the west.

Narrow-Leaved Yerba Santa

Narrow-leaved yerba santa (*Eriodictyon angustifolium*) is a CRPR 2B.3 perennial evergreen shrub in the waterleaf family that occurs on slopes in pinyon juniper woodlands in California, Oregon, Washington, Arizona, Nevada, New Mexico, Colorado, and Idaho at elevations from 4,900 to 6,200 feet. In California, narrow-leaved yerba santa is only found in the New York and Granite mountains. This species has a blooming period from May to August. Within the BRSA, narrow-leaved yerba santa was observed in the Providence Mountains of California. A population of approximately 99 individuals was observed in an unnamed minor drainage, located north of the Lugo-Mojave 500 kV Transmission Line and east of Foshay Pass. This area is a transition zone from pinyon woodlands at higher elevations to desert scrub at lower elevations.

Playa Milk-Vetch

Playa milk-vetch (*Astragalus allochrous* var. *playanus*) is a CRPR 2B.2 perennial herb in the legume family that occurs in sandy soils in Mojavean desert scrub of California, Arizona, New Mexico, Texas, and Utah at elevations from 2,000 to 6,400 feet. The blooming period of playa milk-vetch is from March to July. One playa milk-vetch was observed at a location just outside of the community of Goffs, California. One individual was observed in an unnamed disturbed graded lot, approximately 0.1 mile west of Mountain Springs Road.

Rosy Two-Toned Beardtongue

Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*) is a BLM sensitive species, an NNHP S3, and a CRPR 1B.2 perennial herb in the plantain family that occurs in gravelly, rocky, or disturbed soils in Mojavean desert scrub and Joshua tree woodland of California, Arizona, and Nevada at elevations from 2,300 to 5,000 feet. The blooming period of rosy two-toned beardtongue occurs in May. Twelve rosy two-toned beardtongue individuals were observed in the BRSA.. A population of four individuals was found approximately 2.5 miles west of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line in Eldorado Valley, Nevada. A population of eight individuals was found in the BRSA in the foothills of the Providence Mountains and Foshay Pass in California.

Rusby's Desert-Mallow

Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) is a CRPR 1B.2 perennial herb in the mallow family that occurs in Mojavean desert scrub and Joshua tree woodlands. It is endemic to California, and occurs at elevations from 3,200 to 5,400 feet. The blooming period for Rusby's desert-mallow is from March to June. A population of approximately 2,149 Rusby's desert-mallow plants were observed in the BRSA in the foothills of the Providence Mountains and Foshay Pass in California.

Salina Pass Wild-Rye

Salina Pass wild-rye (*Elymus salina*) is a CRPR 2B.3 perennial rhizomatous herb in the grass family that occurs in rocky soils in pinyon and juniper woodlands in California, Arizona, Idaho, and Wyoming at elevations from 4,400 to 7,000 feet. The blooming period for Salina Pass wild-rye is from May to June. Salina Pass wild-rye was observed in the Providence Mountains within the BRSA. A population of 1,055 Salina Pass wild-rye individuals was observed on the steep, north-facing slopes of Foshay Pass, California, approximately 6 miles west of Essex Road in Clipper Valley.

Short-Jointed Beavertail

Short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*) is a BLM sensitive species and a CRPR 1B.2 perennial stem succulent in the cactus family that is endemic to California, and occurs in Los Angeles and San Bernardino Counties. This cactus inhabits chaparral; Mojavean desert scrub; and Joshua tree, pinyon, and juniper woodlands ranging in elevation from 1,400 to 5,900 feet. It has a blooming period from April to August. A population of 122 short-jointed beavertail individuals was found in the foothills west of the Mojave River along the Eldorado-Mohave 500 kV Transmission Line, south of the City of Hesperia, California.

Slender Cottonheads

Slender cottonheads (*Nemacaulis denudate* var. *gracilis*) is a CRPR 2B.2 annual herb in the buckwheat family that occurs in coastal dunes, desert dunes, and Sonoran desert scrub in California, Arizona, and Baja California at elevations from 160 to 1,300 feet. The blooming period for slender cottonheads is from March to May. A population of approximately 22 individuals was observed in the BRSA in California. The population was located along the southern edge of the Kelso Dunes, approximately 1 mile west of Kelso Dunes Road, off of Kelbaker Road.

Spiny Cliff-Brake

Spiny cliff-brake (*Pellaea truncata*) is a CRPR 2B.3 perennial rhizomatous herb in the brake family that occurs in California, Arizona, Nevada, New Mexico, Utah, and Baja California at elevations from 4,000 to 7,000 feet. It inhabits the crevices and bases of granite or igneous rock in pinyon or juniper woodlands. The blooming period for spiny cliff-brake is from April to June. Twenty-five spiny cliff-brake individuals were observed in the Providence Mountains of California within the BRSA. This population was observed on the north-facing slopes of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley.

Spiny-Hair Blazing Star

Spiny-hair blazing star (*Mentzelia tricuspis*) is a CRPR 2B.1 annual herb in the loasa family that occurs in sandy, gravelly substrates on slopes and washes in the Mojavean desert scrub at elevations from 500 to 4,200 feet. The blooming period for spiny-hair blazing star is from March to May. Twenty spiny-hair blazing star individuals were observed in the eastern section of the BRSA, near the community of Laughlin, Nevada. One population was found in the eastern foothills of the Newberry Mountains in Nevada, approximately 1.8 miles northwest of Lugo Substation. The other population was observed in the Dead Mountains in California, approximately 3.4 miles east of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line.

5 – DISCUSSION

5.0 SURVEY LIMITATIONS

The 2016 surveys were conducted during a historic drought. Between October 2015 and May 2016, the Mojave Desert experienced approximately 64 percent of its average rainfall (National Oceanic and Atmospheric Administration [NOAA] 2016). Drought conditions likely resulted in lower population numbers or the absence of spring annuals. In addition, precipitation in the Mojave Desert is often extremely localized. When some areas receive adequate rainfall to produce spring annuals, adjacent areas may receive none. Some areas of the BRSA—including Piute Valley, Clipper Valley, and the communities of Pisgah, Lavic, and Ludlow—were particularly dry during the 2016 spring surveys. Thus, the survey results may underrepresent the actual abundance and distribution of special-status plants.

The following special-status species are known to occur within the BRSA, but were not observed:

- California
  - Abrams' spurge (*Euphorbia abramsiana*)
  - Beaver dam breadroot (*Pediomelum castoreum*)
  - Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*)
  - Creamy blazing star (*Mentzelia tridentata*)
  - Darlington's blazing star (*Mentzelia puberula*)
  - Desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*)
  - Desert bedstraw (*Galium proliferum*)
  - Desert pincushion (*Coryphantha chlorantha*)
  - Harwood's eriastrum (*Eriastrum harwoodii*)
  - Latimer's woodland-gilia (*Saltugilia latimeri*)
  - Limestone beardtongue (*Penstemon calcareus*)
  - Long-stem evening-primrose (*Oenothera longissima*)
  - Parry's spurge (*Euphorbia parryi*)
  - Purple-nerve cymopterus (*Cymopterus multinervatus*)
  - Scaly cloak fern (*Astrolepis cochisensis* ssp. *cochisensis*)

  - Small-flowered androstephium (*Androstephium breviflorum*)
  - Small-flowered bird's-beak (*Cordylanthus parviflorus*)
  - Stephens' beardtongue (*Penstemon stephensii*)
  - Utah beardtongue (*Penstemon utahensis*)
  - Violet twining snapdragon (*Maurandella antirrhiniflora*)
  - White-margined beardtongue (*Penstemon albomarginatus*)

- Nevada

  - Abrams' spurge (*Euphorbia abramsiana*)
  - Beaver dam breadroot (*Pediomelum castoreum*)
  - Darlington's blazing star (*Mentzelia puberula*)
  - Desert pincushion (*Coryphantha chlorantha*)
  - Long-stem evening-primrose (*Oenothera longissima*)
  - Parry's spurge (*Euphorbia parryi*)
  - Purple-nerve cymopterus (*Cymopterus multinervatus*)

Areas of higher elevation in the BRSA were observed by Insignia botanists to have a favorable annual bloom due to adequate winter and spring precipitation. These mountainous regions frequently contain endemic plant species due to the sky-island effect. Sky islands are sections of land—and usually mountain ranges—that are separated by low-lying valleys. These areas are cut off from other ranges and have a high level of diversity. Numerous special-status plant species identified during the surveys were found in these areas.

The BRSA is also heavily grazed; drought conditions are likely to reduce the potential for plants to recover from this grazing pressure. Furthermore, surveys were not conducted during the blooming period for all species with the potential to occur in the BRSA, which may have resulted in false negative survey results.

5.1 RECOMMENDATIONS

Due to the arid nature of the Mojave Desert, historic drought conditions, and rainfall patterns, the results presented in this report may underrepresent the actual number of special-status plant species that occur in the lower elevations of the BRSA. If feasible, pre-construction surveys are recommended prior to start of construction for the 22 special-status plant species that are known to occur within the BRSA in California and the eight special-status species that are known to occur within the BRSA in Nevada, but which were not observed during the 2016 surveys.

6 – REFERENCES

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ATTACHMENT A: CALIFORNIA NATURAL DIVERSITY DATABASE OCCURRENCES FOR SPECIAL-STATUS PLANT SPECIES

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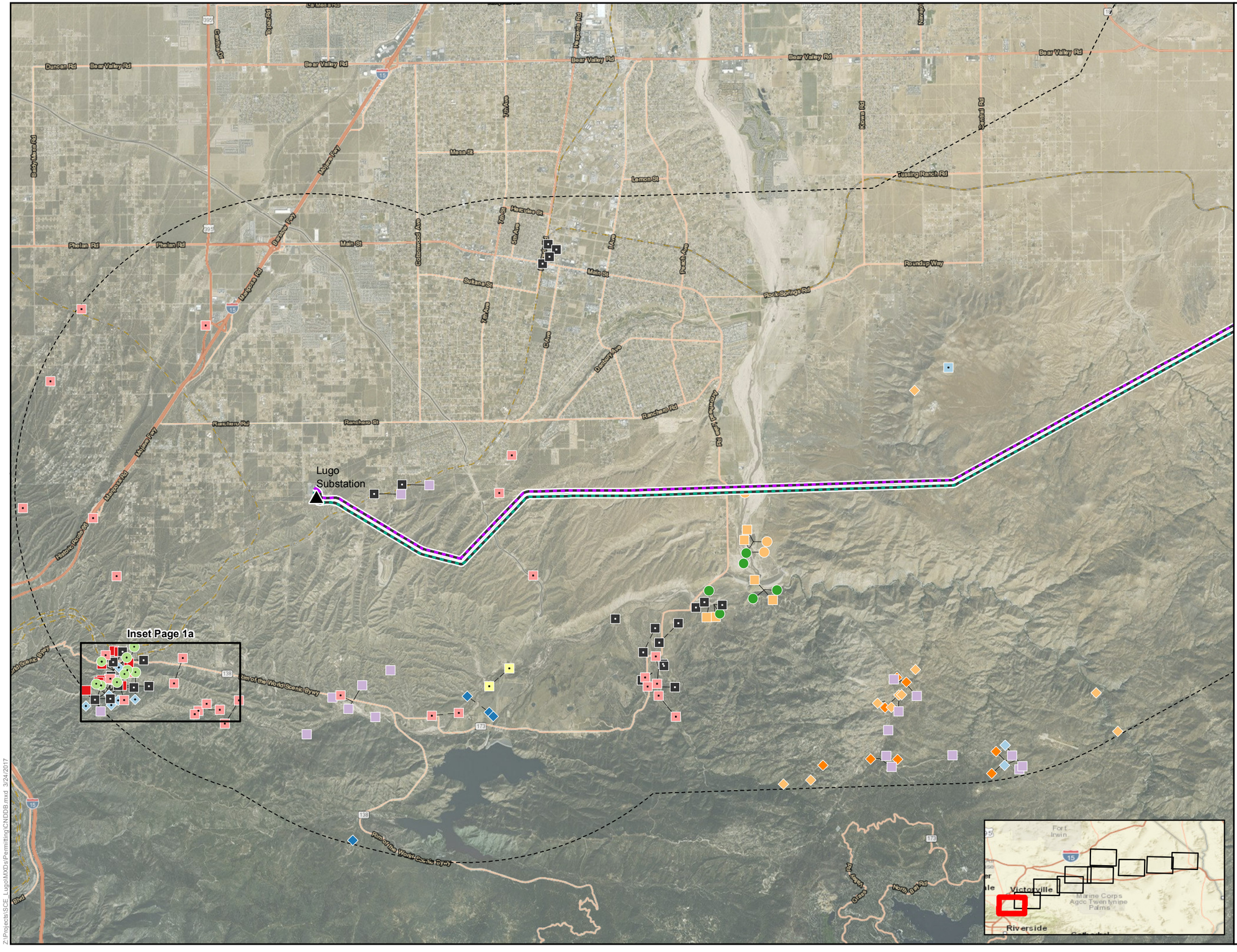
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 1 of 10

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Beaver Dam breadroot
- Booth's evening-primrose
- Mojave milkweed
- Mojave tarplant
- Palmer's mariposa-lily
- Parish's yampah
- Plummer's mariposa-lily
- San Bernardino Mountains dudleya
- San Bernardino Mountains owl's-clover
- black bog-rush
- pinyon rockcress
- short-joint beavertail
- southern mountains skullcap
- white pygmy-poppy
- white-bracted spineflower

1:100,000

0 1 2 Miles

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

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Attachment D:
CNDDB Occurrences for Special-Status Plant Species
Inset Page 1a

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Mojave milkweed
- Palmer's mariposa-lily
- black bog-rush
- short-joint beavertail
- white pygmy-poppy
- white-bracted spineflower

1:13,000

0 970 1,940 Feet

Source: Insignia, 2016

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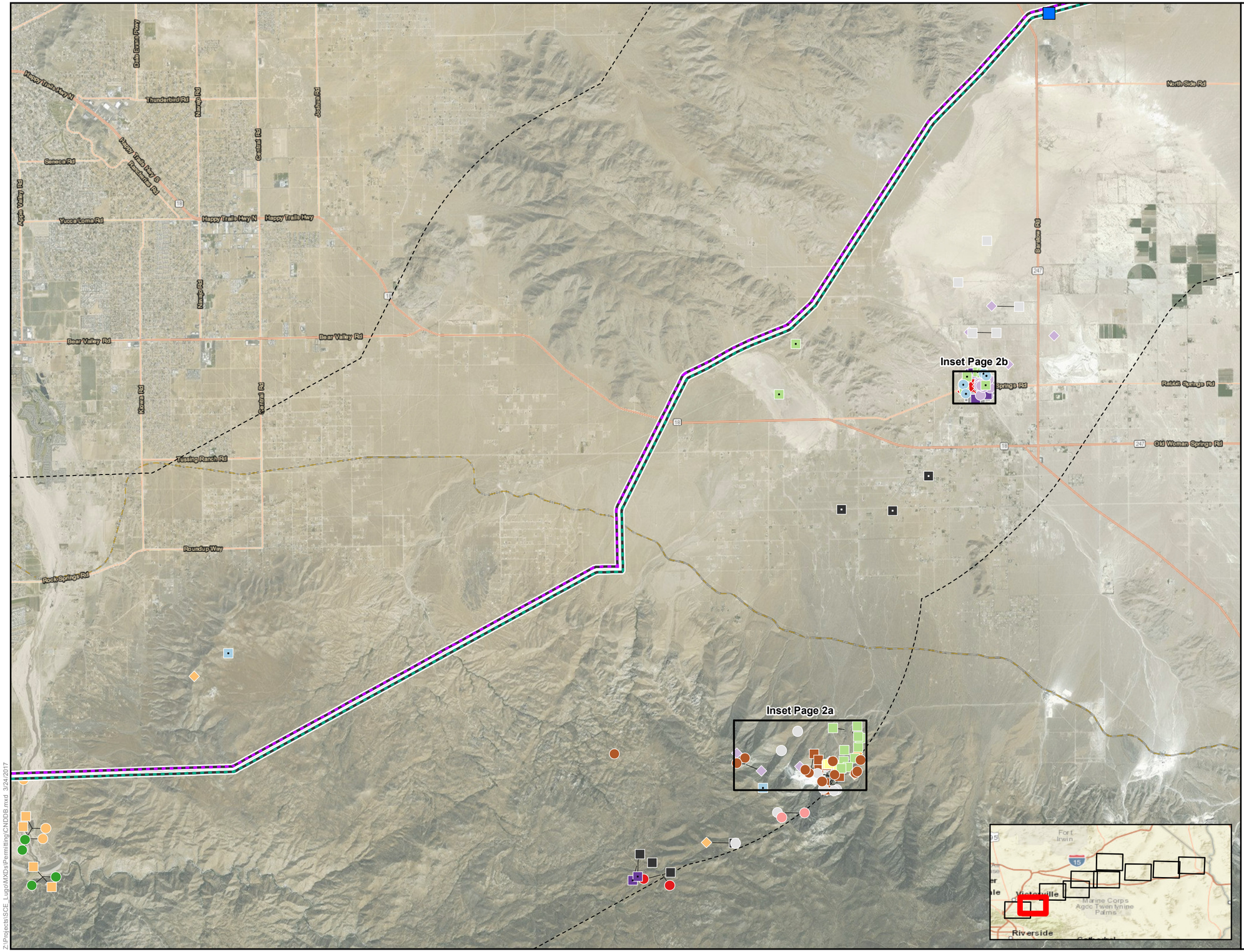
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 2 of 10

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Beaver Dam breadroot
- Big Bear Valley phlox
- Big Bear Valley sandwort
- Booth's evening-primrose
- California alkali grass
- Cushenbury buckwheat
- Cushenbury oxytheca
- Latimer's woodland-gilia
- Mojave tarplant
- Parish's alkali grass
- Parish's alumroot
- Parish's daisy
- Parish's phacelia
- Parish's popcornflower
- Parish's rockcress
- Salina Pass wild-rye
- Salt Spring checkerbloom
- San Bernardino Mountains dudleya
- Shockley's rockcress
- alkali mariposa-lily
- pinyon rockcress
- purple-nerve cymopterus
- southern mountain buckwheat
- white pygmy-poppy

1:100,000

0 1 2 Miles

Source: Insignia, 2016

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Attachment D:
CNDDB Occurrences for Special-Status Plant Species
Inset Page 2a

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Cushenbury buckwheat
- Cushenbury oxytheca
- Latimer's woodland-gilia
- Parish's alumroot
- Parish's daisy
- San Bernardino Mountains dudleya
- Shockley's rockcress
- pinyon rockcress

1:11,000

0 820 1,640 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

Z:\Projects\SCE_Lugo\MXDs\Permitting\CNDDB_Insets2.mxd 3/24/2017

Attachment D:
CNDDB Occurrences for Special-Status Plant Species
Inset Page 2b

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- California alkali grass
- Parish's alkali grass
- Parish's popcornflower
- Salina Pass wild-rye
- Salt Spring checkerbloom
- alkali mariposa-lily
- purple-nerve cymopterus

1:3,000

0 220 440 Feet

Source: Insignia, 2016

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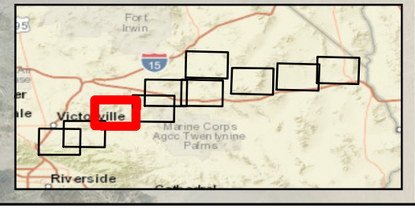
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 3 of 10

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Boyd's monardella
- Clokey's cryptantha
- Mojave menodora
- creamy blazing star
- pinyon rockcress
- purple-nerve cymopterus



1:100,000

0 1 2 Miles

Source: Insignia, 2016

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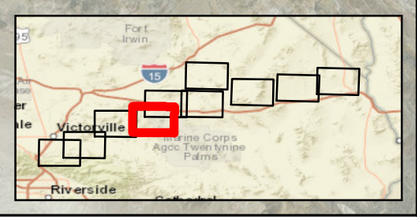
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 4 of 10

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Boyd's monardella
- Emory's crucifixion-thorn
- Little San Bernardino Mtns. linanthus
- Mojave menodora
- purple-nerve cymopterus
- small-flowered androstephium
- white-margined beardtongue



1:100,000

0 1 2 Miles

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

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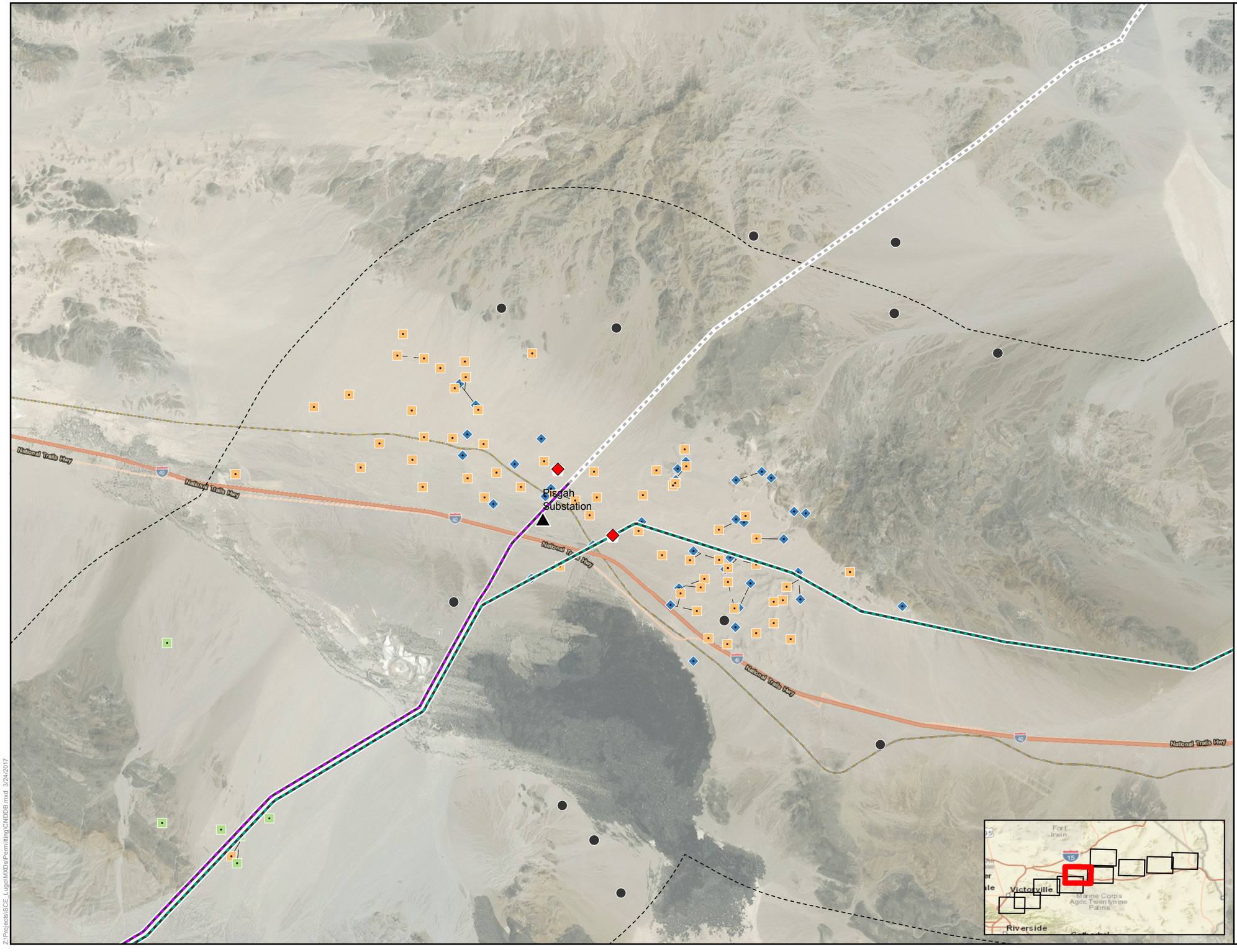
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 5 of 10

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Emory's crucifixion-thorn
- purple-nerve cymopterus
- small-flowered androstephium
- white-margined beardtongue

1:100,000

0 1 2 Miles

Source: Insignia, 2016

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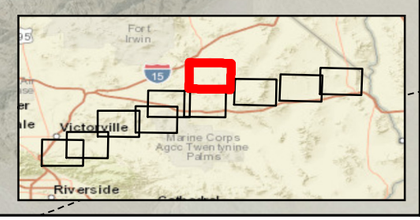
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 6 of 10

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Darlington's blazing star
- Harwood's eriastrum
- desert beardtongue
- slender cottonheads



1:100,000

0 1 2 Miles

Source: Insignia, 2016

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Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 7 of 10

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Alverson's foxtail cactus
- Emory's crucifixion-thorn
- Harwood's eriastrum
- white-margined beardtongue

National Trails Hwy
Historic Route 66
National Trails Hwy
Historic Route 66
Historic Route 66 National Trails Hwy

Fort Irwin
Victorville
Marine Corps Agcc Twentynine Palms
Riverside

1:100,000
0 1 2 Miles

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Source: Insignia, 2016

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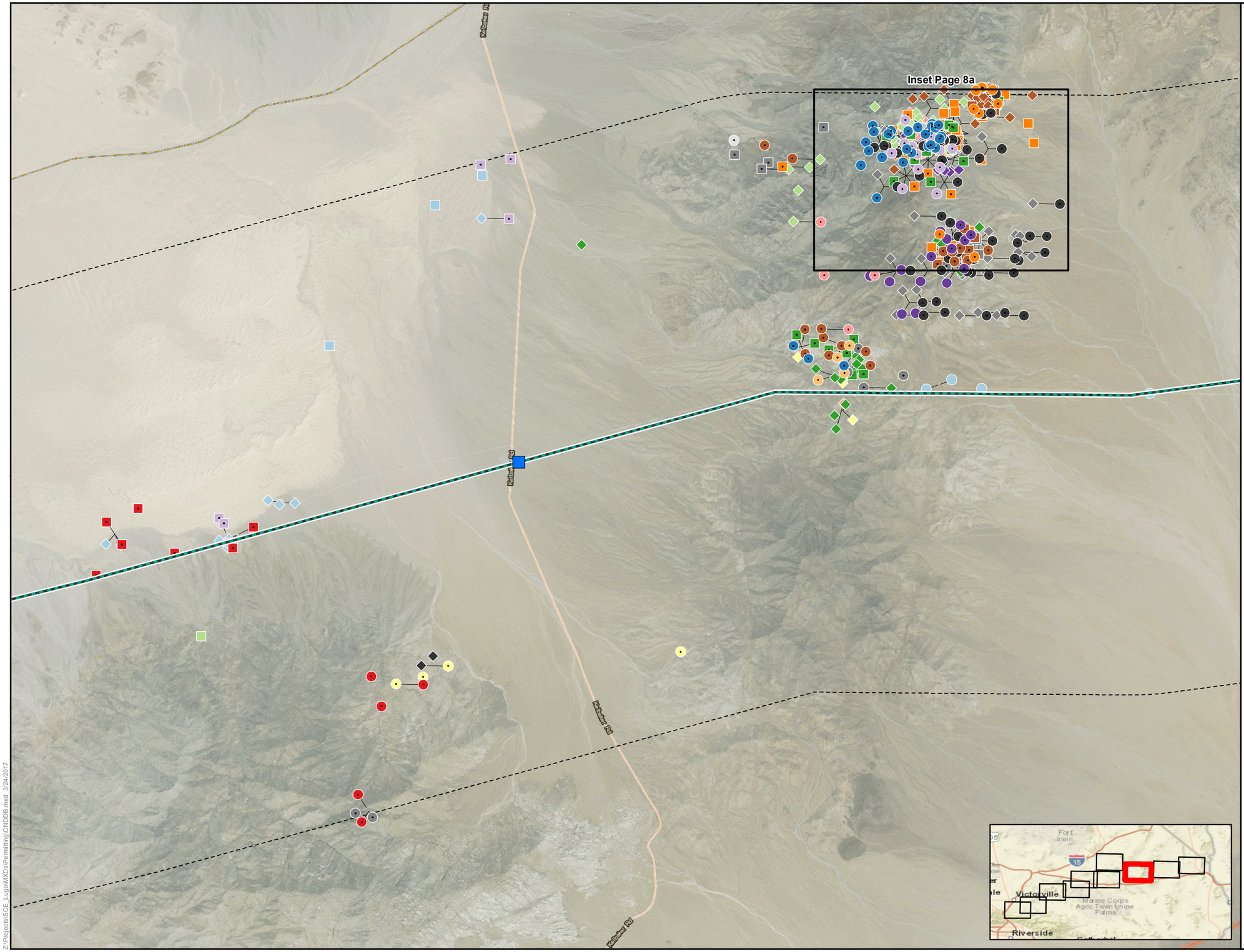
Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 8 of 10

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Abrams' spurge
- California ayenia
- Harwood's eriastrum
- Latimer's woodland-gilia
- Nevada onion
- Parry's spurge
- Plummer's woodsia
- Providence Mountains lotus
- Salina Pass wild-rye
- Stephens' beardtongue
- Utah beardtongue
- Utah daisy
- Wooton's lace fern
- Wright's bedstraw
- Wright's jaffueliobryum moss
- appressed muhly
- desert ageratina
- desert beardtongue
- desert bedstraw
- dwarf abutilon
- hairy erioneuron
- juniper sulphur-flowered buckwheat
- knotted rush
- limestone beardtongue
- long-stem evening-primrose
- narrow-leaved yerba santa
- nine-awned pappus grass
- scaly cloak fern
- slender cottonheads
- small-flowered bird's-beak
- small-flowered sand-verbena
- spiny cliff-brake
- violet twining snapdragon

1:100,000

0 1 2 Miles

Source: Insignia, 2016

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Attachment D:
CNDDB Occurrences for Special-Status Plant Species
Inset Page 8a

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- California ayenia
- Nevada onion
- Plummer's woodsia
- Providence Mountains lotus
- Salina Pass wild-rye
- Stephens' beardtongue
- Utah daisy
- Wooton's lace fern
- Wright's bedstraw
- appressed muhly
- desert ageratina
- dwarf abutilon
- hairy erioneuron
- juniper sulphur-flowered buckwheat
- limestone beardtongue
- nine-awned pappus grass
- scaly cloak fern
- small-flowered bird's-beak
- spiny cliff-brake
- violet twining snapdragon

Essex Rd

1:21,000

0 1,500 3,000 Feet

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Source: Insignia, 2016

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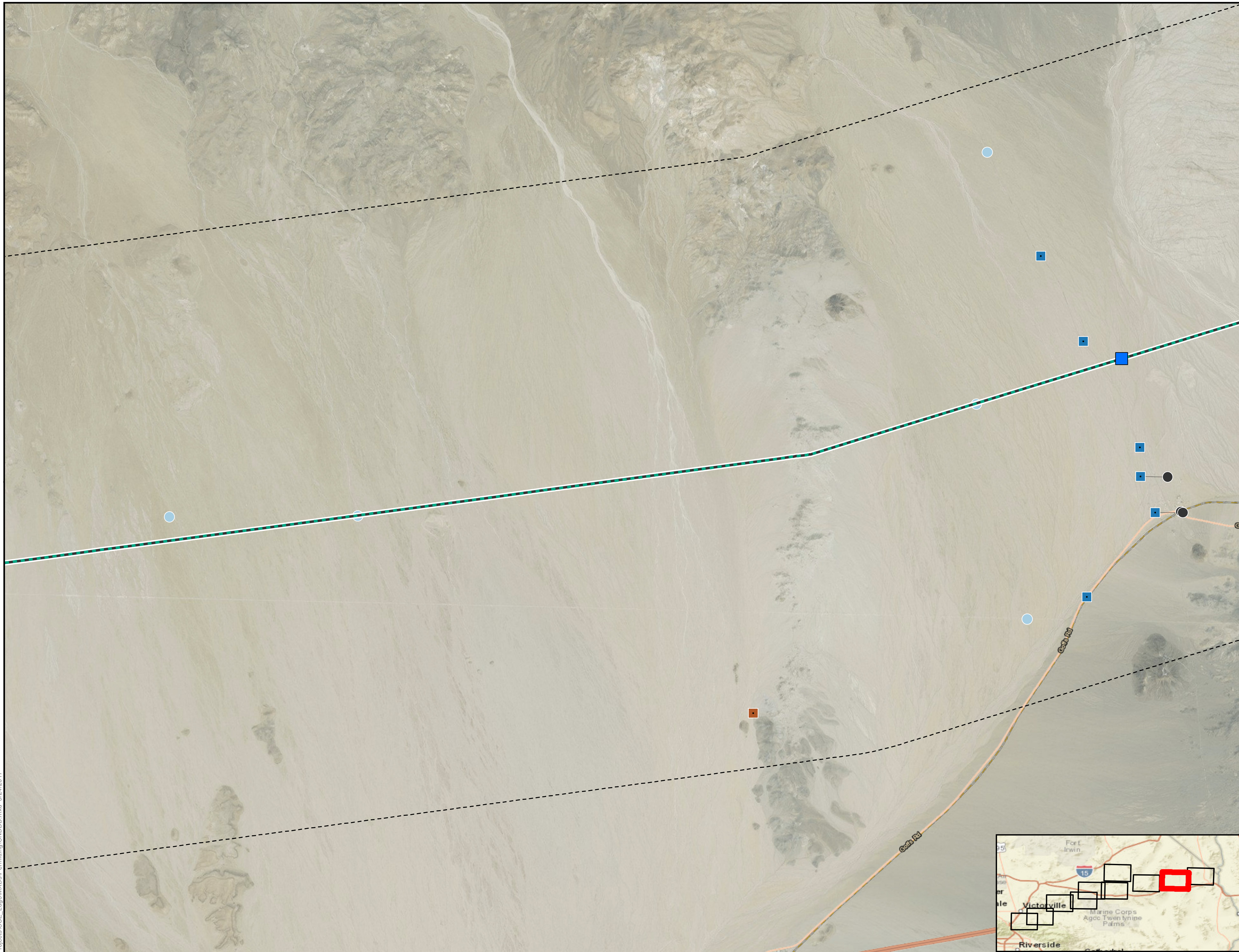
Attachment A: CNDDB Occurrences for Special-Status Plant Species
Map Page 9 of 10

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Abrams' spurge
- Emory's crucifixion-thorn
- playa milk-vetch
- spiny cliff-brake

1:100,000

0 1 2 Miles

Source: Insignia, 2016

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Attachment A:
CNDDB Occurrences for Special-Status Plant Species
Map Page 10 of 10

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Proposed Mid-Line Capacitor Location
- Proposed Fiber Optic Repeater
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

CNDDB Plant Occurences

- Abrams' spurge
- Arizona pholistoma
- Emory's crucifixion-thorn
- Howe's hedgehog cactus
- playa milk-vetch
- spiny-hair blazing star

Golfs Rd
Golfs Rd
Golfs Rd
Golfs Rd
Nebo Rd
95
95
95
40
15
Fort Irwin
Victorville
Marine Corps Agcc Twentynine Palms
Riverside

1:100,000
0 1 2 Miles

Source: Insignia, 2016

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ATTACHMENT B: NEVADA NATURAL HERITAGE PROGRAM OCCURRENCES FOR SPECIAL-STATUS PLANT SPECIES

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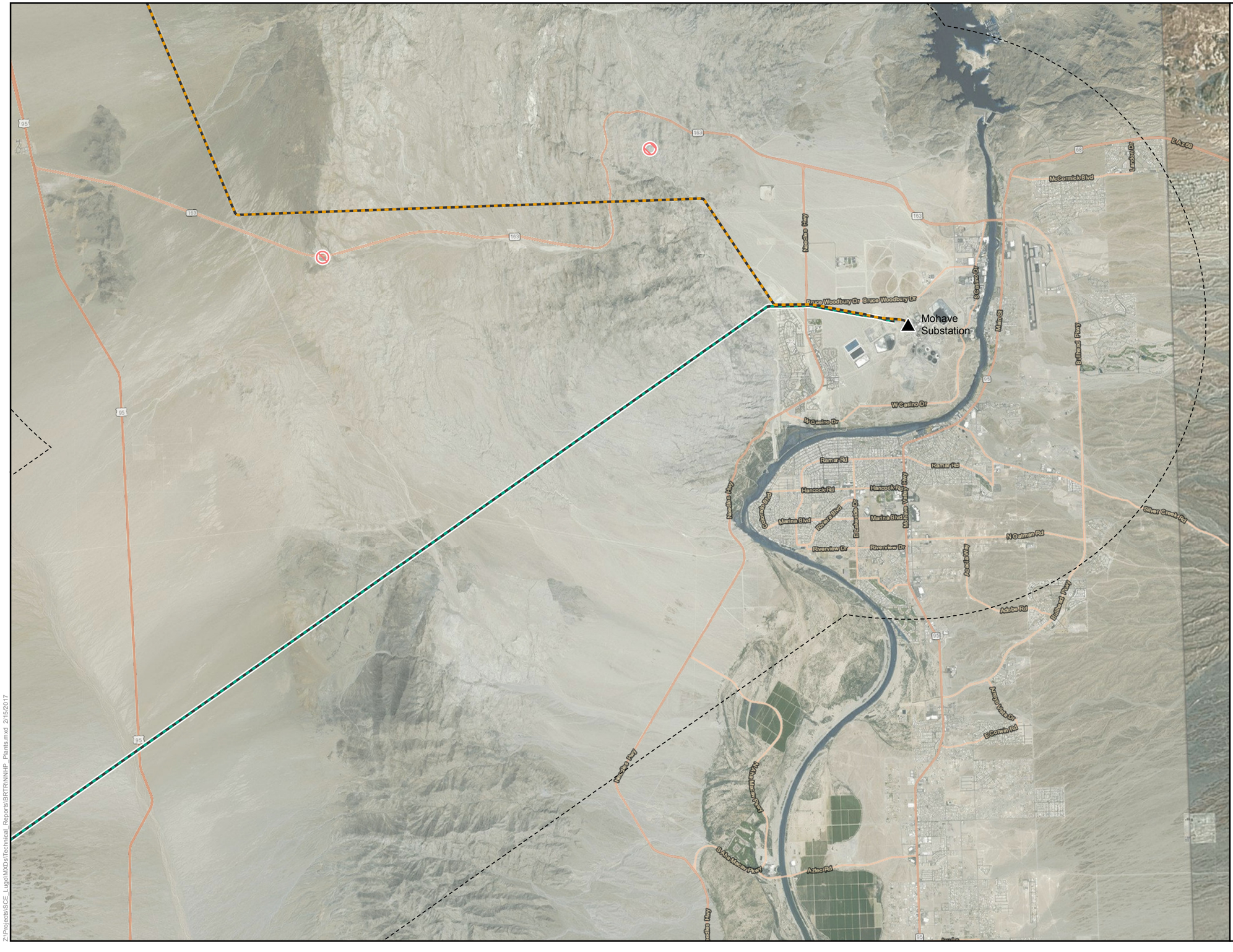
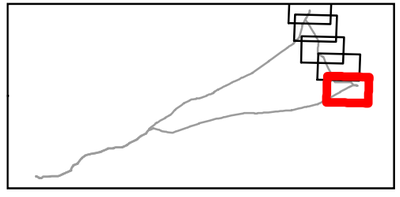
Attachment B:
NNHP Special-Status Plant Occurrences Map
Map Page 1 of 5

Eldorado-Lugo-Mohave Series Capacitor Project





1:100,000
0 1 2 Miles

Source: Insignia, 2016

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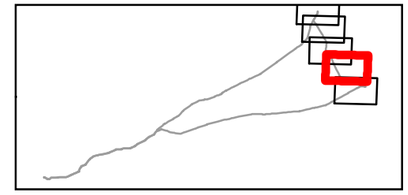
Attachment B:
NNHP Special-Status Plant Occurrences Map
Map Page 2 of 5

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

NNHP Special-Status Plants

- Jaeger phacelia
- chalk liveforever
- Clokey pincushion



1:100,000

0 1 2 Miles

Source: Insignia, 2016

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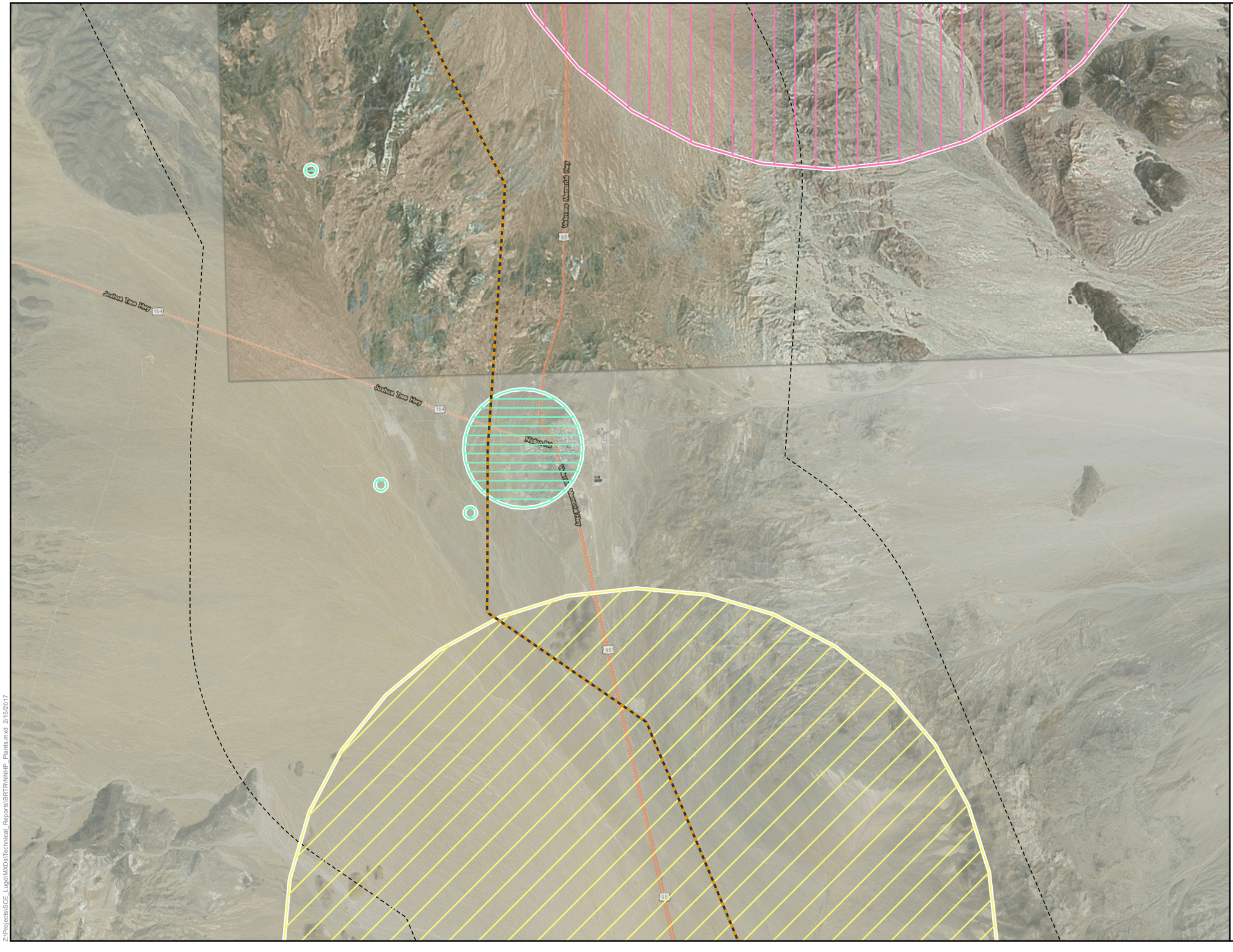
Attachment B:
NNHP Special-Status Plant Occurrences Map
Map Page 3 of 5

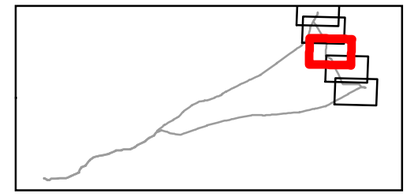
Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

NNHP Special-Status Plants

- rosy twotone beardtongue
- yellow twotone beardtongue
- Clokey pincushion



1:100,000

0 1 2 Miles

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

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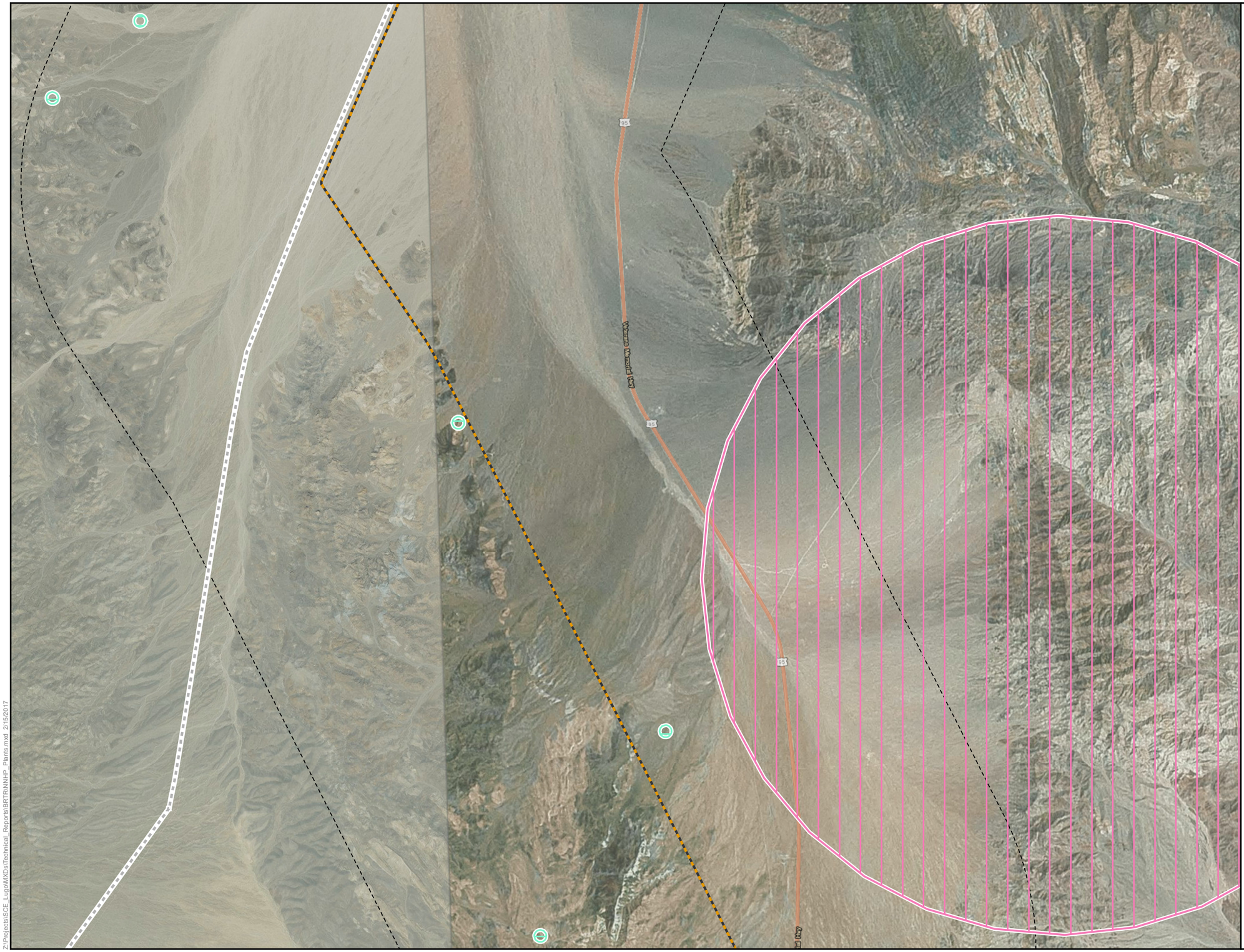
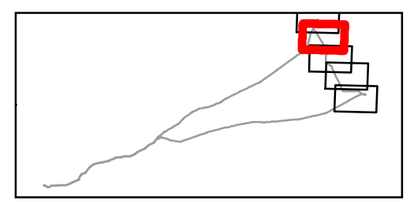
Attachment B:
NNHP Special-Status Plant Occurrences Map
Map Page 4 of 5

Eldorado-Lugo-Mohave Series Capacitor Project





1:100,000

0 1 2 Miles

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

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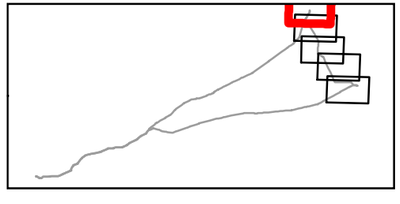
Attachment B:
NNHP Special-Status Plant Occurrences Map
Map Page 5 of 5

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- 5-Mile Project Buffer

NNHP Special-Status Plants

- rosy twotone beardtongue
- yellow twotone beardtongue



1:100,000

0 1 2 Miles

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016

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ATTACHMENT C: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR

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ATTACHMENT C: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Alliaceae – Onion Family					
Nevada onion (*Allium nevadense*)	2B.3	This species occurs in pinyon and juniper woodland on sandy or gravelly desert slopes from 2,650 to 5,580 feet in elevation.	April to May / perennial bulbiferous herb	This species has been documented in the California Natural Diversity Database (CNDDB) within 2 to 3 miles of the Biological Resources Survey Area (BRSA); however, these records are from 1920 and 1938 and the locations are not precisely known. Approximately 25 presumed extant occurrences of this species are documented in the CNDDB from eastern California. This species also has been documented in the CNPS Inventory of Rare and Endangered Plants (CNPS Inventory) within at least one of the quadrangles (quads) in or surrounding the BRSA.	No recent occurrences of Nevada onion have been documented near the BRSA. No suitable habitat is present within the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in California (CA)** **Not Present in Nevada (NV)**
Apiaceae – Carrot Family					
Desert cymopterus (*Cymopterus deserticola*)	BLM 1B.2	This species occurs in Joshua tree woodland and Mojavean desert scrub, often on sandy substrates at elevations from 2,060 to 4,930 feet.	March to May / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA; however, these occurrences are considered extirpated. No extant CNDDB occurrences of this species have been documented east of Interstate (I-) 15.	Although suitable habitat for desert cymopterus is present in the BRSA, no extant CNDDB occurrences of this species have been documented east of I-15 and therefore, the BRSA would be outside of this species' known geographic range. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Parish's yampah (*Perideridia parishii* ssp. *parishii*)	2B.2	This species occurs in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest at elevations from 4,800 to 9,850 feet.	June to August / perennial herb	Parish's yampah has one documented occurrence in the CNDDB within 5 miles of the BRSA, located south of the western portion of the BRSA in Maloney Canyon and along Willow Creek Road in the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Parish's yampah has one documented occurrence near the BRSA, but at elevations higher than the BRSA. In addition, no suitable coniferous habitat for this species is present, and only one area overlaps the geographic and elevation range of Parish's yampah. **No Potential in CA** **No Potential in NV**

[1] Explanation of listing codes:

Federal listing codes:

-FE: Federally listed as Endangered
-FT: Federally listed as Threatened

Bureau of Land Management (BLM) species:

-BLM: species considered to be "special-status" or "sensitive" by the BLM

California listing codes:

-CE: State-listed as Endangered
-CT: State-listed as Threatened
-CR: State-listed as Rare

Nevada listing codes:

-S1: State-listed as Critically Imperiled
-S2: State-listed as Imperiled
-S3: State-listed as Vulnerable

California Native Plant Society (CNPS) California Rare Plant Ranks:

-1A: Plants presumed extirpated in California and either rare or extinct elsewhere
-1B: Plants rare, threatened, or endangered in California and elsewhere
-2A: Plants presumed extirpated in California, but common elsewhere
-2B: Plants rare, threatened, or endangered in California, but more common elsewhere

Threat Ranks:
-0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
-0.2: Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
-0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Purple-nerve cymopterus (*Cymopterus multinervatus*)	2B.2	This species occurs in Mojavean desert scrub and pinyon and juniper woodland, often on sandy or gravelly substrates at elevations from 2,590 to 5,910 feet.	March to April / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA. It first occurred where the BRSA crosses State Route (SR-) 18 west of the community of Lucerne Valley, California, and a second time just south of where the BRSA crosses I-15. This also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable habitat for this species is present within the BRSA near where this species has been documented in the past. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **Not Observed in NV**
Apocynaceae – Dogbane Family					
Mojave milkweed (*Asclepias nyctaginifolia*)	2B.1	This species occurs in Mojavean desert scrub, and pinyon and juniper woodland at elevations from 2,870 to 5,580 feet.	May to June / perennial herb	Mojave milkweed has been documented in the CNDDB within 5 miles of the BRSA, specifically near the westernmost portion of the BRSA and near Cajon Pass along SR-138 at the northern edge of the San Bernardino Mountains. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Approximately 77 Mojave milkweed individuals were observed in the northeastern section of the BRSA in the Piute Valley, near the community of Searchlight, Nevada. One of the populations was documented on the west side of Gulch Road, approximately 1.3 miles south of SR-164, in a small unnamed side channel of the larger Piute Wash system. Another population was observed on the southern end of the Highland Range along Gas Pipeline Road, approximately 2.2 miles north of Nevada SR-164. These plants were seen in desert scrub habitat between Gas Pipeline Road to the east and the Eldorado-Mohave 500 Kilovolt (kV) Transmission Line to the west. The portions of the BRSA in California are outside of the range of the species. **No Potential in CA** **Present in NV**
Spearleaf (*Matelea parvifolia*)	2B.3	This species occurs in Mojavean desert scrub and Sonoran Desert scrub, often on rocky substrates at elevations from 1,440 to 3,600 feet.	March to May / perennial herb	Spearleaf has been documented in the CNPS Inventory within three quads surrounding the BRSA and 7 to 8 miles north of the BRSA between the Kelso Dunes and the community of Goffs, California.	Suitable habitat for this species is present within the BRSA, and there are nearby known occurrences of this species. However, this species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**
Asteraceae (Compositae) – Sunflower Family					
Barstow woolly sunflower (*Eriophyllum mohavense*)	BLM 1B.2	This species occurs in chenopod scrub, Mojavean desert scrub, and playas at elevations from 1,640 to 3,150 feet.	April to May, sometimes as early as March / annual herb	Barstow woolly sunflower has been documented in the CNPS Inventory within the Stoddard Ridge quad near the western portion of the BRSA however, these occurrences are considered extirpated.	This species has one documented occurrence near the BRSA, and suitable habitat for this species is present within the BRSA. However, the single documented occurrence is more than 10 miles from the BRSA, and has not been observed since 1914. The BRSA is outside of this species' geographic range. **No Potential in CA** **No Potential in NV**
Mojave tarplant (*Deinandra mohavensis*)	BLM CE 1B.3	This species occurs in mesic areas in chaparral, coastal scrub, and riparian scrub, between 2,100 and 5,250 feet in elevation.	June to October, sometimes as early as May and as late as January / annual herb	Mojave tarplant has one documented occurrence in the CNDDB within 5 miles of the BRSA, and it is located south of the western portion of the BRSA at the northern edge of the San Bernardino Mountains. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable habitat for this species is present within the BRSA. However, the CNDDB occurrence for this species is presumed extirpated, and all known extant locations of this species are located considerably south of the BRSA in the San Jacinto Mountains and Santa Rosa Mountains. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Parish's daisy (*Erigeron parishii*)	FT 1B.1	This species is usually found on carbonate, sometimes granitic substrates in Mojavean desert scrub and pinyon and juniper woodland from 2,620 to 6,570 feet in elevation.	May to August / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Parish's daisy has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. Carbonate soils (limestone) are located within the BRSA in the western portion of the San Bernardino Mountains. This portion of the BRSA has suitable pinyon juniper habitat. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**
San Bernardino aster (*Symphyotrichum defoliatum*)	1B.2	This species occurs in freshwater marsh within coastal sage scrub and southern oak woodlands between sea level and 6,700 feet in elevation.	July to November / perennial rhizomatous herb	San Bernardino aster has four documented occurrences in the CNPS Inventory within the Big Bear City and Victorville quads near the BRSA.	The documented occurrences of San Bernardino aster are more than 10 miles away from the BRSA, and the vast majority of these occurrences are in cismontane locations and have not been observed in at least 50 years. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Singlewhorl burrobrush (*Ambrosia monogyra*)	2B.2	This species occurs in chaparral and Sonora desert scrub, often in sandy substrates below 1,600 feet in elevation.	August to November / perennial shrub	Singlewhorl burrobrush has two documented occurrences in the CNPS Inventory within the San Bernardino North and Devore quads, approximately 15 miles south of the BRSA in Cajon Wash and south of the San Bernardino Mountains.	This species has documented occurrences near the BRSA, and suitable habitat is present within the BRSA. However, all occurrences are more than 30 years old, and all occurrences of this species are from cismontane California. There are no documented occurrences north or east of the San Bernardino Mountains, where the BRSA is located. **No Potential in CA** **No Potential in NV**
Smooth tarplant (*Centromadia pungens* ssp. *laevis*)	1B.1	This species occurs in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland, often on alkaline substrates at elevations from sea level to 2,100 feet.	April to September / annual herb	Smooth tarplant has two documented occurrences in the CNPS Inventory within the San Bernardino North and Harrison Mountain quads, approximately 15 miles south of the BRSA in Cajon Wash and City Creek and in the southern portion of the San Bernardino Mountains.	This species has documented occurrences near the BRSA, and suitable habitat is present within the BRSA. However, the nearest occurrence is more than 20 years old, and all occurrences of this species are from cismontane California. There are no occurrences north or east of the San Bernardino Mountains, where the BRSA is located. **No Potential in CA** **No Potential in NV**
Utah daisy (*Erigeron utahensis*)	2B.3	This species occurs limestone soils in pinyon and juniper woodland, primarily in carbonate substrates at elevations from 4,920 to 7,620 feet.	May to June / perennial herb	Utah daisy has two documented occurrences in the CNDDB within 5 miles north of the BRSA, and both occur in the Providence Mountains near Edgar Peak.	This species has documented occurrences near the BRSA, and suitable habitat is present within portions of the BRSA in California. However, the documented occurrences are more than 40 years old. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**
Berberidaceae – Barberry Family					
Fremont barberry (*Berberis fremontii*)	2B.3	This species occurs in chaparral, Joshua Tree woodland, pinyon and juniper woodland, sometimes on rocky substrates, from 3,750 to 5,650 feet in elevation.	March to May / perennial evergreen shrub	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically in the Bighorn Basin quad near Tower M105-T3. Most known locations are on desert mountain slopes, primarily in the Mojave National Preserve (MNP).	Although there are nearby occurrences of this species, suitable habitat (chaparral, pinyon juniper woodlands, and Joshua tree woodlands) is absent from the Foshay Pass portion of the BRSA. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Nevin's barberry (*Berberis nevinii*)	FE CE 1B.1	Nevin's barberry is a perennial evergreen shrub that occurs in sandy or gravelly substrate in chaparral, cismontane woodland, coastal scrub, and riparian habitats. It is typically found at elevations from 220 to 2,700 feet.	March to June, sometimes as early as February / perennial evergreen shrub	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically in the Harrison Mountain quad on the cismontane slopes of the San Bernardino Mountains. All known locations of this species are cismontane occurrences.	Although there is suitable habitat for Nevin's barberry within the BRSA, all known locations of this species are cismontane. This species would have been visible if it was present. **No Potential in CA** **No Potential in NV**
Boraginaceae – Borage Family					
Arizona pholistoma (*Pholistoma auritum* var. *arizonicum*)	2B.3	This species occurs in Mojavean desert scrub at elevations from 900 to 2,740 feet.	March / annual herb	Arizona pholistoma has been documented in the CNDDB within 4 to 5 miles of the BRSA, near the California-Nevada border. This is the northernmost occurrence of the species in California. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Although suitable habitat is present within the BRSA, all occurrences of this species are south of the BRSA, including the core populations located along the Arizona-California border. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **Not Present in NV**
Aven Nelson's phacelia (*Phacelia anelsonii*)	2B.3	This species occurs in Joshua tree woodland, pinyon and juniper woodland often on carbonate, sandy or gravelly substrates at elevations from 3,930 to 4,930 feet.	April to May / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Hart's Peak quad west and south of the community of Searchlight, Nevada. This species is known from only eight occurrences in higher-elevation sites in the Mojave Desert mountains of far eastern California and western Nevada.	Although suitable habitat is present in the BRSA, the BRSA within the known geographic range of Aven Nelson's phacelia does not exceed 3,000 feet in elevation. As a result, no portions of the BRSA overlap the documented geographic and elevation range of the species. This species would have been visible if it was present. **No Potential in CA** **Not Present in NV**
Clokey's cryptantha (*Cryptantha clokeyi*)	1B.2	This species occurs in Mojavean desert scrub at elevations from 2,370 to 4,480 feet.	April / annual herb	This species has been documented in the CNDDB within a small portion of the BRSA, specifically the work area associated with Tower M33-T1 just east of SR-247. It also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Approximately 122 Clokey's cryptantha individuals was observed on a rocky, south- and southwest-facing slopes in the BRSA in California. One population was observed near Chimney Rock in the Granite Mountains, approximately 0.5 mile northeast of the dry lakebed of Rabbit Lake. Another population was observed on a small, unnamed, rocky, south-facing slope in North Lucerne Valley, California, approximately 0.8 mile east of the intersection of Powerline Road and Huff Road. **Present in CA** **No Potential in NV**
Jaeger phacelia (*Phacelia geraniifolia*)	S2	This species occurs in Pinyon juniper woodland at elevations from 6,233 to 7,545 feet.	May to June - perennial herb	This species has been documented near the BRSA in the NNHP database in the Spirit Mountains, NV.	Suitable habitat for this species exists near the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Narrow-leaved yerba santa (*Eriodictyon angustifolium*)	2B.3	This species occurs in pinyon and juniper woodland from 4,920 to 6,240 feet in elevation.	May to August / perennial evergreen shrub	This species has been documented in the CNDDB within 5 miles of the BRSA in the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species has a blooming period from May to August. Within the BRSA, narrow-leaved yerba santa was observed in the Providence Mountains. A population of 99 individuals was seen in an unnamed minor drainage, north of the Lugo-Mojave 500 kV Transmission Line and east of Foshay Pass. This area is a transition zone with pinyon woodlands at higher elevations and desert scrub at lower elevations. **Present in CA** **No Potential in NV**
Parish's phacelia (*Phacelia parishii*)	BLM 1B.1 S2S3	This species occurs in Mojavean desert scrub and playas, often on clay or alkaline substrates at elevations from 1,770 to 3,940 feet.	April to May sometimes as late as June / July / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, though this record is believed to be extirpated. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	The BRSA is located outside of this species' current geographic range. The occurrence near the BRSA is believed to have been within a playa, but is now considered extirpated. The BRSA completely avoids this playa and others in the vicinity. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Parish's popcornflower (*Plagiobothrys parishii*)	1B.1	This species occurs in Great Basin scrub and Joshua tree woodland, often in alkaline, mesic areas at elevations from 2,460 to 4,600 feet.	March to June, sometimes as late as November / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically approximately 3 miles south of the BRSA near the community of Lucerne Valley, California. It also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Parish' popcornflower has been observed near the BRSA. Although suitable habitat (Great Basin scrub and Joshua tree woodland) occurs with the BRSA, this species has specific habitat requirements of wet soils from desert springs and mud flats. No desert springs are present within the BRSA. This species was not observed during either pass of special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **No Potential in CA** **No Potential in NV**
Sky-blue phacelia (*Phacelia coerulea*)	2B.3	This species occurs in Mojavean desert scrub, and pinyon and juniper woodland at elevations from 4,590 to 6,570 feet.	April to May / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is known from only 12 occurrences in higher-elevation sites in the Mojave Desert mountains of far eastern California and western Nevada.	There is suitable habitat within the BRSA for this species. However, the BRSA within the known geographic range of sky-blue phacelia does not exceed 3,000 feet in elevation. As a result, no areas of the BRSA overlap both the geographic and elevation range of the species. **No Potential in CA** **Not Present in NV**
Brassicaceae (Cruciferae) – Mustard Family					
Pinyon rockcress (*Boechera dispar*)	2B.3	This species occurs in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland, often on granitic or gravelly soils from 3,930 to 8,340 feet in elevation.	March to June / perennial herb	Pinyon rockcress has three documented occurrences in the CNDDB within 5 miles of the BRSA: north of the western portion of the BRSA in Juniper Flats and near the Ord Mountains; south of the BRSA near the North Peak of White Mountain; and south of the BRSA along Camp Rock Road, south of East Ord Mountain. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Pinyon rockcress has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. Carbonate soils (limestone) are located within the BRSA in the western portion of the San Bernardino Mountains. This portion of the BRSA has suitable pinyon juniper habitat. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Parish's rockcress (*Boechera parishii*)	1B.2	This species occurs on rocky, quartzite on clay, or sometimes carbonate soils in pinyon and juniper woodland and upper montane coniferous forest at elevations from 6,230 to 9,190 feet.	April to May / perennial herb	Parish's rockcress is only known from the San Bernardino Mountains. It has one documented occurrence in the CNDDB within 5 miles of the BRSA, south of the western portion of the BRSA in the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within the Butler Peak and Fawnskin quads, north of Big Bear Lake.	Suitable habitat for this species is present within the BRSA; however, this species is a narrow endemic known only from the San Bernardino Mountains at elevations much higher than the BRSA. **No Potential in CA** **No Potential in NV**
Shockley's rockcress (*Boechera shockleyi*)	2B.2	This species occurs in pinyon and juniper woodland, on carbonate or quartzite substrates from 2,870 to 7,580 feet in elevation.	May to June / perennial herb	Shockley's rockcress has three documented occurrences in the CNDDB within 5 miles south of the BRSA in the community of Lucerne Valley, California near Barstow Road, and also near the south peak of White Mountain. This species has also been documented in the CNPS Inventory within the Butler Peak and Fawnskin quads, more than 10 miles south of the BRSA and at the northern edge of San Bernardino National Forest.	Shockley's rockcress has been observed near the BRSA, but no suitable habitat for this species is present within the BRSA. In addition, the nearest CNDDB occurrence has no date, the location is described as "very generalized," and the nearest CNPS Inventory record is more than 10 miles south of the BRSA. **No Potential in CA** **No Potential in NV**
Southern jewelflower (*Streptanthus campestris*)	1B.3	This species occurs in chaparral, lower montane coniferous forest, and pinyon and juniper woodland, often on rocky substrates at elevations from 2,950 to 7,550 feet.	May to July, sometimes blooming as early as April / perennial herb	Southern jewelflower has six occurrences documented in the CNPS Inventory within the Fawnskin, Keller Peak, Lake Arrowhead, and San Bernardino North quads, south of the BRSA, from at least 8 miles south of the BRSA at the northern edge of the San Bernardino National Forest.	Southern jewelflower has been observed near the BRSA, but no suitable habitat for this species is present within the BRSA. The nearest occurrence is more than 5 miles south of the BRSA. **No Potential in CA** **No Potential in NV**
Cactaceae – Cactus Family					
Clokey pincushion (*Escobaria vivipara* var. *rosea)*	S3	This species occurs on limestone slopes and gravelly areas in woodland and desert mountains from 5,000 to 9,000 feet	May / perennial stem succulent	This species has been documented near the BRSA in the NNHP database near the community of Searchlight, NV.	Suitable habitat for this species exists near the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **Not Present in NV**
Desert pincushion (*Coryphantha chlorantha*)	2B.1	This species occurs in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland, often on carbonate, gravelly, rocky substrates at elevations from 140 to 5,600 feet.	April to September / perennial stem succulent	This species has two documented occurrences in the CNPS Inventory: one within the Columbia Mountain quad, more than 15 miles north of the BRSA near Pinto Mountain; and another within the Hart Peak quadrangle, more than 10 miles west of the BRSA in the Castle Mountains.	Desert pincushion has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**
Howe's hedgehog cactus (*Echinocereus engelmannii* var. *howei*)	1B.1	This species occurs in Mojavean desert scrub at elevations from 1,410 to 2,550 feet.	April to May / perennial stem succulent	Howe's hedgehog cactus has one documented occurrence in the CNDDB, approximately 4 miles south of the BRSA and adjacent to Goffs Road. This species has two additional documented occurrences in the CNPS Inventory within the Bannock quad, approximately 8 miles south of the BRSA near the junction of Historic Route 66 and Goffs Road.	Howe's hedgehog cactus has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. However, all documented occurrences of this species are approximately 30 years old. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Johnson's bee-hive cactus (*Sclerocactus johnsonii)*	2B.2	This species occurs in granite substrates of Mojavean desert scrub at elevations between 1,600 to 4,000 feet.	April to May / perennial stem succulent	This species has not been documented in the CNPS Inventory within any of the quads in or surrounding the BRSA.	A population of 25 Johnson's bee-hive cactus individuals was observed in the northeastern section of the BRSA in Nevada, specifically in Eldorado and Piute Valleys. This species was identified between the community of Searchlight, Nevada, and Steel Tower Transmission Line Road along the Eldorado-Mohave 500 kV Transmission Line west of Veterans Memorial Highway. **No Potential in CA** **Present in NV**
Matted cholla (*Grusonia parishii*)	2B.2	This species occurs in Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub, often on sandy, rocky substrates at elevations from 980 to 5,010 feet.	May to June, sometimes as late as July / perennial stem succulent	Matted cholla has seven documented occurrences in the CNPS Inventory: one within the Hackberry Mountain quadrangle, more than 5 miles north of the BRSA and in the western portion of Vontrigger Hills; and six in the Hart Peak quad, more than 10 miles west of the BRSA and near Hart Mine Road in the Castle Mountains.	Approximately 399 matted cholla individuals were observed in the northeastern section of the BRSA in Nevada, specifically in Eldorado Valley and Piute Valley. This species was observed from the community of Cal-Nev-Ari, Nevada to the southern edge of Eldorado Valley Road along the Eldorado-Mohave 500 kV Transmission Line. Additional matted cholla individuals were observed approximately 3 miles southwest of Homer Mountain in Fenner Valley and along the Eldorado-Mohave 500 kV Transmission Line in California. **Present in CA** **Present in NV**
Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)	BLM 1B.2	This species occurs in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland at elevations from 1,390 to 5,910 feet.	April to June, less commonly in August / perennial stem succulent	Short-joint beavertail has 15 documented occurrences in the CNDDB within 1 to 5 miles of the westernmost portion of the BRSA, near Cajon Pass along SR-138 at the northern edge of the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	A population of 122 individuals of short-jointed beavertail was found in the foothills west of the Mojave River along the Eldorado-Mohave 500 kV Transmission Line, south of the City of Hesperia, California. **Present in CA** **No Potential in NV**
Caryophyllaceae – Pink Family					
Sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*)	2B.2	This species occurs in desert dunes, Great Basin scrub, and Sonoran desert scrub, often on sandy substrates at elevations from 2,290 to 5,300 feet.	April to May / annual herb	Sagebrush loeflingia has one documented occurrence in the CNPS Inventory within the Baldy Mesa quad, more than 5 miles north of the BRSA near the junction of United States (U.S.) Route 395 and Bear Valley Road.	Suitable habitat for this sagebrush loeflingia is present within the BRSA. However, the only recorded occurrence of this species in the area is approximately 7 miles away from the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**
Crassulaceae – Stonecrop Family					
Chalk liveforever (*Dudleya pulverulenta* ssp. *arizonica*)	S3	This species occurs on rocky slopes in creosote bush scrub and Joshua tree woodland at elevations from 1,640 to 5,250 feet.	May to July / perennial herb	This species has been documented near the BRSA in the NNHP database in the Spirit Mountains and near the community of Laughlin, NV.	Suitable habitat for this species exists near the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **Not Present in NV**
San Bernardino Mountains dudleya (*Dudleya abramsii* ssp. *affinis*)	1B.2	This species occurs in pebble plain, pinyon and juniper woodland, and upper montane coniferous forest, often on granitic, quartzite, or carbonate substrates at elevations from 4,100 to 8,540 feet.	April to July / perennial herb	San Bernardino Mountains dudleya has five documented occurrences in the CNDDB within 5 miles south of the western portion of the BRSA, and are located near Kinley Creek, along SR-173, and along Deep Creek. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	San Bernardino Mountains dudleya has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Cyperaceae – Sedge Family					
Black bog-rush (*Schoenus nigricans*)	2B.2	This species occurs in marshes and swamps, often in alkaline substrates at elevations from 490 to 6,570 feet.	August to September / perennial herb	Black bog-rush has one documented occurrence in the CNDDB within 5 miles of the westernmost portion of the BRSA, near Cajon Pass along SR-138, at the northern edge of the San Bernardino Mountains. This species has four additional documented occurrences in the CNPS Inventory within the Cajon and San Bernardino North quads in the vicinity of the CNDDB occurrence.	No suitable habitat for this species is present within the BRSA. Only one of the five documented occurrences of this species is within 5 miles of the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Hot springs fimbristylis (*Fimbristylis thermalis*)	2B.2	This species occurs in meadows and seeps, sometimes in alkaline, and near hot springs at elevations from 360 to 4,400 feet.	July to September / perennial rhizomatous herb	Hot springs fimbristylis has one documented occurrence in the CNPS Inventory within the San Bernardino North quad, which is more than 10 miles south of the BRSA, near Arrowhead Springs Hot Lake in the San Bernardino Mountains.	Hot springs fimbristylis has been observed near the BRSA, but there is no suitable habitat for this species within the BRSA. **No Potential in CA** **No Potential in NV**
Euphorbiaceae – Spurge Family					
Abrams' spurge (*Euphorbia abramsiana*)	2B.2	This species occurs in Mojavean desert scrub and Sonoran desert scrub, often on sandy substrates at elevations from -10 to 3,010 feet.	September to November, sometimes as early as August / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA just east of Foshay Pass, and it has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Abrams' spurge has been observed very near the BRSA east of the Foshay Pass area, and suitable habitat is present within the BRSA for this species. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**
Clark Mountain spurge (*Euphorbia exstipulata* var. *exstipulata*)	2B.1	This species occurs in Mojavean desert scrub and sometimes in rocky substrates at elevations from 4,190 to 6,570 feet.	September / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. In California, it is known only from Clark Mountain.	Although there is suitable habitat for this species in the BRSA, Clark Mountain spurge is only known from Clark Mountain in California, which is not within the BRSA. This species would have been visible if it was present. **No Potential in CA** **No Potential in NV**
Orocopia Mountains spurge (*Euphorbia jaegeri*)	1B.1	This species occurs in rocky hillsides and arroyos, gravelly or rocky crevices (granitic, carbonate, or metamorphic), and Mojavean desert scrub from 1,960 to 2,790 feet in elevation.	October to May / perennial shrub	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is known only from the Bristol, Marble, and Orocopia Mountains.	Although there is suitable habitat for this species in the BRSA, the known range of Orocopia Mountains spurge does not overlap the BRSA. **No Potential in CA** **No Potential in NV**
Parry's spurge (*Euphorbia parryi*)	2B.3	This species occurs in desert dunes and Mojavean desert scrub sometimes in sandy substrates at elevations from 1,290 to 2,400 feet.	May to November / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically just south of the Kelso Dunes, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Parry's spurge has been documented very near to the BRSA south of the Kelso Dunes, and there is suitable habitat in the form of desert dunes and Mojavean desert scrub within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**
Fabaceae (Leguminosae) – Legume Family					

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Beaver Dam breadroot (*Pediomelum castoreum*)	BLM 1B.2	This species occurs in Joshua tree woodland, Mojavean desert scrub often on sandy substrates, and washes and road cuts at elevations from 2,000 to 5,010 feet.	April to May / perennial herb	Beaver Dam breadroot has one documented occurrence in the CNDDB within 1 mile south of the western portion of the BRSA, at the confluence of the Mojave River and Deep Creek at the northern edge of the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Beaver Dam breadroot has been observed very near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**
Big Bear Valley woollypod (*Astragalus leucolobus*)	1B.2	This species occurs in rocky soils in pebble plain, lower and upper montane coniferous forests, and pinyon-juniper woodland from 3,600 to 9,500 feet in elevation.	May to July / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	There is no suitable habitat for this species in the BRSA, and the known range of Big Bear Valley woollypod does not overlap the BRSA. **No Potential in CA** **No Potential in NV**
Cima milk-vetch (*Astragalus cimae* var. *cimae*)	1B.2	This species occurs in Great Basin scrub, Joshua tree woodland, and pinyon and juniper woodland, often on clay soils between 2,910 and 6,070 feet in elevation.	April to May / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically within the Columbia Mountain quad. This species appears to be restricted to sites around the community of Cima, California, which is approximately 16 miles north of the BRSA.	Suitable habitat for Cima milk-vetch is present within the BRSA, but the BRSA is located outside of the species' geographic range. This species is a narrow endemic restricted to areas around the community of Cima, California, which is approximately 16 miles north of the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Coves' cassia (*Senna covesii*)	2B.2	This species occurs in Sonoran desert scrub, sometimes in sandy substrates at elevations from 930 to 3,520 feet. This species is often associated with small, dry wash features with sandy substrates.	March to June / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically Tenmile Well just south of the community of Searchlight, Nevada. However, this species has a wide distribution throughout Southern California. This species is often leafless and therefore easily overlooked. As a result, it may be under-represented in the CNDDB and CNPS occurrence records.	Approximately 288 individuals of Coves' cassia were observed in the northeastern section of the BRSA in Nevada, specifically in Eldorado Valley. This species was found on dry, rocky slopes and desert washes along the Eldorado-Mohave 500 kV Transmission Line, west of Veterans Memorial Highway. **Not Present in CA** **Present in NV**
Cushenbury milk-vetch (*Astragalus albens*)	BLM FE 1B.1	This species occurs in Joshua tree woodland, pinyon and juniper woodland, and often on carbonate or granitic soils from 3,590 to 6,570 feet in elevation.	March to June / perennial herb	Cushenbury milk-vetch has documented occurrences in the CNPS Inventory within the Fawnskin quads, nearly 10 miles south of the BRSA at the northern edge of San Bernardino National Forest.	Suitable habitat for this species is present within the BRSA; however, this species is a narrow endemic known only from Cushenbury Canyon in the San Bernardino Mountains. **No Potential in CA** **No Potential in NV**
Playa milk-vetch (*Astragalus allochrous* var. *playanus*)	2B.2	This species occurs in Mojavean desert scrub, and sometimes in sandy substrate from 2,620 to 2,630 feet in elevation.	April / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically due north of the BRSA where it crosses Lanfair Road. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Playa milk-vetch was observed at a location just outside of the community of Goffs, California. One individual was observed in an unnamed, disturbed, graded lot located approximately 0.1 mile west of Mountain Springs Road. **Present in CA** **No Potential in NV**
Providence Mountains lotus (*Acmispon argyraeus* var. *notitius*)	1B.3	This species occurs in pinyon and juniper woodland at elevations from 3,930 to 6,570 feet.	May to August / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA in the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Providence Mountains lotus has been observed within 5 miles of the BRSA in the Foshay Pass. However, suitable habitat is absent from the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Scrub lotus (*Acmispon argyraeus* var. *multicaulis*)	BLM 1B.3	This species occurs in pinyon and juniper woodland, sometimes in granitic substrates at elevations from 3,930 to 4,930 feet.	April to June / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. It is known only from four occurrences in the New York Mountains.	There is no suitable habitat for this species in the BRSA, and the known geographic range does not overlap the BRSA. **No Potential in CA** **No Potential in NV**
Gentianaceae – Gentian Family					
Desert green-gentian (*Frasera albomarginata* var. *albomarginata*)	2B.2	This species occurs in pinyon and juniper woodland, sometimes in rocky or gravelly substrates at elevations from 4,490 to 7,600 feet.	April to June less commonly from July to September / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Columbia Mountain quad. Desert green-gentian is known in California mostly from the New York Mountains in the MNP.	The BRSA overlaps both the elevation and geographic range of this species for approximately 1 mile through the Foshay Pass area. However, no pinyon and juniper vegetation was noted in the BRSA, and therefore, there is no suitable habitat for this species. **No Potential in CA** **No Potential in NV**
Juncaceae – Rush Family					
Knotted rush (*Juncus nodosus*)	2B.3	This species occurs on meadows and seeps, less commonly in mesic areas, marshes and swamps, and occasionally on lake margins from 90 to 6,500 feet in elevation.	July to September / perennial rhizomatous herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Big Horn Basin and Van Winkle Spring quads.	Although this species has been documented approximately 4 miles south of the BRSA, there is no suitable habitat for this species in the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Lamiaceae (Labiatae) – Mint Family					
Boyd's monardella (*Monardella boydii*)	BLM 1B.2	This species occurs in Mojavean desert scrub, pinyon juniper woodland, riparian scrub, and desert. Is often found in alluvial soils and cracks of bedrock in washes on canyon bottoms and rocky slopes at elevations from 4,590 to 5,420 feet.	August to October / perennial shrub	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is known only from the Ord and Rodman Mountains.	Although there are nearby occurrences of this species, Boyd's monardella typically occurs approximately 500 feet higher than the BRSA in this general area. As a result, no portion of the BRSA overlaps both the geographic and elevation range of this species. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Hall's monardella (*Monardella macrantha* ssp. *hallii*)	1B.3	This species occurs in broad leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland at elevations from 2,390 to 7,210 feet.	June to October / perennial rhizomatous herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. It is a cismontane species, with no known occurrences in transmontane California or Nevada.	No suitable habitat for this species is present within the BRSA, and the BRSA is not within this species known geographic range. **No Potential in CA** **No Potential in NV**
Plains bee balm (*Monarda pectinata*)	2B.3	This species occurs in Joshua tree woodland, pinyon and juniper woodland, and often on rocky substrates at elevations from 3,770 to 5,010 feet.	July to September / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically within the Hackberry Mountain quad.	Although there is a nearby occurrence of this species, plains bee balm typically occurs approximately 700 feet higher than the BRSA in this general area. As a result, no portion of the BRSA overlaps both the geographic and elevation range of this species. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Southern Mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*)	1B.2	This species occurs in chaparral, cismontane woodland, lower montane coniferous forest, and often in mesic areas at elevations from 1,390 to 6,570 feet.	June to August / perennial rhizomatous herb	Southern Mountains skullcap has one documented occurrence in the CNDDB within 5 miles of the westernmost portion of the BRSA, along Horsethief Creek and north of SR-173 at the northern edge of the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Southern Mountains skullcap has been observed near the BRSA. A small area of suitable habitat for this species is present within the BRSA where the Eldorado-Lugo-Mohave Series Capacitor Project (Proposed Project) crosses Summit Valley Road, north of the CNDDB occurrence. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **No Potential in NV**
Liliaceae – Lily Family					
Alkali mariposa lily (*Calochortus striatus*)	BLM 1B.2	This species occurs in moist alkaline soils in meadows, chaparral, chenopod scrub, and Mojavean desert scrub between 220 and 5,240 feet in elevation.	April to June / perennial bulbiferous herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species has been documented nearby the BRSA and there is a limited amount of suitable habitat for this species in the BRSA near Lucerne Valley and Fifteenmile Valley. However, this species requires moist alkaline soils. The BRSA skirts the perimeter of two alkaline playas but does not cross into these playas. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **No Potential in NV**
Lemon lily (*Lilium parryi*)	1B.2	This species occurs in mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest between 4,000 and 9,000 feet in elevation.	July to August / perennial bulbiferous herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is known only from cismontane California.	No suitable habitat for this species is present within the BRSA, and the BRSA is not within this species known geographic range. **No Potential in CA** **No Potential in NV**
Palmer's mariposa lily (*Calochortus palmeri* var. *palmeri*)	BLM 1B.2	This species is found in vernally moist sites in chaparral, meadows, and lower montane coniferous forest between 2,320 and 7,850 feet in elevation.	April to July / perennial bulbiferous herb	Palmer's mariposa lily has nine documented occurrences in the CNDDB within 5 miles of the BRSA, near Kinley Creek, along SR-173. One of the occurrences is within 1 mile of the BRSA. Additional occurrences are located approximately 4 miles south of the westernmost portion of the BRSA at the northern edge of the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	The nine documented occurrences of Palmer's mariposa lily near the BRSA are more than 30 years old, and there is no suitable habitat for this species within the BRSA. **No Potential in CA** **No Potential in NV**
Linaceae – Flax Family					
Plains flax (*Linum puberulum*)	2B.3	This species occurs in Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland at elevations from 3,280 to 8,210 feet.	May to July, sometimes as late as October / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Hart Peak quad near the California/Nevada border. This species is typically known from mountainous locations in the MNP.	Plains flax typically occurs approximately 300 feet higher than the BRSA in this general area. As a result, no portion of the BRSA overlaps both the geographic and elevation range of this species. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Loasaceae – Loasa Family					
Creamy blazing star (*Mentzelia tridentata*)	1B.3	This species occurs in Mojavean desert scrub, often on rocky, gravelly, sandy substrates at elevations from 2,290 to 3,860 feet.	March to May / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable habitat for creamy blazing star is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **No Potential in NV**
Darlington's blazing star (*Mentzelia puberula*)	2B.2	This species occurs in Mojavean desert scrub, Sonoran desert scrub, and often on sandy or rocky substrates at elevations from 290 to 4,200 feet.	March to May / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically Camp Rock Mine quad north of the BRSA and Old Dad Mountain quad.	Suitable habitat for Darlington's blazing star is present within the BRSA, and there is one occurrence of this species within the Old Dad Mountain quad within 2 miles of the BRSA This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**
Spiny-hair blazing star (*Mentzelia tricuspis*)	2B.1	This species occurs in Mojavean desert scrub, often on sandy, gravelly, slopes, and washes at elevations from 490 to 4,200 feet.	March to May / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically near where the BRSA crosses U.S. Route 95. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Approximately 20 spiny-hair blazing star individuals were observed in the eastern section of the BRSA, near the community of Laughlin, Nevada. One population was found in the eastern foothills of the Newberry mountains, approximately 1.8 miles northwest of Lugo Substation. The other population was observed in the Dead Mountains, approximately 3.4 miles east of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line. **Present in CA** **Present in NV**
Malvaceae – Mallow Family					
Bear Valley checkerbloom (*Sidalcea malviflora* ssp. *dolosa*)	1B.2	This species occurs in lower montane coniferous forest, riparian woodland, upper montane coniferous forest, and sometimes in meadows and seeps at elevations from 4,900 to 8,810 feet.	May to August / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species occurs at elevations that are higher than those within the BRSA, and no suitable habitat is present within the BRSA. **No Potential in CA** **No Potential in NV**
California ayenia (*Ayenia compacta*)	2B.3	California ayenia occurs in sandy and gravelly washes of dry canyons within Mojavean and Sonoran desert scrub between 490 and 3,600 feet in elevation.	March to April / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable habitat for California ayenia is present within the BRSA. There is one occurrence of this species within the Fountain Peak quad, approximately 2 miles north of the BRSA in California. However, this occurrence is well outside of this species' known geographic range. This species was not observed during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Dwarf abutilon (*Abutilon parvulum*)	2B.3	This species occurs in chenopod scrub and sometimes in rocky substrates at elevations from 2,950 to 4,270 feet.	April to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is only known in California from three occurrences in the Providence Mountains.	Suitable habitat for dwarf abutilon is present within the BRSA, and there is one occurrence of this species within the Fountain Peak quad approximately 2 miles north of the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **No Potential in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Parish's checkerbloom (*Sidalcea hickmanii* ssp. *parishii*)	CR 1B.2	This species occurs in chaparral, cismontane woodland, and lower montane coniferous forest at elevations from 3,280 to 8,200 feet.	June to August, sometimes as early as May / perennial herb	Parish's checkerbloom has been documented in the CNPS Inventory within the Butler Peak quad. The nearest occurrence is approximately 7.0 miles away.	The nearest occurrence record for Parish's checkerbloom is approximately 7.0 miles away and no suitable habitat is present within the BRSA. **No Potential in CA** **No Potential in NV**
Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*)	1B.2	This species occurs in Joshua tree woodland and Mojavean desert scrub at elevations from 3,190 to 5,400 feet.	March to June / perennial herb	This species has been documented in the CNDDB as slightly more than 5.0 miles north of the BRSA, and the species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak quad.	Rusby's desert-mallow was observed in the Providence Mountains within the BRSA. A population of 2,149 individuals was found in the foothills of the Providence Mountains and Foshay Pass. **Present in CA** **No Potential in NV**
Salt spring checkerbloom (*Sidalcea neomexicana*)	2B.2	This species occurs in creosote bush scrub, chaparral, yellow pine forest, coastal sage scrub, alkali sink, and wetland-riparian, from 40 to 5,020 feet in elevation.	March to June / perennial herb	This species has been documented in the CNDDB within 5.0 miles of the BRSA, and this occurrence is the only one documented within the Mojave Desert of San Bernardino County.	There is one occurrence of this species within the Lucerne Valley quad approximately 2.6 miles south of the BRSA. This occurrence appears to be an outlier from the core population of the species, which is primarily in cismontane southern California. Although suitable habitat (creosote bush scrub and chaparral) occurs with the BRSA, this species has specific habitat requirements of wet soils from alkaline sinks and desert springs. No desert springs located within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present **No Potential in CA** **No Potential in NV**
Montiaceae – Miner's Lettuce Family					
Short-sepaled lewisia (*Lewisia brachycalyx*)	2B.2	This species occurs in lower montane coniferous forest, meadows and seeps, and often in mesic areas at elevations from 4,490 to 7,550 feet.	February to June, sometimes as late as October / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	No suitable habitat is present within the BRSA and this species is known only from cismontane California mountains which is outside the Proposed Project site. **No Potential in CA** **No Potential in NV**
Nyctaginaceae – Four O'Clock Family					
Red four o'clock (*Mirabilis coccinea*)	2B.3	This species occurs in pinyon and juniper woodland at elevations from 3,510 to 5,910 feet.	May to July / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	No suitable habitat is present within the BRSA, and this species is known from the Mojave Desert mountains approximately 16.0 miles north of the BRSA. **No Potential in CA** **Not Present in NV**
Small-flowered sand-verbena (*Tripterocalyx micranthus*)	2B.3	This species occurs in desert dunes, Mojavean desert scrub, and sometimes in sandy substrates at elevations from 1,800 to 2,810 feet.	April to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically within the Kelso Dunes north of the BRSA. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable (sandy) habitat is present within the BRSA and the BRSA is adjacent to the Kelso Dunes. However, no sand dune habitat is present within the BRSA near the only known occurrences of small-flowered sand-verbena in California. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Sticky ringstem (*Anulocaulis leiosolenus* var. *leiosolenus*)	BLM	Sticky ringstem is restricted to gypsum outcrops, rolling hills, and terraces within Mojavean desert scrub, primarily creosote bush-white bursage, and salt desert scrub matrix ecological systems. Cryptogamic crusts are strongly associated with the species, with heavy cover at many sites.	Mid-summer and again in October	This species is not known from California. Within Clark County, Nevada, this species is known primarily from northeast of the City of Las Vegas.	Although desert scrub communities are present within the BRSA, the degree to which gypsum outcrops and cryptogamic crusts are present within the BRSA is unknown at this time. Based on the known geographic distribution, there is a low potential for this species to occur in the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **Not Present in NV**
Oleaceae – Olive Family					
Mojave menodora (*Menodora spinescens* var. *mohavensis*)	BLM 1B.2	This species occurs in Mojavean desert scrub, often on andesite gravel, rocky hillsides, and canyons at elevations from 2,260 to 6,570 feet.	April to May / perennial deciduous shrub	This species has been documented in the CNDDB within the transmission corridor associated with the Proposed Project between towers M55-T1 and M54-T3, as well as between Towers M57-T3 and M57-T4, and has been documented in the CNPS Inventory within the Silver Bell Mine quad.	Approximately 1,423 Mojave menodora individuals were observed growing in mountainous areas between the community of Lucerne Valley and Interstate 40 in the BRSA in California. One population was growing on rocky hillsides in the Rodman and Lava Mountains. Another population was observed growing on Iron Ridge, approximately 1 mile southwest of the Eldorado-Mohave 500 kV Transmission Line. **Present in CA** **No Potential in NV**
Rough menodora (*Menodora scabra*)	2B.3	This species occurs in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland at elevations from 3,930 to 5,910 feet.	May to June / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak quadrangle.	Rough menodora has been observed approximately 8 miles north of the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **Not Present in NV**
Onagraceae – Evening-Primrose Family					
Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*)	2B.3	This species occurs in Joshua tree woodland, pinyon and juniper woodland at elevations from 2,670 to 7,880 feet.	April to September / annual herb	Booth's evening primrose has three documented occurrences in the CNDDB within 5 miles of the western portion of the BRSA, where it crosses the Mojave River, at northern edge of the San Bernardino Mountains. One of the occurrence is within the BRSA; one is within 1 mile, and one is within 5 miles. This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Booth's evening primrose has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **No Potential in NV**
Long-stem evening-primrose (*Oenothera longissima*)	2B.2	This species occurs in Mojavean desert scrub, pinyon and juniper woodland often on seasonally mesic at elevations from 3,280 to 5,580 feet.	July to September / annual / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species has been observed within near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Observed in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Orobanchaceae – Broomrape Family					
San Bernardino Mountains owl's-clover (*Castilleja lasiorhyncha*)	1B.2	Mesic soils in chaparral, meadows and seeps, pebble plain, riparian woodland, and upper montane coniferous forest, between 4,260 and 7,900 feet in elevation.	May to August / annual herb (hemiparasitic)	San Bernardino Mountains owl's-clover has ten documented occurrences in the CNDDB within 5 miles south of the western portion of the BRSA near Kinley Creek, along SR-173, This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	San Bernardino Mountains owl's-clover has been observed near the BRSA. However, no suitable habitat for this species is present within the BRSA. **No Potential in CA** **No Potential in NV**
Small-flowered bird's-beak (*Cordylanthus parviflorus*)	2B.3	This species occurs in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland at elevations from 2,290 to 7,220 feet.	August to October / annual herb (hemiparasitic)	This species has been documented in the CNDDB within 5 miles of the BRSA, near Foshay Pass, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak quad.	This species has been observed near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **No Potential in NV**
Phrymaceae – Lopseed Family					
Mojave monkeyflower (*Mimulus mohavensis*)	BLM 1B.2	This species occurs on sandy or gravelly substrates in Joshua tree woodland, Mojavean desert scrub, and washes at elevations from 1,960 to 3,940 feet.	April to June / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Old Woman Spring and Camp Rock Mine quads south and north, respectively, of the BRSA.	Mojave monkeyflower has been observed approximately 10 miles from the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **No Potential in NV**
Plantaginaceae – Plantain Family					
Desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*)	2B.2	This species occurs in Mojavean desert scrub and Sonoran desert scrub, often in sandy washes, and sometimes rocky soils below 6,400 feet in elevation.	January to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species has been observed near the BRSA, and suitable habitat for this species is present within the BRSA This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**
Limestone beardtongue (*Penstemon calcareus*)	1B.3	This species occurs in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland, and often on carbonate, rocky substrates at elevations from 3,490 to 6,700 feet.	April to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA in the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Limestone beardtongue has been observed very near the BRSA in the Foshay Pass area, and suitable habitat and soil types (limestone) for this species are present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **No Potential in NV**
Yellow two-toned beardtongue (*Penstemon bicolor* ssp. *bicolor*)	S2	This species occurs in Joshua tree woodland, Mojavean desert scrub, often on rocky or gravelly substrates, and sometimes in disturbed areas at elevations from 2,290 to 4,930 feet.	May / perennial herb	This species has been documented in the NNHP in Eldorado Valley and around the community of Searchlight, NV	Suitable habitat for this species exists within the BRSA in Nevada. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*)	BLM S3 1B.1	This species occurs in Joshua tree woodland, Mojavean desert scrub, often on rocky or gravelly substrates, and sometimes in disturbed areas at elevations from 2,290 to 4,930 feet.	May / perennial herb	This species has been documented in the NNHP in Eldorado Valley and around the community of Searchlight, NV, and Foshay Pass in California. This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Homer Mountain and Hart Peak quads.	Rosy two-toned beardtongue was observed in the BRSA in Eldorado Valley, Nevada and Foshay Pass in California. A population of 12 individuals was found approximately 2.5 miles west of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line. A population of eight individuals was found in the BRSA in the foothills of the Providence Mountains and Foshay Pass in California. **Present in CA** **Present in NV**
Stephens' beardtongue (*Penstemon stephensii*)	BLM 1B.3	This species occurs on carbonate, and rocky substrates in Mojavean desert scrub, and pinyon juniper woodland at elevations from 3,800 to 6,070 feet.	April to June / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak and Bighorn Basin quads.	Suitable habitat exists for this species, and it has been documented within two quads (Fountain Peak and Bighorn Basin) that overlap the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**
Utah beardtongue (*Penstemon utahensis*)	2B.3	This species occurs in chenopod scrub, Great Basin scrub, Mojavean desert scrub, and pinyon and juniper woodland often on rocky substrates at elevations from 3,490 to 8,210 feet.	April to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Utah beardtongue has been observed very near the BRSA in the Foshay Pass area, and suitable habitat is present within the BRSA for this species. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**
Violet twining snapdragon (*Maurandella antirrhiniflora*)	2B.3	This species occurs in Joshua tree woodland, and Mojavean desert scrub often on carbonate substrates at elevations from 2,490 to 5,010 feet.	April to May / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak, Colton Well, and Kelso quads.	Suitable habitat exists for this species, and it has been documented within three quads that overlap with the BRSA or that are within 5.0 mile. This species was not observed during either pass of the special-status plant surveys in 2016. **Not Observed in CA** **Not Present in NV**
White-margined beardtongue (*Penstemon albomarginatus*)	BLM 1B.1	This species occurs in fine alluvial sand in a wide canyon within a creosote bush scrub community between 2,090 and 3,500 feet in elevation.	March to May sometimes as late as June / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Suitable sandy habitat is located throughout the BRSA, including within areas around Pisgah Substation and the nearby transmission towers where this species has been documented in the past. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **Not Present in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Poaceae (Gramineae) – Grass Family					
Appressed muhly (*Muhlenbergia appressa*)	2B.2	This species occurs in coastal scrub, Mojavean desert scrub, valley and foothill grassland, and often on rocky substrates at elevations from 60 to 5,250 feet.	April to May / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically within the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Within the BRSA, appressed muhly was observed in the Providence Mountains. A population of 327 individuals of appressed muhly was observed on the steep. Rocky, north-facing slopes and canyons of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley. **Present in CA** **No Potential in NV**
California alkali grass (*Puccinellia simplex*)	1B.2	This species occurs on alkaline, vernally mesic; sinks, flats, and lake margins in chenopod scrub, meadows, seeps, valley foothills, grasslands, and vernal pools elevations from sea level to 3,060 feet.	March to May / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Lucerne Valley quad.	The BRSA skirts the perimeter of two alkaline playas located north and west of the community of Lucerne Valley, California. Although suitable habitat (chenopod scrub) occurs with the BRSA, this species has specific habitat requirements of wet soils from alkaline sinks, flats, and desert springs. No alkaline sinks or desert springs are located within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **No Potential in NV**
California satintail (*Imperata brevifolia*)	2B.1	This species occurs in moist sites of chaparral, coastal sage scrub, and creosote bush scrub plant communities between sea level and 4,000 feet in elevation. It also often occurs in desert canyons or on rocky slopes near seeps, springs, and streams.	September to May / perennial rhizomatous herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically within three quads in the San Bernardino Mountains. At the latitudes where the BRSA occurs, this species is predominantly a cismontane species, though transmontane occurrences of this species have been documented at higher latitudes.	This species is dependent on desert springs in chaparral, coastal sage scrub, and creosote bush scrub. No desert springs are present within the BRSA. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Hairy erioneuron (*Erioneuron pilosum*)	2B.3	This species occurs in pinyon and juniper woodland, sometimes in rocky, sometimes carbonate substrates at elevations from 4,650 to 6,600 feet.	May to June / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	No suitable habitat for this species exists within the BRSA. Most occurrences of this species are at higher elevations than those within the BRSA. **No Potential in CA** **Not Present in NV**
Nine-awned pappus grass (*Enneapogon desvauxii*)	2B.2	This species occurs in pinyon and juniper woodland, sometimes in rocky, carbonate substrates at elevations from 4,180 to 5,990 feet.	August to September / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fountain Peak quadrangle.	No suitable habitat for this species exists within the BRSA. Most occurrences of this species are at elevation higher than those within the BRSA. **No Potential in CA** **Not Present in NV**
Parish's alkali grass (*Puccinellia parishii*)	BLM 1B.1	This species occurs in meadows and seeps, and sometimes in alkaline springs and seeps at elevations from 2,290 to 3,290 feet.	April to May / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is only known from Rabbit Springs in the Lucerne Valley quadrangle.	No suitable habitat for this species is present where the BRSA overlaps the Lucerne Valley quad. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Salina Pass wild-rye (*Elymus salina*)	2B.3	This species occurs in pinyon and juniper woodland, and sometimes in rocky substrates at elevations from 4,420 to 7,010 feet.	May to June / perennial rhizomatous herb	This species has been documented in the CNDDB within 5 miles of the BRSA in the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Salina Pass wild-rye was observed in the Providence Mountains within the BRSA. A population of 1,055 individuals of Salina Pass wild-rye was observed on the steep, north-facing slopes of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley. **Present in CA** **No Potential in NV**
San Bernardino blue grass (*Poa atropurpurea*)	FE 1B.2	This species occurs in meadows and seeps, and sometimes in mesic conditions at elevations from 4,460 to 8,060 feet.	May to July, sometimes blooming as early as April and as late as August / perennial rhizomatous herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. The closest occurrence of this species is more than 10 miles away, and is more than 30 years old.	This species is a San Bernardino Mountain endemic, and there is no suitable habitat in the BRSA. **No Potential in CA** **No Potential in NV**
Three-awned grama (*Bouteloua trifida*)	2B.3	This species occurs in Mojavean desert scrub on carbonate soils, often in crevices from 2,290 to 6,570 feet in elevation.	May to September / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically in the Fountain Peak and Kelso quads north of the BRSA.	Three-awned grama has been documented slightly more than 5 miles from the BRSA, and there is suitable habitat within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **Not Present in CA** **Not Present in NV**
Polemoniaceae – Phlox Family					
Baja navarretia (*Navarretia peninsularis*)	1B.2	This species occurs in chaparral sometimes in openings, lower montane coniferous forest, meadows and seeps, and pinyon and juniper woodland often in mesic areas at elevations from 4,920 to 7,550 feet.	June to August, sometimes as early as May / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species occurs at elevations that are higher than those within the BRSA, and no suitable habitat is present within the BRSA. **No Potential in CA** **No Potential in NV**
Harwood's eriastrum (*Eriastrum harwoodii*)	1B.2	This species occurs in desert dune habitats between 410 and 3,010 feet in elevation.	March to June / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically approximately 0.25 mile south of the BRSA near Tower M85-T2. This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Harwood's eriastrum has been documented very near to the BRSA, and there is suitable habitat within the BRSA. This species was not blooming at the time of the reference population check at a known site near the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Latimer's woodland-gilia (*Saltugilia latimeri*)	1B.2	This species occurs in chaparral, Mojavean desert scrub, pinyon and juniper woodland often on rocky or sandy, often granitic, and sometimes washes at elevations from 1,310 to 6,240 feet.	March to June / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. The nearest occurrence is approximately 1.5 miles south of the BRSA and just west of Foshay Pass.	Latimer's woodland-gilia has been documented very near to the BRSA, and there is suitable habitat in the form of Mojavean desert scrub within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**
Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)	FE CE 1B.1	This species occurs in chaparral, coastal scrub, sometimes in alluvial fan, and often on sandy or gravelly substrates at elevations from 290 to 2,010 feet.	April to September / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA in the Santa Ana River area more than 10 miles from the BRSA.	The nearest occurrence of this species is more than 10 miles away, and this species is known only from cismontane California, which is outside of the Proposed Project site. No suitable habitat is present within the BRSA. **No Potential in CA** **No Potential in NV**
Polygalaceae – Milkwort Family					
Thorny milkwort (*Polygala acanthoclada*)	2B.3	This species occurs in chenopod scrub, Joshua tree woodland, and pinyon and juniper woodland at elevations from 2,490 to 7,500 feet.	May to August / perennial shrub	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Old Woman Springs quad that is east of the community of Lucerne Valley, California.	A limited amount of suitable chenopod scrub habitat is present in the BRSA in California near where this species has been documented. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **No Potential in NV**
Polygonaceae – Buckwheat Family					
Cushenbury buckwheat (*Eriogonum ovalifolium* var. *vineum*)	BLM FE 1B.1	This species occurs in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland often on carbonate substrates at elevations from 4,590 to 8,010 feet.	May to August / perennial herb	Cushenbury buckwheat has three documented occurrences in the CNDDB within 5 miles of the BRSA, near the North Peak of White Mountain. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species is a San Bernardino Mountain endemic, and no portion of the BRSA overlaps the elevation and geographic range of this species. Elevation ranges of the BRSA nearest to where this species could occur are approximately 300 feet lower than where this species has been documented. **No Potential in CA** **No Potential in NV**
Cushenbury oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*)	BLM FE 1B.1	This species occurs in pinyon and juniper woodland, sometimes in carbonate, talus slopes often on sandy, carbonate substrates at elevations from 3,990 to 7,800 feet.	May to October / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	This species is a San Bernardino Mountain endemic, and there is no suitable habitat present within the BRSA. **No Potential in CA** **No Potential in NV**
Juniper sulphur-flowered buckwheat (*Eriogonum umbellatum* var. *juniporinum*)	2B.3	This species occurs in Mojavean desert scrub, and pinyon and juniper woodland at elevations from 4,260 to 8,210 feet.	July to October / perennial herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. This species is known from mountainous areas near the BRSA, specifically Granite Mountain and Providence Mountain.	Although there is suitable habitat of Mohavean desert scrub, there is a lack of pinyon juniper woodlands for this species within the BRSA. Juniper sulphur-flowered buckwheat occurs nearest to the BRSA at elevations that are approximately 200 feet higher than the BRSA. This species was not observed during either pass of the 2016 special-status plant surveys. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	1B.1	Parry's spineflower is an annual herb that occurs in sandy or rocky substrates in openings of chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. It is typically found at elevations from 900 to 4,010 feet.	April to June / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	No suitable habitat for Parry's spineflower is present within the BRSA. This species occurs in cismontane California. **No Potential in CA** **No Potential in NV**
Reveal's buckwheat (*Eriogonum contiguum*)	2B.3	This species occurs in Mojavean desert scrub, usually in sandy substrates at elevations from 90 to 4,340 feet.	March to May, sometimes as early as February and as late as June / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically in the Mt. Manchester quad southwest of the community of Laughlin, Nevada.	Suitable habitat for Reveal's buckwheat is present, and this species has been documented near the BRSA in Nevada. This species was not observed during either pass of the special-status plant surveys in 2016. **No Potential in CA** **Not Present in NV**
Slender cottonheads (*Nemacaulis denudata* var. *gracilis*)	2B.2	This species occurs in coastal dunes, desert dunes, and Sonoran desert scrub at elevations from -160 to 1,320 feet.	April to May, sometimes as early as March / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA, specifically along the Lugo-Mohave 500 kV Transmission Line just south of the Kelso Dunes. This species also has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Slender cottonheads was observed along the southern edge of the Kelso Dunes. A population of 22 individuals was observed approximately 1 mile west of Kelso Dunes Road, off of Kelbaker Road. **Present in CA** **No Potential in NV**
Slender-horned spineflower (*Dodecahema leptoceras*)	FE CE 1B.1	This species is an annual herb that occurs in sandy substrates in chaparral, cismontane woodland, and alluvial fan coastal scrub habitats. It is typically found at elevations from 650 to 2,500 feet.	April to June / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	No suitable habitat for this species is present, and the BRSA does not overlap the known geographic range of this species. **No Potential in CA** **No Potential in NV**
Southern mountain buckwheat (*Eriogonum kennedyi* var. *austromontanum*)	FT 1B.2	This species occurs within lower montane coniferous forest on gravelly soils or in pebble plains at elevations from 5,800 to 9,500 feet.	June to September / perennial herb	This species has one documented occurrence in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA. It is a narrow endemic species and is restricted to the San Bernardino Mountains.	This species is a San Bernardino Mountain endemic, and there is no suitable habitat present within the BRSA. **No Potential in CA** **No Potential in NV**
Vanishing wild buckwheat (*Eriogonum evanidum*)	1B.1	This species occurs on sandy or gravelly soils in chaparral, cismontane woodland, lower montane coniferous forest, and pinyon and juniper woodland from 3,600 to 7,300 feet in elevation.	July to October / annual herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Fawnskin quad south of the BRSA in the San Bernardino Mountains.	No suitable habitat for this species is present, and the BRSA does not overlap the known geographic range of this species. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*)	BLM 1B.2	This species occurs in Mojavean and Sonoran desert scrub habitats from 980 to 3,940 feet in elevation.	April to June / annual herb	White-bracted spineflower has one documented occurrence in the CNDDB within 5 miles of the westernmost portion of the BRSA, near Cajon Pass along SR-138 at the northern edge of the San Bernardino Mountains. This species has also been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	White-bracted spineflower has been observed near the BRSA. However, the BRSA is outside of this species' geographic range. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **No Potential in CA** **No Potential in NV**
Pteridaceae – Brake Family					
Scaly cloak fern (*Astrolepis cochisensis* ssp. *cochisensis*)	2B.3	This species occurs in Joshua tree woodland, pinyon and juniper woodland, and often on carbonate substrates at elevations from 2,950 to 5,910 feet.	April to October / perennial rhizomatous herb	This species has been documented in the CNDDB within 5 miles of the BRSA in the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Scaly cloak fern has been observed very near the BRSA in the Foshay Pass area, and suitable habitat is present within the BRSA for this species. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **No Potential in NV**
Spiny cliff-brake (*Pellaea truncata*)	2B.3	This species occurs in pinyon and juniper woodland, sometimes in volcanic or granitic, rocky substrates at elevations from 3,930 to 7,060 feet.	April to June / perennial rhizomatous herb	This species has been documented in the CNDDB within 5 miles of the BRSA, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Spiny cliff-brake was observed in the Providence Mountains within the BRSA. A population of 25 individuals was observed on the north-facing slopes of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley. **Present in CA** **Not Present in NV**
Rosaceae – Rose Family					
Bolander's horkelia (*Horkelia bolanderi*)	1B.2	This species occurs in edges or vernally mesic areas in chaparral, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland between 1,470 and 3,600 feet in elevation.	June to August, sometimes as early as May / perennial herb	This species has been documented in the CNPS Inventory within the Keller Peak quads in the San Bernardino Mountains south of the BRSA.	Bolander's horkelia is a cismontane species in southern California, and has never been documented in transmontane locations, where the BRSA is located. **No Potential in CA** **No Potential in NV**
Mojave Desert plum (*Prunus eremophila*)	1B.2	This species occurs in Mojavean desert scrub often on granitic or rhyolitic, and usually washes at elevations from 3,190 to 3,860 feet.	March to April / perennial deciduous shrub	This species has been documented in the CNPS Inventory within the Signal Hill and Hackberry Mountain quads, approximately 3 miles north of the BRSA	Suitable habitat for Mojave Desert plum is present within the BRSA, and there are nearby occurrences of the species. However, the elevations where this species occurs does not overlap with the elevations present in the BRSA. This species was not observed during either pass of the 2016 special-status plant surveys. **No Potential in CA** **No Potential in NV**
Silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*)	1B.2	This species occurs in meadows and seeps, sometimes in alkaline, pebble plain, and upper montane coniferous forest at elevations from 4,790 to 9,720 feet.	June to August / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Silver-haired ivesia has documented occurrences near the BRSA. However, the BRSA in the generalized geographic range of this species does not exceed 3,000 feet in elevation. As a result, no portion of the BRSA is within the geographic or elevation range of silver-haired ivesia. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Rubiaceae – Bedstraw Family					
Desert bedstraw (*Galium proliferum*)	2B.2	This species occurs on rocky, carbonate and occasionally limestone substrates within Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodlands from 3,900 to 5,350 feet in elevation.	March to June / annual herb	This species has been documented in the CNDDB within 5 miles of the BRSA within the Foshay Pass area, and has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA.	Desert bedstraw has been observed very near the BRSA in the Foshay Pass area, and suitable habitat is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **Not Present in NV**
Saxifragaceae – Saxifrage Family					
Parish's alumroot (*Heuchera parishii*)	1B.3	This species occurs in alpine boulder and rock field, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest often on rocky, and sometimes carbonate substrates at elevations from 4,920 to 12,470 feet.	June to August / perennial rhizomatous herb	Parish's alumroot has 16 documented occurrences in the CNPS Inventory: one within the Cajon quad more than 5 miles southwest of the BRSA, two within the Lake Arrowhead quad more than 5 miles south of the BRSA, four within the Butler Peak quad more than 5 miles south of the BRSA, four within the Keller Peak quad more than 10 miles south of the BRSA, and five within the Fawnskin quad more than 10 miles south of the BRSA.	Parish's alumroot has documented occurrences near the BRSA. However, the BRSA in the generalized geographic range of this species does not exceed 3,000 feet in elevation. As a result, no portion of the BRSA is within the geographic or elevation range of Parish's alumroot. **No Potential in CA** **No Potential in NV**
Simaroubaceae – Quassia or Simarouba Family					
Emory's crucifixion-thorn (*Castela emoryi*)	2B.2	This species is found in harsh, dry, rocky desert regions, including desert plains and gravely washes from 290 to 2,380 feet in elevation.	June to July, sometimes blooming as early as April and as late as September or October / perennial deciduous shrub	Emory's crucifixion-thorn has 12 occurrences documented in the CNDDB: one within 1 mile of the BRSA, and 11 within 5 miles of the BRSA. All CNDDB occurrences are surrounding Pisgah Crater, immediately north and south of I-40. This species also has three documented occurrences in the CNPS Inventory: two within the Morgan's Well quad more than 10 miles south of the BRSA near the Buillon Mountains, and one within the Troy Lake quad more than 10 miles north of the BRSA near I-40, east of the community of Newberry Springs, California.	Emory's crucifixion-thorn has documented occurrences near the BRSA, and suitable habitat for this species is present within the BRSA. This species was not observed during either pass of the special-status plant surveys in 2016, and would have been visible if it was present. **No Potential in CA** **No Potential in NV**
Solanaceae – Nightshade Family					
Lobed ground-cherry (*Physalis lobata*)	2B.3	This species occurs in Mojavean desert scrub sometimes in decomposed granite, and on playas at elevations from 1,640 to 2,630 feet.	September to January, sometimes as early as May / perennial herb	Lobe ground-cherry has five documented occurrences in the CNPS Inventory: two within the Hackberry and Signal Hill quads more than 5 miles north of the BRSA and in the northern portion of Vontrigger Hills; and three within the Hart Peak quad more than 10 miles west of the BRSA and west of the Piute Range.	Lobed ground-cherry has five documented occurrences, all of which are located more than 5 miles from the BRSA. Suitable habitat for this species is present within the BRSA in California. This species was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**
Parish's desert-thorn (*Lycium parishii*)	2B.3	This species occurs in coastal scrub, Sonoran desert scrub at elevations from 440 to 3,290 feet.	March to April / perennial shrub	Parish's desert-thorn has one documented occurrence in the CNPS Inventory within the San Bernardino North quad and within the vicinity of Cajon Wash, approximately 15 miles south of the BRSA. This occurrence was documented in 1885 and is presumed to be extirpated.	Parish's desert-thorn has one documented occurrence located more than 10 miles from the BRSA, and it is presumed to be extirpated. **No Potential in CA** **No Potential in NV**

Species Name	Federal, State, and CNPS Status[1]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology/ Life Form	Known Locations	Potential to Occur
Thelypteridaceae – Thelypteris Family					
Sonoran maiden fern (*Thelypteris puberula* var. *sonorensis*)	2B.2	This species occurs in meadows and seeps and sometimes in streams at elevations from 160 to 2,010 feet.	January to September / perennial rhizomatous herb	Sonoran maiden fern has one documented occurrence in the CNPS Inventory within the Harrison Mountain quad, located more than 13 miles south of the BRSA in Little Sand Canyon in the San Bernardino Mountains.	Sonoran maiden fern has one occurrence near the BRSA. However, this occurrence is more than 13 miles south of the BRSA, and there is no suitable habitat for this species within the BRSA. **No Potential in CA** **No Potential in NV**
Themidaceae – Brodiaea Family					
Small-flowered androstephium (*Androstephium breviflorum*)	2B.2	Small-flowered androstephium occurs in Mojavean desert scrub within bajadas from 720 to 2,630 feet in elevation.	March to April / perennial bulbiferous herb	Small-flowered androstephium has 50 documented occurrences in the CNDD, including two within the BRSA, four within 0.25 mile of the BRSA, 18 within 1 mile of the BRSA, and 26 within 5 miles of the BRSA. All 50 occurrences are concentrated north of Pisgah Crater, immediately north of I-40. This species also has 12 documented occurrences in the CNPS Inventory within the Hector, Troy Lake, and Cave Mountain quads. Eleven of the occurrences in the Hector and Troy Lake quads are a westward extension of the documented occurrences in the CNDDB.	Small-flowered androstephium has been observed very near and within the BRSA in the Pisgah Crater area, and suitable habitat is present within the BRSA for this species. This species was not observed during either pass of the special-status plant surveys in 2016, but drought conditions in the winter of 2015-2016 may have suppressed seedling germination. **Not Observed in CA** **Not Present in NV**
Thread-leaved brodiaea (*Brodiaea filifolia*)	FT CE 1B.1	Thread-leaved brodiaea is a perennial bulbiferous herb that occurs in herbaceous plant communities, such as valley needlegrass grassland, valley sacaton grassland, non-native grassland, alkali playa, and vernal pool habitats. It is typically found from 80 to 3,680 feet in elevation.	March to June / perennial bulbiferous herb	Thread-leaved brodiaea has two documented occurrences in the CNPS Inventory within the San Bernardino North quadrangle, more than 10 miles south of the BRSA, near Arrowhead Springs Hot Lake in the San Bernardino Mountains.	Thread-leaved brodiaea has been observed near the BRSA, but there this species is known only from cismontane California, which is outside of the Proposed Project site. **No Potential in CA** **No Potential in NV**
Violaceae – Violet Family					
Golden violet (*Viola purpurea* ssp. *aurea*)	2B.2	This species occurs in Great Basin scrub, and pinyon and juniper woodland often on sandy substrates at elevations from 3,280 to 8,210 feet.	April to June / perennial herb	This species has been documented in the CNPS Inventory within at least one of the quads in or surrounding the BRSA, specifically the Cajon quad southwest of the BRSA. Only two San Bernardino occurrences have been documented in 1903 and 1926, and both occurred in mountainous areas.	Suitable scrub habitat is present within the BRSA, and there is at least one nearby occurrence of golden violet documented. However, this species has no recent occurrences and was not observed within the BRSA during either pass of the special-status plant surveys in 2016. **Not Present in CA** **No Potential in NV**

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ATTACHMENT D: PLANT SPECIES OBSERVED

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ATTACHMENT D: PLANT SPECIES OBSERVED

Bryophytes	
Pottiaceae - Moss	
Acaulon incisum	Trichoptilium
Ferns and Allies	
Pteridaceae - Brake Family	
Cheilanthes clevelandii	Cleveland's lip fern
Cheilanthes cooperae	Cooper's lip fern
Cheilanthes covillei	Coville lip-fern
Cheilanthes parryi	Parry's lip fern
Pellaea mucronata var. *mucronata*	Bird's-foot cliff-break
Pellaea truncata	Spiny cliff-brake
Salviniaceae - Floating Fern Family	
**Salvinia molesta*	Kariba-weed
Gymnosperms	
Cupressaceae - Cypress Family	
Juniperus californica	California juniper
Juniperus osteosperma	Utah juniper
Ephedraceae - Ephedra Family	
Ephedra aspera	Boundary ephedra
Ephedra californica	Desert tea
Ephedra funerea	Death Valley ephedra
Ephedra nevadensis	Nevada ephedra
Ephedra trifurca	Three-fork ephedra
Ephedra viridis	Green jointfir
Pinaceae - Pine Family	
Pinus monophylla	Singleleaf pinyon
Angiosperms - Dicots	
Aizoaceae - Fig-Marigold Family	
**Mesembryanthemum nodiflorum*	Slender-leaved iceplant
Amaranthaceae - Amaranth Family	
Amaranthus fimbriatus	Fringed amaranth
Tidestromia suffruticosa var. *oblongifolia*	Honeysweet
Anacardiaceae - Cashew or Sumac Family	
Rhus aromatica	Fragrant sumac
Apiaceae (Umbelliferae) - Carrot Family	
Cymopterus panamintensis var. *panamintensis*	Cymopterus
Cymopterus purpurascens	Cymopterus
Lomatium mohavense	Lomatium
Lomatium nevadense var. *nevadense*	Nevada lomatium
Lomatium parryi	Lomatium

Apocynaceae - Dogbane/Milkweed Family	
Amsonia tomentosa	Amsonia
Asclepias erosa	Desert milkweed
Asclepias nyctaginifolia	Mojave milkweed
Asclepias subulata	Ajamete
Asclepias vestita	Woolly milkweed
Funastrum cynanchoides var. *hartwegii*	Common climbing twinevine
Funastrum hirtellum	Trailing townula
Funastrum utahense	Utah vine milkweed
**Nerium oleander*	Oleander
Asteraceae (Compositae) - Sunflower Family	
Acamptopappus shockleyi	Shockley's goldenhead
Acamptopappus sphaerocephalus var. *hirtellus*	Rayless goldenhead
Acamptopappus sphaerocephalus var. *sphaerocephalus*	Rayless goldenhead
Adenophyllum cooperi	Dogweed
Adenophyllum porophylloides	Adenophyllum
Ambrosia acanthicarpa	Annual burweed
Ambrosia dumosa	Sandbur
Ambrosia eriocentra	Woolly bur-sage
Ambrosia salsola	Common burrobrush
Amphipappus fremontii	Fremont's chaffbush
Anisocoma acaulis	Scalebud
Artemisia dracunculus	Tarragon
Artemisia ludoviciana ssp. *incompta*	Mountain wormwood
Artemisia tridentata ssp. *parishii*	Mojave sagebrush
Artemisia tridentata ssp. *tridentata*	Great Basin sagebrush
Artemisia tridentata ssp. *vaseyana*	Mountain sagebrush
Atrichoseris platyphylla	Gravel-ghost
Baccharis brachyphylla	Shortleaf baccharis
Baccharis salicifolia ssp. *salicifolia*	Mule fat
Bahiopsis parishii	Parish's goldeneye
Bahiopsis reticulata	Death Valley sunflower
Baileya multiradiata	Desert-marigold
Baileya pleniradiata	Desert-marigold
Bebbia juncea var. *aspera*	Rush sweetbush
Brickellia atractyloides var. *arguta*	Pungent grickellbush
Brickellia atractyloides var. *odontolepis*	Pungent grickellbush
Brickellia californica	California brickellbush
Brickellia desertorum	Desert brickellbush
Brickellia incana	White brickellbush
Brickellia oblongifolia var. *linifolia*	Mohave brickellbush
Calycoseris parryi	Yellow tack-stem
Calycoseris wrightii	White tack-stem
Chaenactis carphoclinia var. *carphoclinia*	Pebble pincushion
Chaenactis fremontii	Fremont pincushion
Chaenactis glabriuscula var. *glabriuscula*	Yellow pincushion

Chaenactis macrantha	Bighead dusty maidens
Chaenactis stevioides	Desert pincushion
Cirsium neomexicanum	Desert thistle
Dicoria canescens	Dicoria
Dieteria canescens var. *leucanthemifolia*	Hoary aster
**Dimorphotheca ecklonis*	Upright African daisy
**Dimorphotheca sinuata*	Namaqualand daisy
Encelia actoni	Bush encelia
Encelia farinosa	Brittlebush
Encelia frutescens	Bush encelia
Encelia virginensis	Encelia
Ericameria cooperi var. *cooperi*	Cooper's goldenbush
Ericameria cuneata var. *spathulata*	Goldenbush
Ericameria laricifolia	Turpentine-brush
Ericameria linearifolia	Interior goldenbush
Ericameria nauseosa	Rubber rabbitbrush
Ericameria nauseosa var. *hololeuca*	White rabbitbrush
Ericameria paniculata	Sticky rabbitbrush
Erigeron breweri var. *covillei*	Fleabane daisy
Erigeron concinnus var. *concinnus*	Navajo fleabane
Erigeron foliosus var. *foliosus*	Leafy fleabane
Erigeron lassenianus var. *lassenianus*	Mt. Lassen fleabane
Eriophyllum confertiflorum	Yellow-yarrow
Eriophyllum confertiflorum var. *confertiflorum*	Yellow yarrow
Eriophyllum lanosum	White easterbonnets
Eriophyllum pringlei	Pringle's woolly sunflower
Eriophyllum wallacei	Woolly easterbonnets
Geraea canescens	Desert-sunflower
Gutierrezia microcephala	Sticky snakeweed
Gutierrezia sarothrae	Broom snakeweed
Heterotheca grandiflora	Telegraph weed
Isocoma acradenia	Paleleaf goldenbush
**Lactuca serriola*	Prickly lettuce
Lasthenia californica ssp. *californica*	California goldfields
Layia glandulosa	White layia
Leptosyne bigelovii	Tickseed
Lessingia glandulifera var. *glandulifera*	Lessingia
Logfia depressa	Dwarf cottonrose
Logfia filaginoides	Fluffweed
Malacothrix californica	California desertdandelion
Malacothrix coulteri	Snake's-head
Malacothrix glabrata	Smooth desertdandelion
Monoptilon bellidiforme	Desert star
Monoptilon bellioides	Desert star
Nicolletia occidentalis	Hole-in-the-sand plant
Packera multilobata	Lobeleaf groundsel

Palafoxia arida var. *arida*	Spanish needles
Pectis papposa var. *papposa*	Cinch-weed
Pentachaeta aurea ssp. *allenii*	Allen's pentachaeta
Pentachaeta aurea ssp. *aurea*	Golden-rayed pentachaeta
Perityle emoryi	Emory's rock daisy
Peucephyllum schottii	Pygmy-cedar
Pleurocoronis pluriseta	Arrow-leaf
Porophyllum gracile	Odora
Prenanthella exigua	Brightwhite
Psathyrotes ramosissima	Turtleback
Psilostrophe cooperi	Whitestem paperflower
Rafinesquia californica	California chicory
Rafinesquia neomexicana	Desert chicory
Senecio flaccidus var. *douglasii*	Bush groundsel
Senecio flaccidus var. *monoensis*	Smooth threadleaf ragwort
Senecio mohavensis	Mojave ragwort
**Sonchus asper* ssp. *asper*	Prickly sow-thistle
**Sonchus oleraceus*	Hare's lettuce
Stephanomeria exigua	Small sreath plant
Stephanomeria exigua ssp. *coronaria*	Stephanomeria
Stephanomeria exigua ssp. *exigua*	Stephanomeria
Stephanomeria parryii	Stephanomeria
Stephanomeria pauciflora	Desert milk-aster
Stylocline gnaphaloides	Everlasting neststraw
Stylocline intertexta	Mojave neststraw
Stylocline micropoides	Desert neststraw
Stylocline psilocarphoides	Peck neststraw
Syntrichopappus fremontii	Syntrichopappus
Syntrichopappus lemmonii	Lemmon's syntrichopappus
Tetradymia axillaris var. *longisppina*	Horsebrush
Tetradymia spinosa	Shortspine horsebrush
Tetradymia stenolepis	Mojhave horsebrush
**Tragopogon dubius*	Western goat's-beard
Trichoptilium incisum	Yellowhead
Trixis californica var. *californica*	California three-fold
Uropappus lindleyi	Silver puffs
Xanthisma spinulosum var. *gooddingii*	Spiny goldenweed
Xanthium spinosum	Spanish-thistle
Xylorhiza tortifolia var. *tortifolia*	Mojave-aster
Bignoniaceae - Bignonia Family	
Chilopsis linearis ssp. *arcuata*	Desert willow
Boraginaceae - Borage Family	
Amsinckia intermedia	Common fiddleneck
Amsinckia menziesii	Small-flowered fiddleneck
Amsinckia tessellata var. *tessellata*	Desert fiddleneck
Cryptantha angustifolia	Narrow-leaved cryptantha

Cryptantha barbigera var. *barbigera*	Bearded cryptantha
Cryptantha circumscissa var. *circumscissa*	Cushion cryptantha
Cryptantha clokeyi	Clokey's cryptantha
Cryptantha dumetorum	Scrambling cryptantha
Cryptantha echinella	Hedgehog cryptantha
Cryptantha gracilis	Slender cryptantha
Cryptantha holoptera	Winged cryptantha
Cryptantha inaequata	Panamint cryptantha
Cryptantha intermedia var. *hendersonii*	Henderson's cryptantha
Cryptantha intermedia var. *intermedia*	Common cryptantha
Cryptantha maritima	Guadalupe cryptantha
Cryptantha micrantha var. *micrantha*	Red-root cryptantha
Cryptantha muricata	Pointed cryptantha
Cryptantha muricata var. *denticulata*	Prickly-nut cryptantha
Cryptantha nevadensis	Nevada cryptantha
Cryptantha nevadensis var. *nevadensis*	Nevada cryptantha
Cryptantha pterocarya var. *cycloptera*	Tucson cryptantha
Cryptantha pterocarya var. *pterocarya*	Winged-nut cryptantha
Cryptantha pterocarya var. *purpusii*	Purpus' cryptantha
Cryptantha racemosa	Shrubby cryptantha
Cryptantha similis	Dome cryptantha
Cryptantha simulans	Pine cryptantha
Cryptantha utahensis	Scented cryptantha
Emmenanthe penduliflora var. *penduliflora*	Whispering bells
Eriodictyon angustifolium	Narrow-leaved yerba santa
Eriodictyon trichocalyx var. *trichocalyx*	Yerba santa
Eucrypta chrysanthemifolia var. *bininnatifida*	Eucrypta
Eucrypta micrantha	Eucrypta
Heliotropium curassavicum var. *oculatum*	Alkali heliotrope
Nama californicum	Purple mat
Nama demissum var. demissum	Purple mat
Nemophila menziesii var. *integrifolia*	Baby blue-eyes
Nemophila menziesii var. *menziesii*	Baby blue-eyes
Pectocarya heterocarpa	Mixed-nut pectocarya
Pectocarya linearis ssp. *ferocula*	Slender pectocarya
Pectocarya penicillata	Northern pectocarya
Pectocarya peninsularis	Baja pectocarya
Pectocarya platycarpa	Wide-toothed pectocarya
Pectocarya recurvata	Arched-nut pectocarya
Pectocarya setosa	Round-nut pectocarya
Phacelia campanularia var. *campanularia*	Desert bluebells
Phacelia crenulata var. *ambigua*	Phacelia
Phacelia crenulata var. *crenulata*	Scallop phacelia
Phacelia crenulata var. *minutiflora*	Phacelia
Phacelia cryptantha	Phacelia
Phacelia curvipies	Washoe phacelia

Phacelia distans	Distant scorpion-weed
Phacelia douglasii	Phacelia
Phacelia fremontii	Phacelia
Phacelia longipes	Long-stalked phacelia
Phacelia parryi	Parry Phacelia
Phacelia pedicellata	Phacelia
Phacelia ramosissima	Branched scorpion-weed
Phacelia tanacetifolia	Tansy-leaf phacelia
Phacelia vallis-mortae	Phacelia
Pholistoma membranaceum	White fiesta flower
Plagiobothrys arizonicus	Arizona popcornflower
Plagiobothrys collinus var. *californicus*	Californica popcornflower
Plagiobothrys collinus var. *fulvescens*	Rough-stemmed popcornflower
Plagiobothrys jonesii	Mojave popcornflower
Tiquilia canescens var. *canescens*	Tiquilia
Tiquilia palmeri	Palmer's tiquilia
Tiquilia plicata	Fan-leaved tiquilia
Brassicaceae (Cruciferae) - Mustard Family	
Boechera perennans	Perennial rockcress
Boechera pulchra	Beautiful rockcress
Boechera xylopoda	Bigfoot hybrid rockcress
**Brassica nigra*	Black mustard
**Brassica tournefortii*	Sahara mustard
Caulanthus cooperi	Jewelflower
Caulanthus lasiophyllus	California mustard
Descurainia pinnata	Tansy mustard
Descurainia pinnata ssp. *glabra*	Tansy mustard
**Descurainia sophia*	Tansy mustard
Dithyrea californica	Spectacle-pod
Draba cuneifolia	Draba
**Hirschfeldia incana*	Summer mustard
Lepidium densiflorum	Dense-flower peppergrass
Lepidium fremontii	Desert alyssum
Lepidium lasiocarpum ssp. *lasiocarpum*	Sand peppergrass
Lepidium montanum	Montana peppergrass
Physaria tenella	Bladderpod
**Sisymbrium altissimum*	Tall hedge-mustard
**Sisymbrium irio*	London rocket
**Sisymbrium orientale*	Sisymbrium
Stanleya pinnata var. *pinnata*	Prince's plume
Streptanthella longirostris	Streptanthella
Thelypodium laciniatum	Thelypodium
Thysanocarpus curvipes ssp. *curvipes*	Lacepod
Thysanocarpus laciniatus	Lacepod
Tropidocarpum gracile	Dobie pod

Cactaceae - Cactus Family	
Cylindropuntia acanthocarpa var. *coloradensis*	Buckhorn cholla
Cylindropuntia bigelovii	Teddy-bear cholla
Cylindropuntia echinocarpa	Golden cholla
Cylindropuntia ramosissima	Diamond cholla
Echinocactus polycephalus var. *polycephalus*	Clustered barrel cactus
Echinocereus engelmannii	Hedgehog cactus
Echinocereus mojavensis	Hedgehog cactus
Ferocactus cylindraceus	California barrel cactus
Ferocactus cylindraceus var. *lecontei*	Barrel cactus
Grusonia parishii	Club cholla
Mammillaria tetrancistra	Fish-hook cactus
Opuntia basilaris var. *basilaris*	Beavertail cactus
Opuntia basilaris var. *brachyclada*	Short-jointed beavertail
Opuntia chlorotica	Pancake prickly-pear
Opuntia engelmannii var. *engelmannii*	Engelmann prickly-pear
Opuntia polyacantha var. *erinacea*	Mojave prickly-pear
Sclerocactus johnsonii	Pineapple cactus
Campanulaceae - Bellflower Family	
Nemacladus glanduliferus	Nemacladus
Nemacladus orientalis	Nemacladus
Nemacladus ramosissimus	Nemacladus
Caprifoliaceae - Honeysuckle Family	
Lonicera interrupta	Chaparral honeysuckle
Symphoricarpos rotundifolius var. *rotundifolius*	Roundleaf snowberry
Caryophyllaceae - Pink Family	
Achyronychia cooperi	Frost-mat
Eremogone kingii var. *glabrescens*	King's sandwort
Eremogone macradenia var. *macradenia*	Desert sandwort
Silene antirrhina	Sleepy catchfly
Spergularia macrotheca var. leucantha	Sand-spurrey
Chenopodiaceae - Goosefoot Family	
Atriplex canescens var. *canescens*	Wingscale
Atriplex confertifolia	Spiny saltbush
Atriplex elegans	wheelscale saltbush
Atriplex hymenelyrta	Desert holly
Atriplex polycarpa	Allscale
Atriplex spinifera	Mojave saltbush
Bassia hyssopifolia	Five-horn smother weed
Chenopodium berlandieri	Pitseed goosefoot
Chenopodium californicum	California goosefoot
Chenopodium fremontii	Fremont's pigweed
Chenopodium incanum var. *occidentale*	Goosefoot
Extriplex californica	California saltbush
Grayia spinosa	Hop-sage
Kochia californica	California summer-cypress

Krascheninnikovia lanata	Winter fat
Monolepis spathulata	Prostrate poverty weed
**Salsola paulsenii*	Barbwire Russian thistle
**Salsola tragus*	Tumbleweed
Suaeda nigra	Desert blite
Cleomaceae - Cleome Family	
Peritoma arborea var. *angustata*	Bladderpod
Convolvulaceae - Morning-Glory Family	
Calystegia occidentalis ssp. *fulcrata*	Sonora morning-glory
Cressa truxillensis	Alkali-clover
Cuscuta californica var. *apiculata*	Pointed dodder
Cuscuta denticulata	Small-tooth dodder
Cuscuta nevadensis	Dodder
Cuscuta veatchii	Dodder
Crassulaceae - Stonecrop Family	
Dudleya abramsii ssp. *calciocola*	Limestone dudleya
Dudleya arizonica	Dudleya
Dudleya saxosa ssp. *aloides*	Dudleya
Crossosomataceae - Crossosoma Family	
Crossosoma bigelovii	Crossosoma
Cucurbitaceae - Gourd Family	
**Cucumis melo* var. *dudaim*	Smellmelon
Cucurbita foetidissima	Stinking gourd
Cucurbita palmata	Coyote melon
Euphorbiaceae - Spurge Family	
Croton californicus	Croton
Ditaxis neomexicana	Ditaxis
Euphorbia albomarginata	Rattlesnake weed
Euphorbia micromeria	Prostrate spurge
Euphorbia parishii	Prostrate spurge
Euphorbia parryi	Prostrate spurge
Euphorbia polycarpa	Prostrate spurge
Euphorbia schizoloba	Mojave spurge
Stillingia linearifolia	Desert stillingia
Fabaceae (Leguminosae) - Legume Family	
Acmispon brachycarpus	Hill lotus
Acmispon heermannii var. *heermannii*	Heermann's lotus
Acmispon maritimus var. *brevivexillus*	Coastal lotus
Acmispon maritimus var. *maritimus*	Coastal lotus
Acmispon nevadensis var. *nevadensis*	Sierra Nevada lotus
Acmispon procumbens var. *procumbens*	Silky California broom
Acmispon rigidus	Broom lotus
Acmispon strigosus	Strigose lotus
Acmispon wrangelianus	Calf lotus
Astragalus acutirostris	Locoweed
Astragalus allochrous var. *playanus*	Playa milk-vetch

Astragalus aridus	Locoweed
Astragalus didymocarpus var. *dispermus*	Two-seeded milkvetch
Astragalus layneae	Layne's milkvetch
Astragalus lentiginosus var. *fremontii*	Fremont's freckled milkvetch
Astragalus lentiginosus var. *variabilis*	Freckled milkvetch
Astragalus newberryi var. *newberryi*	Newberry's milkvetch
Astragalus nuttallianus var. *imperfectus*	Small-flowered milkvetch
Astragalus nuttallii var. *nuttallii*	Ocean bluff milkvetch
Dalea mollissima	Dalea
Lupinus argenteus var. *heteranthus*	Spurred lupine
Lupinus arizonicus	Arizona lupine
Lupinus bicolor	Tiny-flowered lupine
Lupinus concinnus	Bajada lupine
Lupinus flavocaulatus	Lupine
Lupinus sparsiflorus	Coulter's lupine
Marina parryi	Marina
**Parkinsonia aculeata*	Mexican palo verde
Parkinsonia florida	Blue palo verde
Prosopis glandulosa var. *torreyana*	Honey mesquite
Psorothamnus arborescens var. *simplicifolius*	Indigo bush
Psorothamnus fremontii var. *fremontii*	Indigo bush
Psorothamnus polydenius	Nevada dalea
Psorothamnus spinosus	Smoke tree
Senegalia greggii	Catclaw acacia
Senna armata	Armed senna
Senna covesii	Hairy senna
Trifolium gracilentum	Pinpoint clover
Fagaceae - Oak Family	
Quercus palmeri	Palmer's oak
Fouquieriaceae - Ocotillo Family	
Fouquieria splendens ssp. *splendens*	Ocotillo
Geraniaceae - Geranium Family	
**Erodium cicutarium*	Red-stem filaree
Erodium texanum	Texas storksbill
Krameriaceae - Rhatany Family	
Krameria bicolor	White rhatany
Krameria erecta	Purple heather
Lamiaceae (Labiatae) - Mint Family	
Condea emoryi	Desert lavender
**Marrubium vulgare*	White horehound
Monardella exilis	Monardella
Salvia carduacea	Thistle sage
Salvia columbariae	Chia
Salvia dorrii var. *dorrii*	Desert sage
Salvia dorrii var. *pilosa*	Sage
Salvia leucophylla	Purple sage

Salvia mohavensis	Mohave sage
Scutellaria mexicana	Mexican bladder sage
Stachys albens	White stachys
Loasaceae - Loasa Family	
Mentzelia affinis	Blazing star
Mentzelia albicaulis	Whitestem stickleaf
Mentzelia congesta	Clustered blazing star
Mentzelia dispersa	Nevada stickleaf
Mentzelia involucrata	Blazing star
Mentzelia jonesii	Blazing star
Mentzelia nitens	Blazing star
Mentzelia obscura	Blazing star
Mentzelia oreophila	Blazing star
Mentzelia tricuspis	Blazing star
Petalonyx thurberi ssp. *thurberi*	Sandpaper plant
Malvaceae - Mallow Family	
Eremalche exilis	White mallow
Eremalche rotundifolia	Desert five-spot
**Malva neglecta*	Dwarf mallow
**Malva parviflora*	Little mallow
Sphaeralcea ambigua var. *ambigua*	Apricot mallow
Sphaeralcea ambigua var. *rugosa*	Roughleaf apricot mallow
Sphaeralcea angustifolia	Narrow-leaved globemallow
Sphaeralcea grossulariifolia	Gooseberry-leaved globemallow
Sphaeralcea rusbyi var. *eremicola*	Rusby's desert mallow
Montiaceae - Miner's Lettuce Family	
Calandrinia ciliata	Kisses
Calandrinia menziesii	Red maids
Calyptridium monandrum	Sand cress
Claytonia parviflora ssp. utahensis	Utah miner's lettuce
Claytonia perfoliata	Common miner's lettuce
Myrtaceae - Myrtle Family	
**Eucalyptus polyanthemos*	Red box
**Eucalyptus* sp.	Eucalyptus
Nyctaginaceae - Four O'Clock Family	
Abronia pogonantha	Sand verbena
Abronia villosa var. *villosa*	Sand verbena
Allionia incarnata var. *incarnata*	Windmills
Allionia incarnata var. *villosa*	Windmills
Boerhavia coccinea	Scarlet spiderling
Boerhavia wrightii	Spiderling
Mirabilis albida	Four o'clock
Mirabilis laevis var. *crassifolia*	Wishbone bush
Mirabilis laevis var. *retrorsa*	Four o'clock
Mirabilis laevis var. *villosa*	Four o'clock
Mirabilis multiflora var. *pubescens*	Four o'clock

Tripterocalyx micranthus	Small-flowered sand-verbena
Oleaceae - Olive Family	
Fraxinus velutina	Arizona ash
Menodora scabra var. *glabrescens*	Broom menodora
Menodora spinescens var. *mohavensis*	Spiny menodoraq
Onagraceae - Evening Primrose Family	
Camissonia campestris ssp. *campestris*	Mojave sun cup
Camissonia strigulosa	Evening primrose
Camissoniopsis pallida ssp. *hallii*	Sun cup
Camissoniopsis pallida ssp. *pallida*	Sun cup
Chylismia brevipes ssp. *brevipes*	Yellow cups
Chylismia brevipes ssp. *pallidula*	Evening-primrose
Chylismia claviformis ssp. *aurantiaca*	Evening primrose
Chylismia claviformis ssp. *claviformis*	Evening primrose
Chylismia claviformis ssp. *integrior*	Evening primrose
Chylismia claviformis ssp. *peirsonii*	Evening primrose
Chylismia multijuga	froststem suncup
Epilobium canum ssp. *latifolium*	Broadleaf California fuchsia
Epilobium ciliatum	Fringed willowherb
Eremothera boothii ssp. *boothii*	Booth's evening-primrose
Eremothera boothii ssp. *condensata*	Evening-primrose
Eremothera chamaenerioides	Evening-primrose
Eremothera refracta	Sun cup
Eulobus californicus	Camissonia
Oenothera californica ssp. *californica*	Evening primrose
Oenothera cespitosa	Tufted evening-primrose
Oenothera cespitosa ssp. *marginata*	Fragrant evening primrose
Oenothera deltoides	Devil's lantern
Oenothera deltoides ssp. *cognata*	Devil's lantern
Oenothera deltoides ssp. *deltoides*	Devil's lantern
Oenothera primiveris	desert evening primrose
Oenothera primiveris ssp. *primiveris*	Evening primrose
Orobanchaceae - Broomrape Family	
Castilleja chromosa	Desert paintbrush
Castilleja plagiotoma	Mojave paintbrush
Orobanche cooperi	Desert broom-rape
Orobanche uniflora	Naked broom-rape
Papaveraceae - Poppy Family	
Argemone corymbosa	Prickly poppy
Argemone munita	Prickly poppy
Dendromecon rigida	Bush poppy
Eschscholzia californica	California poppy
Eschscholzia glyptosperma	Poppy
Eschscholzia minutiflora	Poppy
Platystemon californicus	Cream cups

Phrymaceae - Lopseed Family	
Mimulus aurantiacus	
Mimulus bigelovii var. *bigelovii*	Monkeyflower
Mimulus guttatus	Seepspring monkeyflower
Picrodendraceae - Bitter-Tree Family	
Tetracoccus hallii	Chuckawalla bush
Plantaginaceae - Plantain Family	
Antirrhinum coulterianum	Snapdragon
Antirrhinum filipes	Snapdragon
Keckiella antirrhinoides var. *microphylla*	Littleleaf penstemon
Mohavea breviflora	Mohavea
Mohavea confertiflora	Mohavea
Penstemon bicolor	Beardtongue
Penstemon spectabilis var. *subviscosus*	Beardtongue
Plantago erecta	California plantain
Plantago ovata	Desert Indianwheat
Plantago patagonica	Plantain
Polemoniaceae - Phlox Family	
Aliciella latifolia ssp. *latifolia*	Broad-leaved aliciella
Aliciella leptomeria	Sand gilia
Aliciella lottiae	Lott's aliciella
Eriastrum densifolium ssp. *densifolium*	Mesa-phlox
Eriastrum diffusum	Miniature wool star
Eriastrum eremicum ssp. *eremicum*	Woollystar
Eriastrum sapphirinum	Sapphire wool star
Eriastrum sparsiflorum	Eriastrum
Gilia aliquanta ssp. *breviloba*	Gilia
Gilia brecciarum ssp. *brecciarum*	Nevada gilia
Gilia cana ssp. *cana*	Banded gilia
Gilia clokeyi	Clokey's gilia
Gilia inconspicua	Shy gilia
Gilia latiflora ssp. *latiflora*	Broad-leaved gilia
Gilia leptantha ssp. *transversa*	Gilia
Gilia minor	Little gilia
Gilia modocensis	Modoc gilia
Gilia scopulorum	Rock gilia
Gilia sinuata	Rosy gilia
Gilia stellata	Star gilia
Gilia transmontana	Transmontane gilia
Langloisia setosissima ssp. *punctata*	Lilac sunbonnet
Langloisia setosissima ssp. *setosissima*	Bristly langloisia
Leptosiphon aureus ssp. *aureus*	Desert gold
Leptosiphon aureus ssp. *decorus*	Linanthus
Leptosiphon breviculus	Linanthus
Leptosiphon lemmonii	Linanthus
Leptosiphon parviflorus	Linanthus

Linanthus bigelovii	Linanthus
Linanthus demissus	Linanthus
Linanthus dichotomus ssp. *dichotomus*	Evening snow
Linanthus jonesii	Linanthus
Linanthus parryae	Linanthus
Loeseliastrum matthewsii	Desert calico
Loeseliastrum schottii	Loeseliastrum
Phlox stansburyi	Cold-desert phlox
Phlox stansburyi ssp. *stansburyi*	Stansbury's phlox
Polygonaceae - Buckwheat Family	
Centrostegia thurberi	Thurber's spineflower
Chorizanthe angustifolia	Narrow-leaf spineflower
Chorizanthe brevicornu var. *brevicornu*	Brittle spineflower
Chorizanthe procumbens	Prostrate spineflower
Chorizanthe rigida	Devil's spineflower
Chorizanthe watsonii	Watson's spineflower
**Emex australis*	Southern three-cornered Jack
Eriogonum angulosum	Angle-stem wild buckwheat
Eriogonum baileyi var. *baileyi*	Bailey's wild buckwheat
Eriogonum brachypodum	Parry's wild buckwheat
Eriogonum davidsonii	Davidson's wild buckwheat
Eriogonum deflexum var. *barbatum*	Tall skeleton weed
Eriogonum deflexum var. *nevadense*	Nevada skeleton weed
Eriogonum esmeraldense var. *esmeraldense*	Esmeralda wild buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum fasciculatum var. *flavoviride*	Sonoran Desert California buckwheat
Eriogonum fasciculatum var. *polifolium*	Mojave Desert California buckwheat
Eriogonum gracillimum	Rose-and-white wild buckwheat
Eriogonum inflatum	Desert trumpet
Eriogonum maculatum	Spotted wild buckwheat
Eriogonum microthecum var. *simpsonii*	Simpson's wild buckwheat
Eriogonum nidularium	Birdnest wild buckwheat
Eriogonum palmerianum	Palmer's wild buckwheat
Eriogonum plumatella	Yucca wild buckwheat
Eriogonum pusillum	Yellow turbans
Eriogonum reniforme	Kidney-leaf wild buckwheat
Eriogonum saxatile	Hoary wild buckwheat
Eriogonum thomasii	Thomas's wild buckwheat
Eriogonum thornei	Thorne's buckwheat
Eriogonum thurberi	Thurber's wild buckwheat
Eriogonum trichopes	Little desert trumpet
Eriogonum wrightii var. *wrightii*	Wright's bastard-sage
Nemacaulis denudata var. *gracilis*	Slender cottonheads
Pterostegia drymarioides	Woodland threadstem
Rumex hymenosepalus	Canaigre
Rumex paucifolius	Few-leaved dock

Portulacaceae - Purslane Family	
**Portulaca oleracea*	Little hogweed
Ranunculaceae - Buttercup Family	
Delphinium parishii ssp. *parishii*	Parish's desert delphinium
Resedaceae - Mignonette Family	
Oligomeris linifolia	Oligomeris
Rhamnaceae - Buckthorn Family	
Ceanothus velutinus	Mountain balm
Ceanothus vestitus	Mojave ceanothus
Rhamnus ilicifolia	Hollyleaf redberry
Rosaceae - Rose Family	
Adenostoma fasciculatum	Chamise
Adenostoma fasciculatum var. *fasciculatum*	Chamise
Amelanchier utahensis	Utah serviceberry
Cercocarpus betuloides var. *betuloides*	Hard tack
Coleogyne ramosissima	Blackbush
Fallugia paradoxa	Apache plume
Prunus emarginata	Bitter cherry
Prunus fasciculata	Desert almond
Prunus fasciculata var. *fasciculata*	Desert almond
Prunus ilicifolia ssp. *ilicifolia*	Holly-leafed cherry
Purshia tridentata var. *glandulosa*	Antelope brush
Rubiaceae - Madder Family	
Galium angustifolium ssp. *gracillimum*	Slender bedstraw
Galium aparine	Sticky-willy
Galium argense	Bedstraw
Galium multiflorum	Kellogg's bedstraw
Galium parishii	Parish's bedstraw
Galium stellatum	Desert bedstraw
Rutaceae - Rue Family	
Thamnosma montana	Turpentine-broom
Salicaceae - Willow Family	
Populus fremontii ssp. *fremontii*	Rio Grande cottonwood
Salix exigua	Narrow-leaved willow
Salix laevigata	Smooth willow
Salix lasiolepis	White willow
Salix lutea	Yellow willow
Scrophulariaceae - Figwort Family	
Scrophularia desertorum	Figwort
**Verbascum thapsus*	Aaron's rod
Simmondsiaceae - Jojoba Family	
Simmondsia chinensis	Goat-nut
Solanaceae - Nightshade Family	
Datura wrightii	Moon-lily
Lycium andersonii	Anderson desert thorn
Lycium cooperi	Cooper desert thorn

Lycium fremontii	Fremont desert thorn
Lycium pallidum var. *oligospermum*	Rabbit thorn
Lycium torreyi	Squawthorn
Nicotiana obtusifolia	Desert tobacco
Nicotiana quadrivalvis	Indian tobacco
Physalis crassifolia	Ground-cherry
Physalis hederifolia var. *palmeri*	Ground-cherry
Tamaricaceae - Tamarisk Family	
**Tamarix aphylla*	Athel
**Tamarix chinensis*	Chinese tamarisk
**Tamarix ramosissima*	Tamarisk
Urticaceae - Nettle Family	
Parietaria hespera	Western pellitory
Parietaria hespera var. *hespera*	Rillita pellitory
Urtica dioica ssp. *holosericea*	Hoary nettle
Verbenaceae - Vervain Family	
Aloysia wrightii	Wright's beebrush
Verbena gooddingii	Verbena
Violaceae - Violet Family	
Viola pedunculata	California golden violet
Viscaceae - Mistletoe Family	
Phoradendron californicum	California mistletoe
Zygophyllaceae - Caltrop Family	
Fagonia laevis	California fagonia
**Kallstroemia parviflora*	Kallstroemia
Larrea tridentata	Creosote bush
**Tribulus terrestris*	Puncture vine
Angiosperms -Monocots	
Agavaceae - Agave Family	
Agave deserti var. *deserti*	Desert agave
Agave deserti var. *simplex*	Simple desert agave
Hesperoyucca whipplei	Our Lord's candle
Yucca baccata var. *baccata*	Spanish bayonet
Yucca brevifolia	Joshua tree
Yucca schidigera	Mohave yucca
Alliaceae - Onion Family	
Allium denticulatum	Onion
Allium fimbriatum var. *fimbriatum*	Wild onion
Allium fimbriatum var. *mohavense*	Onion
Allium lacunosum var. *davisiae*	Onion
Arecaceae (Palmae) - Palm Family	
Washingtonia filifera	Desert palm
Cyperaceae - Sedge Family	
Carex alma	Sturdy sedge
Carex praegracilis	Black creeper

Liliaceae - Lily Family	
Calochortus kennedyi var. *kennedyi*	Mariposa lily
Melanthiaceae - Death Camas Family	
Toxicoscordion brevibracteatum	Death camas
Toxicoscordion paniculatum	Sand-corn
Poaceae (Gramineae) - Grass Family	
Aristida adscensionis	Six-weeks three-awn
Aristida purpurea var. *fendleriana*	Fendler three-awn
Aristida purpurea var. *parishii*	Parish three-awn
Aristida purpurea var. *purpurea*	Purple three-awn
**Avena barbata*	Slender wild oat
**Avena fatua*	Wild oat
Bouteloua aristidoides var. *aristidoides*	Needle grama
Bouteloua barbata var. *barbata*	Six weeks grama
Bouteloua curtipendula	Side-oats grama
Bouteloua trifida	Three-awned grama
Bromus berteroanus	Chilean chess
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft brome
**Bromus japonicus*	Japanese brome
**Bromus madritensis* ssp. *madritensis*	Compact chess
**Bromus madritensis* ssp. *rubens*	Foxtail chess
**Bromus tectorum*	Cheat grass
**Cynodon dactylon*	Bermudagrass
Dasyochloa pulchella	Fluff grass
Distichlis spicata	Saltgrass
Elymus elymoides	Squirreltail
Elymus elymoides var. *californicus*	Squirreltail
Elymus elymoides var. *elymoides*	Squirreltail
Elymus glaucus ssp. glaucus	Blue wildrye
Elymus trachycaulus ssp. *trachycaulus*	Slender wild rye
**Festuca bromoides*	Squirreltail fescue
Festuca octoflora	Six-week's fescue
**Festuca perennis*	Italian ryegrass
Hilaria rigida	Big galleta
Hordeum brachyantherum ssp. *californicum*	California meadow barley
Hordeum jubatum ssp. *jubatum*	Squirreltail barley
**Hordeum marinum* ssp. *gussoneanum*	Mediterranean barley
**Hordeum murinum*	Wall barley
**Hordeum murinum* ssp. *glaucum*	Smooth barley
Melica imperfecta	Little California melic
Muhlenbergia appressa	Appressed muhly
Muhlenbergia microsperma	Littleseed muhly
Muhlenbergia pauciflora	Few-flowered muhly
Muhlenbergia porteri	Muhly
**Pennisetum setaceum*	Crimson fountain grass

**Phalaris minor*	Littleseed canary grass
Poa fendleriana ssp. *longiligula*	Longtongue mutton grass
Poa secunda	Secund bluegrass
Poa secunda ssp. *juncifolia*	Big alkali grass
Poa secunda ssp. *secunda*	Pacific bluegrass
**Polypogon monspeliensis*	Rabbit's-foot grass
**Schismus arabicus*	Mediterranean grass
**Schismus barbatus*	Mediterranean grass
Sporobolus airoides	Alkali sacaton
Sporobolus contractus	Spike dropseed
Sporobolus cryptandrus	Sand dropseed
Sporobolus flexuosus	Mesa dropseed
Stipa comata var *comata*	Needle-and-thread
Stipa hymenoides	Indian ricegrass
Stipa lemmonii var. *lemmonii*	Lemmon's needlegrass
Stipa lepida	Foothill needlegrass
Stipa parishii var. *parishii*	Needlegrass
Stipa speciosa	Desert needlegrass
Tridens muticus var. *muticus*	Awnless fluffgrass
**Triticum aestivum*	Wheat
Ruscaceae - Butcher's Broom Family	
Nolina parryi	Beargrass
Themidaceae - Brodiaea Family	
Dichelostemma capitatum ssp. *capitatum*	Grassnut
Dichelostemma capitatum ssp. *pauciflorum*	Few-flowered blue dicks
Muilla maritima	Common muilla
Typhaceae - Cattail Family	
Typha domingensis	Southern cattail

* Indicates a non-native species

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ATTACHMENT E: SPECIAL-STATUS PLANT SPECIES OCCURRENCES MAP

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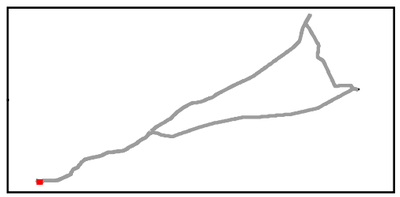
Attachment E:
Special-Status Plant Occurrences
Map Page 1 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Short-joint beavertail (*Opuntia basilaris var. brachyclada*)



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Source: Insignia, 2016; SCE

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Attachment E:
Special-Status Plant Occurrences
Map Page 2 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

M2-T1
M2-T1
M2-T2
M2-T2
M2-T3
M2-T3
M2-T4
M2-T4

- Substation
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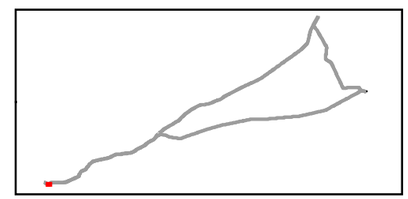

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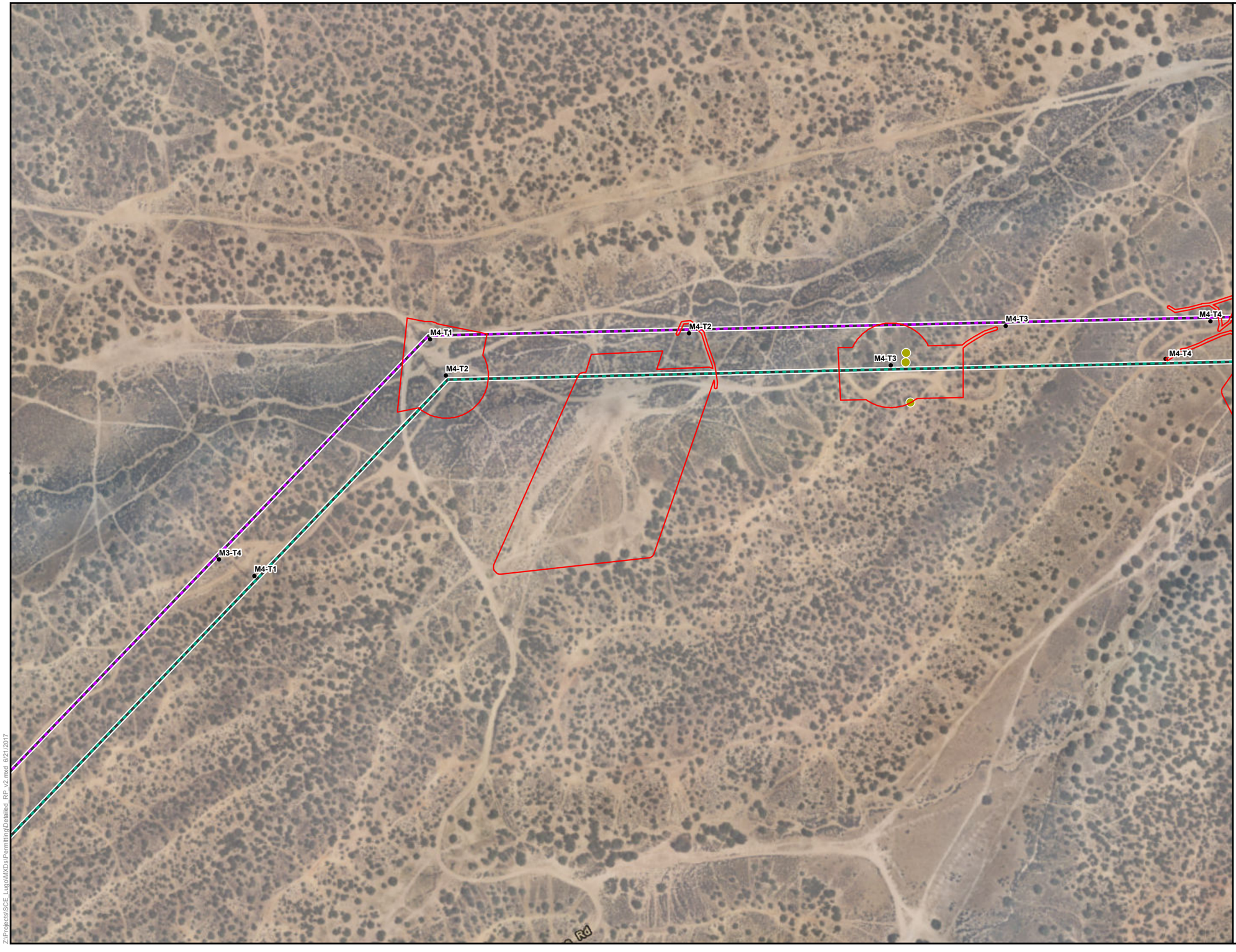
Attachment E:
Special-Status Plant Occurrences
Map Page 3 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
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- Eldorado - Mohave 500 kV Transmission Line
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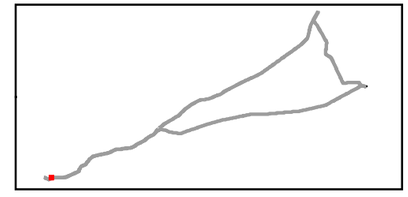

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Attachment E:
Special-Status Plant Occurrences
Map Page 4 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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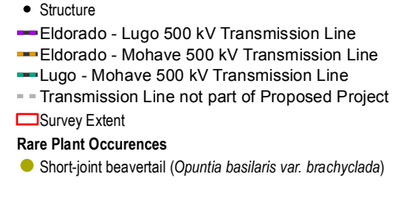
Rare Plant Occurences

- Short-joint beavertail (*Opuntia basilaris var. brachyclada*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 5 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telecommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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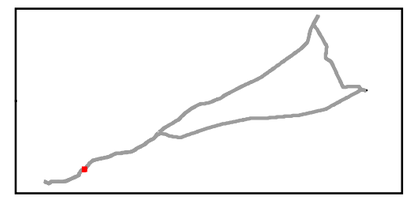
- Survey Extent

Rare Plant Occurences

- Clokey's cryptantha (*Cryptantha clokeyi*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 6 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
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- Structure
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- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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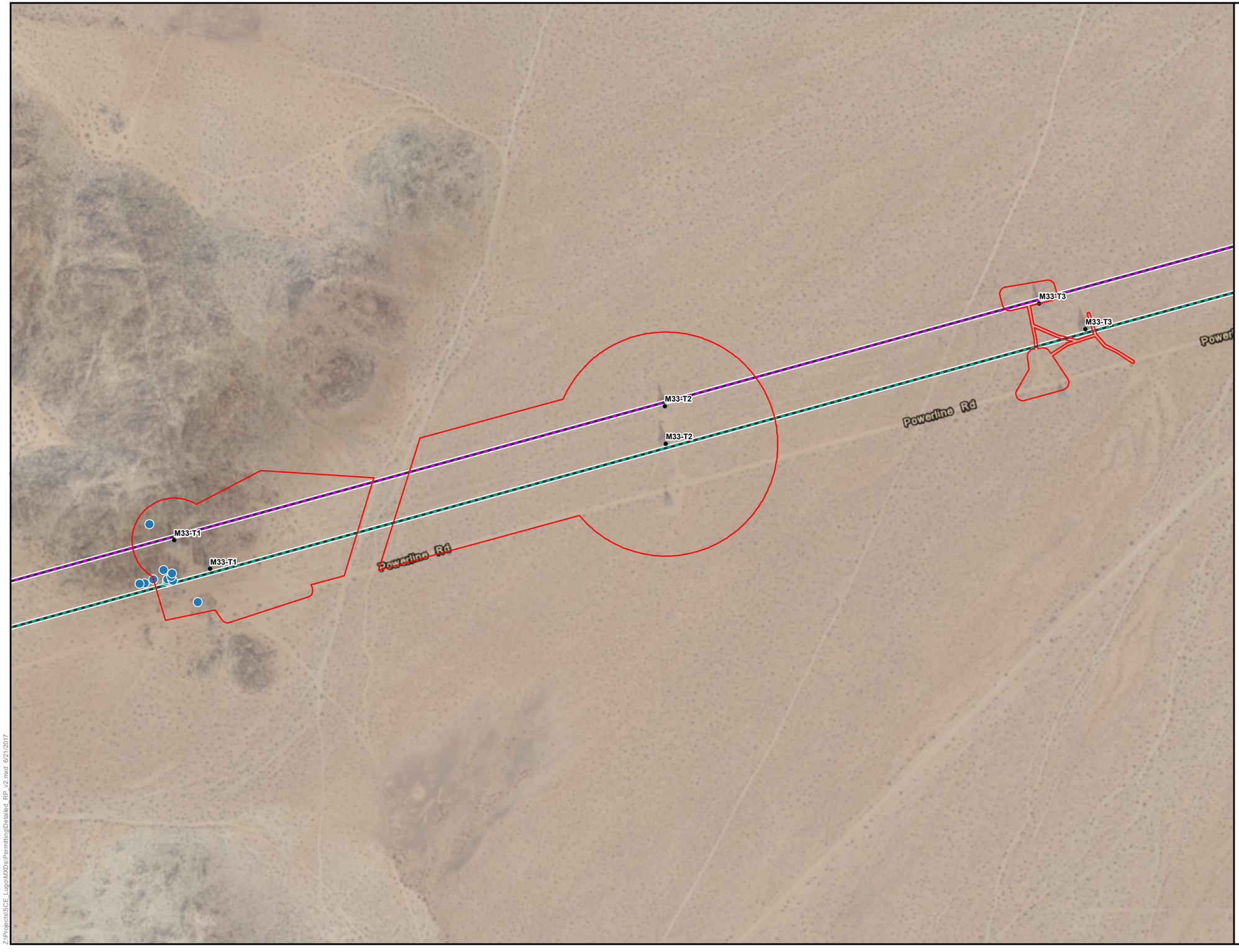
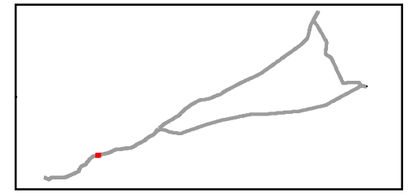
- Survey Extent

Rare Plant Occurences

- Clokey's cryptantha (*Cryptantha clokeyi*)





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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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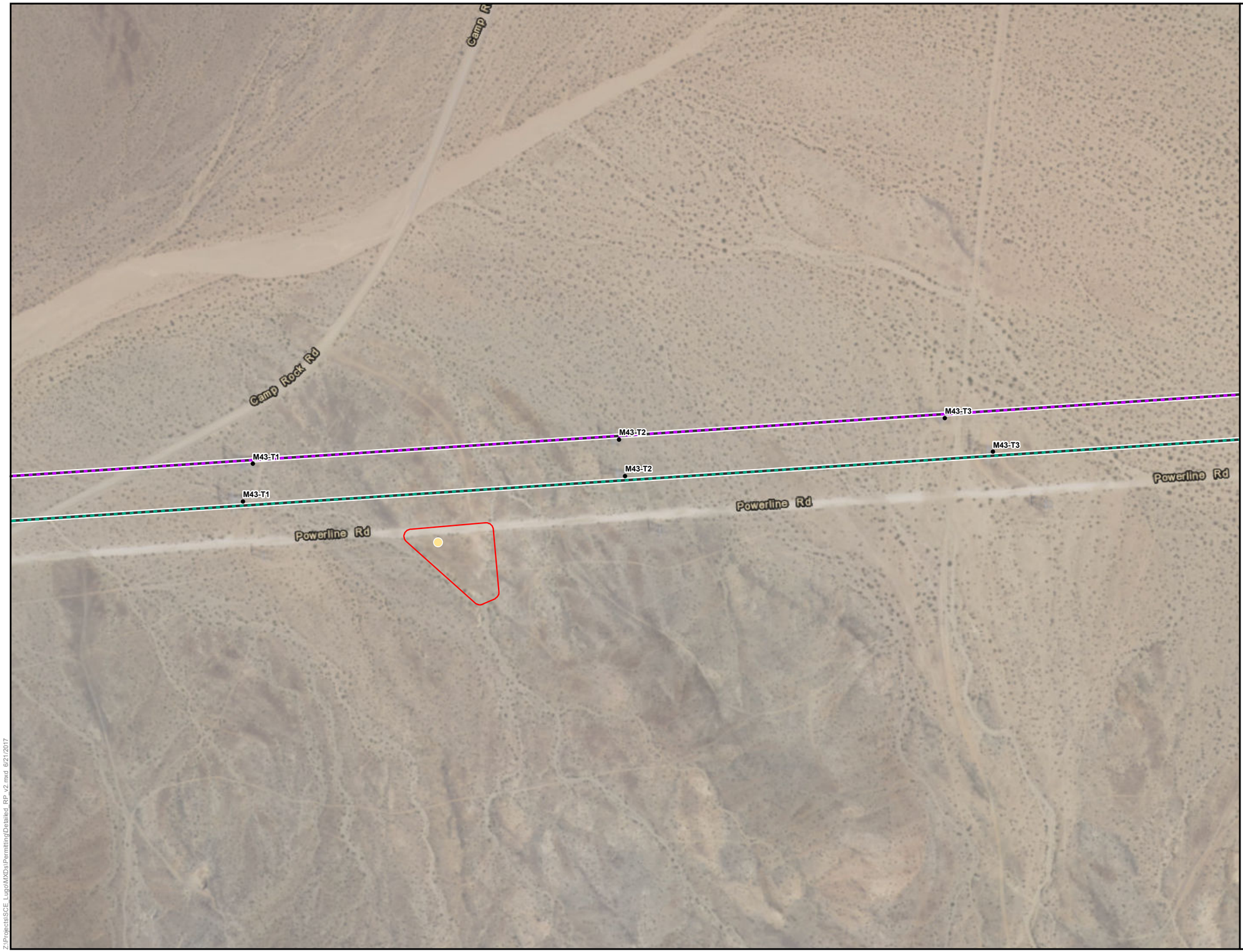
Attachment E:
Special-Status Plant Occurrences
Map Page 7 of 42

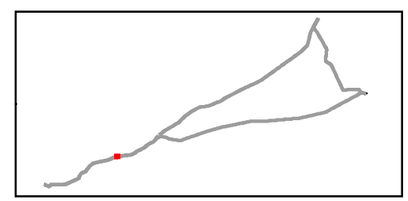
Eldorado-Lugo-Mohave
Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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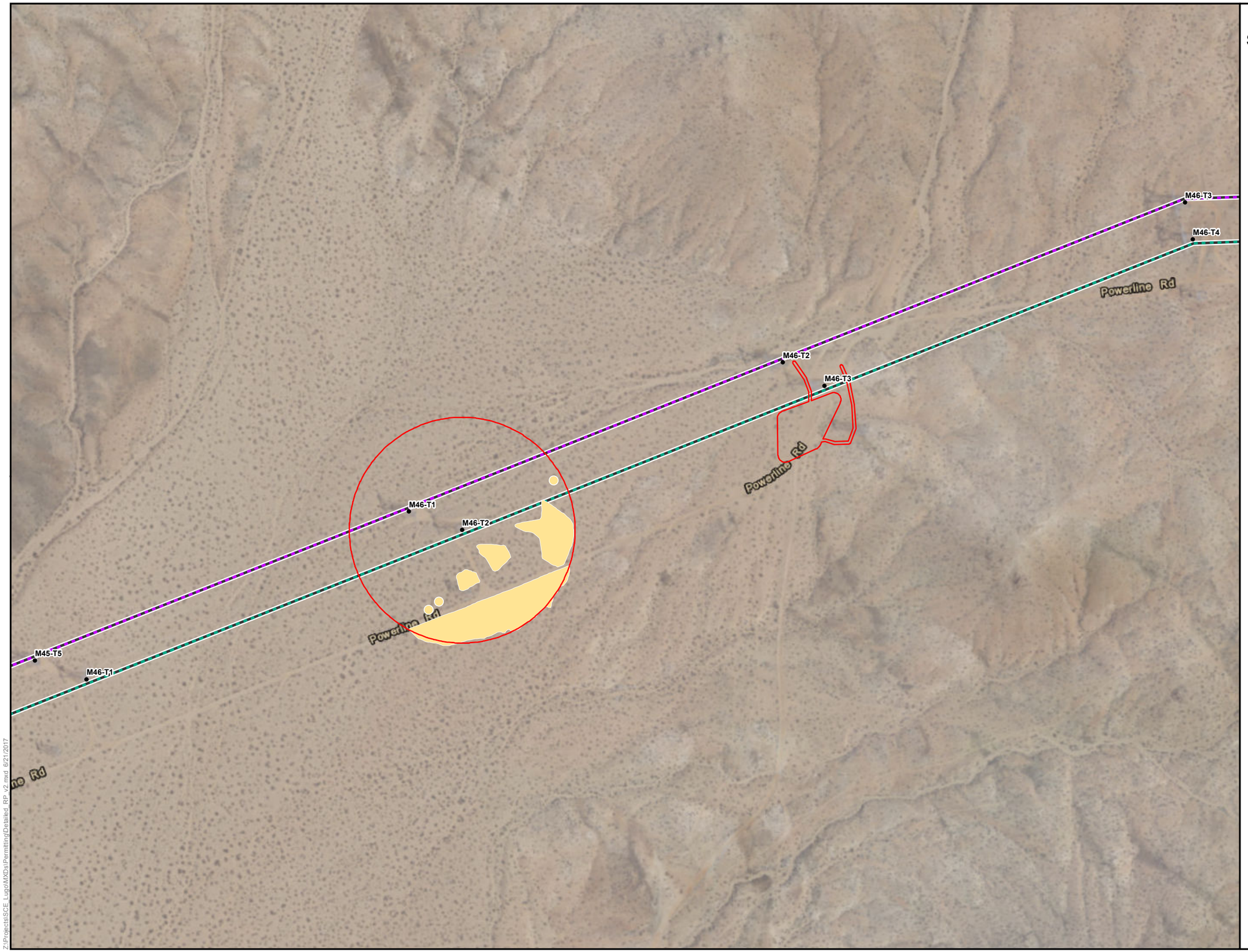
Attachment E:
Special-Status Plant Occurrences
Map Page 8 of 42

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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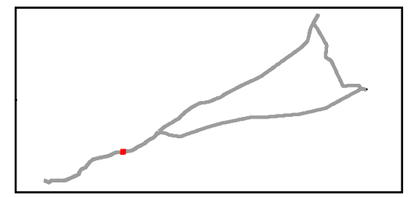
- Survey Extent

Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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Attachment E:
Special-Status Plant Occurrences
Map Page 9 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
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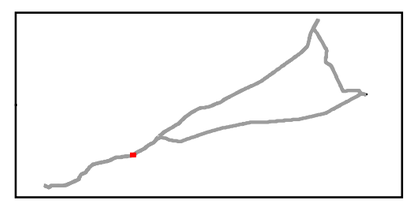
Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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Attachment E:
Special-Status Plant Occurrences
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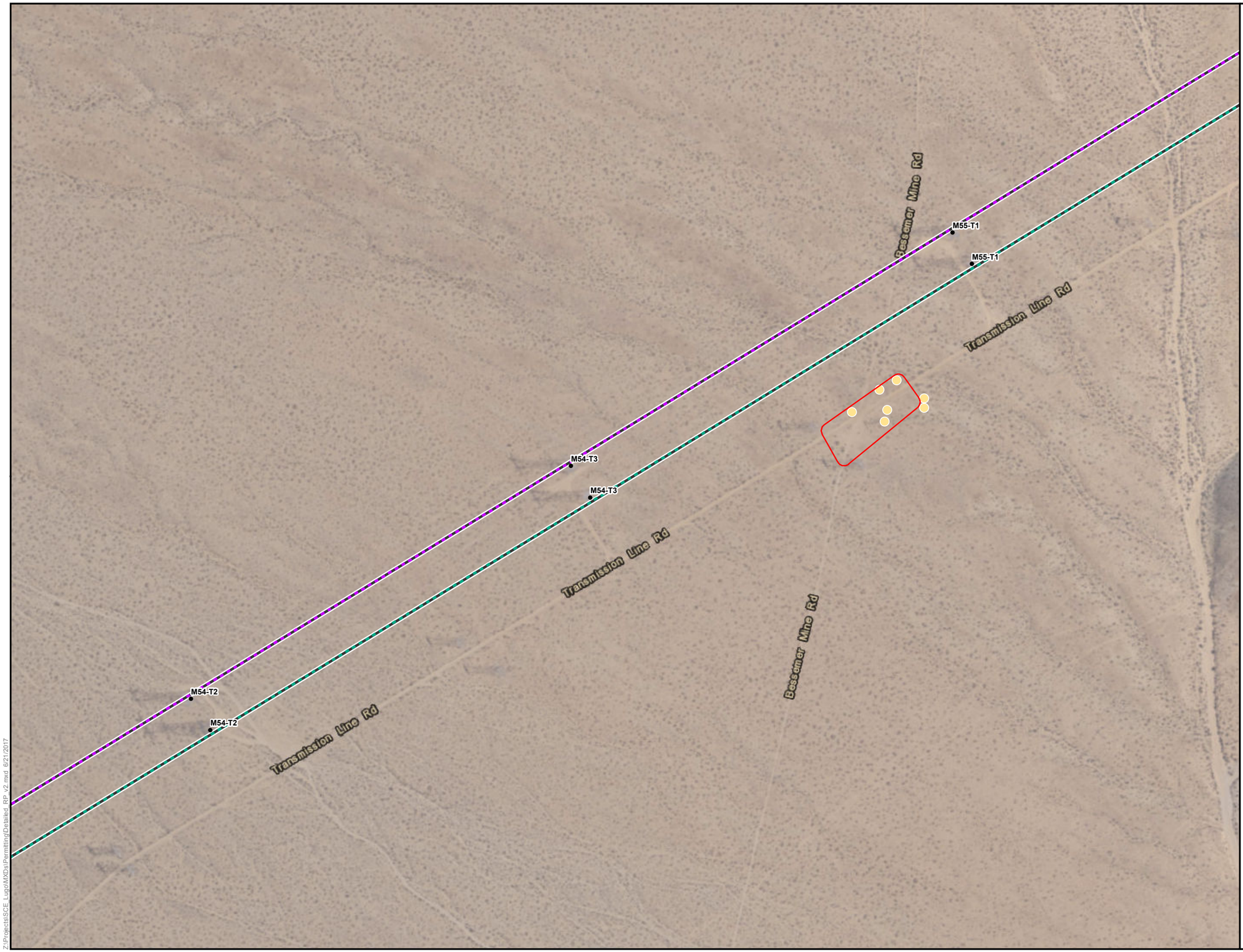
Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
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Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)

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0 150 300 600 Feet

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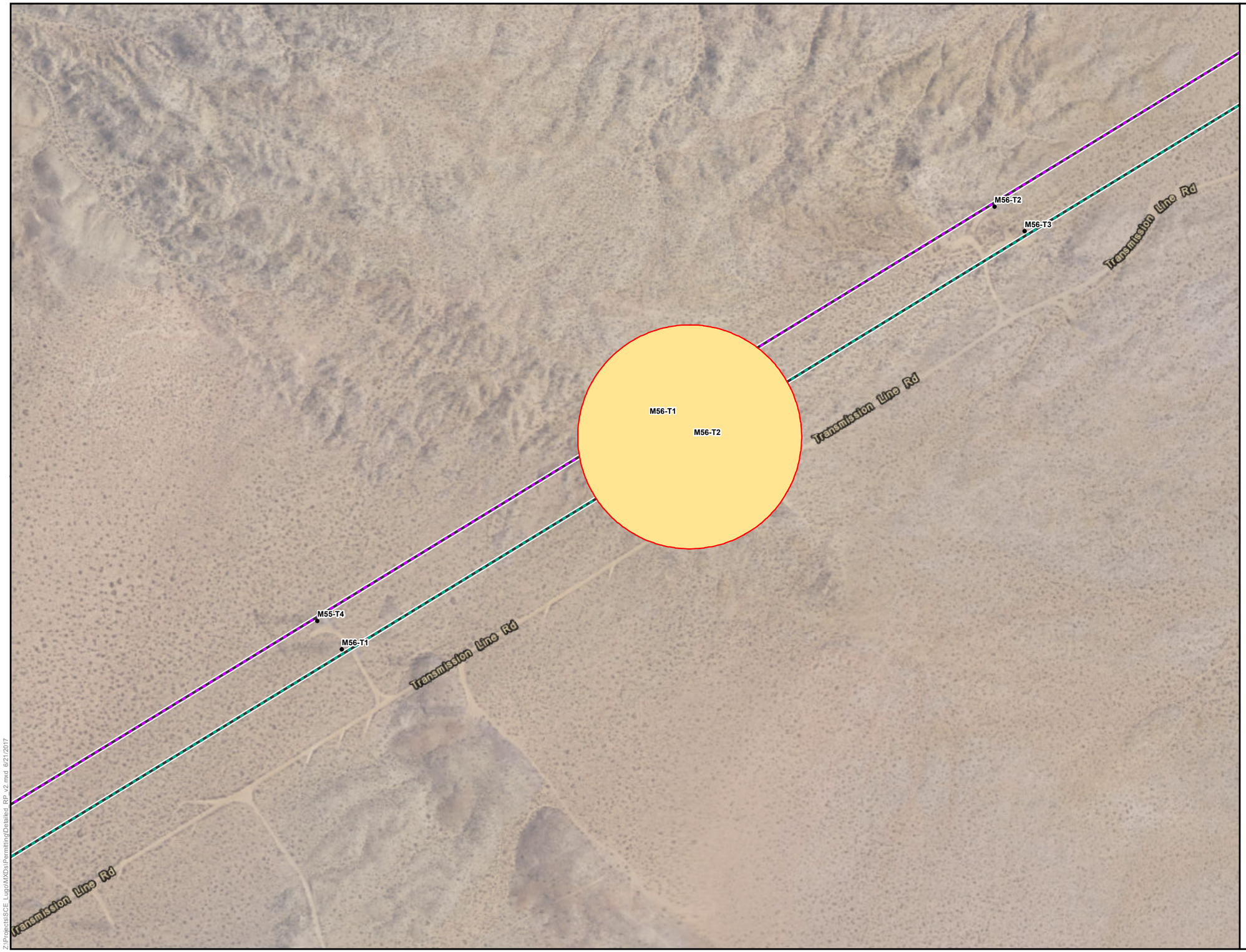
Attachment E:
Special-Status Plant Occurrences
Map Page 11 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project



- Substation
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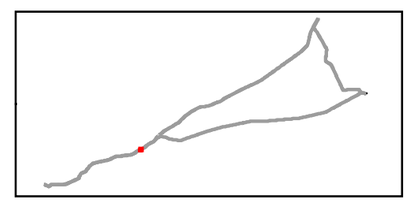
Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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Source: Insignia, 2016; SCE

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Attachment E:
Special-Status Plant Occurrences
Map Page 12 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
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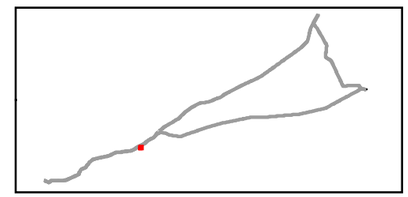
Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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Source: Insignia, 2016; SCE

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Attachment E:
Special-Status Plant Occurrences
Map Page 13 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
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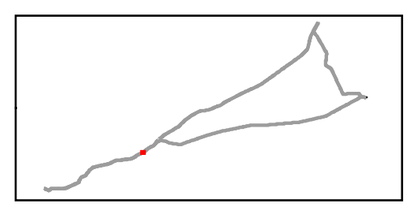
Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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Attachment E:
Special-Status Plant Occurrences
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Eldorado-Lugo-Mohave
Series Capacitor Project

M58-T3
M58-T3
M58-T2
M58-T2
M58-T1
M58-T1
M57-T4
M57-T4

- Substation
- Mid-Line Capacitor Location
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- Structure
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- Lugo - Mohave 500 kV Transmission Line
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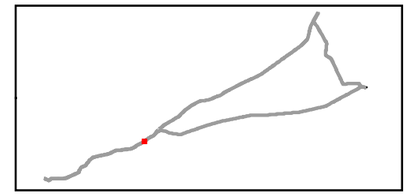
- Survey Extent

Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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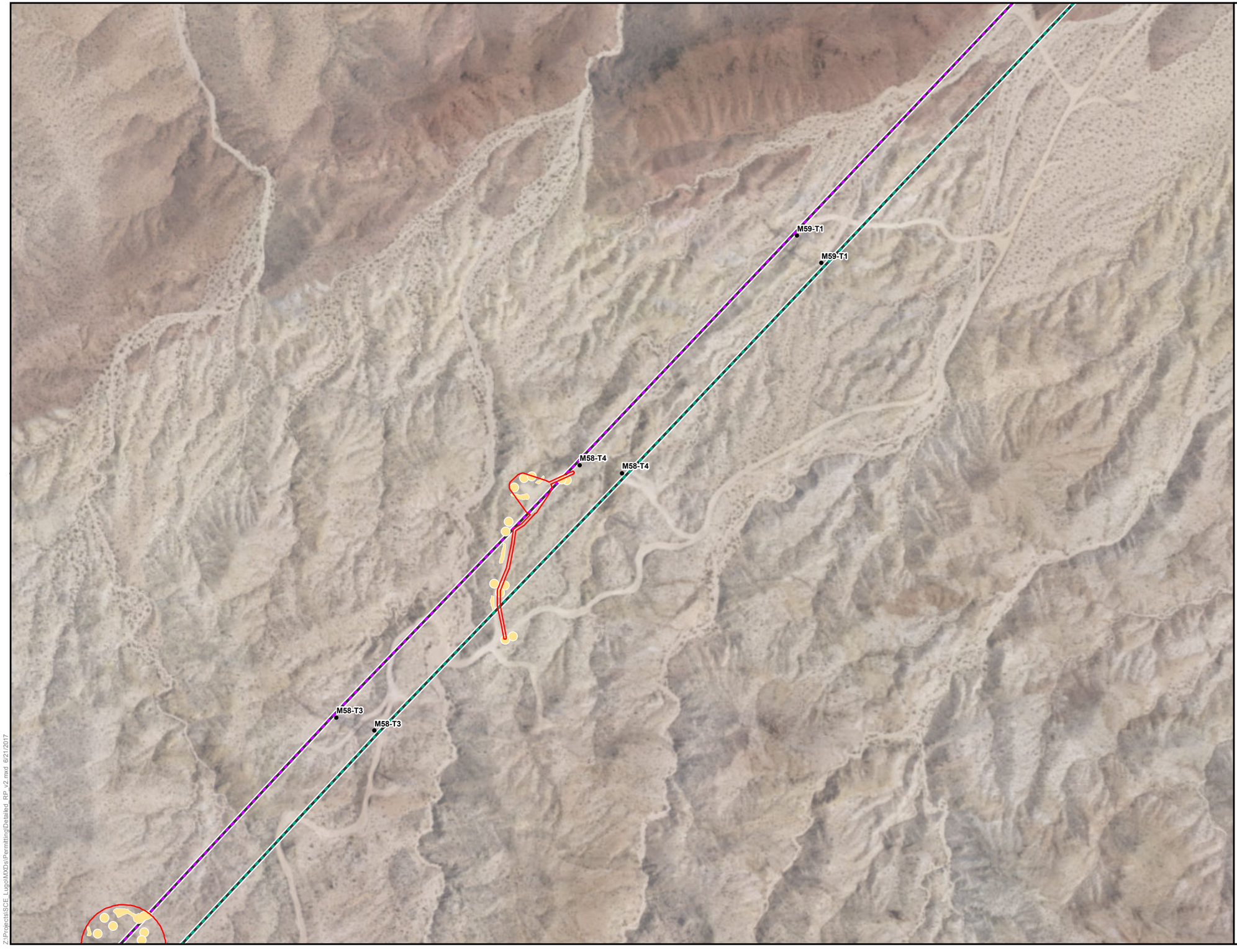
Attachment E:
Special-Status Plant Occurrences
Map Page 15 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project



- Substation
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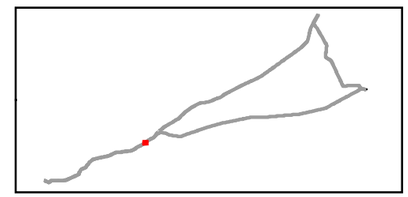
Rare Plant Occurences

- Mojave menodora (*Menodora spinescens var. mohavensis*)



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0 150 300 600 Feet

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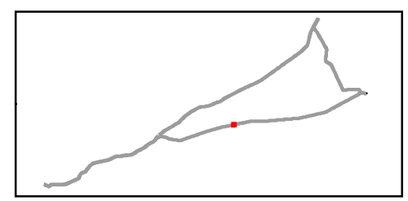
Attachment E:
Special-Status Plant Occurrences
Map Page 16 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Slender cottonheads (*Nemacaulis denudata var. gracilis*)



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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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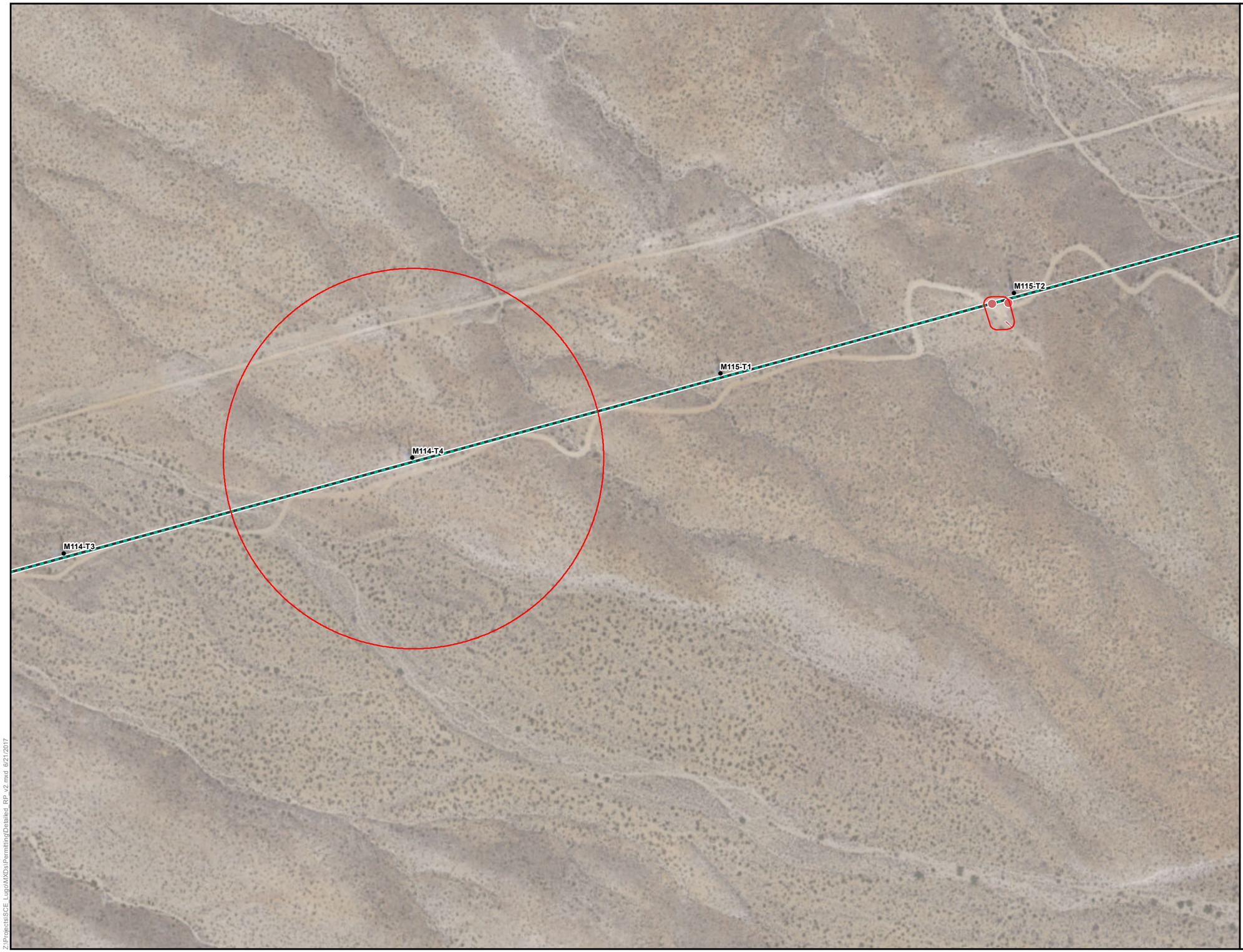
Attachment E:
Special-Status Plant Occurrences
Map Page 17 of 42

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
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- Eldorado - Mohave 500 kV Transmission Line
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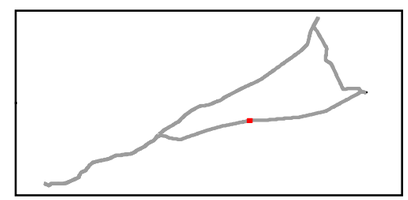
Rare Plant Occurences

- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 18 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
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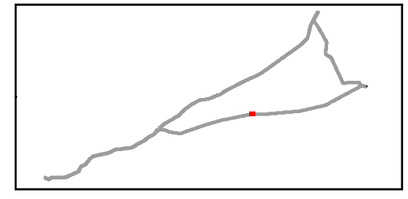
Rare Plant Occurences

- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 19 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
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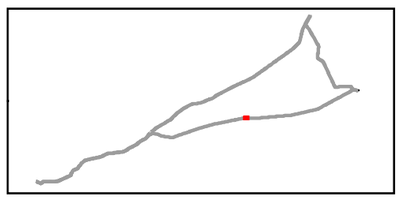
Rare Plant Occurences

- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)



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0 150 300 600 Feet

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Attachment E:
Special-Status Plant Occurrences
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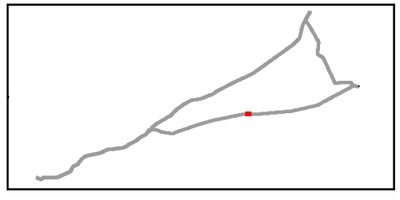
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Appressed muhly (*Muhlengergia appressa*)
- Narrow-leaved yerba santa (*Eriodictyon angustifolium*)
- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)
- Salina Pass wild-rye (*Elymus salina*)
- Spiny cliff-brake (*Pellaea truncata*)



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Source: Insignia, 2016; SCE

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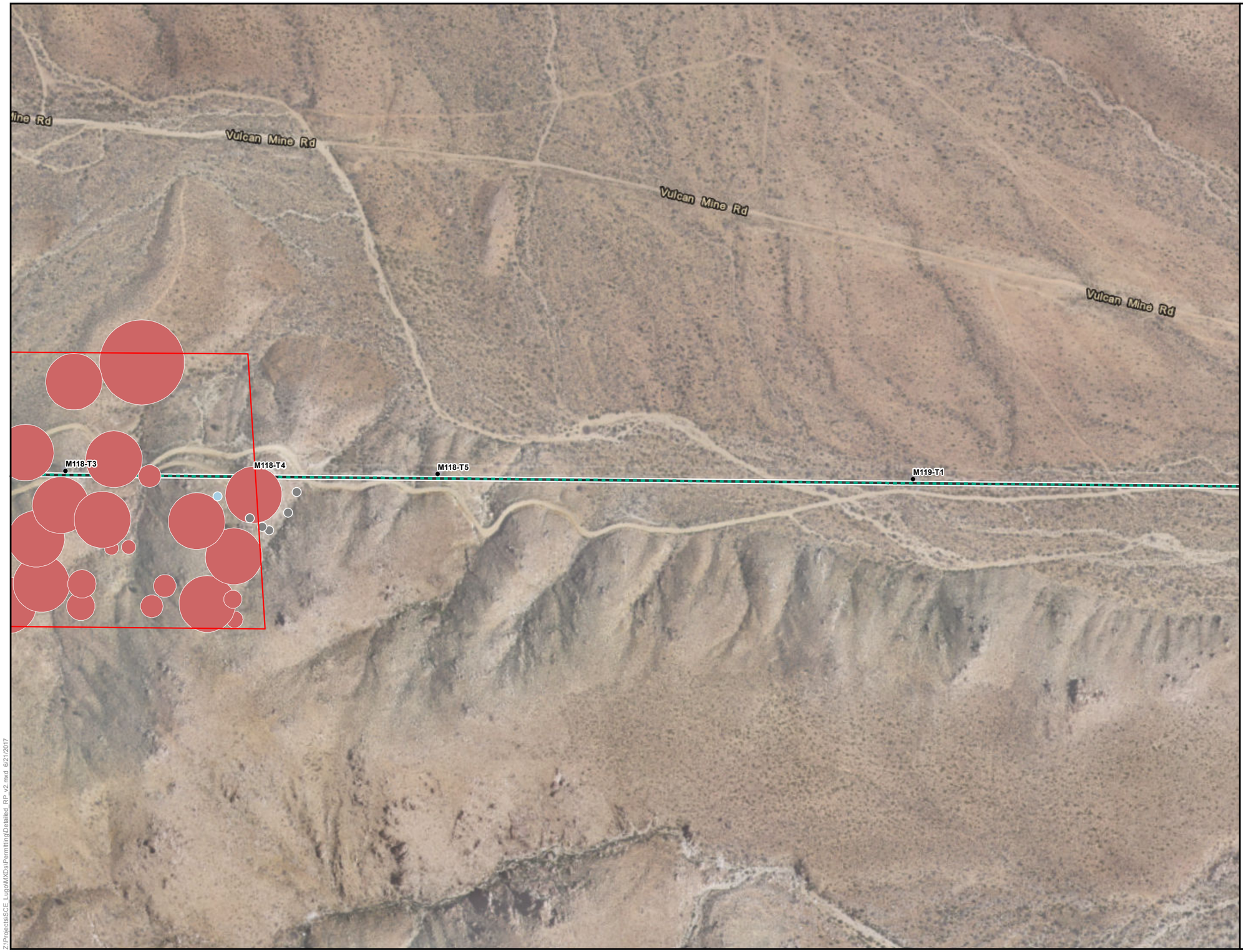
Attachment E:
Special-Status Plant Occurrences
Map Page 21 of 42

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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Rare Plant Occurences

- Appressed muhly (*Muhlengergia appressa*)
- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)
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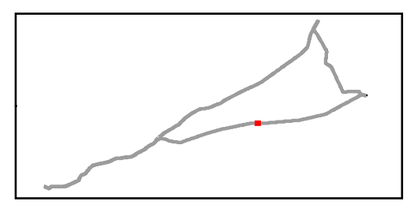

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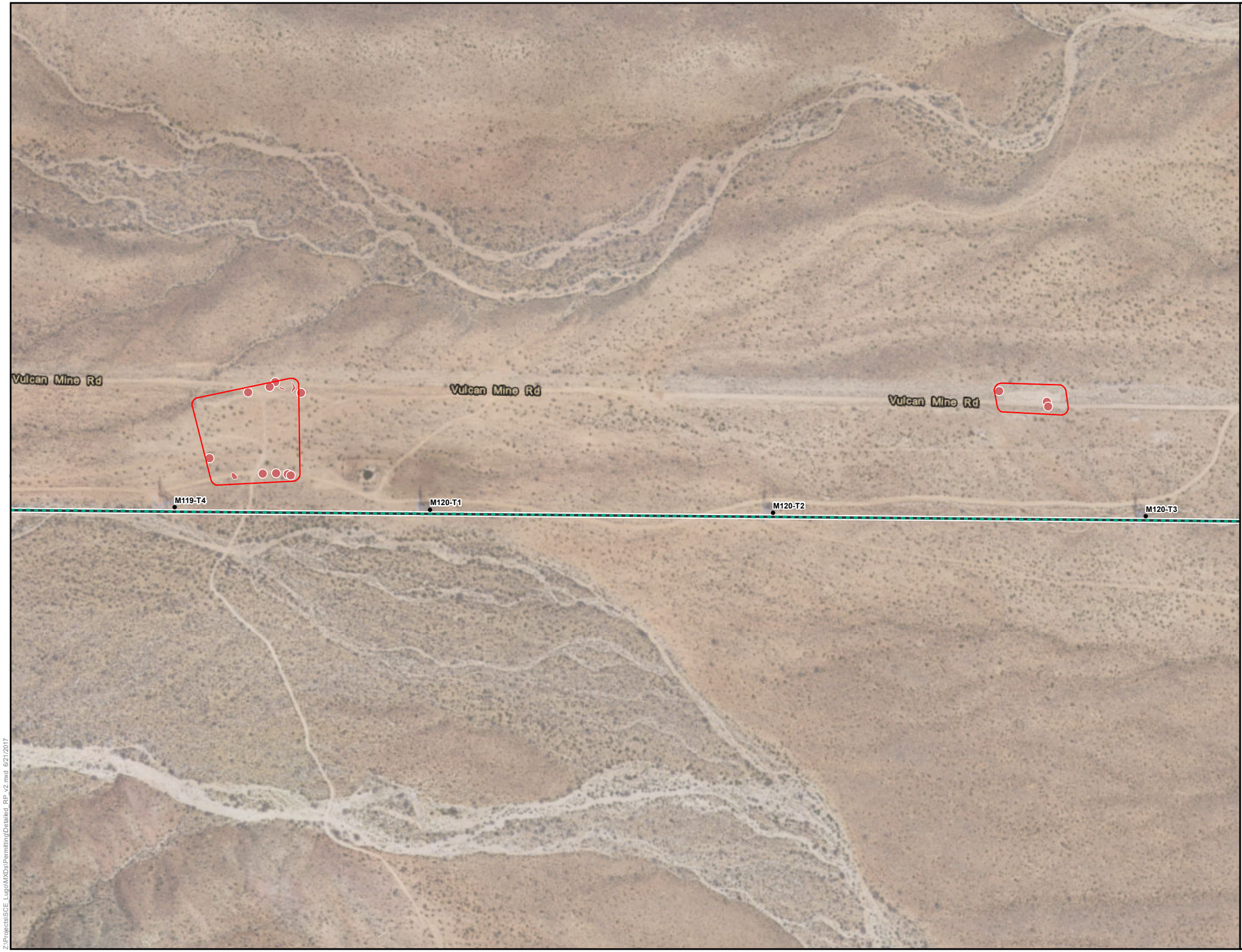

Attachment E:
Special-Status Plant Occurrences
Map Page 22 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
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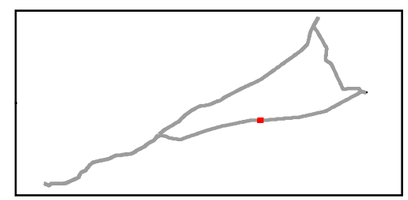
Rare Plant Occurences

- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)



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Source: Insignia, 2016; SCE

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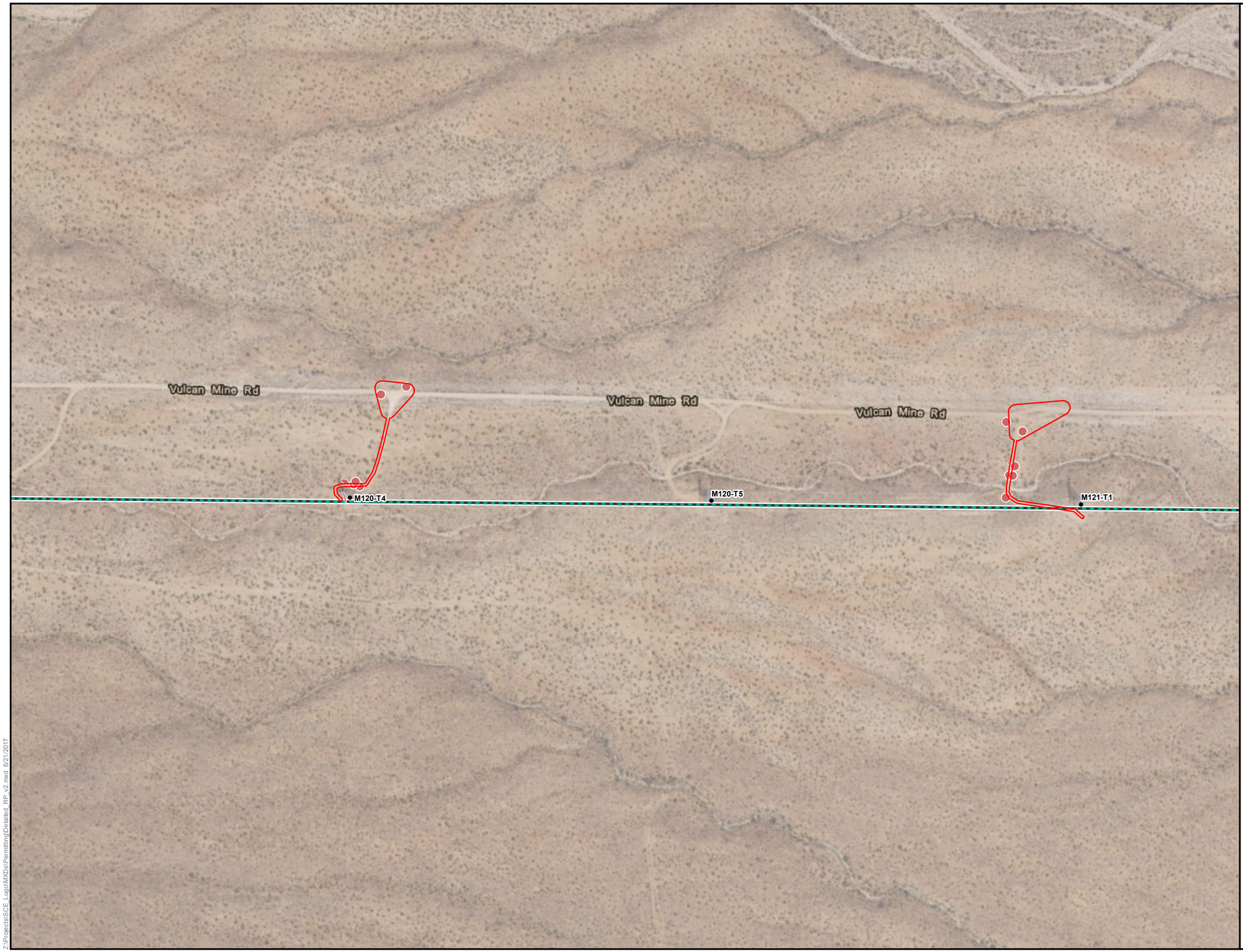
Attachment E:
Special-Status Plant Occurrences
Map Page 23 of 42

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
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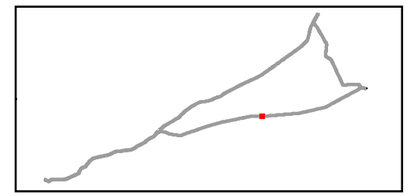

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0 150 300 600 Feet

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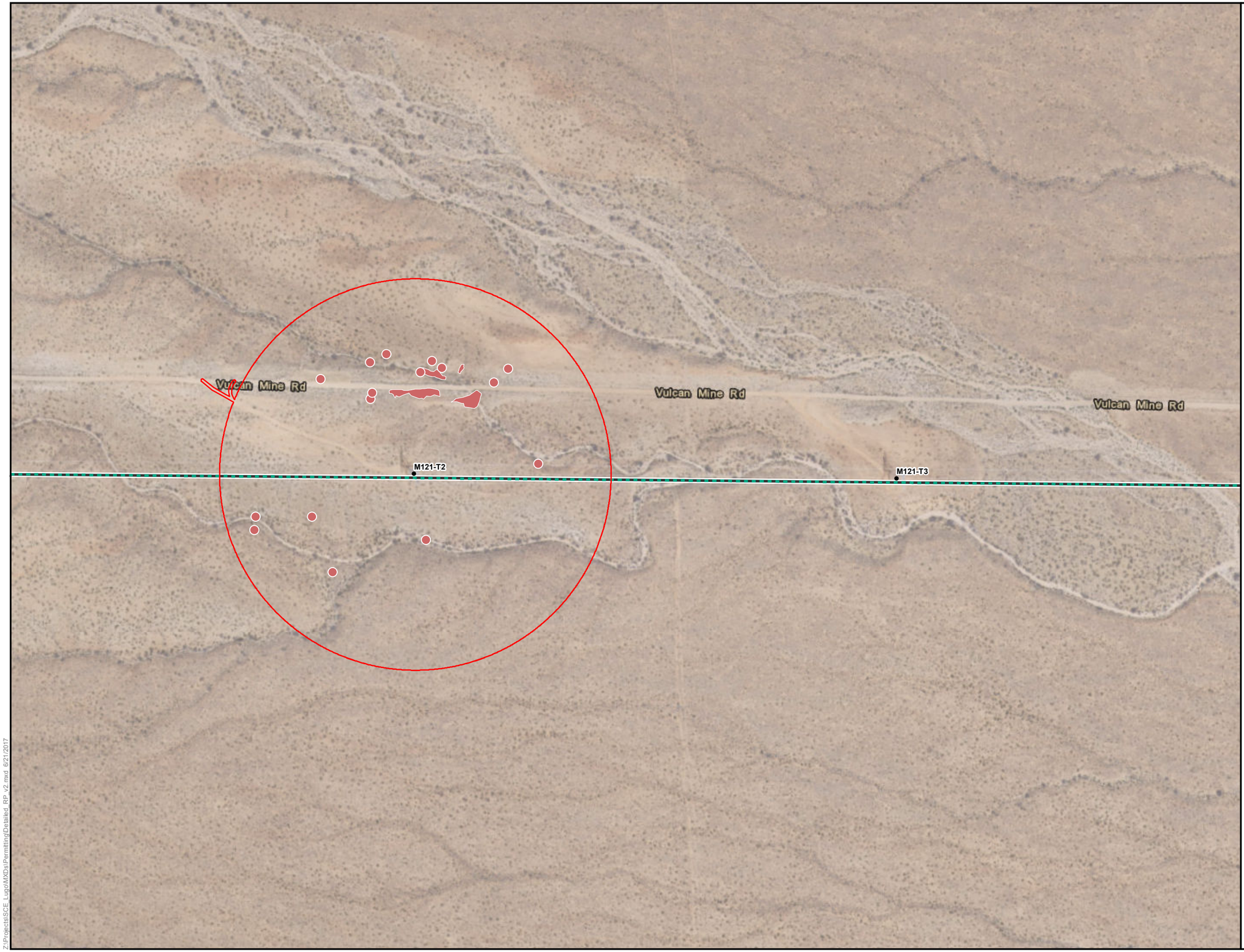
Attachment E:
Special-Status Plant Occurrences
Map Page 24 of 42

Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
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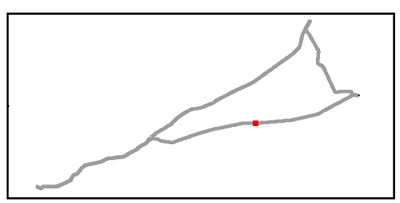
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Rusby's desert-mallow (*Sphaeralcea rusbyi var. eremicola*)



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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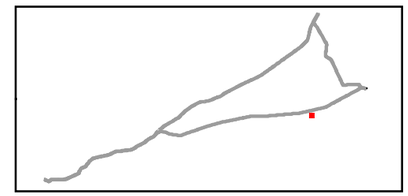
Attachment E:
Special-Status Plant Occurrences
Map Page 25 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Playa mik-vetch (*Astragalus allochrous var. playanus*)



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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2016; SCE

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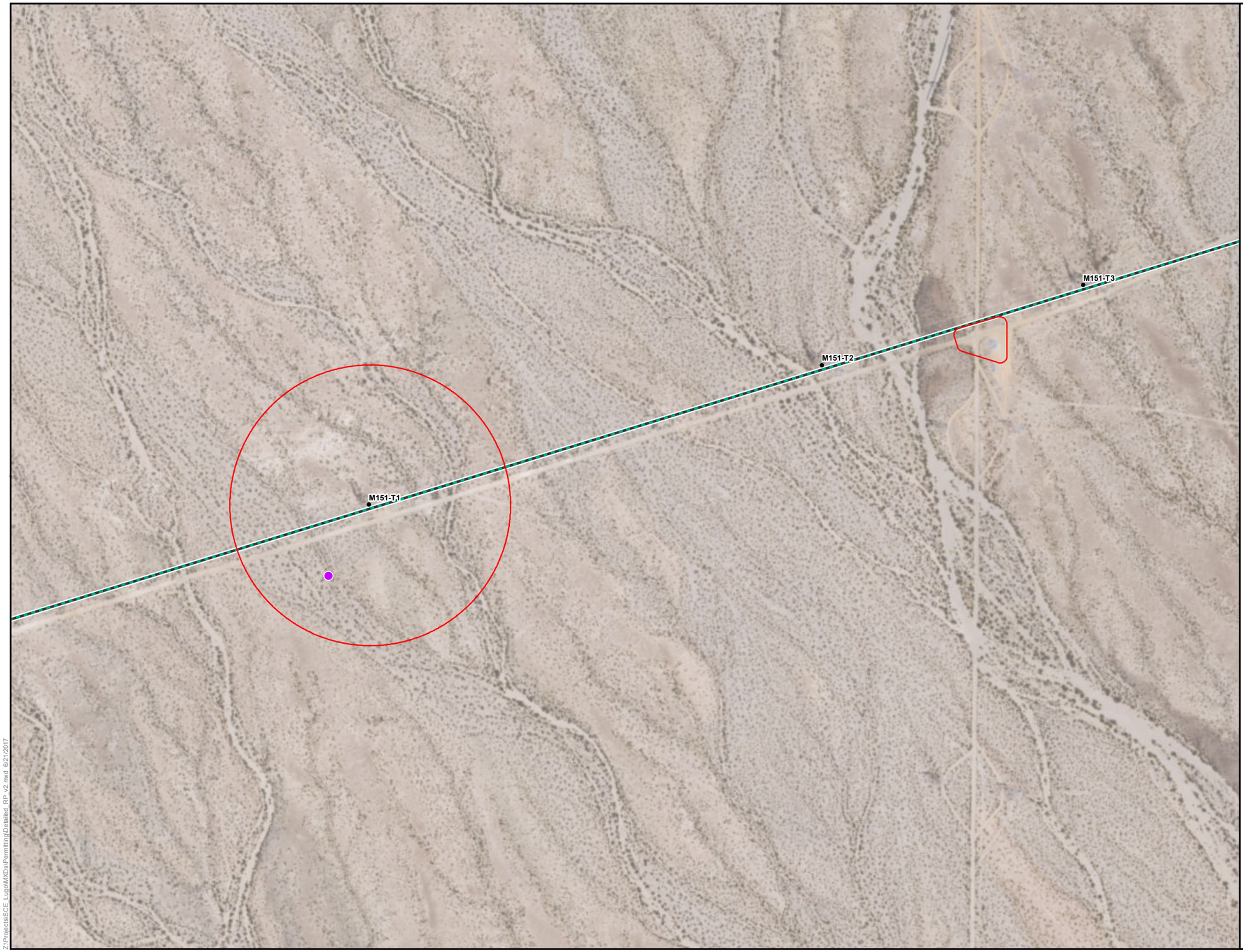


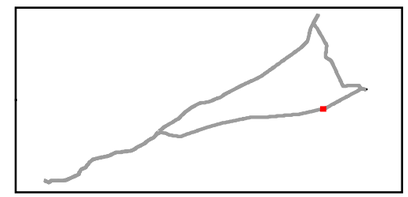
Attachment E:
Special-Status Plant Occurrences
Map Page 26 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telecommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Parish's club-cholla (*Grusonia parishi*)i



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Source: Insignia, 2016; SCE

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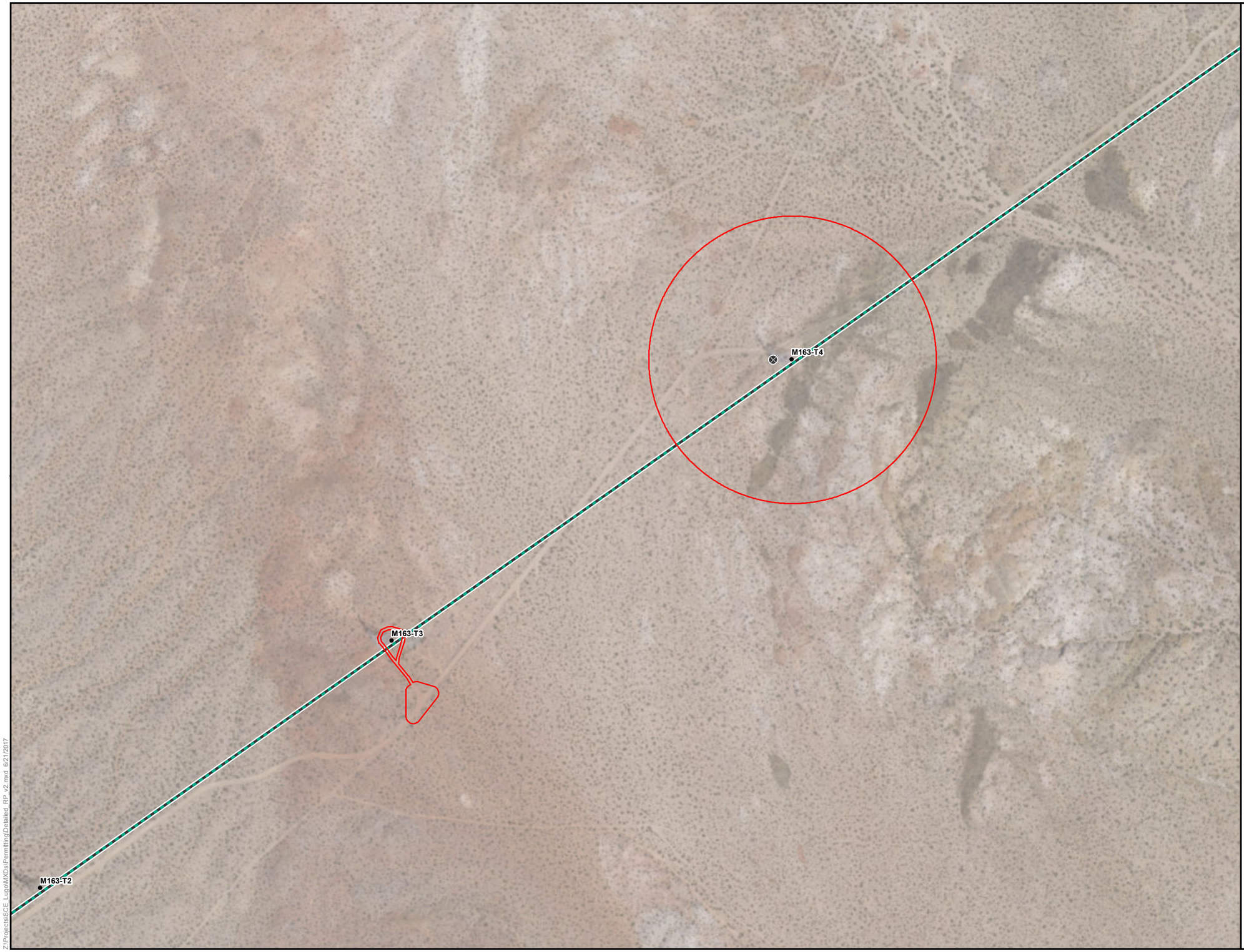
Attachment E:
Special-Status Plant Occurrences
Map Page 27 of 42

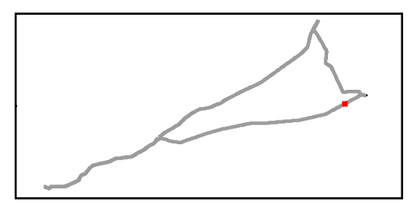
Eldorado-Lugo-Mohave
Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Spiny-hair blazing star (*Mentzelia tricuspis*)



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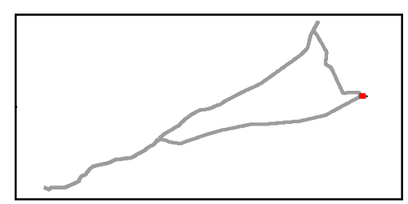
Attachment E:
Special-Status Plant Occurrences
Map Page 28 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Spiny-hair blazing star (*Mentzelia tricuspis*)



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Source: Insignia, 2016; SCE

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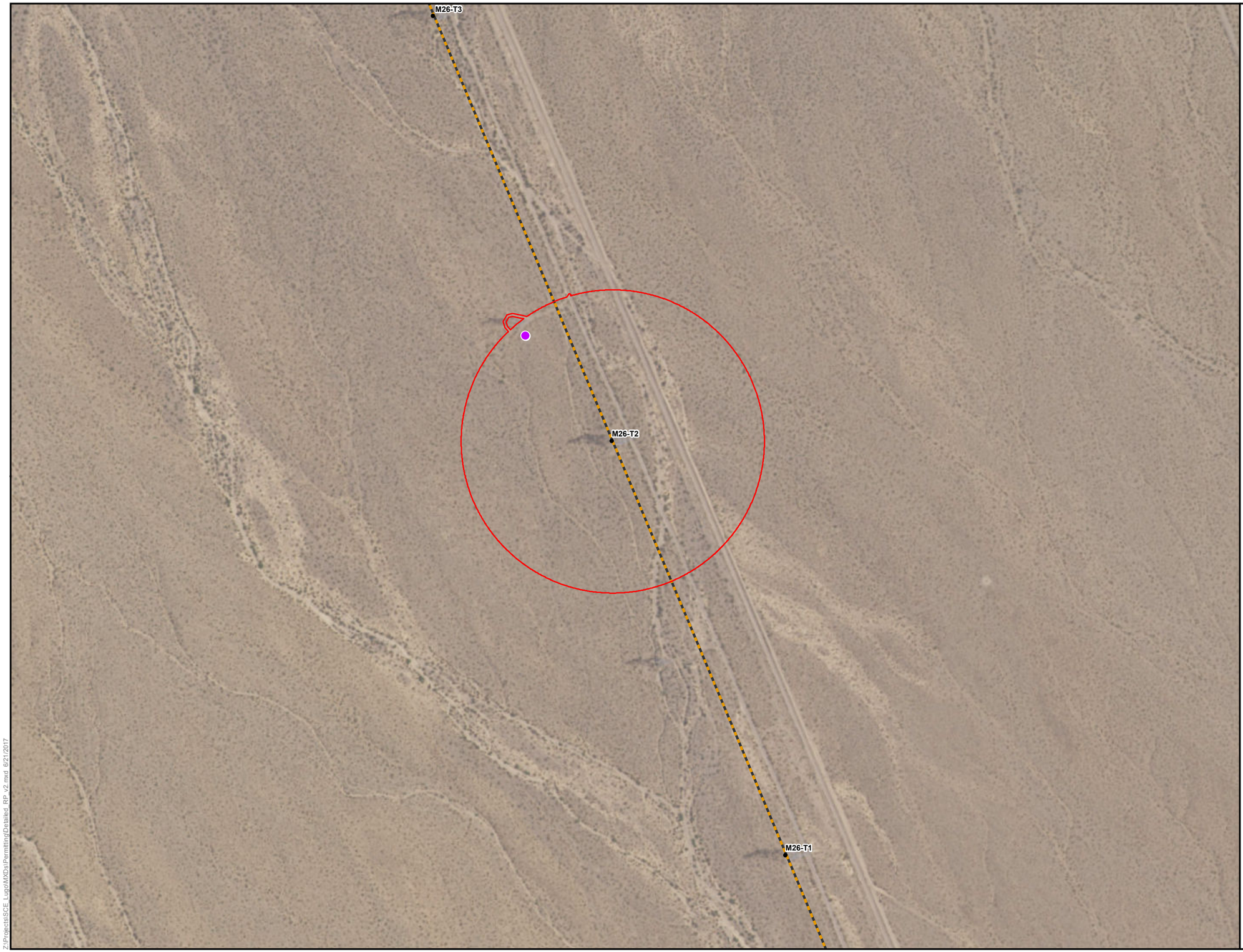

Attachment E:
Special-Status Plant Occurrences
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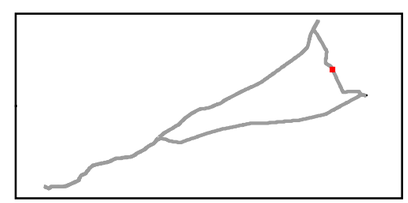
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Parish's club-cholla (*Grusonia parishi*)i



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Attachment E:
Special-Status Plant Occurrences
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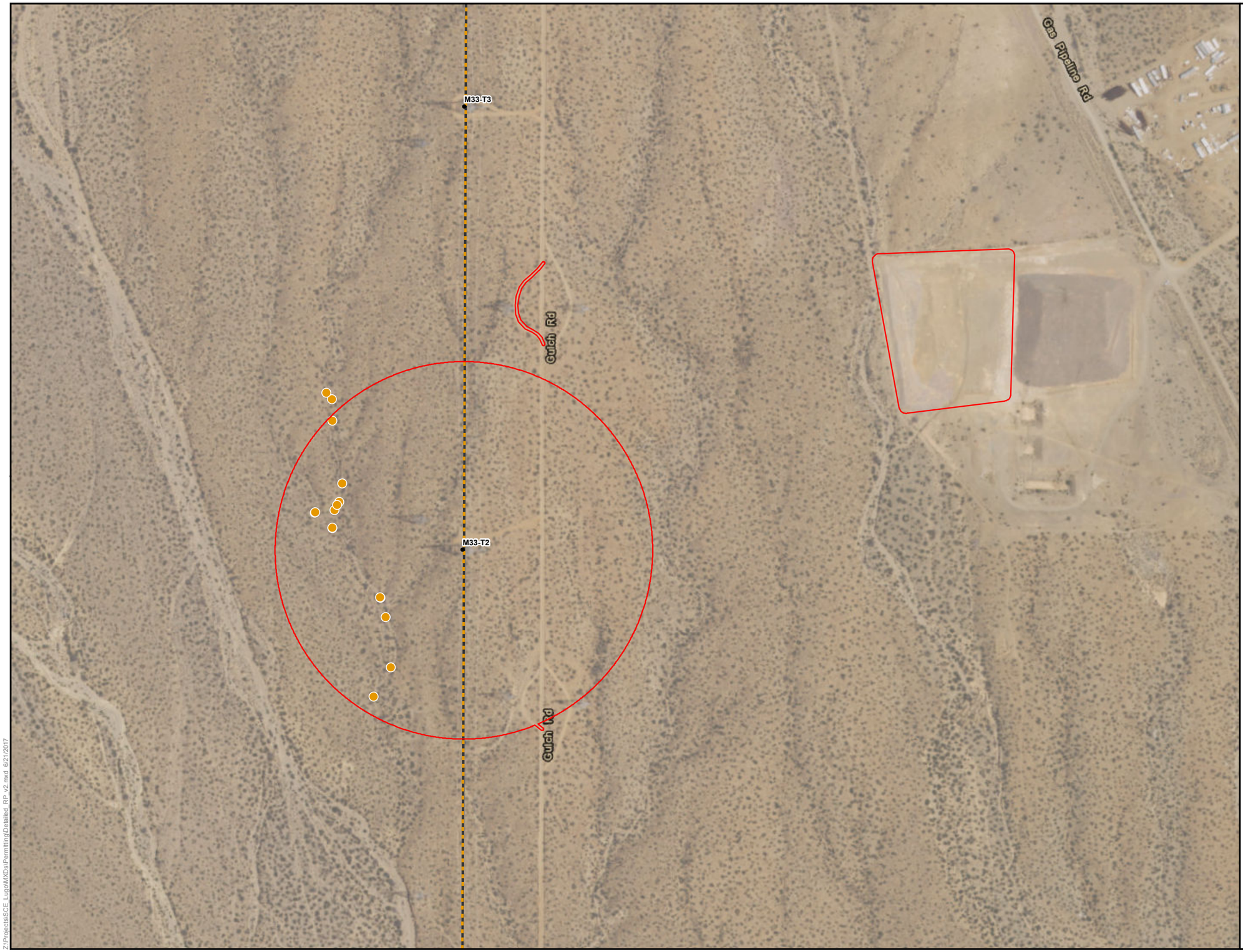
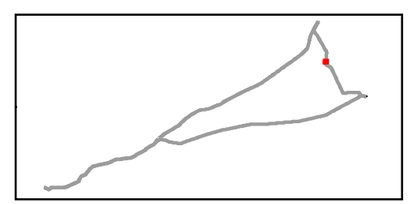
Eldorado-Lugo-Mohave Series Capacitor Project



- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Mojave milkweed (*Asclepias nyctaginifolia*)



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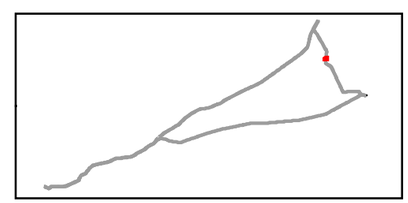
Attachment E:
Special-Status Plant Occurrences
Map Page 31 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)



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Attachment E:
Special-Status Plant Occurrences
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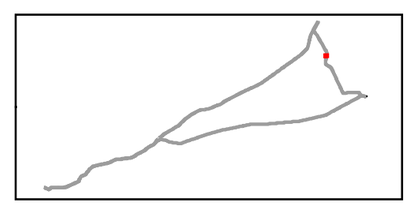
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Mojave milkweed (*Asclepias nyctaginifolia*)
- Parish's club-cholla (*Grusonia parishi*)i



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Attachment E:
Special-Status Plant Occurrences
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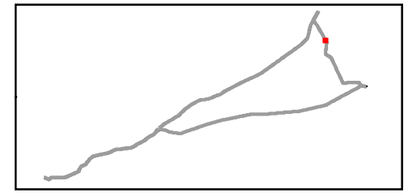
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)



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Attachment E:
Special-Status Plant Occurrences
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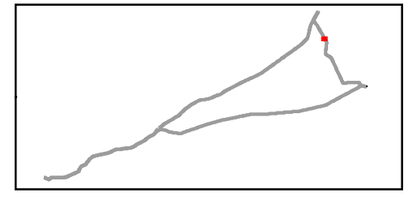
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telecommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)



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Attachment E:
Special-Status Plant Occurrences
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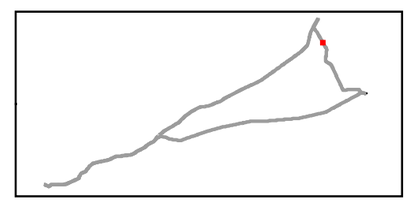
Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 36 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

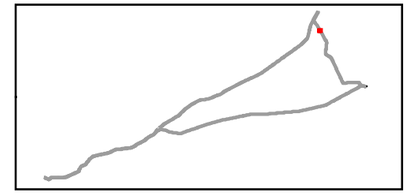
M46-T3

M46-T2

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)
- Rosy two-toned beardtongue (*Penstemon bicolor ssp. roseus*)



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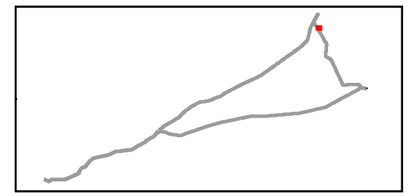
Attachment E:
Special-Status Plant Occurrences
Map Page 37 of 42

Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Johnson's bee-hive cactus (*Sclerocactus johnsonii*)



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Special-Status Plant Occurrences
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Eldorado-Lugo-Mohave Series Capacitor Project

M49-T5

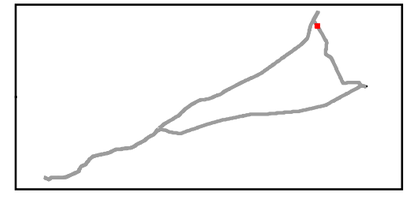
M49-T4

M49-T3

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Coves' cassia (*Senna covesii*)



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Attachment E:
Special-Status Plant Occurrences
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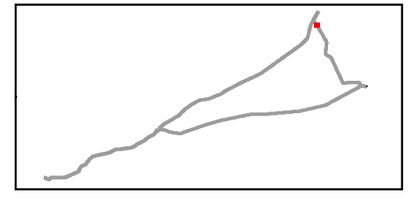
Eldorado-Lugo-Mohave
Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Coves' cassia (*Senna covesii*)



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Attachment E:
Special-Status Plant Occurrences
Map Page 40 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

M51-T4

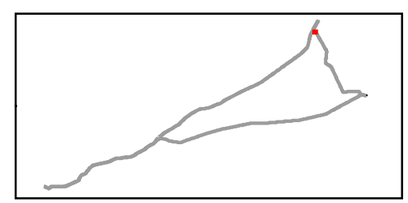
M51-T3

M51-T2

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Coves' cassia (*Senna covesii*)
- Parish's club-cholla (*Grusonia parishii*)i



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M171-T1
M53-T4
M170-T4
M53-T3
M53-T2
M170-T3
M53-T1

Attachment E:
Special-Status Plant Occurrences
Map Page 41 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Transmission Line not part of Proposed Project
- Survey Extent

Rare Plant Occurences

- Parish's club-cholla (*Grusonia parishi*)i

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0 150 300 600 Feet

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Attachment E:
Special-Status Plant Occurrences
Map Page 42 of 42

Eldorado-Lugo-Mohave Series Capacitor Project

- Substation
- Mid-Line Capacitor Location
- Telcommunications Repeater Location
- Structure
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
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- Survey Extent

Rare Plant Occurences

- Parish's club-cholla (*Grusonia parishi*)i

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ATTACHMENT F: SPECIAL-STATUS PLANT SPECIES PHOTOGRAPHS

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ATTACHMENT F: SPECIAL-STATUS PLANT SPECIES PHOTOGRAPHS

Photograph 1: Appressed muhly (*Muhlenbergia appressa*), a California Rare Plant Rank (CRPR) 2B.2 species.

Photograph 2: Clokey's cryptantha (*Cryptantha clokeyi*), a CRPR 1B.2 species.

Photograph 3: Johnson's bee-hive cactus (*Sclerocactus johnsonii*), a CRPR 2B.2 species.

Photograph 4: Mojave menodora (*Menodora spinescens* var. *mohavensis*), a CRPR 1B.2 species.

Photograph 5: Mojave milkweed (*Asclepias nyctaginifolia*), a CRPR 2B.1 species.

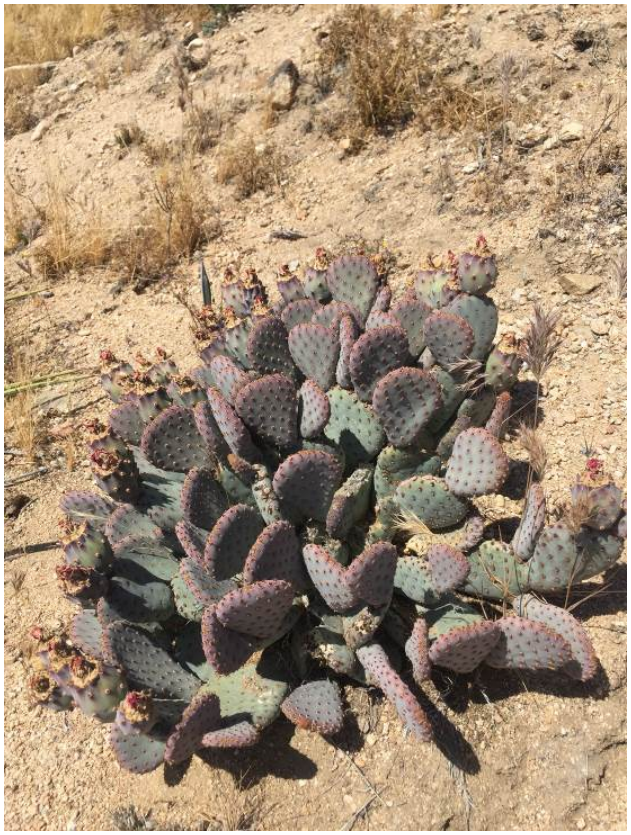
Photograph 6: Narrow-leaved yerba santa (*Eriodictyon angustifolium*), a CRPR 2B.3 species.

Photograph 7: Matted club-cholla (*Grusonia parishii*), a CRPR 2B.2 species.

Photograph 8: Playa milk-vetch (*Astragalus allochrous* var. *playanus*), a CRPR 2B.2 species.

Photograph 9: Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*), a CRPR 1B.2 species.

Photograph 10: Salina Pass wild-rye (*Elymus salina*), a CRPR 2B.3 species.



Photograph 11: Short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*), a CRPR 1B.2 species.

Photograph 12: Spiny cliff-brake (*Pellaea truncata*), a CRPR 2B.3 species.