Appendix D-6

ELM Project Special-Status Plant Report II

Special-Status Plant Species Survey Report II

for the

Eldorado-Lugo-Mohave Series Capacitor Project

Prepared for:

SOUTHERN CALIFORNIA EDISON®
An *EDISON INTERNATIONAL*® Company

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June 2020

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1 – INTRODUCTION

In 2019, Insignia Environmental (Insignia) conducted protocol-level surveys for Southern California Edison Company's (SCE's) Eldorado-Lugo-Mohave Series Capacitor Project (Project). These surveys comprise the second year of special-status plant surveys conducted to fulfill the Bureau of Land Management's (BLM's) 2-year special-status plant survey requirement. The survey area included all Project impact areas (Impact Areas), plus an approximately 50-foot buffer (Survey Area) totaling approximately 893 acres.[1]

This Special-Status Plant Species Survey Report II (Report) provides an overview of the survey history, Project description, and environmental setting; describes the survey methods utilized; presents the 2019 survey results; and provides a brief discussion of the results.

2 – PROJECT DESCRIPTION

2.0 PROJECT LOCATION

The Project spans approximately 235 miles in San Bernardino County, California and Clark County, Nevada. As shown in Figure 1: Proposed Project Overview Map, the Project would extend northeast from Lugo Substation (located in the City of Hesperia, California) to Pisgah Substation (located east of the unincorporated community of Newberry Springs, California). From Pisgah Substation, the Project would extend east to the Mohave Substation (located in Clark County, Nevada), and from Mohave Substation northwest to Eldorado Substation (located near Boulder City, Nevada). Additional staging areas, helicopter landing zones, and work areas are located near the ghost town of Crucero, California; in the community of Newberry Springs; and on the eastern border of the Mojave National Preserve (MNP), along the Eldorado-Lugo 500 Kilovolt (kV) Transmission Line.

2.1 PROJECT COMPONENTS

The following subsections provide descriptions of the components associated with the Project.

2.1.0 Transmission Line

The Project would involve modifications and/or upgrades to the following existing 500 kV transmission lines:

- Eldorado-Lugo 500 kV Transmission Line
- Eldorado-Mohave 500 kV Transmission Line
- Lugo-Mohave 500 kV Transmission Line

[1] Previous surveys included buffers of variable and larger sizes. These larger buffers allowed for changes in the Project's design. In 2019, a consistent buffer of 50 feet from all Impact Areas was surveyed. This smaller buffer was possible as the Project design has progressed to a point where large changes are not anticipated.

To address 16 overhead clearance discrepancies[2] at approximately 14 locations on the Eldorado-Lugo, Eldorado-Mohave, and Lugo-Mohave 500 kV transmission lines, existing structures would be raised or reframed, conductors would be modified, and areas would be graded to provide the required clearances. In addition, the Project would include the installation of optical ground wire on approximately 235 miles of the Eldorado-Mohave and Lugo-Mohave 500 kV transmission lines, which would require modification to approximately 59 lattice steel towers.

Telecommunications

Telecommunications infrastructure would be added to connect the Project to SCE's telecommunications system and would provide Supervisory Control and Data Acquisition, protective relaying, data transmission, and telephone services for the Project and associated facilities. The Project would include the installation of approximately 7 miles of new overhead and underground telecommunications cables; installation of three new fiber optic repeater sites; and the installation of new telecommunications cable within the existing Eldorado, Lugo, and Mohave substations.

Distribution

The Project would include extending or rerouting approximately 2.5 miles of new overhead and underground distribution circuits. In addition, cross arms on existing distribution structures would be lowered to address clearance discrepancies on the Lugo-Mojave 500 kV Transmission Line.

2.1.1 Mid-Line Series Capacitors

The Project includes the construction of two new 500 kV mid-line series capacitors—the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor—within the Eldorado-Lugo and Lugo-Mohave 500 kV Transmission Line rights-of-way (ROWs), respectively.

2.1.2 Modifications to Existing Substations

Interior modifications proposed at Eldorado, Lugo, Mohave, and McCollough substations include upgrades and reconfiguration of 500 kV equipment, installation or upgrade of existing capacitor banks, reconductoring of line positions, and additional modifications to equipment.

2.2 RIGHT-OF-WAY REQUIREMENTS

The Project would be built within existing SCE fee-owned ROWs, easements, or public ROWs where SCE has existing franchise agreements.

[2] 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 is needed to address California Public Utilities Commission General Order 95 and National Electrical Safety Code overhead clearance requirements.

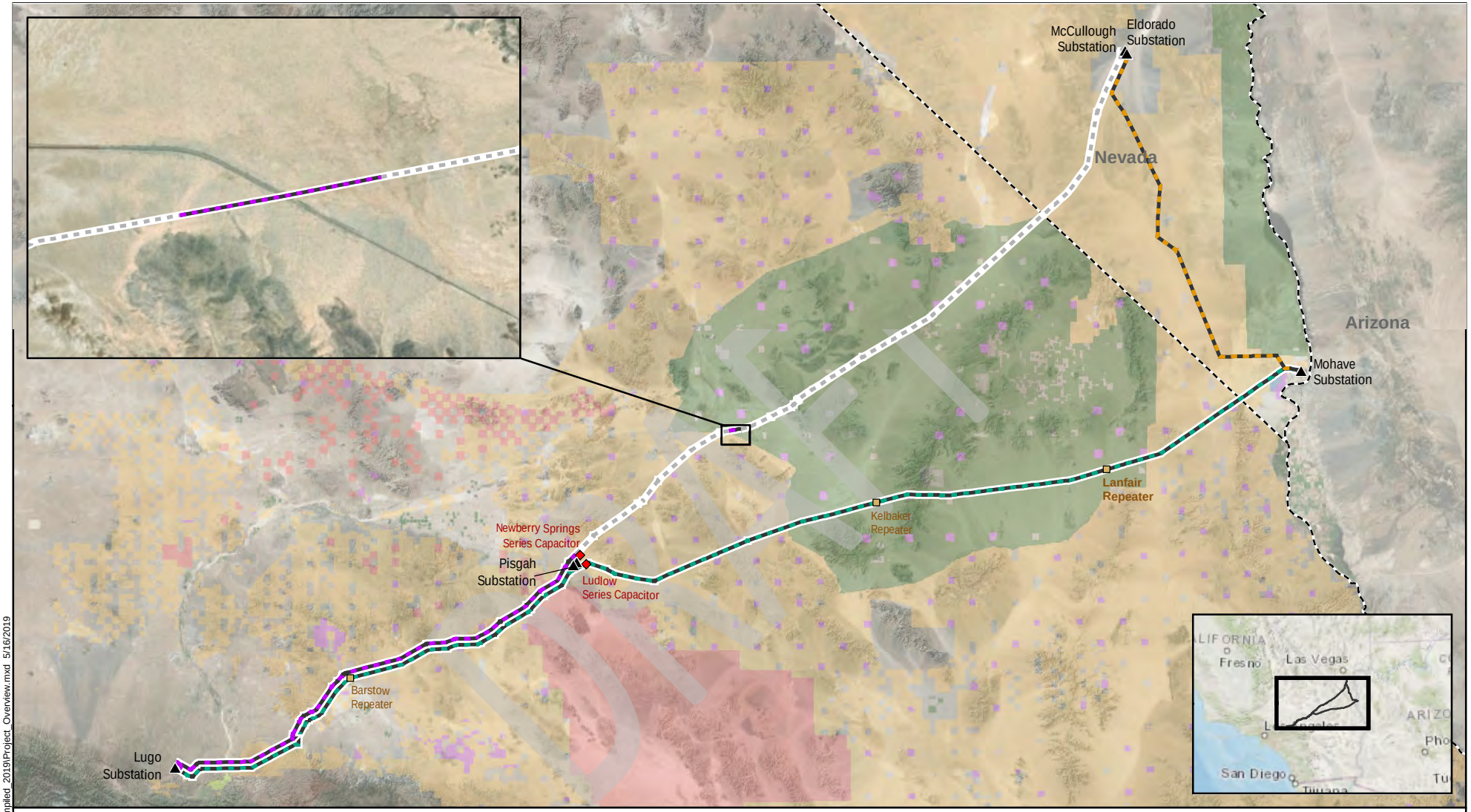

Figure 1: Proposed Project Overview Map — **Eldorado-Lugo-Mohave Series Capacitor Project**

- Substation
- Mid-Line Capacitor Location
- Fiber Optic Repeater Location
- State Boundary
- 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

1:1,260,000

0 10 20 Miles

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However, upon final engineering and Project approval, acquisition of new land rights may be required for the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor and/or fiber optic repeater sites, where necessary. Easement widths are based on facility types, final design, and the type of right acquired. Upgrading easements may include adding land rights, adding widths to existing easements, and improving or clarifying access or maintenance rights.

2.3 CONSTRUCTION METHODS

A detailed description of construction activities, including activities performed, equipment used, expected work periods, daily work schedules, staging and work areas, and access has been provided in the Proponent's Environmental Assessment for the Project.

2.4 LAND DISTURBANCE SUMMARY

Land disturbance would include all areas affected by construction of the Project, referred to herein as the Impact Areas. The total permanent land disturbance for the Project would be approximately 7 acres and the temporary land disturbance would be approximately 373 acres.

2.5 CONSTRUCTION SCHEDULE

SCE anticipates that construction of the Project would take approximately 15 months, beginning in the summer of 2020. The proposed construction schedule does not account for unforeseen Project delays, such as those due to inclement weather and/or stoppage necessary to protect biological resources (e.g., nesting birds). Construction would commence following agency approval, final engineering, procurement activities, land rights acquisition, and receipt of all applicable permits.

3 – ENVIRONMENTAL SETTING

The Project's Impact Areas are located in approximately 380 non-contiguous acres spread across the Mojave Desert within the Mojave Basin and Range Ecoregion (United States [U.S.] Geological Survey [USGS] 2012). Throughout this desert setting, the environmental conditions may vary widely, dependent on season, elevation, proximity to the Pacific coast, and level of anthropogenic activities. The land use, climate, topography, hydrology, soils, and vegetation communities that are located in the Impact Areas are summarized in the subsections that follow.

3.0 LAND USE AND MANAGEMENT

The Project is located mostly in undeveloped lands with few urbanized areas; it is located in close proximity to—and in some cases, within—BLM-managed lands that are used for grazing, energy development, and recreation, among other uses. The Project also crosses approximately 49 miles of the MNP, which is managed by the National Park Service. Land use is further restricted within the MNP. Urbanized areas within the Impact Areas were greatly restricted to lands within the immediate vicinity of Lugo and Mohave substations in the City of Hesperia, California, and the community of Laughlin, Nevada, respectively.

3.1 CLIMATE

The Project is located in a windy, arid desert that receives the majority of its precipitation in the winter. While precipitation from the rainy season (October through April) accounts for approximately 82 percent of the annual total rainfall (USGS 2019), localized monsoon season (July through September) rains are also typical of the area.

Table 1: Seasonal Precipitation provides the average precipitation within the Project area for the rainy and monsoon season between 2015 and 2019. Weather patterns in the region are extremely localized; therefore, individual climate stations typically do not reflect the climate conditions of the entire region. To address this issue, data from eight climate stations distributed throughout the Project area were averaged to develop the values in Table 1: Seasonal Precipitation. In addition, the rainy season values were limited to October through March to represent rainfall levels prior to the initiation of the spring surveys. As shown in Table 1: Seasonal Precipitation, the average precipitation during the Project's special-status plant species surveys was approximately 5.07 inches for the rainy season and 1.44 inches for the monsoon season. This average generally corresponds with the Mojave Desert's average annual precipitation of approximately 5.9 inches (Desert Research Institute 2019).

Table 1: Seasonal Precipitation

Season	Estimated Precipitation (inches)				Average Precipitation (inches)
Rainy Season (October – March)	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**	**--**
	3.87	6.09	2.32	7.99	5.07
Monsoon Season (July – September)	**2016**	**2017**	**2018**	**2019**	**--**
	1.45	2.00	1.78	0.53	1.44

Note: This data was generated by averaging precipitation data from the following climate stations: Sweeney Granite Mountains California, Apple Valley Remote Automated Weather Station (RAWS), Means Lake RAWS, Mid Hills RAWS, OX Ranch RAWS, Union Pass RAWS, Mountain Springs RAWS, and Boulder City Community Environmental Monitoring Program (CEMP).

Sources: Western Region Climate Center 2020; Wildland Fire Remote Automated Weather Stations 2020; Community Environmental Monitoring Program 2020.

As shown in Table 1: Seasonal Precipitation, the surveys in 2016 were conducted following a drier than average rainy season, whereas the surveys in 2017 and 2019 were conducted following wetter than average rainy seasons (US Drought Monitor, 2020). Insignia did not conduct any surveys in 2018 which the US Drought Monitor recorded as having severe drought conditions. Section 4 – Survey History and Timing presents a discussion of how precipitation influenced the surveys.

Temperatures in the region may vary widely between seasons and are dependent on elevation. Average annual temperatures range from 49.9 to 75.8 degrees Fahrenheit (°F) (Desert Research Institute 2019). July is the warmest month of the year, with an average high temperature of

97.6 °F and December is the coolest month of the year, with an average high temperature of 57.2 °F.

3.2 TOPOGRAPHY

The elevation of the Impact Areas ranges from approximately 780 feet near Mohave Substation to approximately 4,000 feet at various points. The majority of the Project is located within the Mojave Desert Geomorphic Province. This province encompasses a broad interior region of isolated mountain ranges separated by expanses of desert plains. The topography within this region consists of prominent northwest-southeast-trending faults and secondary east-west-trending faults, the latter of which are in alignment with the east-west trend of the Transverse Ranges Geomorphic Province (California Geological Survey [CGS] 2002), where the western portion of the Project is located. This province consists of an east-west-trending series of steep mountain ranges that extends offshore.

3.3 HYDROLOGY

Hydrological features within the Impact Areas consist almost exclusively of ephemeral desert washes that only hold water for a short period of time as the result of seasonal precipitation. Many of these washes remain in a natural state due to the lack of development throughout most of the region. Within the vicinity of Lugo Substation, water generally flows from the south to the northeast, toward the Mojave River, and to isolated basins in the interior of the Mojave. Near Mohave Substation, water flows from west to east, toward the Colorado River. The Colorado River eventually empties to the Gulf of California, south of the U.S.-Mexico border. In the vicinity of Eldorado Substation, water generally flows from southwest to northeast and into the Eldorado Dry Lake. Groundwater is up to hundreds of feet deep in the Impact Areas.

3.4 SOILS

Soils in the Impact Areas are well-drained and non-hydric, with sandy and loamy textures. The geomorphic positions of these soils include alluvial fans, backslopes, dunes, pediments, fan remnants, fan skirts, fan aprons, mountains, and summits (Natural Resources Conservation Service [NRCS] 2019). The seven most prevalent soil types in the Impact Areas are as follows:

- Rositas-Carrizo (s1137)
- Hesperia Loamy Fine Sand, 2- to 5-percent slopes
- Cajon-Arizo (s1143)
- Urban land-Riverbend-Huevi association
- Hypoint gravelly sandy loam, 0- to 4-percent slopes
- Cajon Gravelly Sand, 2- to 5-percent slopes
- Riverbend-Carrwash association

An additional 64 soil types are present in lesser amounts in the Impact Areas.

Table 2: Vegetation Communities and Land Cover Summary

Vegetation Communities/Land Cover	California State Rarity Rank	Area in the Survey Area (acres)
Vegetation Communities		
Larrea tridentata – Ambrosia dumosa Shrubland Alliance	S5	350.5
Larrea tridentata Shrubland Alliance	S5	72.2
Atriplex polycarpa Shrubland Alliance	S4	35.1
Larrea tridentata – Encelia farinosa Shrubland Alliance	S4	32.7
Yucca brevifolia Woodland Alliance	S3.2	18.8
Ericameria nauseosa Shrubland Alliance	S5	18.6
Eriogonum fasciculatum Shrubland Alliance	S5	17.8
Yucca schidigera Shrubland Alliance	S4	17.7
Prunus fasciculata – Salazaria mexicana Shrubland Alliance	S4	11.9
Ericameria cooperi Provisional Shrubland Alliance	This alliance is provisional and does not have a rank	8.1
Senegalia greggii – Hyptis emoryi – Justicia californica Shrubland Alliance	S4	6.6
Encelia farinosa Shrubland Alliance	Not found in California	6.6
Juniperus californica Woodland Alliance	S4	6.3
Ambrosia salsola – Bebbia juncea Shrubland Alliance	S4	5.8
Coleogyne ramosissima Shrubland Alliance	S4	2.7
Chorizanthe rigida – Gerraea canescens Desert Pavement Sparsely Vegetated Alliance	S4	2.6
Ambrosia dumosa Shrubland Alliance	S5	2.2
Ericameria linearfolia – Cleome isomeris Shrubland Alliance	S4	2.1
Ericameria paniculata Shrubland Alliance	S3	1.9
Suaeda moquinii Shrubland Alliance	S3	1.2
Cylindropuntia bigelovii Shrubland Alliance	Not found in California	0.9

Vegetation Communities/Land Cover	California State Rarity Rank	Area in the Survey Area (acres)
Atriplex confertifolia Shrubland Alliance	S4.2	0.6
Ephedra viridis Shrubland Alliance	S4	0.5
Achnatherum speciosum Herbaceous Alliance	S2.2	0.3
Adenostoma fasciculatum Shrubland Alliance	S5	0.2
Tamarix spp. Shrubland Semi-Natural Alliance	Not Ranked	0.1
Chilopsis linearis - Psorothamnus spinosus Woodland Alliance	S3	0.1
Ephedra nevadensis – Lycium andersonii – Grayia spinosa Shrubland Alliance	S3	<0.1
Purshia tridentata – Artemisia tridentata Shrubland Alliance	S3	<0.1
Land Covers		
Developed	Not Applicable (N/A)	205.4
Barren - Not Developed	N/A	60.9
Active agriculture	N/A	2.7
Total	**--**	**893.1**

3.5 VEGETATION COMMUNITIES AND LAND COVERS

The Project is located within the Desert Floristic Province in the Mojave Desert region, including the Desert Mountains subregion (Jepson Flora Project 2019a). Vegetation community composition is a prime factor in assessing the potential for a site to support individual plant species. A total of 29 vegetation communities and 3 land cover types were found in the Survey Area. Table 2: Vegetation Communities and Land Cover Summary lists in order of prevalence each vegetation community and land cover type present. The California State Rarity Ranks of each of the vegetation communities found in California and the total area of each vegetation community and land cover type within the Survey Area are also presented. Vegetation communities associated with California State Rarity Ranks of S1 through S3 are considered sensitive. Nevada does not have a state rarity ranking system. The locations of each vegetation community and land cover type in the Survey Area are shown on Attachment A: Vegetation Communities and Land Covers.

A description of each vegetation community and land cover type is presented in the subsections that follow. The vegetation community (i.e., alliance) names and descriptions are consistent with *A Manual of California Vegetation Online* (California Native Plant Society [CNPS] 2019a). Several alliances documented in the 2016 mapping effort and presented in the Special-Status Plant Species Survey Report for the Eldorado-Lugo-Mohave Series Capacitor Project (Insignia 2017) have undergone recategorization or name changes since 2017. The current alliance names are presented in this Report.

3.5.0 Vegetation Communities

Achnatherum speciosum Herbaceous Alliance

Desert needlegrass (*Stipa speciosa*) (= *Achnatherum speciosum*)—a native, perennial bunchgrass—occurs at a relative coverage of more than 50 percent in the *Achnatherum speciosum* 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. This herbaceous alliance has a California State Rarity Rank of S2.2.

The *Achnatherum speciosum* Herbaceous Alliance covers approximately 0.3 acre of the Survey Area. This alliance occurred in one stand in the foothills of the San Bernardino Mountains, south of the City of Hesperia. This stand was observed on the valley floor of Antelope Valley, approximately 0.68 mile southwest of the California Aqueduct at an elevation of approximately 3,500 feet. The stand had been disturbed by heavy equipment and vehicle use associated with power line construction and maintenance, as well as fairly regular OHV use.

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 has a California State Rarity Rank of S5.

The *Adenostoma fasciculatum* shrubland alliance covers approximately 0.2 acre of the Survey Area. This shrubland alliance was observed in two localized stands in the Survey Area. Both were in the far western portion of the Survey Area and west of the California Aqueduct in the foothills of the San Bernardino Mountains, south of the City of Hesperia. 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 California Aqueduct at an elevation of approximately 3,500 feet.

Ambrosia dumosa Shrubland Alliance

The *Ambrosia dumosa* Shrubland Alliance is dominated by white bur-sage (*Ambrosia dumosa*), 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 bush (*Larrea tridentata*), and cholla (*Cylindropuntia* spp.), among others. Membership in the shrubland alliance requires white bur-sage occurring at twice the absolute cover of creosote bush when both species are present. This alliance has a California State Rarity Rank of S5.

The *Ambrosia dumosa* Shrubland Alliance covers approximately 2.2 acres of the Survey Area. In these areas, white bur-sage had more than twice the absolute cover of creosote bush. Though white bur-sage is relatively common, it is often associated with creosote bush, and this distinction explains the small acreage covered by this shrubland alliance. It was observed in two isolated areas near Lucerne Valley and Clipper Valley. Both alliance occurrences were observed at elevations of approximately 3,000 feet.

Ambrosia salsola – Bebbia juncea Shrubland Alliance

The *Ambrosia salsola – Bebbia juncea* Shrubland Alliance is dominated by cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), white brickellbush (*Brickellia incana*), and/or armed senna (*Senna armata*), though other shrubs and emergent trees may be present at low cover. The shrub canopy is open to intermittent and the herbaceous layer is sparse or seasonally present. This alliance is found in valleys, flats, and intermittently flooded washes, channels, and arroyos on alluvial, sandy and gravelly, and disturbed desert pavement soils. 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 has a California State Rarity Rank of S4.

The *Ambrosia salsola – Bebbia juncea* Shrubland Alliance covers approximately 5.8 acres of the Survey Area. Most stands of this alliance occurred in the portion of the Survey Area in Nevada, with only three stands documented in California. Most occurrences were documented within wash systems, with varying degrees of disturbance. However some stands were mapped along

the sides of roads. The majority of the stands in Nevada were documented in the Newberry Mountains and east toward the community of Laughlin. The Providence Mountains in California mark the western extent of this alliance.

Atriplex confertifolia Shrubland Alliance

The *Atriplex confertifolia* Shrubland Alliance is dominated by shadscale (*Atriplex confertifolia*), a low-growing, short-lived shrub. Other shrubs—including white bur-sage, creosote bush, and bush encelia (*Encelia actoni*)—may be present at lower coverages, and the herbaceous layer is sparse to abundant. The shrubland alliance is found in bajadas (e.g., alluvial plains formed at the base of a mountain by the coalescing of alluvial fans), flats, and lower slopes in variable soils that may be covered with desert pavement. This alliance has a California State Rarity Rank of S4.2.

The *Atriplex confertifolia* Shrubland Alliance covers approximately 0.6 acre of the Survey Area. One stand of this alliance was observed on a previously-graded ridge on Iron Ridge near the northwestern boundary of the Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC). The elevation at this site was approximately 4,450 feet.

Atriplex polycarpa Shrubland Alliance

The *Atriplex polycarpa* Shrubland Alliance is defined by a relative cover of more than 50 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 bush, may be codominant in the shrub layer. 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. Due to the allscale saltbush's resistance to drought and alkalinity, this alliance is abundant in the western sections of the Mojave Desert. This shrubland alliance has a California State Rarity Rank of S4.

The *Atriplex polycarpa* Shrubland Alliance covers approximately 35.1 acres of the Survey Area. The alliance was observed exclusively in the community of Lucerne Valley and the adjacent Fifteenmile Valley within the Survey Area. 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.

Chilopsis linearis – Psorothamnus spinosus Woodland Alliance

The tree or tall shrub canopy of the *Chilopsis linearis – Psorothamnus spinosus* woodland alliance has an absolute cover of more than 2 percent in the tree canopy and is dominated or co-dominated by desert willow (*Chilopsis linearis*) and/or smoke tree (*Psorothamnus spinosus*). Other trees and tall shrubs that may be co-dominant include blue palo verde (*Parkinsonia florida*), honey mesquite (*Prosopis glandulosa*), and Joshua tree (*Yucca brevifolia*). The shrub layer is open to intermittent and may be inhabited by catclaw acacia (*Senegalia greggii*), cheesebush, and creosote bush, among others. The herbaceous layer is sparse to seasonally abundant with annuals. This alliance is restricted to sandy wash and intermittent channel bottoms, along floodplains, and in wash terraces where flooding is infrequent but subterranean

water is available. Soils in this alliance are well-drained sands and gravels that are moderately acidic to slightly alkaline. The alliance has a California State Rarity Rank of S3.

The *Chilopsis linearis – Psorothamnus spinosus* Woodland Alliance covers approximately 0.1 acre of the Survey Area. This alliance was observed in one occurrence in the Bristol Mountains in an unnamed tributary to the Budweiser Wash at approximately 2,300 feet in elevation.

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

The *Chorizanthe rigida – Geraea canescens* Desert Pavement Sparsely Vegetated Alliance has a sparse to intermittent herb layer, with an annual plant cover that varies from less than 1 percent to greater than 20 percent, depending on the year. Devil's spineflower (*Chorizanthe rigida*) and/or desert sunflower (*Geraea canescens*) are characteristically present in the herbaceous layer. The shrub layer is sparse, if present. The majority of this alliance consists of desert pavement, which is 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 often devoid of 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. Due to the erosional factors involved in its formation, desert pavement is an extremely sensitive land cover that small physical disturbances can irreversibly affect, including OHV and foot traffic. This alliance has a California State Rarity Rank of S4.

The *Chorizanthe rigida – Geraea canescens* Desert Pavement Sparsely Vegetated Alliance covers approximately 2.6 acres of the Survey Area. The alliance was observed in multiple locations between Pisgah Substation and Homer Mountain within the Survey Area. 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 Survey Area. One patch was observed in the lowland between East Ord and Fry mountains, near the intersection of Powerline Road and Camp Rock Road. 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.

Coleogyne ramosissima Shrubland Alliance

The *Coleogyne ramosissima* Shrubland Alliance is defined by an absolute coverage of more than 2 percent of blackbrush (*Coleogyne ramosissima*), a small, long-lived shrub. Other shrubs—including ephedra (*Ephedra* spp.), creosote bush, and Mojave yucca (*Yucca schidigera*)—and emergent trees may be present. The herbaceous layer is sparse to open with cryptogrammic crusts. This alliance is found on slopes, upper bajadas, and rocky highlands 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 has a California State Rarity Rank of S4.

The *Coleogyne ramosissima* Shrubland Alliance covers approximately 2.7 acres of the Survey Area. This shrubland alliance was observed exclusively in the Lava Bed Mountains near the Twentynine Palms MCAGCC. This alliance was observed at approximately 3,700 feet in elevation. Three stands occurred on the exposed rock on the ridges.

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. No state rarity rank is associated with this alliance.

The *Cylindropuntia bigelovii* Shrubland Alliance covers approximately 0.9 acre of the Survey Area. This alliance was observed around two towers in Nevada at the southern end of the Newberry Mountains, approximately 1.8 miles east of the intersection of Old Government Road and Powerline Road. The elevation at the sites was approximately 1,800 feet.

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 bush 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, on 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. No state rarity rank is associated with this alliance.

The *Encelia farinosa* Shrubland Alliance covers approximately 6.6 acres of the Survey Area and was only found in Nevada. The alliance was observed exclusively in the Newberry Mountains, in the easternmost portion of the Survey Area. 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.

Ephedra nevadensis – Lycium andersonii – Grayia spinosa Shrubland Alliance

The *Ephedra nevadensis – Lycium andersonii – Grayia spinosa* Shrubland Alliance is dominated or co-dominated by Nevada joint fir (*Ephedra nevadensis*), Anderson's boxthorn (*Lycium andersonii*), and/or spiny hop sage (*Grayia spinosa*). Nevada joint fir is present at an absolute cover of greater than 2 percent and is usually a strong dominant, with greater than twice the coverage of other shrub species. Anderson's boxthorn is present at a relative cover of greater than 50 percent in the shrub canopy, and spiny hop sage has an absolute cover of 2 percent or greater in the shrub canopy. The herbaceous layer is sparse to intermittent. This shrubland

alliance is found on dry, open slopes and ridges. Soils are well-drained and gravelly or rocky, and may be alkaline or saline. This shrubland alliance has a California State Rarity Rank of S4.

The *Ephedra nevadensis – Lycium andersonii – Grayia spinosa* Shrubland Alliance covers approximately 0.03 acre of the Survey Area. One stand was documented in the far western portion of the Survey Area, 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.

Ephedra viridis Shrubland Alliance

The *Ephedra viridis* Shrubland Alliance is dominated by green ephedra (*Ephedra viridis*), an evergreen shrub. However, other shrubs, including big sagebrush (*Artemisia tridentata*), and emergent trees may be present. Perennial grasses may also be present in the herbaceous layer. This 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 alliance has a California State Rarity Rank of S4.

The *Ephedra viridis* Shrubland Alliance covers approximately 0.5 acre in the Survey Area. The alliance was observed as one isolated stand in the foothills of the San Bernardino Mountains, south of the City of Hesperia. The alliance was located on a north-facing ridge above an unnamed wash at an elevation of approximately 3,200 feet.

Ericameria cooperi Provisional Shrubland Alliance

The *Ericameria cooperi* Provisional Shrubland Alliance is characterized by an even and dominant distribution of Cooper's goldenbush (*Ericameria cooperi* var. *cooperi*) (= *Ericameria cooperi*) across the landscape, though other shrubs may be present. This alliance often showed signs of recent fire or other disturbance. Cooper's goldenbush typically occurs in creosote bush scrub (*Larrea tridentata* Shrubland Alliance) and Joshua tree woodland (*Yucca brevifolia* Woodland Alliance) habitats. However, the portions of the Survey Area where Cooper's goldenbush was dominant did not meet the membership requirements of the aforementioned alliances. Further, these areas were not adjacent to or surrounded by creosote bush scrub or Joshua tree woodland, so it was determined that this was not an anomalous stand of Cooper's goldenbush within otherwise typical pre-existing alliance. Therefore, it was determined that creating a provisional alliance was more appropriate to describe this vegetation community. This provisional shrubland alliance and does not have a California State Rarity Rank.

The *Ericameria cooperi* Provisional Shrubland Alliance covers approximately 8.1 acres of the Survey Area. The Cooper's goldenbush-dominated areas are located around the Lugo Substation and in the hills south of the city of Hesperia.

Ericameria linearifolia – Cleome isomeris Shrubland Alliance

The *Ericameria linearifolia – Cleome isomeris* Shrubland Alliance is dominated by narrowleaf goldenbush (*Ericameria linearifolia*), bladderpod (*Cleome isomeris*), and/or yellow mock aster (*Eastwoodia elegans*). These species comprise more than 30-percent relative cover in the shrub canopy. Emergent trees or tall shrubs, including California juniper (*Juniperus californica*), may be present at low cover. This alliance occurs in shallow, sometimes alkaline, soils on dry slopes and ridges. This shrubland alliance has a California State Rarity Rank of S4.

The *Ericameria linearifolia – Cleome isomeris* Shrubland Alliance covers approximately 2.1 acres of the Survey Area. One stand of narrowleaf goldenbush was observed in the vicinity of one tower on the slopes of a small valley in the foothills of the San Bernardino Mountains, south of the City of Hesperia. The elevation at the site was approximately 3,500 feet.

Ericameria nauseosa Shrubland Alliance

Rubber rabbitbrush (*Ericameria nauseosa*) 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 has a California State Rarity Rank of S5.

The *Ericameria nauseosa* Shrubland Alliance covers approximately 18.6 acres within the Survey Area. The alliance was restricted to the foothills of the San Bernardino and Ord mountains in the far western, high-elevation sections of the Survey Area. 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 Survey Area 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 Mojave Desert have been greatly affected by OHV use and development.

Ericameria paniculata Shrubland Alliance

The *Ericameria paniculata* Shrubland Alliance is dominated by black-banded rabbitbrush (*Ericameria paniculata*). However, brittlebush, ephedra, catclaw acacia (*Senegalia greggii*), and other shrubs may be present at lower coverages. The shrub canopy can be closed to open with a herbaceous layer that 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 has a California State Rarity Rank of S3.

The *Ericameria paniculata* Shrubland Alliance covers approximately 1.9 acres of the Survey Area. It was restricted to two stands located in unnamed washes in Eldorado Valley, Nevada. The elevation at the sites was approximately 2,450 feet.

Eriogonum fasciculatum Shrubland Alliance

The *Eriogonum fasciculatum* Shrubland Alliance is defined by California buckwheat (*Eriogonum fasciculatum*), a perennial shrub that can grow up to 5 feet tall with a relative cover of more than 50 percent. Other shrubs that may be co-dominant include creosote bush and brittlebush. 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 has a California State Rarity Rank of S5.

The *Eriogonum fasciculatum* Shrubland Alliance covers approximately 17.8 acres of the Survey Area. It was observed west of Lucerne Valley andseveral areas were documented in the Ord Mountains at an elevation of approximately 3,600 feet. This alliance was also documented in Fifteenmile Valley, at an elevation of approximately 3,300 feet, and in the vicinity of Lugo Substation.

Juniperus californica Woodland Alliance

The *Juniperus californica* Woodland Alliance is dominated by California juniper, 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, blackbrush, ephedra, and Mohave yucca. The herbaceous component is sparse or grassy. This woodland alliance has a California State Rarity Rank of S4.

The *Juniperus californica* Woodland Alliance covers approximately 6.3 acres of the Survey Area. It was observed in the extreme western, relatively high-elevation portions of the Survey Area, specifically in the foothills of the San Bernardino and Ord mountains. 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.

Larrea tridentata Shrubland Alliance

The *Larrea tridentata* Shrubland Alliance is characterized by the dominance or co-dominance of creosote bush in the shrub canopy. 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 bush. Creosote bush 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 bush 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 has a California State Rarity Rank of S5.

The *Larrea tridentata* Shrubland Alliance covers approximately 72.2 acres of the Survey Area. It was observed across much of the Survey Area in upland areas. This alliance was most concentrated in the area between Pisgah Crater and the community of Ludlow, California. All records were observed between approximately 3,000 feet and 4,000 feet in elevation. Most observations were in bajadas and alluvial fans, or were associated with washes.

***Larrea tridentata – Ambrosia dumosa* Shrubland Alliance**

The *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance is the most prevalent vegetation community in the Mojave Desert, representing approximately 67 percent of the central Mojave Desert (CNPS 2019a). This shrubland alliance is co-dominated by white bur-sage and creosote bush in the shrub canopy. Saltbush, brittlebush, Mojave yucca, and other shrubs may also occur, but creosote bush 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 alliance has a California State Rarity Rank of S5.

The *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance is by far the most prevalent alliance in the Survey Area, covering approximately 350.5 acres. It was documented in most terrain types; however, it was absent through the Ord Mountains. This section represented the highest elevation of the Survey Area, from 3,800 to 4,800 feet above sea level.

***Larrea tridentata – Encelia farinosa* Shrubland Alliance**

The *Larrea tridentata – Encelia farinosa* Shrubland Alliance is co-dominated by creosote bush 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 alliance has a California State Rarity Rank of S4.

The *Larrea tridentata – Encelia farinosa* Shrubland Alliance covers approximately 32.7 acres of the Survey Area. All occurrences of this alliance were documented in Nevada, except for one occurrence located on a south-facing slope of an unnamed outcrop at the northern end of the community of Lucerne Valley, California. The alliance was also documented on relatively disturbed land within the fence line of the Mojave Substation. All other observed stands occurred on south-facing or southeast-facing rocky slopes in the Newberry Mountains.

Prunus fasciculata – Salazaria mexicana Shrubland Alliance

The *Prunus fasciculata – Salazaria mexicana* Shrubland Alliance is characterized by relative covers of more than 25 percent of desert almond (*Prunus fasciculata*), more than 50 percent of bladder-sage (*Scutellaria mexicana*) (= *Salazaria mexicana*), and/or more than 50 percent of purple sage (*Salvia dorrii*). Other shrubs including cheesebush, creosote bush, chaparral beard tongue (*Keckiella antirrhinoides*), and desert plum (*Prunus eremophila*) may be present or co-dominant. The canopy is open to intermittent, and the herbaceous layer is open. In previous classifications, the diagnostic species of this alliance were in separate single-species alliances. With additional analysis, they have been found to be similar in environmental settings and floristics, and have been combined. This alliance occurs on granitic, volcanic, and calcareous substrates in arroyos, gravelly canyons, upper washes, colluvial slopes, and on disturbed upland sites. This alliance receives higher precipitation and lower temperatures than other wash vegetation types. This shrubland alliance has a California State Rarity Rank of S4.

The *Prunus fasciculata – Salazaria mexicana* Shrubland Alliance covers approximately 11.9 acres of the Survey Area and was entirely restricted to the Ord Mountains, except for one stand located in the foothills of the San Bernardino Mountains. These occurrences were documented at elevations ranging from 4,000 to 4,600 feet.

Purshia tridentata – Artemisia tridentata Shrubland Alliance

Bitterbrush (*Purshia tridentata*)—a large, long-lived shrub—with more than 50 percent relative cover in the shrub canopy in the *Purshia tridentata – Artemesia tridentata* Shrubland Alliance. Other shrubs, including big sagebrush, green ephedra, and rubber rabbitbrush may be co-dominant. Emergent trees, including California juniper and Joshua tree, may be present at low coverages. The herbaceous layer is sparse to open, and possibly grassy. 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. This shrubland alliance has a California State Rarity Rank of S3.

Purshia tridentata – Artemesia tridentata Shrubland Alliance is the least prevalent alliance in the Survey Area, with a cover of approximately 0.02 acre. One stand was observed in the Ord Mountains on a north-facing slope near the north end of Arrastre Canyon at an elevation of approximately 4,300 feet.

Senegalia greggii – Hyptis emoryi – Justicia californica Shrubland Alliance

The *Senegalia greggii – Hyptis emoryi – Justicia californica* Shrubland Alliance is dominated or co-dominated by catclaw acacia, desert lavender (*Condea emoryi*) (= *Hyptis emoryi*), and/or chuparosa (*Justicia californica*). Other shrubs (e.g., cheesebush, creosote bush, ephedra, and sweetbush) may be present, but the characteristic species represent the greatest coverage in the shrub canopy. The canopy is open to intermittent, and the herbaceous layer is sparse to intermittent with seasonal annuals. This alliance is found in arroyos, channels, washes, bajadas, seeps, canyon walls, rocky colluvial slopes, and valleys. Soils are coarse, well-drained, gravelly sands and loams, and moderately acidic to slightly saline. This shrubland alliance has a California State Rarity Rank of S4.

The *Senegalia greggii – Hyptis emoryi – Justicia californica* Shrubland Alliance covers approximately 6.6 acres of the Survey Area. It was observed in many desert wash and canyon systems east of Pisgah Substation within the Survey Area, and is often a preliminary indicator of drainage systems. In the Dead and Providence mountains, the shrubland alliance was documented on canyon floors.

Suaeda moquinii Shrubland Alliance

The *Suaeda moquinii* Shrubland Alliance is dominated by bush seepweed (*Suaeda nigra*) (= *Suaeda moquinii*), 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. This shrubland alliance has a California State Rarity Rank of S3.

The *Suaeda moquinii* Shrubland Alliance covers approximately 1.2 acres of the Survey Area. The alliance was observed in around two towers on 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.

Tamarix spp. Shrubland Semi-Natural Alliance

The *Tamarix* spp. shrubland semi-natural alliance is a weedy, virtual monoculture of several non-native tamarisk species (*Tamarix chinensis* or *Tamarix ramosissima*), which usually supplant native vegetation following major disturbance. This vegetation community occurs in arroyo margins, lake margins, ditches, washes, rivers, and other watercourses, often in areas where high evaporation increases the salinity. Tamarisk is a prolific seeder, which predisposes the species to be an aggressive competitor in disturbed riparian corridors. Tamarisk scrub is widely distributed and is increasing its range. This semi-natural alliance and does not have a California State Rarity Rank.

This semi-natural alliance covers approximately 0.9 acre within the Survey Area. It was observed in the Survey Area 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.

Yucca brevifolia Woodland Alliance

The *Yucca brevifolia* Woodland Alliance is indicated by the presence of Joshua tree, an evergreen, branching tree that can reach up to 45 feet in height with a coverage of 1 percent or more. This alliance 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, creosote bush, and Mojave yucca, 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 has a California State Rarity Rank of S3.2.

The *Yucca brevifolia* Woodland Alliance covers approximately 18.8 acres and was observed at the western and eastern ends of the Survey Area. The westernmost occurrence of Joshua trees was observed in the vicinity of Lugo Substation. The alliance also 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 several areas on the gentle slopes of the Highland Range north of the community of Searchlight, Nevada.

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 2 percent or more of Mojave yucca. Other shrubs may be present at equal or greater 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 has a California State Rarity Rank of S4.

The *Yucca schidigera* Shrubland Alliance covers approximately 17.7 acres of the Survey Area. This alliance was observed throughout the Survey Area in various locations, with most occurrences occurring between the Providence Mountains and Homer Mountain.

3.5.1 Land Covers

Active Agriculture

Active agriculture consists 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.

Active agricultural occurs in approximately 2.7 acres of the Survey Area. It 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.

Barren – Not Developed

Barren areas are defined by a lack of vegetation. Specifically, any land with a vegetative cover of less than 2 percent is considered barren. In the Mojave Desert, this includes pockets of land with little to no vegetation that are intermittently spaced between habitats, most likely caused from historic disturbance.

Within the Survey Area, barren land covers approximately 60.9 acres. Barren land was observed in various locations east of the community of Lucerne Valley. One notable patch 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 fence line of Mohave Substation.

Developed

Developed land includes areas that have been built or otherwise physically altered to the extent that they no longer support 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 is the most prevalent non-vegetative land cover in the Survey Area, at approximately 205.4 acres. 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 – SURVEY HISTORY AND TIMING

Insignia conducted an initial set of surveys in 2016 and 2017. Following the 2017 surveys, the BLM requested a second set of special-status plant surveys. As a result, Insignia initiated the second set of surveys in March 2019. Due to the limited rain during the 2019 monsoon season and the excellent rain in 2017, the BLM deemed a second set of late-season surveys to be unnecessary. As shown in Table 3: Special-Status Plant Survey Summary and as described in the following subsections, 2016 and 2017 comprised Survey Year 1, and 2019 was designated as Survey Year 2.

Table 3: Special-Status Plant Survey Summary

Survey Year	Year	Survey Round	Months	Survey Area	Approximate Area Surveyed (acres)
1	2016	1	March/April	All original impact areas and a variable buffer	2,511
		2	May		2,511
	2017	1	March/April	Additional impact areas only and a variable buffer	124
		2	May		74
		3	September/ October	All impact areas and a variable buffer	774
2	2019	1	March/April	All impact areas and a 50-foot buffer	893
		2	April/May		893

4.0 2016

In 2016 (i.e., Survey Year 1), Insignia conducted initial protocol-level special-status plant surveys for the Project. As discussed in Section 3.1 Climate, the Mojave Desert receives an average annual precipitation of approximately 5.9 inches, but in 2016 the Impact Areas received lower than average rainfall. However, despite this, Insignia conducted two rounds of protocol-level special-status plant surveys in the spring. Botanists surveyed an approximately 2,511 acre

area in California and Nevada, which included the original Project Impact Areas and a buffer of variable widths, as shown in Table 3: Special-Status Plant Survey Summary. This is herein referred to as the 2016 Survey Area. The results were submitted to SCE in the form of the Special-Status Plant Species Survey Report for the Proposed Project on April 28, 2017; and the report was finalized on June 14, 2017.

4.1 2017

After the completion of the 2016 special-status plant surveys, SCE requested that Insignia survey an additional area of approximately 74 acres due to Project refinements. Between March and October 2017, Insignia botanists conducted three rounds of special-status plant surveys. Because these additional Project refinements were not surveyed in 2016, the surveys of these areas are still considered to be part of the Survey Year 1 surveys, even though they were conducted in 2017. As shown in Table 3: Special-Status Plant Survey Summary, during Round 1 of the 2017 surveys, Insignia surveyed the approximately 74-acre area, plus approximately 50 acres of the 2016 Survey Area at the request of SCE. The approximately 50-acre area was resurveyed due to drought conditions that may have limited survey results in 2016 (US Drought Monitor, 2020). Round 2 of the 2017 surveys was conducted for the approximately 74-acre area only. As shown in Table 1: Seasonal Precipitation, the Project alignment received heavy summer monsoon rains in 2017. Therefore, Round 3 of the 2017 surveys targeted geographic areas in the eastern half of the Project alignment that had bloomed following the late summer monsoon rains, and included portions of the areas that were surveyed during the first two rounds; this area totaled approximately 774 acres. The combined area of the 2017 special-status plant surveys consists of approximately 890 acres. The results were conveyed in a Supplemental Special-Status Plant Species Survey Report that was submitted to SCE on April 26, 2018.

4.2 2018

With the BLM's concurrence, surveys were not conducted in 2018 due to severe drought conditions and lack of blooming plants across the Mojave Desert (US Drought Monitor, 2020). As shown in Table 1: Seasonal Precipitation, the rainy season prior to the spring of 2018 only produced 2.32 inches of precipitation.

4.3 2019

Insignia performed the second year of special-status plant surveys for the Project in the spring of 2019 (i.e., Survey Year 2), which received a comparatively high amount of precipitation in the preceding rainy season, as shown in Table 1: Seasonal Precipitation. Two rounds of surveys were conducted in the spring of 2019. A third round of surveys was planned for September 2019, following the monsoon rains. However, as shown in Table 1: Seasonal Precipitation the summer of 2019 was exceptionally dry, and monsoon rains had not fallen on the majority of the Impact Areas. Therefore, the emergence and bloom of fall annuals (special-status or otherwise) were not expected. However, because the 2017 post-monsoon surveys were conducted in an excellent rain year, the BLM concurred that another round of post-monsoon surveys was not necessary and that the special-status plant surveys for the Project were thus concluded.

5 – METHODS

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 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)
- Species considered to be critically imperiled (S1), imperiled (S2), or vulnerable (S3) 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 CNPS to be rare, threatened, or endangered in California (i.e., California Rare Plant Ranks [CRPRs] 1A, 1B, 2A, 2B, and 3). Some CRPR 4 species also meet the criteria to be analyzed under CEQA if cumulative impacts are significant enough to affect their overall rarity, based on CEQA Guidelines §15125 (c) and/or §15380. However, none of the plant species with CRPR 4 listing statuses mentioned in this Report are subject to consideration under CEQA. Therefore, they are included in this Report for informational purposes only.
  - 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).

5.0 BACKGROUND RESEARCH

Prior to conducting the surveys, Insignia botanists reviewed background literature and searched relevant databases. This included a review of spatial data, survey results from the Special-Status Plant Species Survey Report (Insignia 2017) and the Supplemental Special-Status Plant Species Survey Report (Insignia 2018) for the Project, local flora guides, survey protocols, and geological data for the Survey Area from the U.S. Geological Survey (USGS). Dr. James Andre, Director of the Sweeney Granite Mountains Desert Research Center, also provided expert botanical advice on local special-status plant species' occurrence information. The California Natural Diversity

Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2019) and the NNHP database (Nevada Department of Conservation and Natural Resources [DCNR] 2019) were queried for special-status plant species occurrences within 5 miles of the Project. Insignia also performed a 56-quadrangle search of the CNPS Inventory of Rare and Endangered Plants of California (CNPS 2019b) and queried the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system (USFWS 2019) for a list of federally endangered, threatened, and candidate plant species that may occur within or near the Survey Area.

This background research generated a list of 203 special-status plant species that have a potential to occur in the Survey Area. This list of species was provided in the 2016 Special-Status Plant Species Survey Report and the 2017 Supplemental Special-Status Plant Species Survey Report for the Project. This list was refined by comparing the species' ranges and habitat requirements with the location of the Survey Area, the habitat types within it, and the results of previous surveys for the Project to create a target list of species with a higher likelihood to occur. This refined target list is provided in Section 6.0 Background Research.

5.1 FIELD SURVEY

The surveys were conducted in accordance with guidelines published by the CNPS (2001), CDFW (2018), and USFWS (1996), 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, meaning that every plant taxon observed must be identified to the taxonomic level necessary to determine its rarity and listing status
- Surveys must be conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques

Surveys were focused on species that were determined to be likely to occur, based on the background research, and those species that were identified in the 2016 and 2017 special-status plant surveys for the Project.

5.1.0 Reference Population Visits

Immediately prior to each round of surveys, Insignia botanists visited reference populations to determine the blooming condition of potentially occurring special-status plants to ensure that they were flowering and identifiable at the time of the survey. Reference population visits also allowed the surveyors to obtain a search image of the target species and to identify associated species and habitat characteristics.

5.1.1 Surveys

Botanists walked transects through the entire Survey Area and closely examined microhabitats that were more likely to support special-status plants. Plants were counted individually where possible. All individuals of the same species within an approximately 10-foot radius were counted and recorded as single point using a sub-meter global positioning system (GPS) unit.

When populations covered a larger area, the extent of the population was mapped as a polygon using a sub-meter GPS unit and was attributed with the quantity of individuals within the polygon. If the number of individuals were too numerous to count, the population size was estimated and attributed to the polygon. To capture the extent of a population, polygons occasionally extended outside the Survey Area. Occurrences incidentally observed outside of, but in close proximity to the Survey Area boundary, were also included. Plant species were only mapped in the state in which they have a special-status designation (e.g., Coves' cassia was observed in the Survey Area in Nevada, but the species only carries a listing status in California; therefore, this species was not mapped in Nevada, where it had no special status). Table 4: 2019 Survey Dates and Personnel provides the dates and survey personnel for each round of the 2019 surveys.

Table 4: 2019 Survey Dates and Personnel

2019 Survey Round	Dates	Surveyors
1	March 26 to April 7	Karin Edwards, Frankie Coburn, Christina Congedo, and Sarah Willbrand
2	April 20 to May 1	Karin Edwards, Frankie Coburn, Glenn Rink, and Tim Sullivan

6 – RESULTS

6.0 BACKGROUND RESEARCH

Based on the background research, the list of special-status species with a potential to occur in the Impact Areas was refined by comparing the species' ranges and habitat requirements with the location of the Survey Area, the habitat types within it, technical advice from Dr. James Andre, and the results of previous surveys for the Project. Target species lists were developed for the portions of the Impact Areas in California and in Nevada. The target list for California included the following 36 species:

- Appressed muhly (*Muhlenbergia appressa*)
- Beaver Dam breadroot (*Pediomelum castoreum*)
- Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*)
- Clokey's cryptantha (*Cryptantha clokeyi*)
- Coves' cassia (*Senna covesii*)
- Creamy blazing star (*Mentzelia tridentata*)
- Darlington's blazing star (*Mentzelia puberula*)
- Desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*)
- Desert bedstraw (*Galium proliferum*)
- Emory's crucifixion-thorn (*Castela emoryi*)

- Golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*)
- Harwood's eriastrum (*Eriastrum harwoodii*)
- Latimer's woodland gilia (*Saltugilia latimeri*)
- Limestone beardtongue (*Penstemon calcareus*)
- Lobed ground-cherry (*Physalis lobata*)
- Mojave menodora (*Menodora spinescens* var. *mohavensis*)
- Mojave paintbrush (*Castilleja plagiotoma*)
- Narrow-leaved yerba santa (*Eriodictyon angustifolium*)
- Nevada onion (*Allium nevadense*)
- Parry's spurge (*Euphorbia parryi*)
- Pinyon rockcress (*Boechera dispar*)
- Playa milk-vetch (*Astragalus allochrous* var. *playanus*)
- Purple-nerve cymopterus (*Cymopterus multinervatus*)
- Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*)
- Rough menodora (*Menodora scabra* var. *scabra*)
- Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*)
- Salina Pass wild-rye (*Elymus salina*)
- Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)
- Slender cottonheads (*Nemacaulis denudata* var. *gracilis*)
- Small-flowered androstephium (*Androstephium breviflorum*)
- Spiny cliff-brake (*Pellaea truncata*)
- Spiny-hair blazing star (*Mentzelia tricuspis*)
- Stephens' beardtongue (*Penstemon stephensii*)
- Utah beardtongue (*Penstemon utahensis*)
- Violet twining snapdragon (*Maurandella antirrhiniflora*)
- White-margined beardtongue (*Penstemon albomarginatus*)

The following five species were targeted for the Project locations in Nevada:

- Chalk liveforever (*Dudleya pulverulenta* ssp. *arizonica*)
- Clokey's pincushion (*Coryphantha vivipara* var. *rosea*)
- Mojave milkweed (*Asclepias nyctaginifolia*)
- Reveal's buckwheat (*Eriogonum contiguum*)
- Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*)

6.1 FIELD SURVEY

6.1.0 Reference Population Visits

Insignia botanists visited nearby known populations of the following 10 species:

- Coves' cassia
- Golden-rayed pentachaeta
- Matted cholla (*Grusonia parishii*)
- Mojave menodora (*Menodora spinescens* var. *mohavensis*)

- Mojave milkweed (*Asclepias nyctaginifolia*)
- Mojave paintbrush
- Slender cottonheads
- Small flowered androstephium
- Spiny-hair blazing star
- Utah beardtongue

These species were identifiable at the time of the reference population visit and were thereby assumed to be identifiable in the Survey Area, if present. Botanists prioritized visiting reference populations for species that had the highest potential to occur.

6.1.1 Special-Status Plants

Insignia botanists observed 11 special-status plant species during the 2019 surveys, as described in this section and summarized in Table 5: Special-Status Plant Species Observed. The spring 2019 surveys resulted in a greater number of individuals of some species in existing populations, but no new distinct populations were discovered, except for yucca buckwheat (*Eriogonum plumatella*). The observation locations within the Survey Area are shown on Attachment B: Locations of Special-Status Plants Observed. A complete list of plant taxa, including subspecies and varieties, observed within the Survey Area during the two rounds of surveys is presented in Attachment C: Inventory of Plant Species Observed. Representative photographs are provided in Attachment D: Special-Status Plant Species Photographs. The following subsections describe the 11 special-status plant species observed within the Survey Area.

Appressed Muhly

Appressed muhly (*Muhlenbergia appressa*) is a CRPR 2B.2 annual herb species in the grass family (Poaceae) 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.

A population of 13 appressed muhly plants was observed during the 2019 surveys along the Lugo-Mohave 500 kV Transmission Line in California. This species was found around one stringing site in Foshay Pass in the Providence Mountains and was growing on Rock outcrop-Lithic Torriorthents soils and in the *Eriogonum fasciculatum* Shrubland Alliance. This species was also recorded in Foshay Pass during the 2016 surveys.

Golden-Rayed Pentachaeta

Golden-rayed pentachaeta is a CRPR 4.2 annual herb species in the aster family (Asteraceae). This species occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grasslands between 260 and 6,070 feet in elevation. The blooming period for golden-rayed pentachaeta is March to July.

Table 5: Special-Status Plant Species Observed

Common Name	Scientific Name	Listing Status		Approximate Quantity of Individuals Observed		Attachment B Map Page
		California	Nevada	California	Nevada	
Appressed muhly	*Muhlenbergia appressa*	CRPR 2B.2	Not Ranked	13	--	18
Golden-rayed pentachaeta	*Pentachaeta aurea* ssp. *aurea*	CRPR 4.2	Not Ranked	2,729	--	1, 2, 3, 4
Mojave menodora	*Menodora spinescens* var. *mohavensis*	BLM CRPR 1B.2	Not Ranked	1,208	--	6, 7, 8, 9, 10, 11, 12
Mojave paintbrush	*Castilleja plagiotoma*	CRPR 4.3	Not Ranked	17	--	5
Rosy two-toned beardtongue	*Penstemon bicolor* ssp. *roseus*	BLM CRPR 1B.1	BLM S3	--	1	24
Rusby's desert-mallow	*Sphaeralcea rusbyi* var. *eremicola*	BLM CRPR 1B.2	Not Ranked	387	--	16, 17, 18, 19, 20, 21
Short-jointed beavertail	*Opuntia basilaris* var. *brachyclada*	BLM CRPR 1B.2	Not Ranked	1	--	1
Slender cottonheads	*Nemacaulis denudata* var. *gracilis*	CRPR 2B.2	Not Ranked	1	--	15
Small flowered androstephium (= pink funnel lily)	*Androstephium breviflorum*	CRPR 2B.2	Not Ranked	56	--	13, 14
Spiny-hair blazing star	*Mentzelia tricuspis*	CRPR 2B.1	Not Ranked	22	--	22
Yucca buckwheat	*Eriogonum plumatella*	Not Ranked	S3	--	10	23

Notes:

- Plant species were only mapped in the state in which they have a special-status designation.

- This listen status codes are as follows:

BLM Species:	CRPRs:	CRPR Threat Code:	Nevada NatureServe Rank:
-BLM: Species considered to be "sensitive" by the BLM	-1B: Rare or endangered in California and elsewhere -2B: Rare, threatened, or endangered in California, but more common elsewhere -4: Watch list – plants of limited distribution	-0.1: Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat) -0.2: Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat) -0.3: Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)	- S3: Vulnerable – At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

Approximately 2,729 golden-rayed pentachaeta individuals were observed in the Survey Area along the Lugo-Mohave 500 kV Transmission Line. These plants were found around multiple work areas in the western portion of the Survey Area near the City of Hesperia, California, on both sides of the California Aqueduct. This species occurred in multiple vegetation communities including *Achnatherum speciosum* Herbaceous Alliance, *Ephedra viridis* Shrubland Alliance, *Ericameria nauseosa* Shrubland Alliance, *Ericameria linearifolia - Cleome isomeris* Shrubland Alliance, *Juniperus californica* Woodland Alliance, and also in areas mapped as Developed. The golden-rayed pentachaeta was found growing in the following two soil types: Cajon-Wasco, Cool Complex, 2 To 9 Percent Slopes and Gullied Land-Haploxeralfs Association. This species was documented during the 2016 surveys, but was not included in the final draft of the Special-Status Plant Survey Report (Insignia 2018), due to its lack of a special status designation under CEQA. It is included here for informational purposes only.

Mojave Menodora

Mojave menodora is a BLM sensitive species and a CRPR 1B.2 species in the olive family (Oleaceae). This perennial, deciduous shrub grows on andesite substrates on rocky desert hillsides and canyons in Mojavean desert scrub at elevations ranging from 2,200 to 6,500 feet. The blooming period for Mojave menodora is April to May, but it is identifiable year-round.

Approximately 1,208 Mojave menodora individuals were observed growing in California along the Lugo-Mohave 500 kV Transmission Line during the 2019 surveys. These plants were found growing around multiple work areas south of Interstate (I-) 40, in the vicinity of the Rodman Mountains and Fry Mountains. The vegetation communities in which the species was growing were *Coleogyne ramosissima* Shrubland Alliance, *Larrea tridentata* Shrubland Alliance and *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance; the species was also found growing on Developed land. Soil types were Trigger-Rock outcrop-Calvista; Burntshack-Hypoint association, 2 to 4 percent slopes; Arizo association, flooded, 2 to 4 percent slopes; Burntshack-Hypoint association, 2 to 4 percent slopes; Lavabed-Dalvord association, 8 to 50 percent slopes; and Haleburu-Noble Pass complex, 15 to 50 percent slopes. Mojave menodora was also mapped in this area during the 2016 and 2017 surveys.

Mojave Paintbrush

Mojave paintbrush is a CRPR 4.3 perennial herb in the broomrape family (Orobanchaceae). This species grows in dry sagebrush scrub and pinyon-juniper woodland between 1,000 and 8,200 feet in elevation. The blooming period for this species is April to June.

A population of 17 individuals was observed during the 2019 surveys in California along the Lugo-Mohave 500 kV Transmission Line. These plants were documented at two work areas in the Ord Mountains and approximately 4 miles east of the Mojave River. This species was growing in Cushenbury-Crafton-Rock Outcrop Complex, 15 To 50 Percent Slopes soils, in Developed land, and in the *Prunus fasciculata - Salazaria mexicana* Shrubland Alliance. Mojave paintbrush was documented during the 2016 surveys, as well, but was not included in the final draft of the Special-Status Plant Survey Report (Insignia 2018), due to its lack of a special status designation under CEQA. Because it does not meet the qualifications for protection under CEQA, it is included here for informational purposes only.

Rosy Two-Toned Beardtongue

Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*) is a BLM sensitive species, a CRPR 1B.2 species, and a Nevada S3 species. It is a perennial herb in the plantain family (Plantaginaceae) that occurs in gravelly, rocky, or disturbed soils in Mojavean desert scrub and Joshua tree woodland of California, Arizona, and Nevada at elevations ranging from 2,300 to 5,000 feet. The blooming period for this species is in May.

One rosy two-toned beardtongue plant was observed during the 2019 surveys in Nevada along the Eldorado-Mohave 500 kV Transmission Line. This individual was growing in a large ephemeral wash in a work area located approximately 3 miles west of Veterans Memorial Highway in Eldorado Valley. The soil type was Arizo-Peskah-Crosgrain Association and the vegetation community at the site was *Ericameria paniculata* Shrubland Alliance. Rosy two-toned beardtongue was documented in the same area during the 2016 surveys.

Rusby's Desert-Mallow

Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) is a CRPR 1B.2 perennial herb in the mallow family (Malvaceae) that occurs in Mojavean desert scrub and Joshua tree woodlands. It is endemic to California, and occurs at elevations ranging from 3,200 to 5,400 feet. The blooming period for Rusby's desert-mallow is from March to June.

A population of approximately 387 Rusby's desert-mallow plants were observed during the 2019 surveys in California along the Eldorado-Mohave 500 kV Transmission Line. These plants were observed in Foshay Pass in the Providence Mountains and immediately to the east of the Providence Mountains in Clipper Valley. This species was growing in several vegetation communities including *Ambrosia salsola – Bebbia juncea* Shrubland Alliance, *Ericameria nauseosa* Shrubland Alliance, *Eriogonum fasciculatum* Shrubland Alliance, and *Yucca schidigera* Shrubland Alliance, as well as Developed areas. Rusby's desert-mallow was found growing in the following three soil types: Cajon-Arizo, Nickel-Bitter-Arizo, Rock outcrop-Lithic Torriorthents. The species was documented at the same location during the 2016 surveys. It is possible that these plants are intergrading with a common species, as the leaves exhibited intermediate characteristics with roughleaf apricot mallow (*Sphaeralcea ambigua* var. *rugosa*), and these species are known to hybridize.

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 (Cactaceae) 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. The blooming period is from April to August.

One short-jointed beavertail individual was found during the 2019 surveys in the work area for one tower in California along the Lugo-Mohave 500 kV Transmission Line. This plant was observed in the foothills of the San Bernardino Mountains south of the City of Hesperia and west of the California Aqueduct. Soils at the site were Cajon-Wasco, Cool Complex, 2 To 9 Percent Slopes and the vegetation community was *Juniperus californica* Woodland Alliance. Short-

jointed beavertail was documented in this same area during the 2016 surveys. This individual exhibited characteristics of a common species—*Opuntia basilaris* var. *basilaris*—and may be considered a hybrid in this location, as this location is a zone of introgression. This plant may be a hybrid with beavertail cactus (*Opuntia basilaris*), as this site is located in a zone of introgression between the species.

Slender Cottonheads

Slender cottonheads is a CRPR 2B.2 annual herb in the buckwheat family (Polygonaceae) 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.

One slender cottonheads plant was observed during the 2019 surveys in California along the Lugo-Mohave 500 kV Transmission Line. The plant was located along the southern edge of the Kelso Dunes, approximately 1 mile west of Kelso Dunes Road and off of Kelbaker Road. The soil type was Nickel-Bitter-Arizo, and the land cover was Developed. Slender cottonheads was documented at this location during the 2016 surveys.

Small Flowered Androstephium

Small flowered androstephium (= pink funnel lily) is a CRPR 2B.2 species in the brodiaea family (Themidaceae). This species is a perennial herb (bulb) that grows in desert dunes and bajadas in Mojavean desert scrub. Small flowered androstephium blooms in March and early April and is generally found at elevations ranging from 330 to 5,250 feet.

Approximately 56 small flowered androstephium plants were observed during the 2019 surveys in California. The plants were found in two general locations. One population was located along the Lugo-Mohave 500 kV Transmission Line in Broadwell Valley, north of the community of Ludlow. The second population was documented within the work area for the proposed Newberry Springs Series Capacitor. Because this is a perennial bulb species, some of the plants observed were in vegetative form only, meaning that just the leaves were visible above the ground. Although a positive identification could be made for most of them, the younger leaves were difficult to differentiate from similar species. The plants were only found growing in Rositas-Carrizo soils. The species was mapped in *Larrea tridentata* Shrubland Alliance, *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance, and Developed areas. Small flowered androstephium was also documented in this area during the 2017 surveys.

Spiny-Hair Blazing Star

Spiny-hair blazing star is a CRPR 2B.1 annual herb in the loasa family (Loasaceae) that occurs in sandy, gravelly substrates on slopes and washes in the Mojavean desert scrub at elevations ranging from 500 to 4,200 feet. The blooming period for spiny-hair blazing star is from March to May.

A population of 22 spiny-hair blazing star individuals was observed during the 2019 surveys in California along the Lugo-Mohave 500 kV Transmission Line. The population was confined to one work area on the western edge of the Dead Mountains in California, approximately 3 miles

east of Veterans Memorial Highway and near the border of Nevada. The soil type at this site was Trigger-Rock outcrop-Calvista; the vegetation consisted of *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance and developed land. Spiny-hair blazing star was documented in the same location during the 2016 surveys.

Yucca Buckwheat

Yucca buckwheat is a Nevada S3 shrub in the buckwheat family (Polygonaceae). The species occurs in sand or gravel substrates in creosote bush scrub, shadscale scrub, Joshua tree woodland, and pinyon-juniper woodland between 1,300 and 5,500 feet in elevation. The blooming period for yucca buckwheat is from April to October.

A population of 10 yucca buckwheat individuals was observed during the 2019 surveys in Nevada along the Eldorado-Mohave 500 kV Transmission Line. This population was located around one stringing site in the southern foothills of the Dead Mountains of Nevada, approximately 11 miles southwest of Mohave Substation. The plants were growing in Filaree-Seanna association soils and in two vegetation communities: *Senegalia greggii – Hyptis emoryi – Justicia californica* Shrubland Alliance and *Yucca schidigera* Shrubland Alliance. Yucca buckwheat was not documented in previous surveys.

7 – DISCUSSION

The spring 2019 surveys were conducted following above-average rains in the preceding winter and spring months, which caused an increase in blooms across the Mojave Desert. Despite the increased rains, only one additional special-status plant species, yucca buckwheat, was observed that had not been documented during the 2016 or 2017 surveys. Furthermore, although the spring 2019 surveys resulted in a greater number of individuals of some species in existing populations, no new distinct populations were discovered, except for the yucca buckwheat.

Several species that were observed during the 2016 and 2017 surveys were not observed in 2019. In part, this is because the 2016 Survey Area was almost three times larger than the 2019 Survey Area, as shown in Table 3: Special-Status Plant Survey Summary. Further, the third round of 2017 surveys was conducted in the fall, which captured species that were not observable during the 2019 surveys, which were limited to the spring. Species reported during the 2016 and 2017 surveys that were not observed in 2019 include:

- Abrams' spurge (*Euphorbia abramsiana*),
- Clokey's cryptantha (*Cryptantha clokeyi*),[3]
- Coves' cassia (*Senna covesii*),
- Matted cholla (*Grusonia parishii*),
- Mojave milkweed (*Asclepias nyctaginifolia*),
- Narrow-leaved yerba santa (*Eriodictyon angustifolium*),

[3] This species may have been misidentified in previous surveys. Further investigation of these populations was conducted in 2019; voucher specimens were collected and sent to an expert. It was determined that most of the Cryptanthas in the Survey Area were *C. barbigera barbigera*. No *C. clokeyi* individuals were found in 2019.

- Parry's spurge (*Euphorbia parryi*),
- Playa milk-vetch (*Astragalus allochrous* var. *playanus*),
- Salina Pass wild-rye (*Elymus salina*), and
- Spiny cliff-brake (*Pellaea truncata*).

A full discussion of the 2016 and 2017 survey results is provided in the Special-Status Plant Species Survey Report (Insignia 2017) and the Supplemental Special-Status Plant Species Survey Report (Insignia 2018) for the Project.

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ATTACHMENT A: VEGETATION COMMUNITIES AND LAND COVERS

Attachment A:
Vegetation Communities and Land Covers
Map 1 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Substation

Existing Transmission Structure

New Transmission Structure

Transmission Structure Removal

Existing Substation Boundary

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Ericameria cooperi Provisional Shrubland Alliance

Ericameria nauseosa Shrubland Alliance

Eriogonum fasciculatum Shrubland Alliance

Juniperus californica Woodland Alliance

Yucca brevifolia Woodland Alliance

Whitehaven St

Escondido Ave

LUGO SUBSTATION

4692741E

4692744E

TBD

4692740E

4692743E

4692739E

Cap Bank

4692742E

Cap Bank

M0-T1

M0-T2

M0-T2

Fort Irwin

Mojave National Preserve

Victorville

San Bernardino

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 2 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

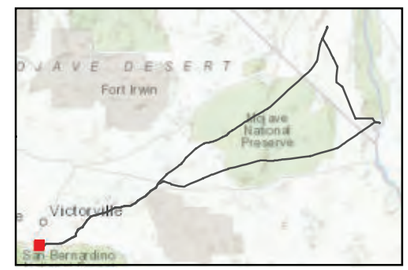
Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Adenostoma fasciculatum* Shrubland Alliance
- Developed
- *Ericameria cooperi Provisional* Shrubland Alliance
- *Ericameria nauseosa* Shrubland Alliance
- *Juniperus californica* Woodland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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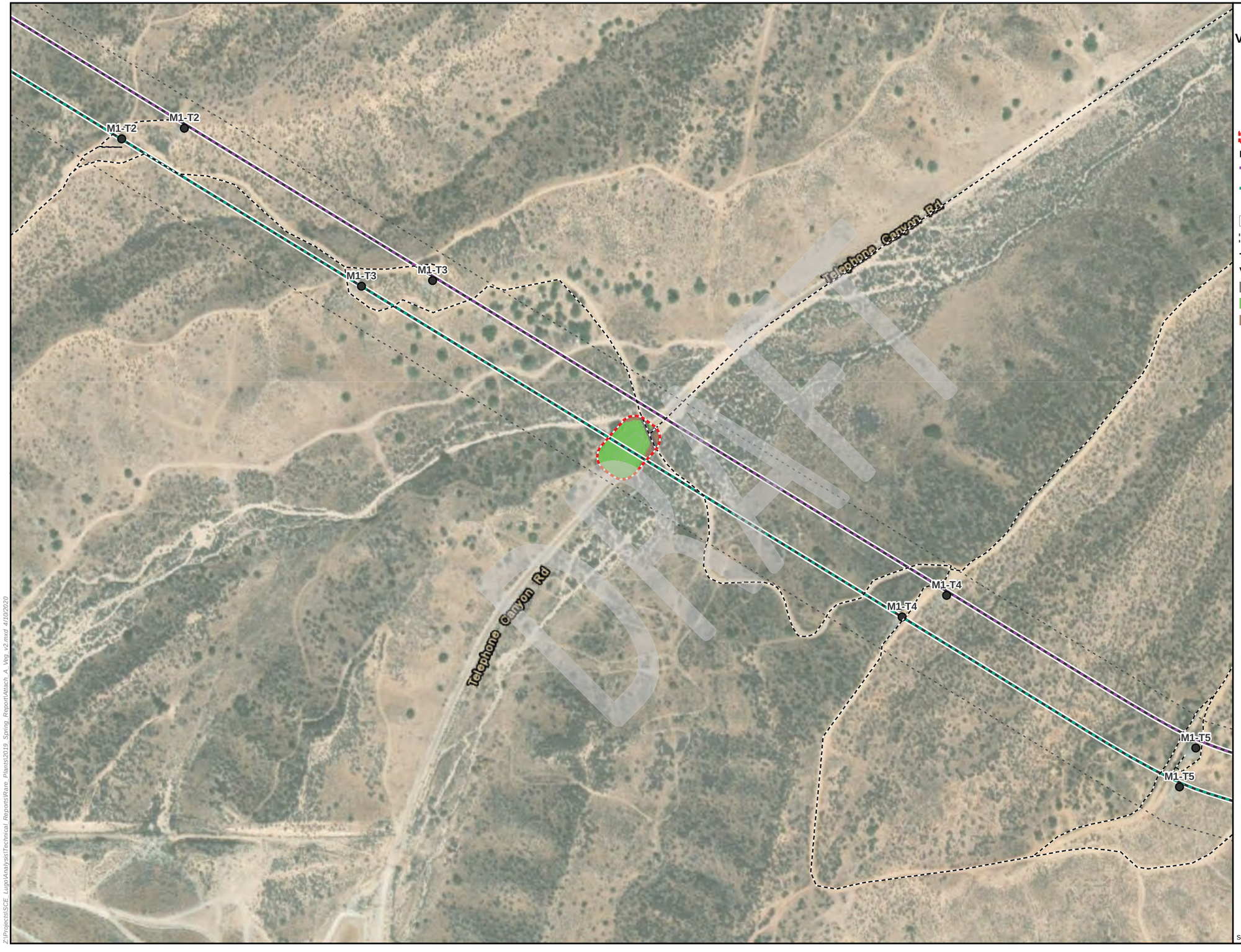


Attachment A:
Vegetation Communities and Land Covers
Map 3 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

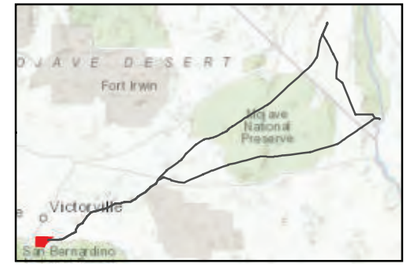
Access Road

Vegetation Community/Land Cover

Developed

Juniperus californica Woodland Alliance

Prunus fasciculata - Salazaria mexicana Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 4 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

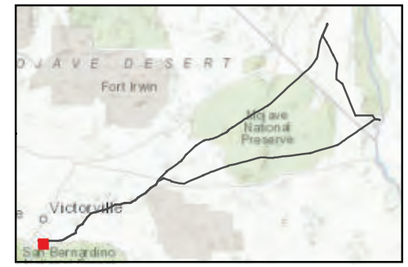
Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Achnatherum speciosum* Herbaceous Alliance
- *Adenostoma fasciculatum* Shrubland Alliance
- Developed
- *Ericameria nauseosa* Shrubland Alliance
- *Ericameria linearifolia - Cleome isomeris* Shrubland Alliance
- *Juniperus californica* Woodland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M3-T3
M3-T2
M3-T2
M3-T1
M3-T1

Attachment A:
Vegetation Communities and Land Covers
Map 5 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

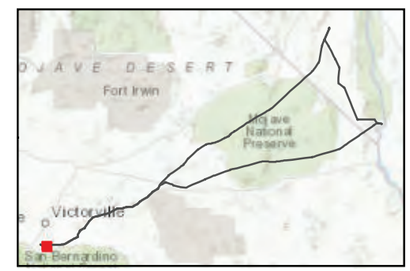
Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

Juniperus californica Woodland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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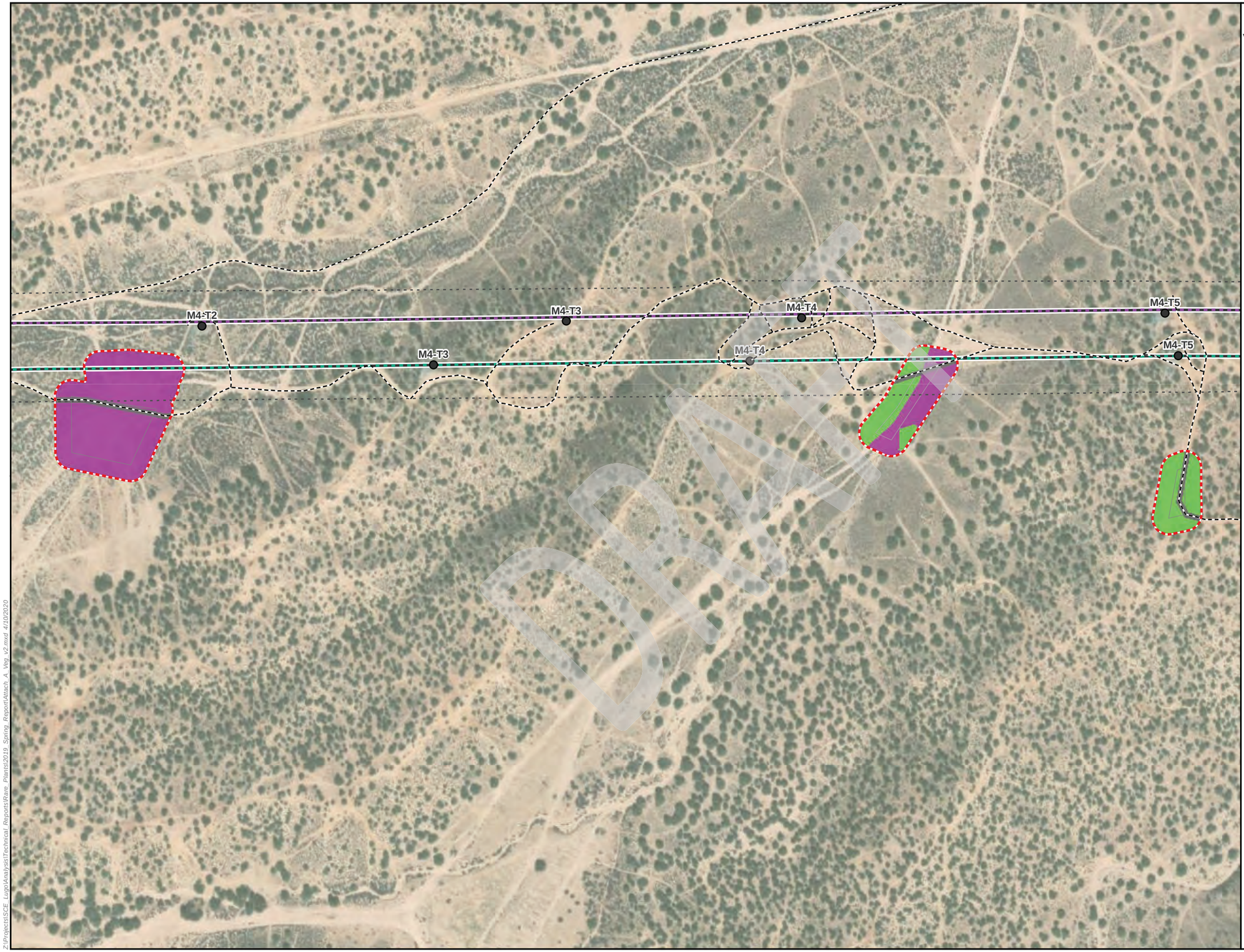


Attachment A:
Vegetation Communities and Land Covers
Map 6 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

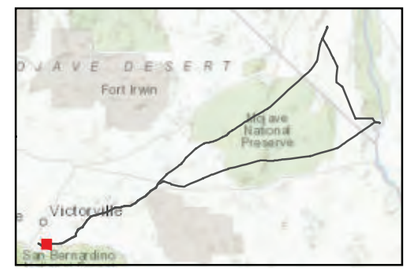
Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

Juniperus californica Woodland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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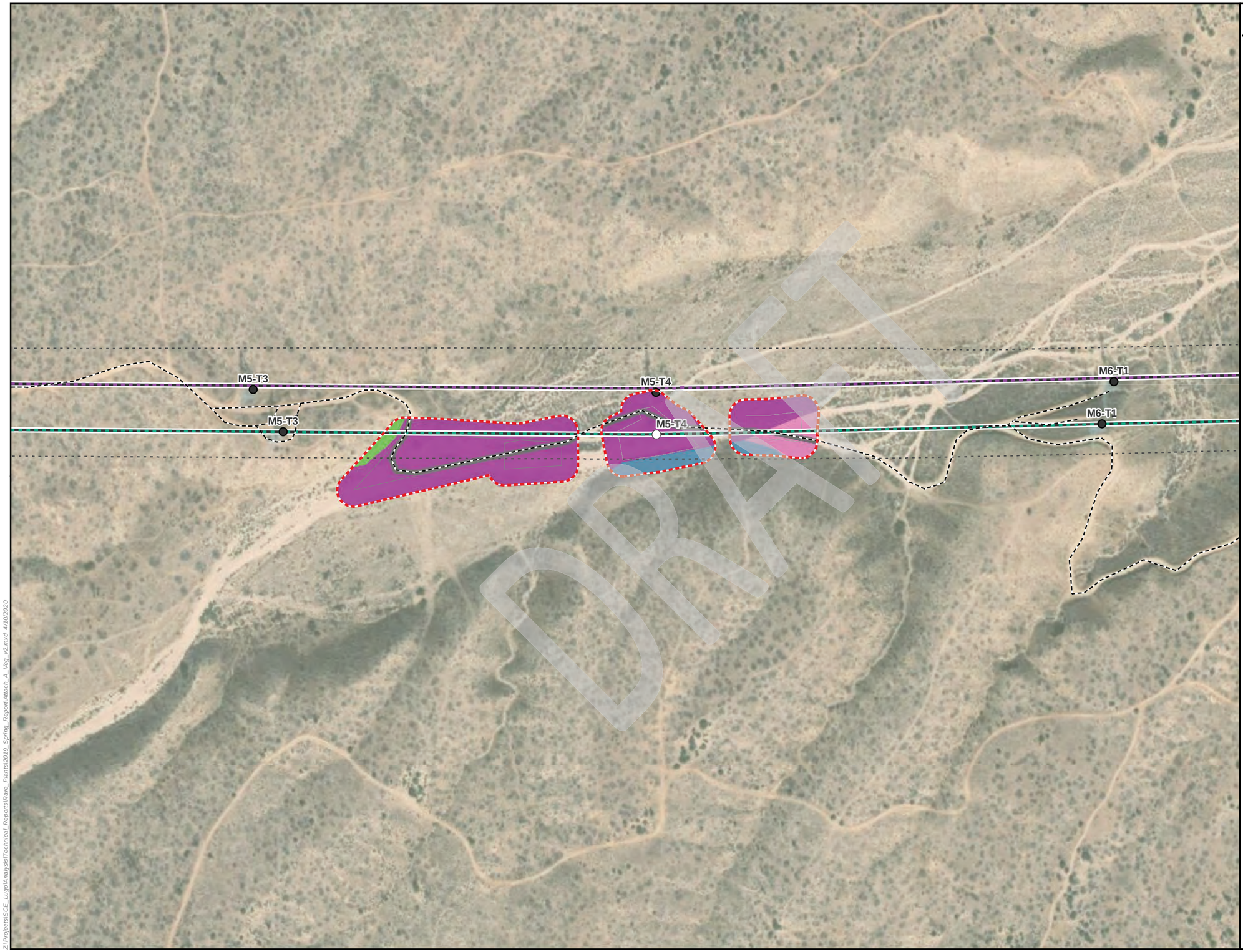


Attachment A:
Vegetation Communities and Land Covers
Map 7 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

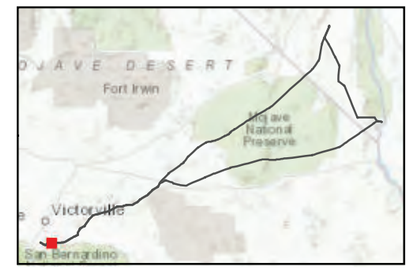
Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line
Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Ephedra viridis Shrubland Alliance
Ericameria cooperi Provisional Shrubland Alliance
Ericameria nauseosa Shrubland Alliance
Juniperus californica Woodland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 8 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

Eriogonum fasciculatum Shrubland Alliance

Juniperus californica Woodland Alliance

Whitehaven

M7-T1

M7-T2

M7-T2

M7-T3

M7-T3

M7-T4

Arrowhead Lake Rd

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 9 of 191

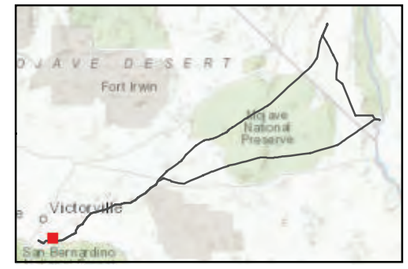
Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Access Road

Vegetation Community/Land Cover

Developed



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Source: Insignia, 2019; SCE, 2019

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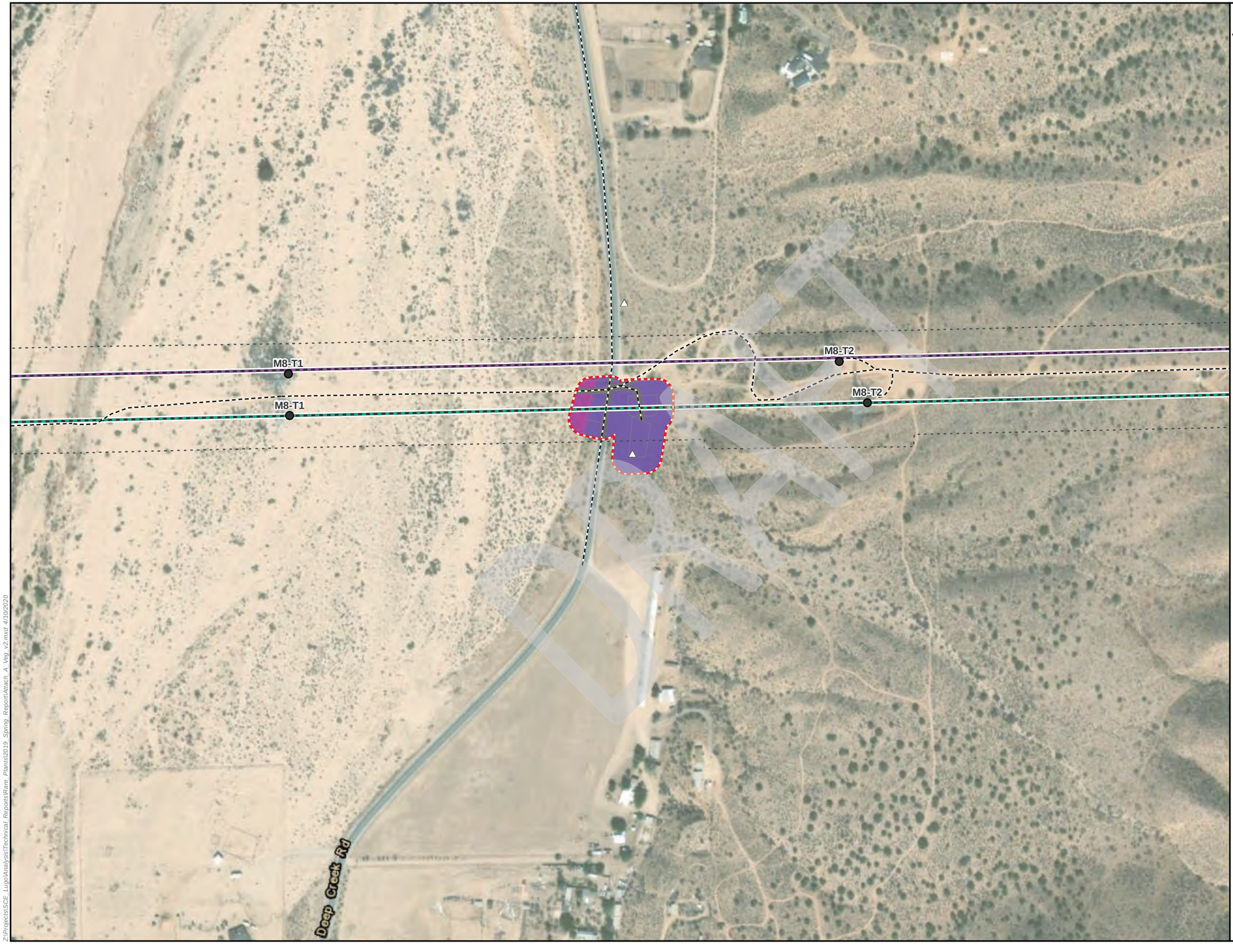
Attachment A:
Vegetation Communities and Land Covers
Map 10 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project



Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Distribution Structure

Construction Area

Right-of-Way

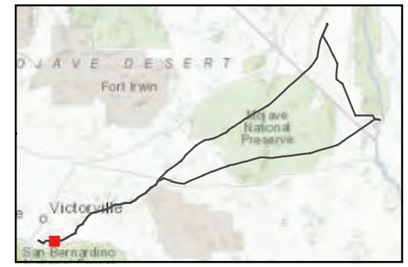
Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

Eriogonum fasciculatum Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 11 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

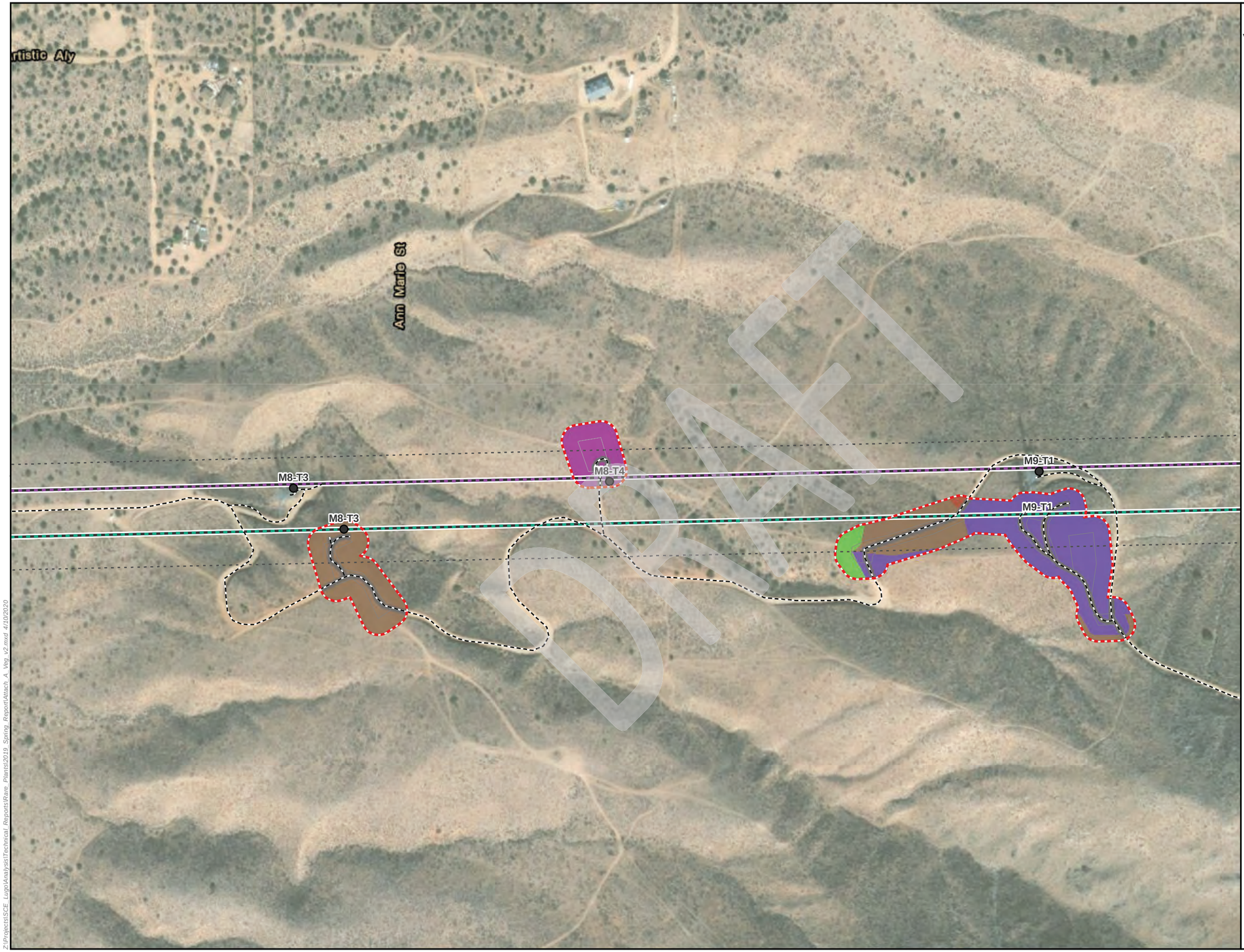
Ephedra nevadensis - Lycium andersonii - Grayia spinosa Shrubland Alliance

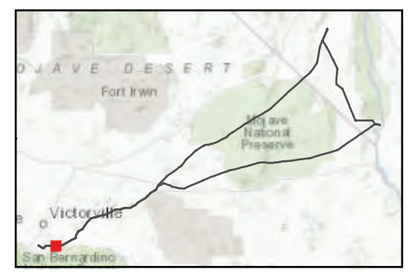
Ericameria nauseosa Shrubland Alliance

Eriogonum fasciculatum Shrubland Alliance

Juniperus californica Woodland Alliance

Prunus fasciculata - Salazaria mexicana Shrubland Alliance





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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 12 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

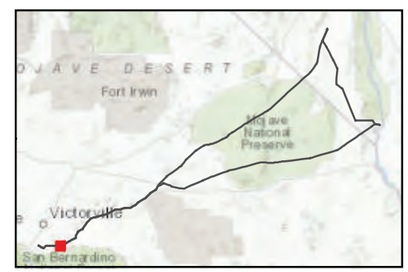
Prunus fasciculata - Salazaria mexicana Shrubland Alliance

M10-T2

M10-T2

M10-T3

M10-T3



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 13 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M12-T4
M12-T4
M12-T3
M12-T3
M12-T2
M12-T2

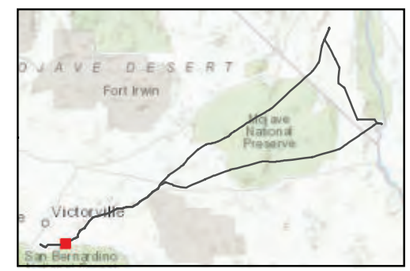
Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line
Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Juniperus californica Woodland Alliance
Prunus fasciculata - Salazaria mexicana Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 14 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Prunus fasciculata - Salazaria mexicana Shrubland Alliance

M14-T3

M14-T3

M14-T2

M14-T2

M14-T1

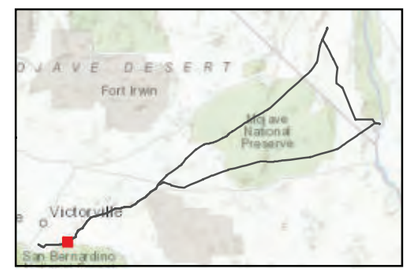
M14-T1

Bowen Ranch Rd

Alps Ct

Sierra Madre Trl

Kunlun Trl



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 15 of 191

Eldorado-Lugo-Mohave Series Capacitor Project

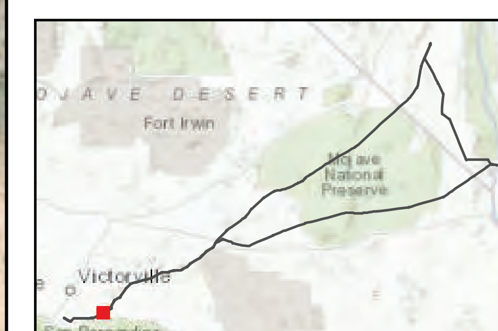
Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Eriogonum fasciculatum* Shrubland Alliance
- *Juniperus californica* Woodland Alliance
- *Prunus fasciculata - Salazaria mexicana* Shrubland Alliance
- *Yucca brevifolia* Woodland Alliance



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0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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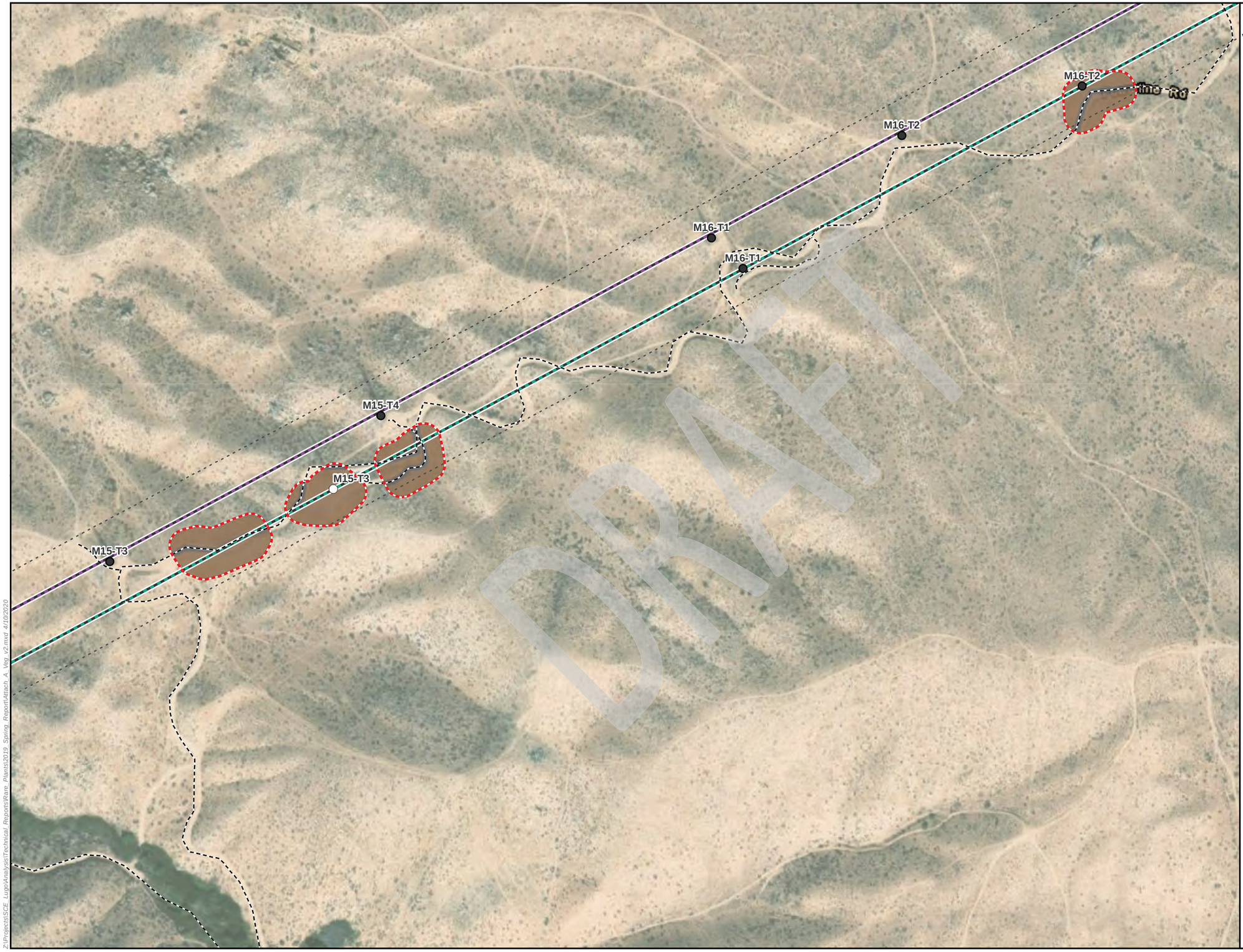

Attachment A:
Vegetation Communities and Land Covers
Map 16 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Prunus fasciculata - Salazaria mexicana Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 17 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance

Purshia tridentata - *Artemisia tridentata* Shrubland Alliance

Milpas Dr

Castle Rock Rd

Teton Rd

Detour

M17-T1

M17-T1

M16-T5

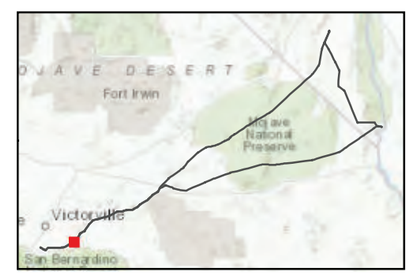
M16-T5

M16-T4

M16-T4

M16-T3

M16-T3



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 18 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

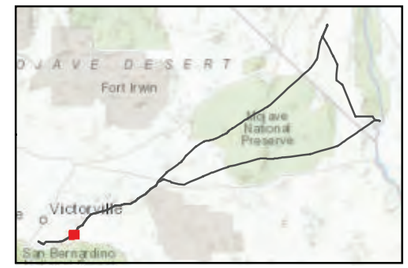
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance



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Source: Insignia, 2019; SCE, 2019

Attachment A:
Vegetation Communities and Land Covers
Map 19 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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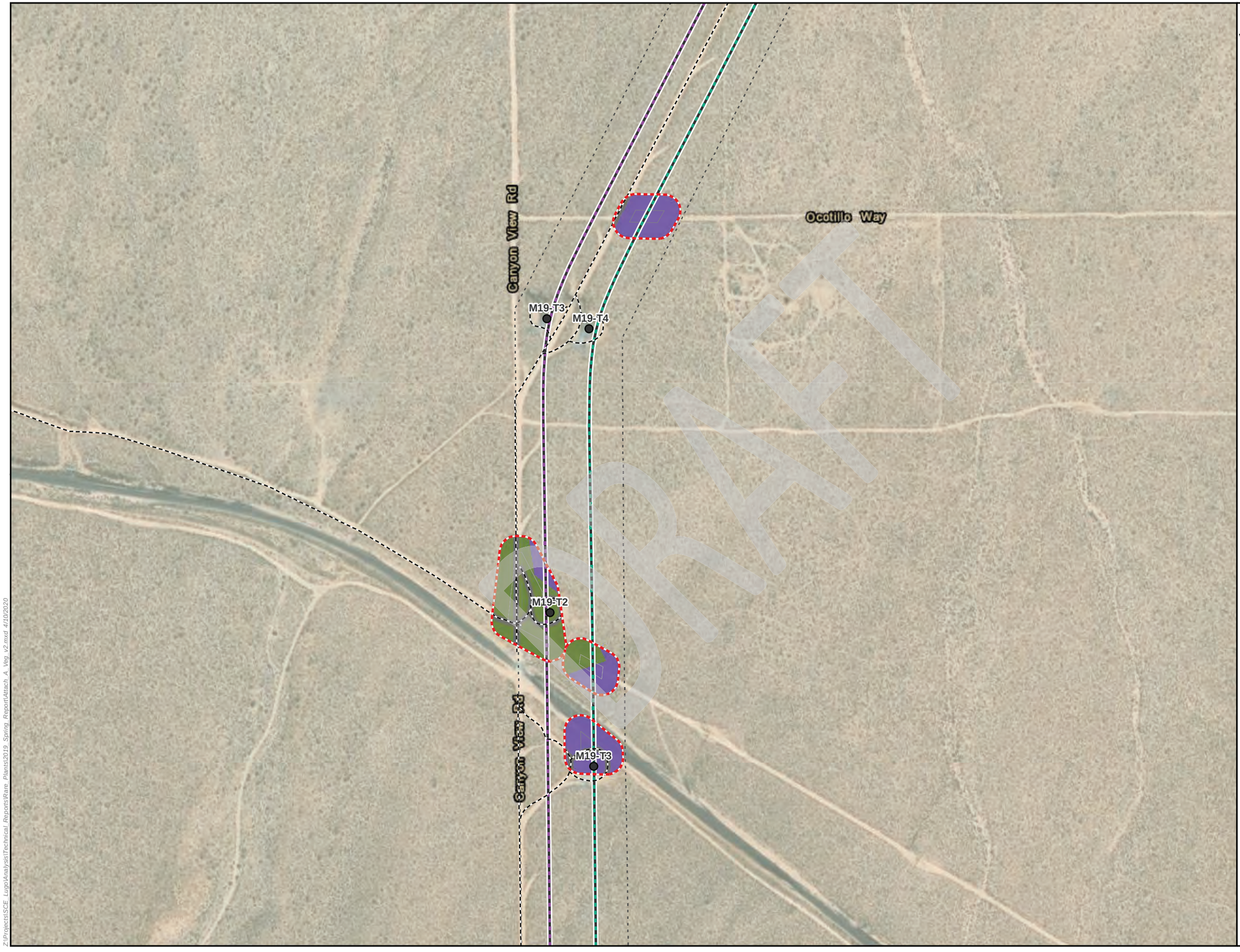


Attachment A:
Vegetation Communities and Land Covers
Map 20 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

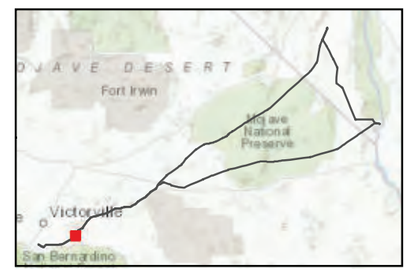
Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance

Yucca brevifolia Woodland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 21 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M21-T1
M20-T3
M20-T4
M20-T3
M20-T2
Desert View Rd
Desert View Rd

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line
Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Existing Distribution Structure
Existing Subtransmission Structure
Modified Subtransmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Yucca brevifolia Woodland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 22 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Atriplex polycarpa Shrubland Alliance

Developed

Yucca brevifolia Woodland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 23 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

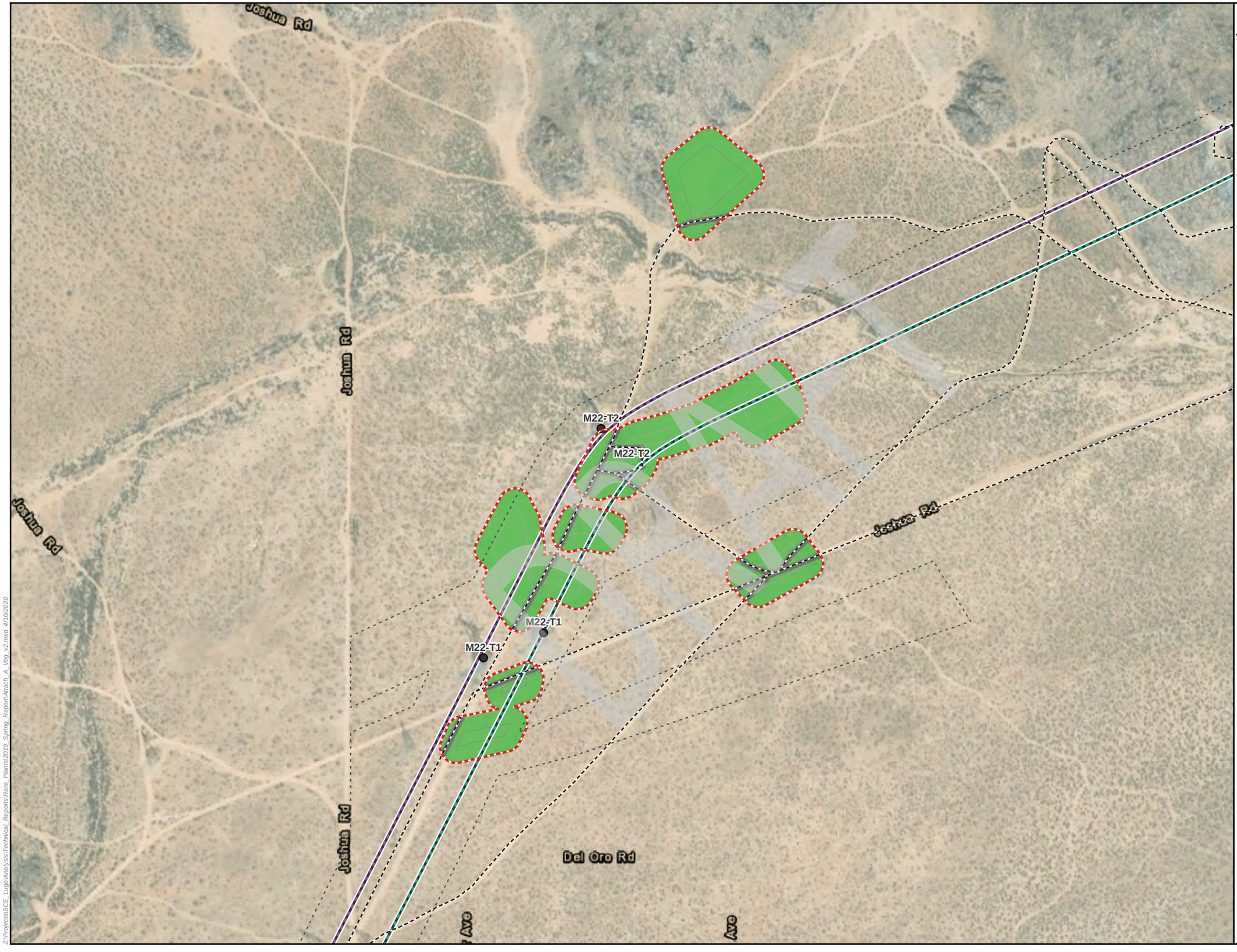
Access Road

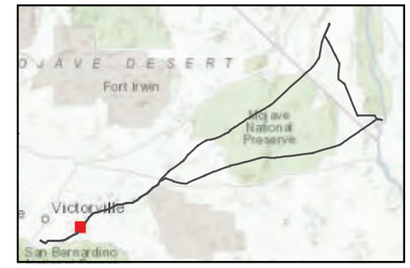
Vegetation Community/Land Cover

Ambrosia dumosa Shrubland Alliance

Atriplex polycarpa Shrubland Alliance

Developed





1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 24 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia dumosa Shrubland Alliance

Atriplex polycarpa Shrubland Alliance

Developed

Suaeda moquinii Shrubland Alliance

M22-T4

M22-T4

M22-T3

M22-T3

Joshua Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 25 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Atriplex polycarpa Shrubland Alliance

Developed

Larrea tridentata Shrubland Alliance

Suaeda moquinii Shrubland Alliance

M23-T4

M23-T4

M23-T3

M23-T3

M23-T2

M23-T2

M23-T1

M23-T1

M22-T4

M22-T4

Old Spanish Trail

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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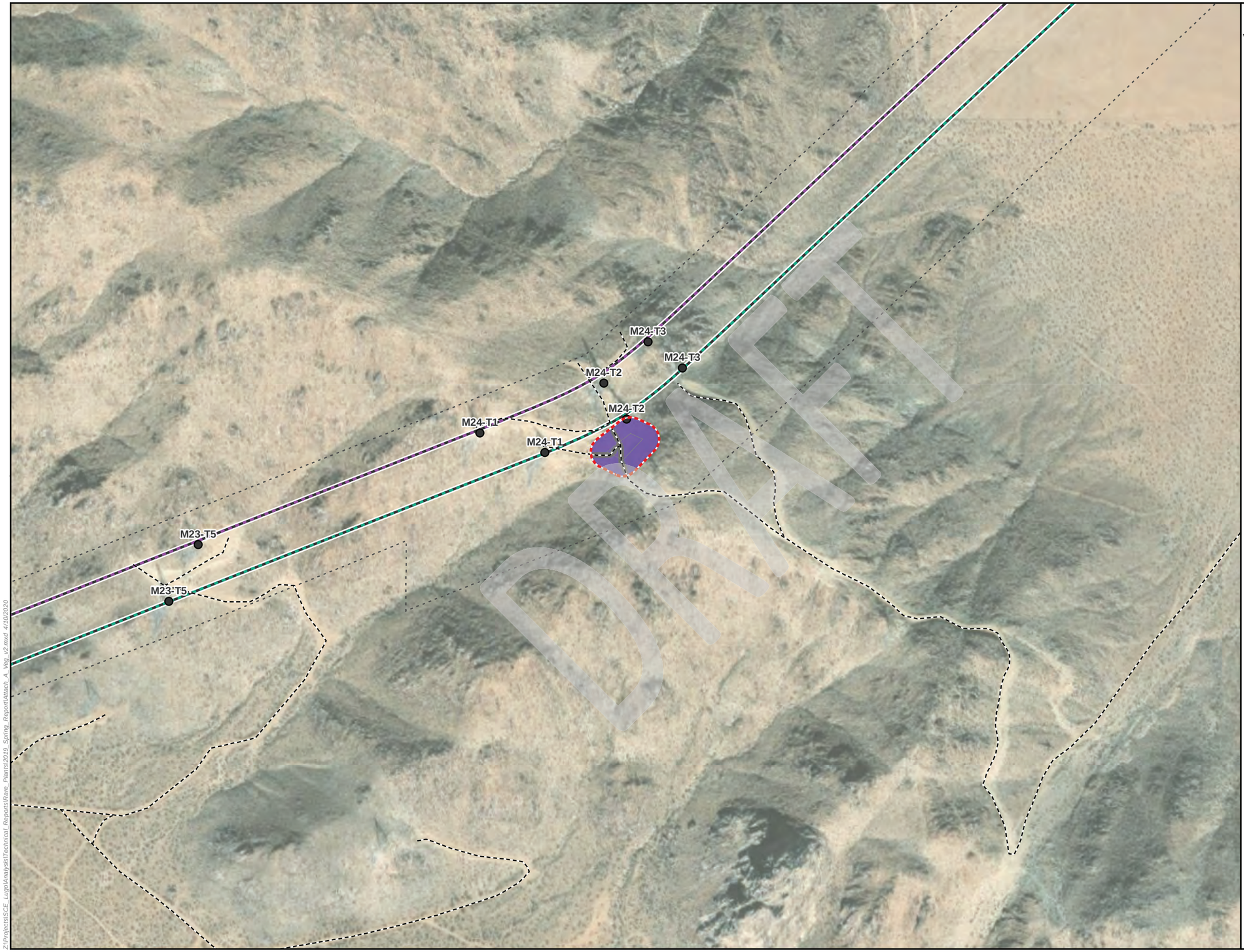


Attachment A:
Vegetation Communities and Land Covers
Map 26 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

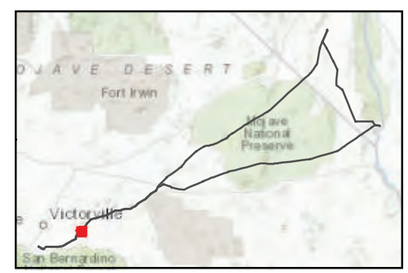
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 27 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M24-T6

M24-T6

M24-T5

M24-T5

M24-T4

M24-T4

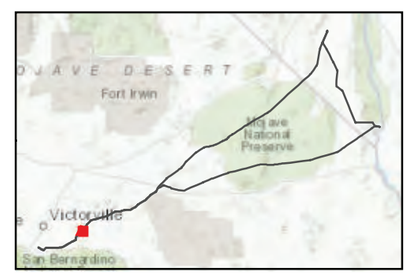
Exeter St

Cherwell St

Queen Ave

Lake St

Buchanan St



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 28 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

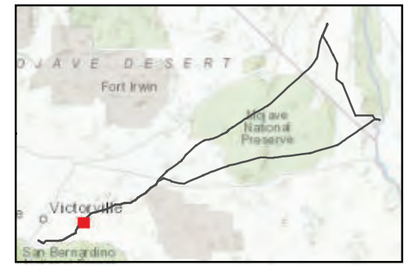
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 29 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Atriplex polycarpa Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 30 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 31 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M29-T1

M29-T1

M28-T5

M28-T4

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M30-T1

M30-T1

M29-T3

M29-T3

M29-T2

M29-T2

Attachment A:
Vegetation Communities and Land Covers
Map 32 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia dumosa Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 33 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Existing Distribution Structure

Modified Distribution Structure

Construction Area

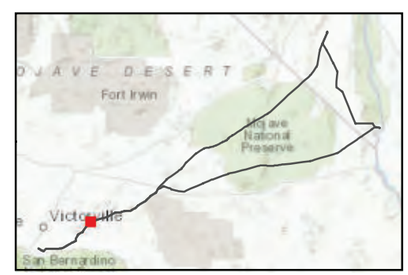
Right-of-Way

Access Road

Vegetation Community/Land Cover

Atriplex polycarpa Shrubland Alliance

Developed



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 34 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

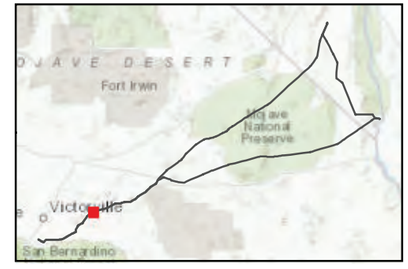
Access Road

Vegetation Community/Land Cover

Atriplex polycarpa Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 35 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata - Encelia farinosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 36 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M34-T1

M34-T2

M34-T2

M34-T3

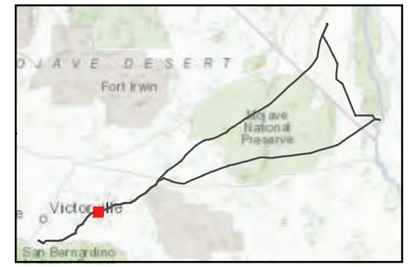
M34-T3

M34-T4

Powerline Rd

Powerline Rd

Fairlane Rd



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0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 37 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

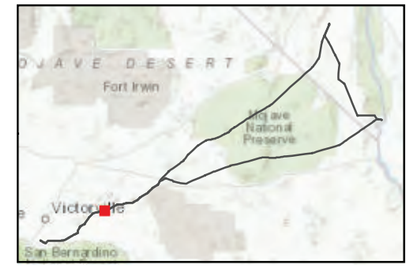
Vegetation Community/Land Cover

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 38 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M38-T3

M38-T3

M38-T2

M38-T2

M38-T1

M38-T1

Powerline Rd

Powerline Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M39-T2
M39-T2
M39-T1
M39-T1
M38-T4
M38-T4
M38-T3
M38-T3
Powerline Rd
Powerline Rd

Attachment A:
Vegetation Communities and Land Covers
Map 39 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

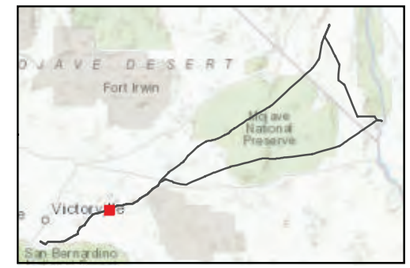
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 40 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Powerline Rd

M39-T4

M39-T4

M39-T3

M39-T3

M39-T2

M39-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 41 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M40-T2

M40-T3

M40-T1

M40-T2

M39-T5

M40-T1

Powerline Rd

Powerline Rd

Powerline Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 42 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M42-T4
M42-T4
M42-T3
M42-T3
M42-T2
M42-T2
Camp Rock Rd
Powerline Rd
Camp Rock Rd

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line
Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 43 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 44 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

M44-T1

M43-T4

M44-T1

M43-T4

Powerline Rd

Powerline Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 45 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

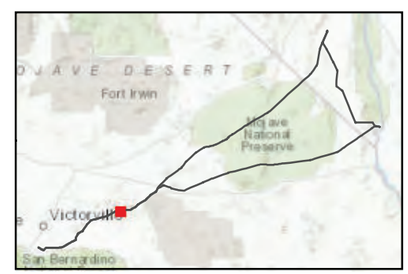
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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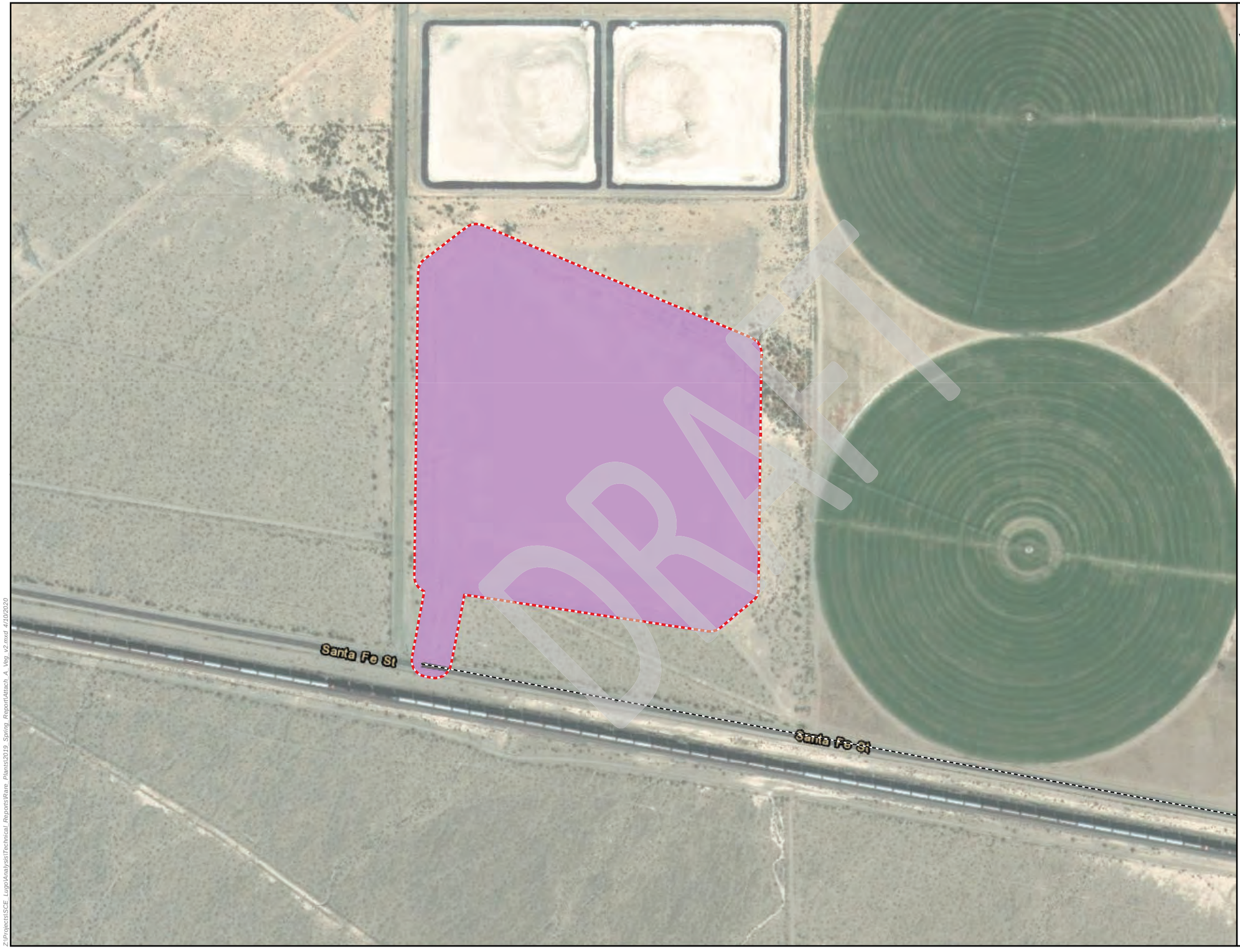
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019



Attachment A:
Vegetation Communities and Land Covers
Map 46 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area
Access Road

Vegetation Community/Land Cover

Barren - Not Developed
Developed

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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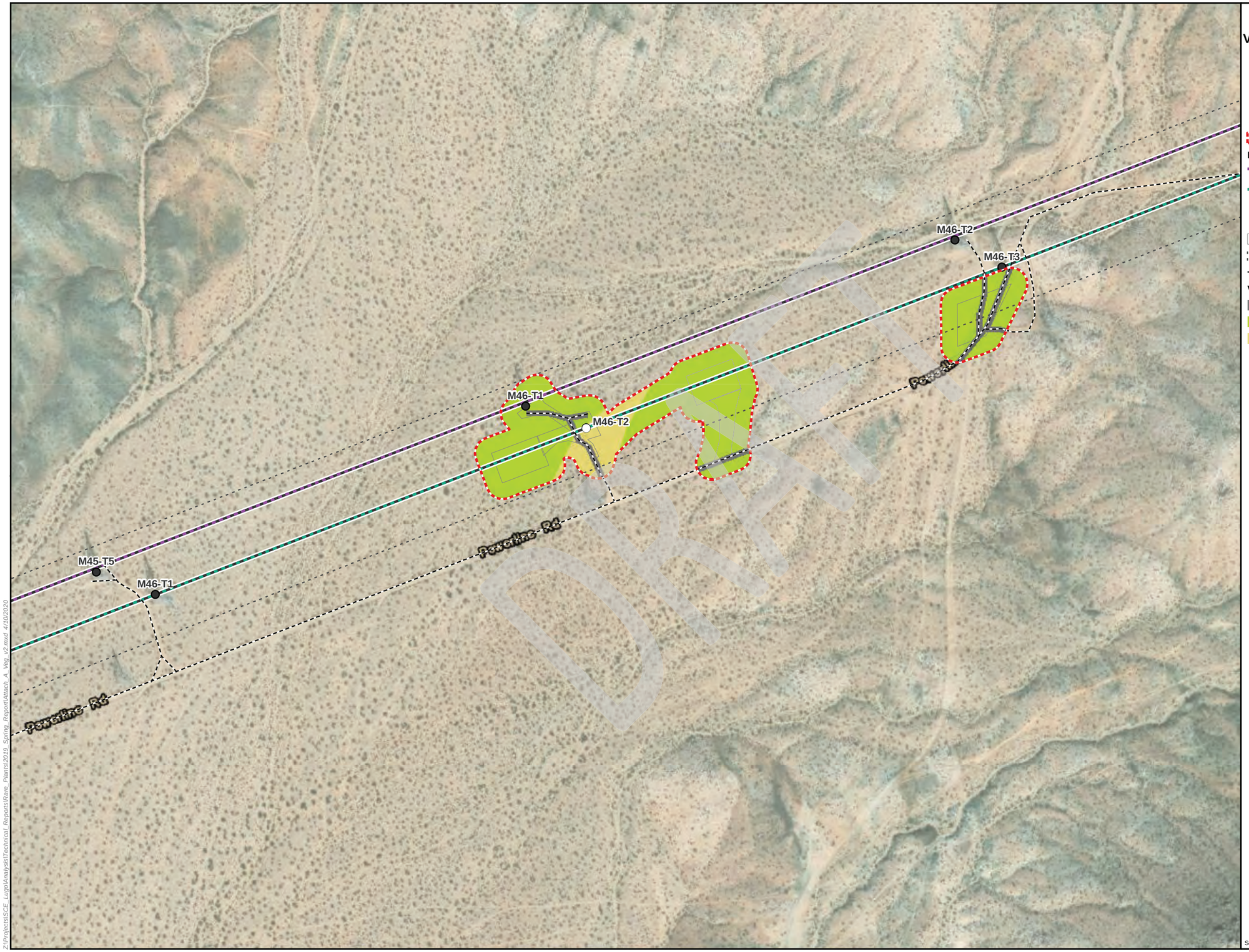


Attachment A:
Vegetation Communities and Land Covers
Map 47 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

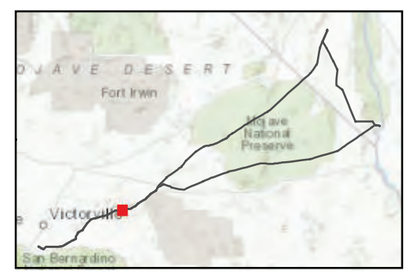
Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line
Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance
Yucca schidigera Shrubland Alliance



1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 48 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M47-T1

M47-T2

M47-T3

Powerline Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 49 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M49-T4

M49-T4

M49-T3

M49-T3

M49-T2

M49-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 50 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 51 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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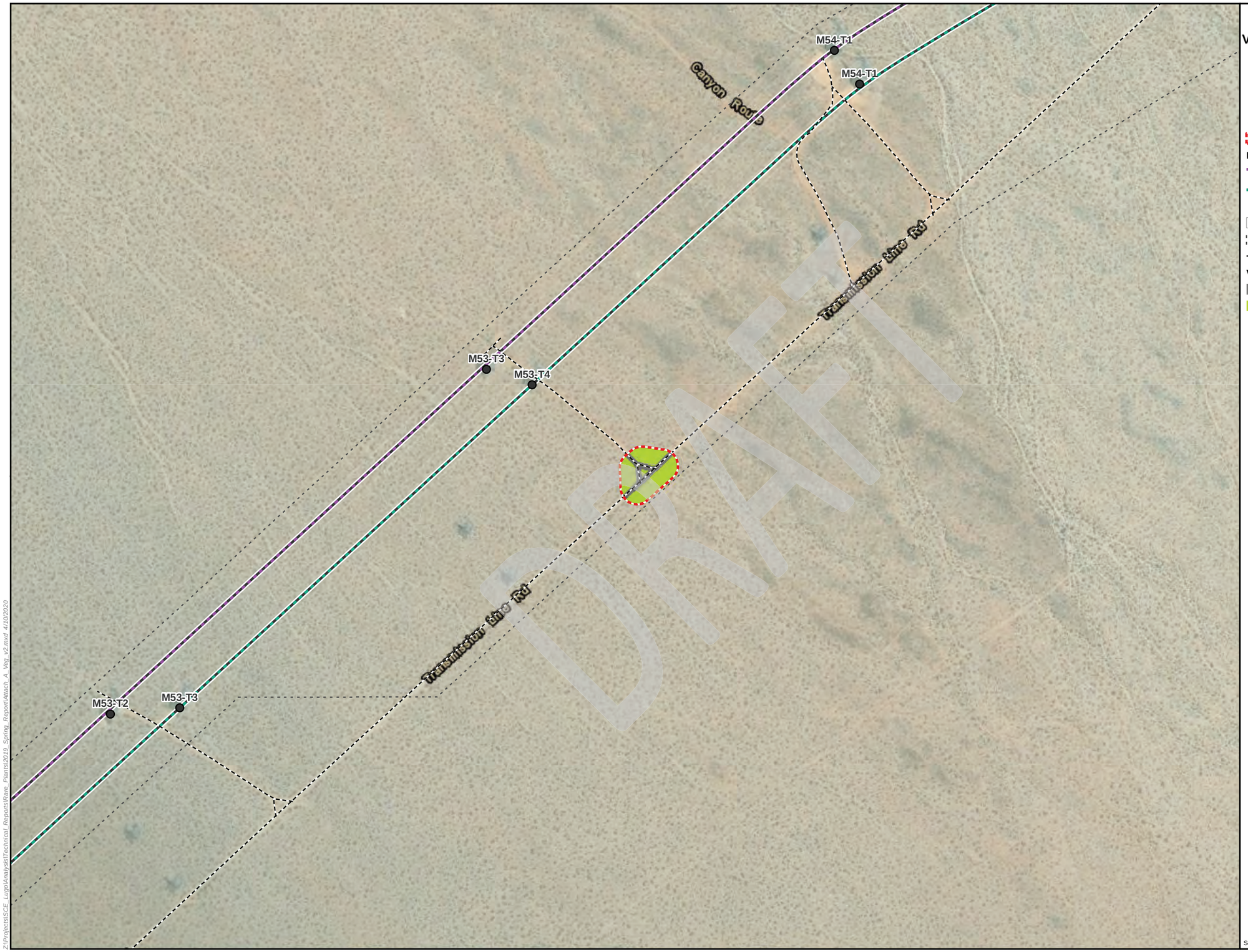
Attachment A:
Vegetation Communities and Land Covers
Map 52 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project



- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 53 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 54 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Access Road

Vegetation Community/Land Cover

- *Atriplex confertifolia* Shrubland Alliance
- Barren - Not Developed
- Developed
- *Larrea tridentata* Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 55 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 56 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Coleogyne ramosissima Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

M57-T3

M57-T3

M57-T2

M57-T2

M57-T1

M57-T1

Transmission Line Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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

Attachment A:
Vegetation Communities and Land Covers
Map 57 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Coleogyne ramosissima Shrubland Alliance

Developed

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 58 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M59-T1

M59-T1

M58-T4

M58-T4

M58-T3

M58-T3

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Coleogyne ramosissima Shrubland Alliance

Developed

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 59 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M59-T4

M59-T4

M59-T3

M59-T3

M59-T2

M59-T2

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 60 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M63-T2

M63-T2

M63-T1

M63-T1

M62-T3

M62-T3

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 61 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M64-T1

M64-T1

M63-T4

M63-T4

M63-T3

M63-T3

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 62 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Barren - Not Developed
- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata* Shrubland Alliance

M64-T3

M64-T3

M64-T2

M64-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 63 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M65-T2

M65-T2

M65-T1

M65-T1

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 64 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M65-T3

M65-T3

M65-T2

M65-T2

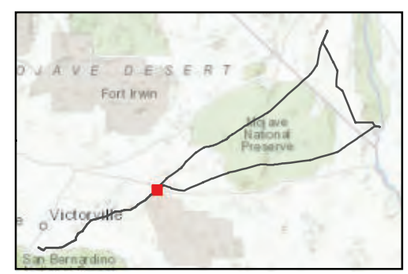
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata* Shrubland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 65 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M66-T2
M66-T4
M66-T3
M66-T1
M66-T2
M65-T4
M66-T1

Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 66 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M68-T3

M68-T2

M68-T1

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 67 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

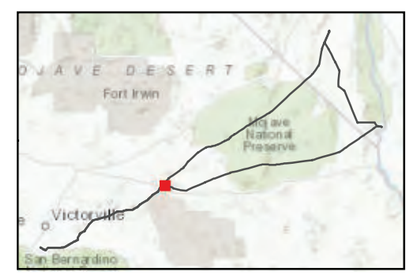
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

M69-T1

M68-T4

M68-T3



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 68 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M68-T3

M68-T2

M68-T1

PISGAH SUBSTATION

M67-T6

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Existing Substation

Existing Transmission Structure

Existing Distribution Structure

Existing Substation Boundary

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 69 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M68-T5

M68-T4

M68-T3

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Transmission Line not part of Project

Existing Transmission Structure

Existing Distribution Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 70 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 71 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

M71-T4

M72-T1

M72-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 72 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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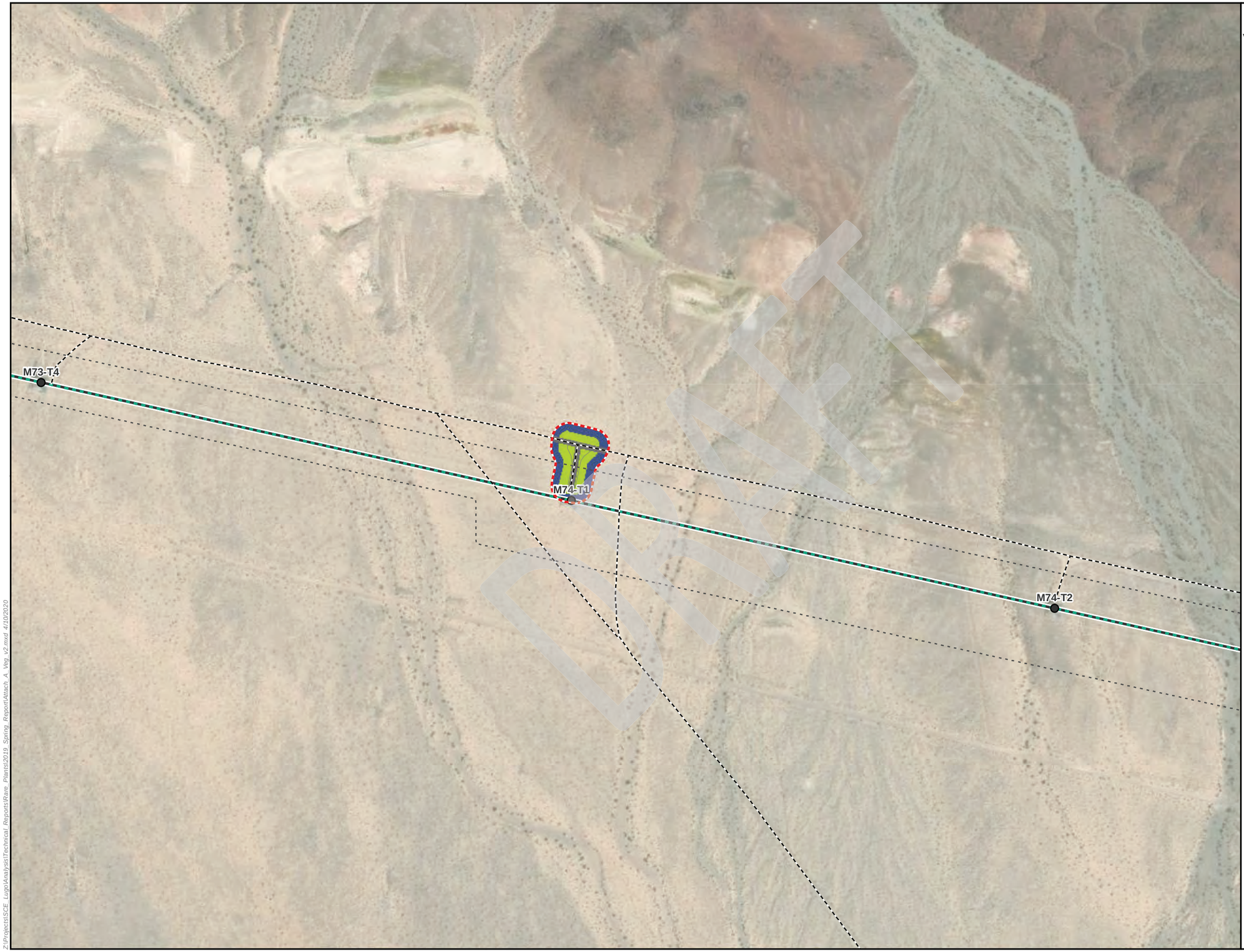


Attachment A:
Vegetation Communities and Land Covers
Map 73 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

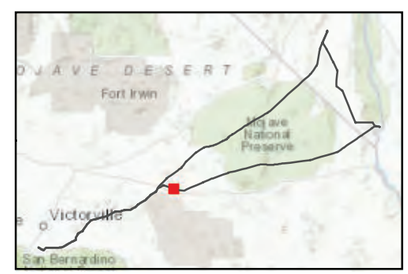
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 74 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata Shrubland Alliance

M75-T1

M75-T2

M75-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 75 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chorizanthe rigida – Geraea canescens
Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata Shrubland Alliance

M75-T4

M76-T1

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 76 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area
Construction Area
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 77 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 78 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 79 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 80 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

M81-T2

M81-T1

M80-T4

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 81 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

M82-T2

M82-T1

M81-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 82 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

M83-T2

M83-T1

M82-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 83 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M85-T2

M85-T1

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M87-T1

M86-T4

M86-T3

DRAFT

Attachment A:
Vegetation Communities and Land Covers
Map 84 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 85 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance
Larrea tridentata Shrubland Alliance

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

Attachment A:
Vegetation Communities and Land Covers
Map 86 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chilopsis linearis - Psorothamnus spinosus Woodland Alliance

Developed

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 87 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 88 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M92-T2

M92-T1

M91-T3

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 89 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

Tamarix spp. Shrubland Semi-Natural Alliance

M96-T5

M97-T1

M97-T2

M97-T3

M97-T4

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 90 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 91 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M95-T2

M95-T1

M94-T3

DRAFT

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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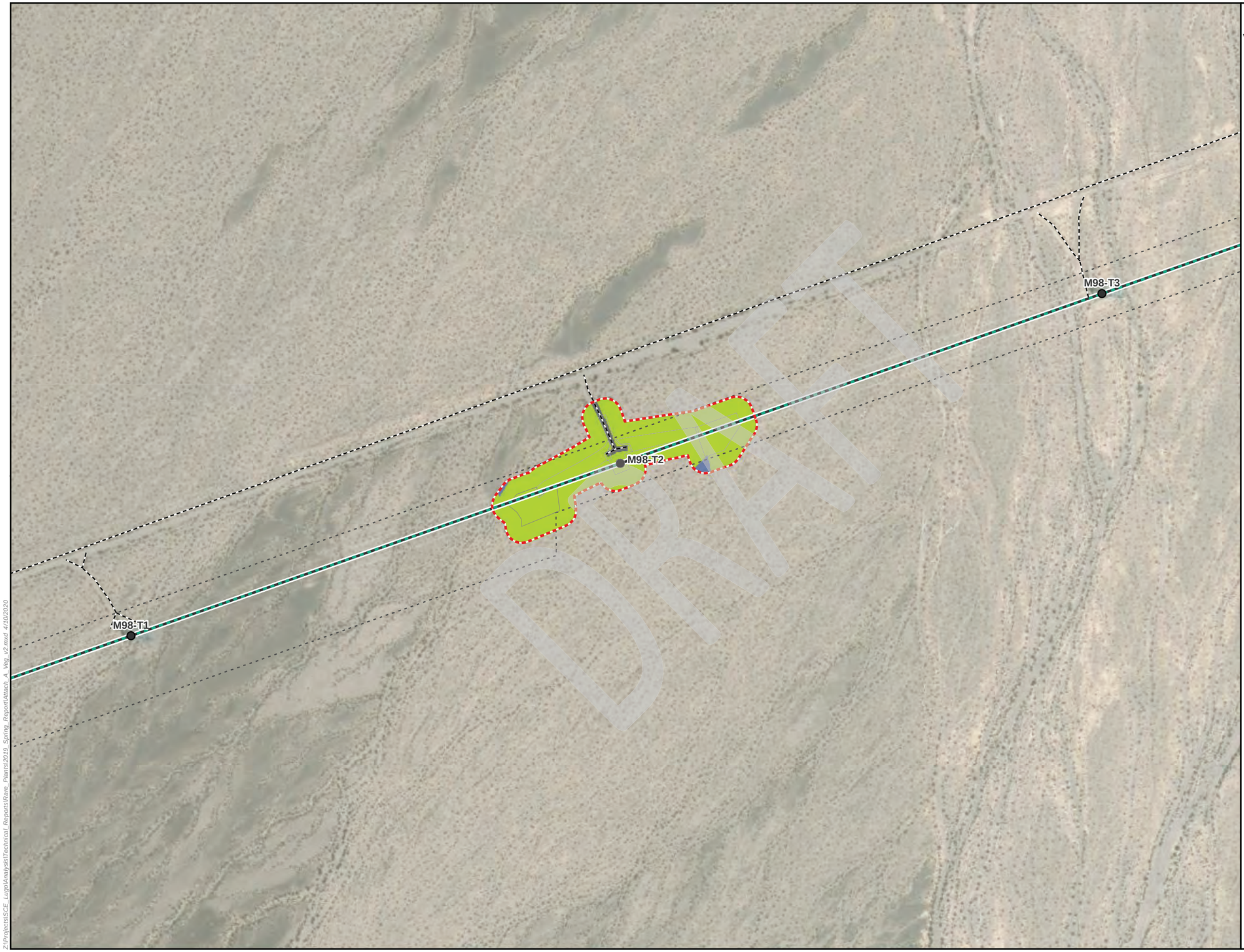

Attachment A:
Vegetation Communities and Land Covers
Map 92 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 93 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M99-T2

M99-T1

M98-T3

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 94 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M101-T1

M100-T3

M100-T2

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 95 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M102-T1

M101-T4

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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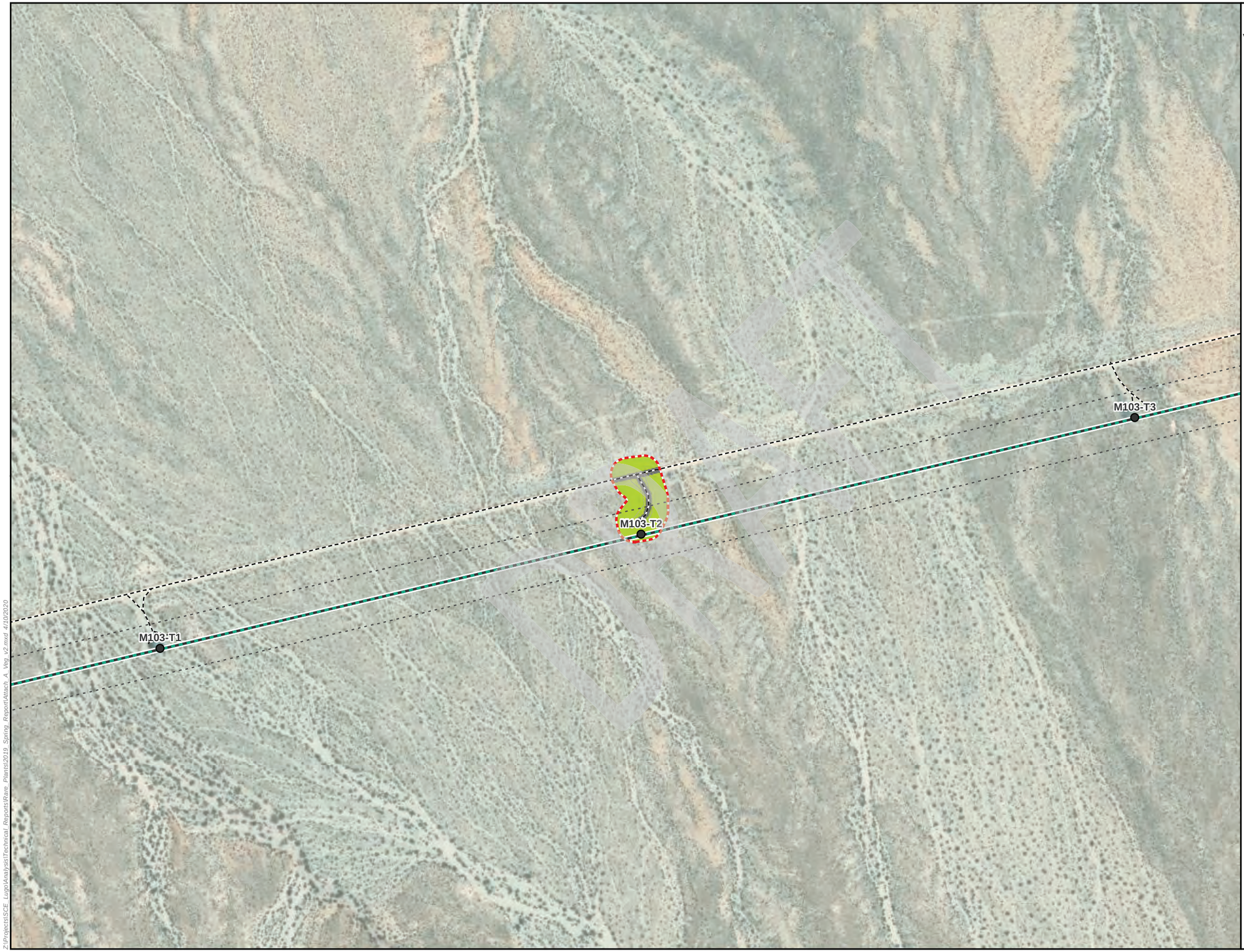

Attachment A:
Vegetation Communities and Land Covers
Map 96 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 97 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 98 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 99 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

M106-T1

M106-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 100 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Kelso-Dunes Rd

Kelso-Dunes Rd

M107-T1

M106-T3

M106-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 101 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 102 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 103 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Existing Distribution Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Kelso-Dunes Rd
Kelso-Amboy Rd
Kelbaker Rd
M111-T3
M111-T2
M111-T1
Kelso-Amboy Rd
Kelbaker Rd

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 104 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Ambrosia salsola - Bebbia juncea* Shrubland Alliance
- Developed
- *Eriogonum fasciculatum* Shrubland Alliance
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 105 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M115-T4

M115-T3

M115-T2

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 106 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

Yucca schidigera Shrubland Alliance

Vulcan Mine Rd

Vulcan

M116-T5

M117-T1

M117-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 107 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Vulcan Mine Rd

Vulcan Mine Rd

Vulcan Mine Rd

M118-T1

M118-T2

M118-T3

M118-T4

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Eriogonum fasciculatum Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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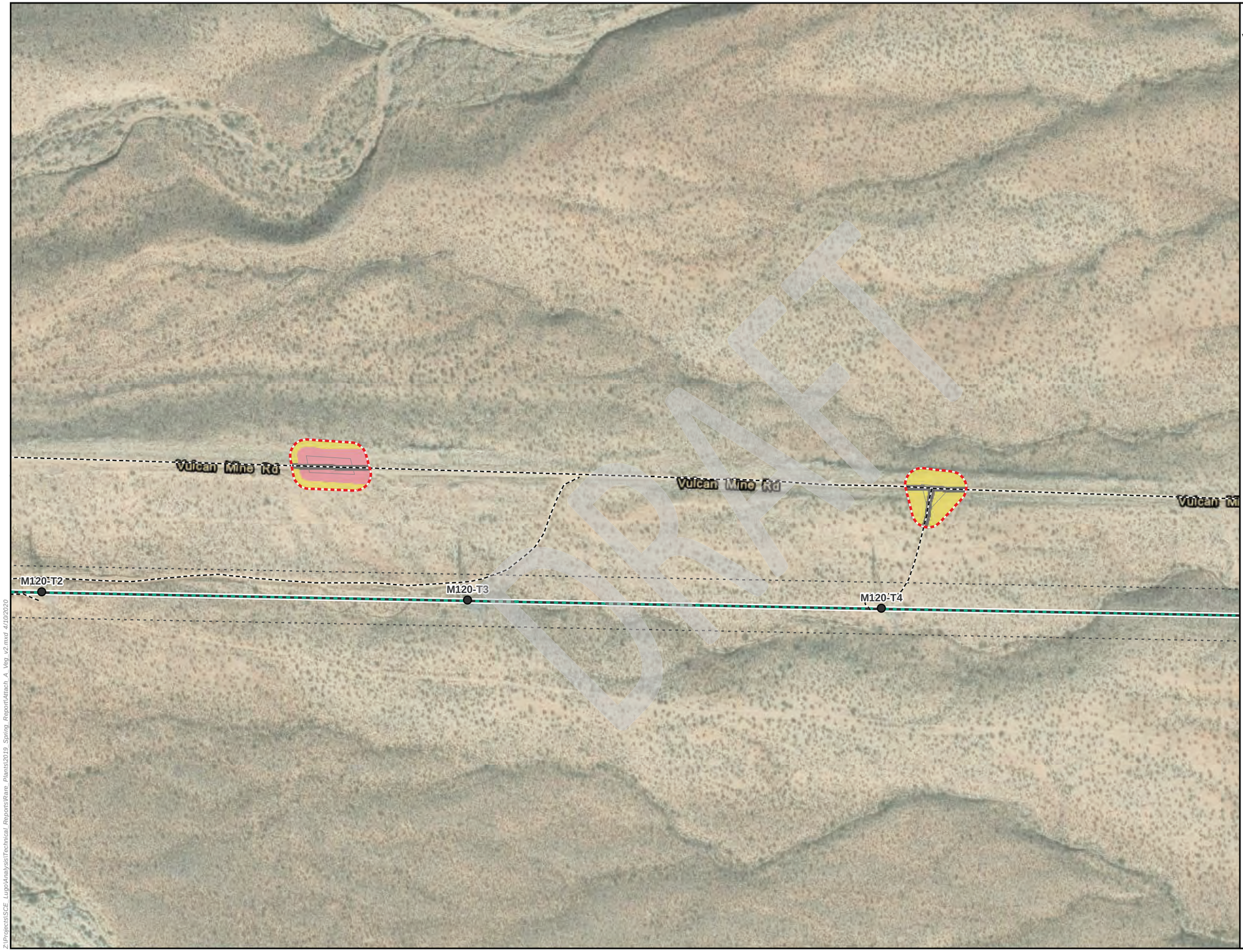

Attachment A:
Vegetation Communities and Land Covers
Map 108 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia salsola - Bebbia juncea Shrubland Alliance

Developed

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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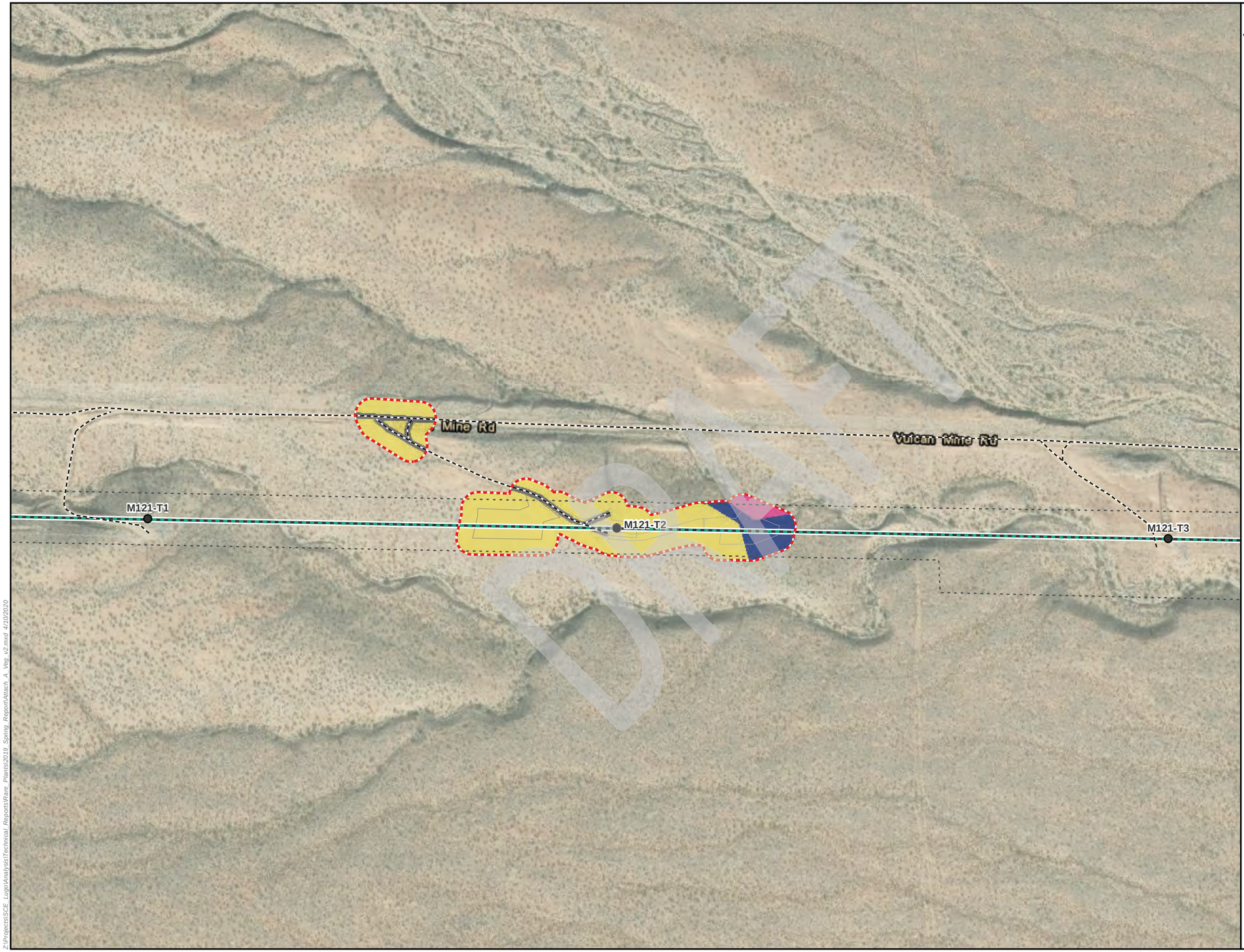

Attachment A:
Vegetation Communities and Land Covers
Map 109 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata Shrubland Alliance
Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance
Yucca schidigera Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 110 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Ericameria nauseosa Shrubland Alliance

Ericameria paniculata Shrubland Alliance

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M123-T4

M123-T3

M123-T2

Vulcan Mine Rd

Vulcan Mine Rd

Vulcan Mine Rd

Essex Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 111 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

Essex Rd

Essex Rd

Essex Rd

Black Canyon Rd

M124-T1

M124-T2

M124-T3

DRAFT

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Attachment A:
Vegetation Communities and Land Covers
Map 112 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

M125-T2

M125-T1

M124-T3

Black Canyon

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 113 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia dumosa Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M125-T4

M125-T3

M125-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 114 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M126-T1

M126-T2

M126-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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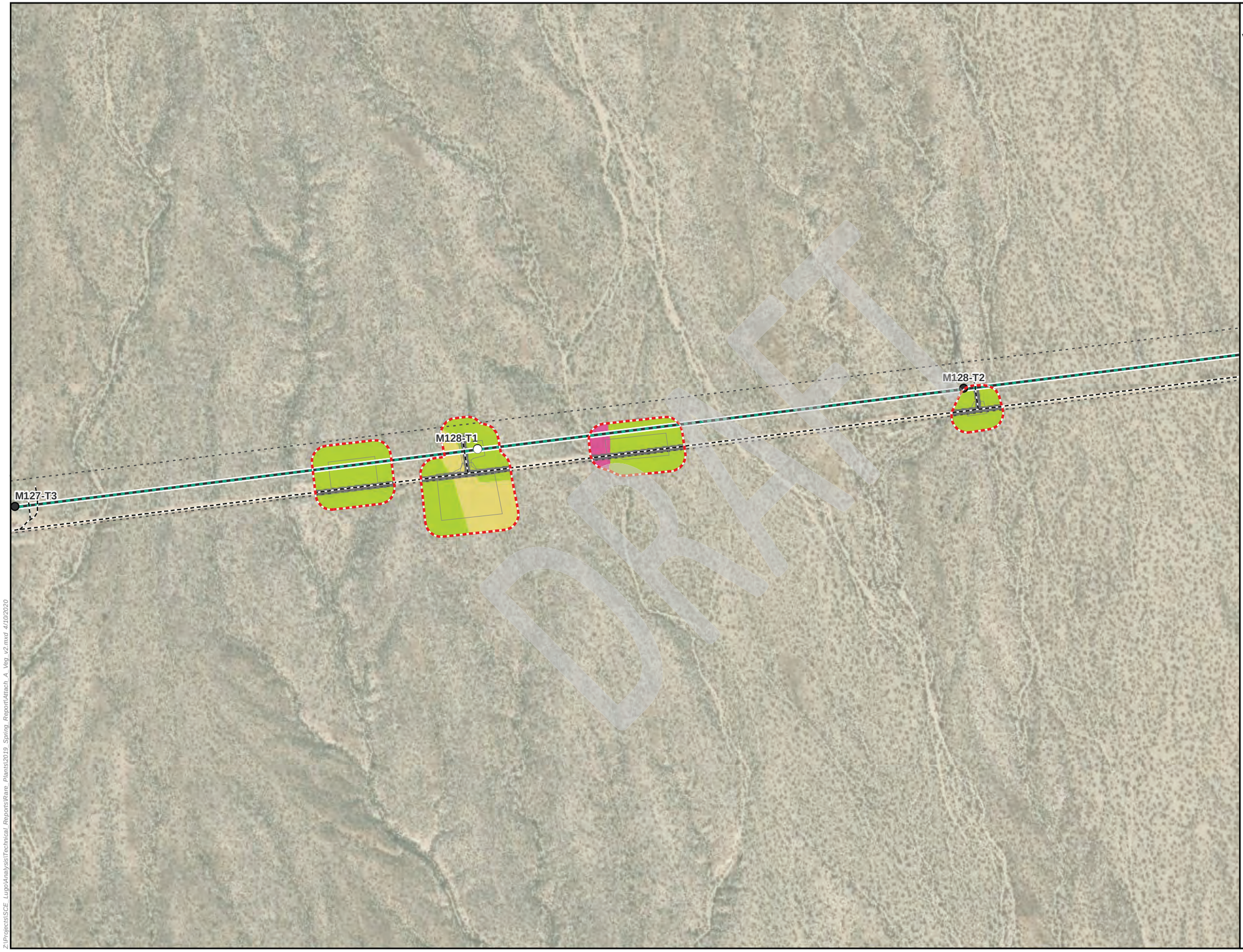
Attachment A:
Vegetation Communities and Land Covers
Map 115 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project



Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance
- *Yucca schidigera* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 116 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 117 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Yucca schidigera* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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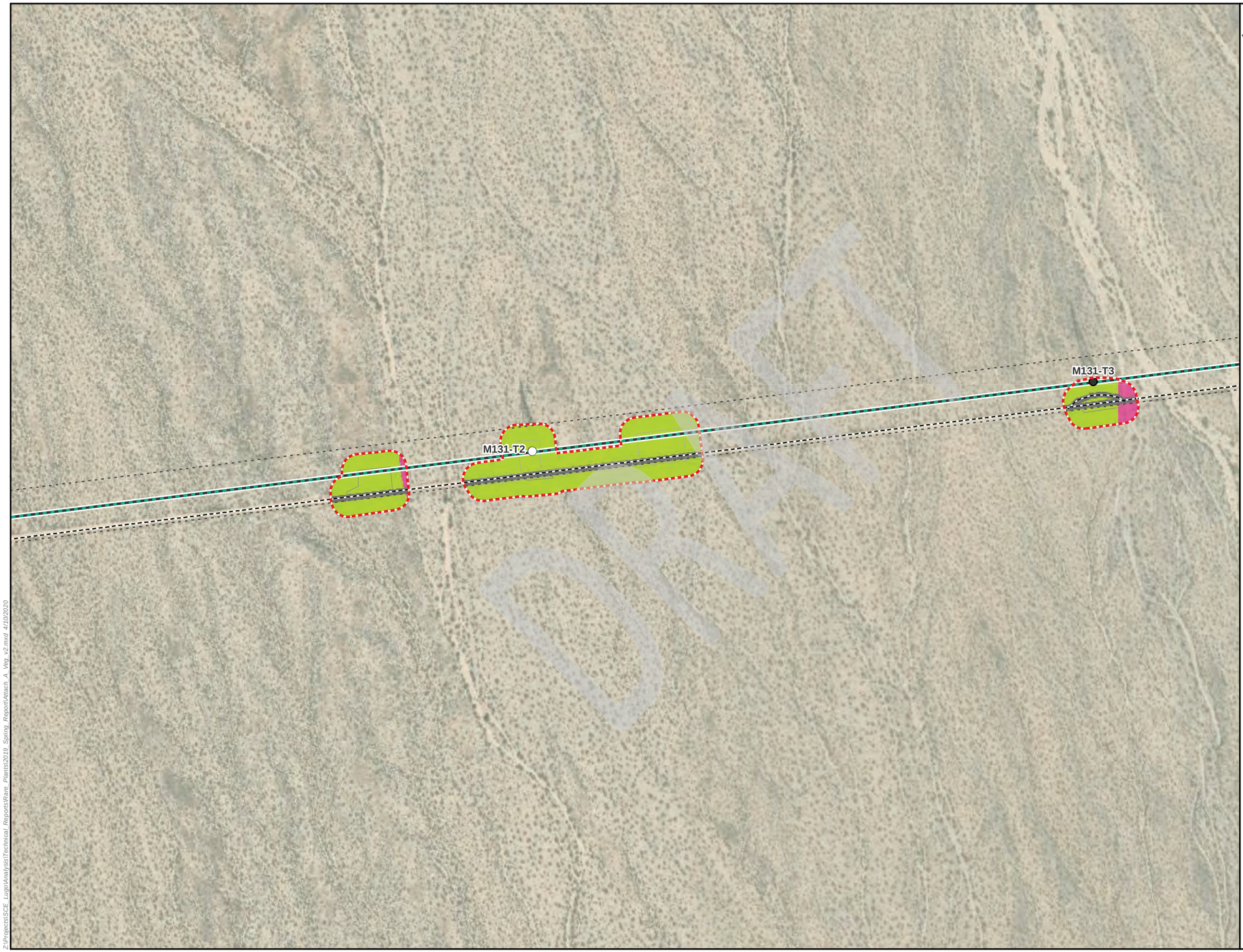

Attachment A:
Vegetation Communities and Land Covers
Map 118 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 119 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M132-T4

M133-T1

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Barren - Not Developed

Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 120 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

M134-T1

M133-T3

M133-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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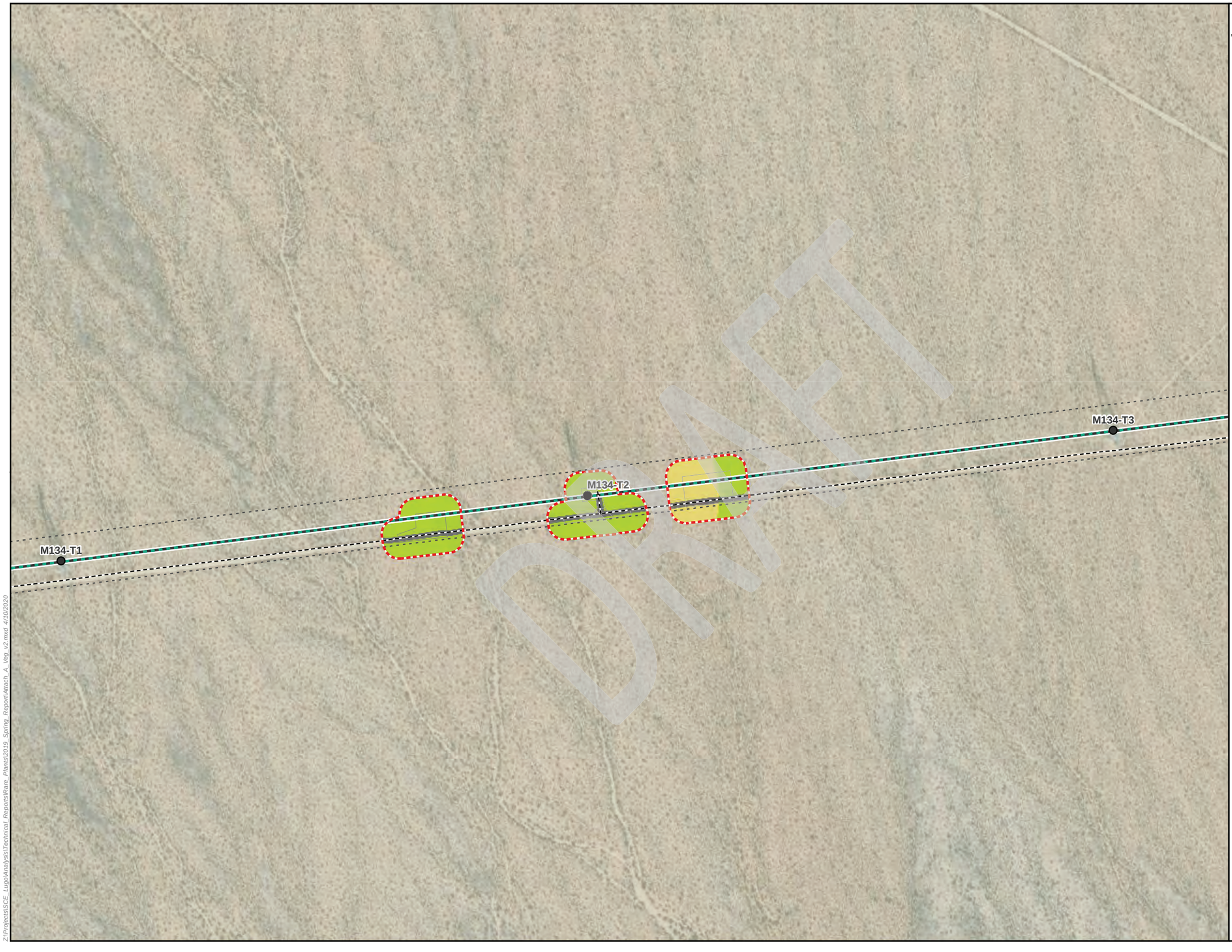

Attachment A:
Vegetation Communities and Land Covers
Map 121 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 122 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 123 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 124 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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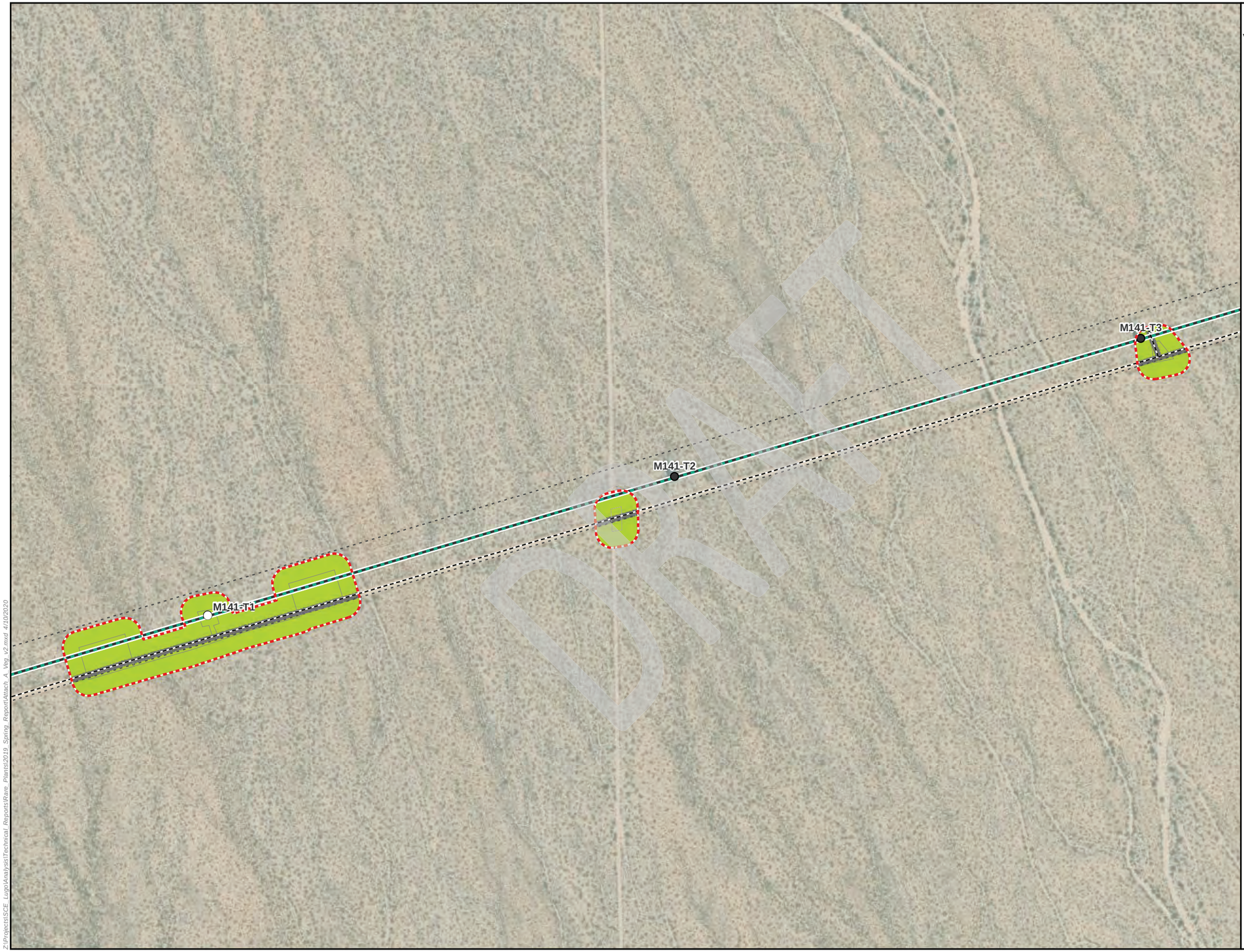

Attachment A:
Vegetation Communities and Land Covers
Map 125 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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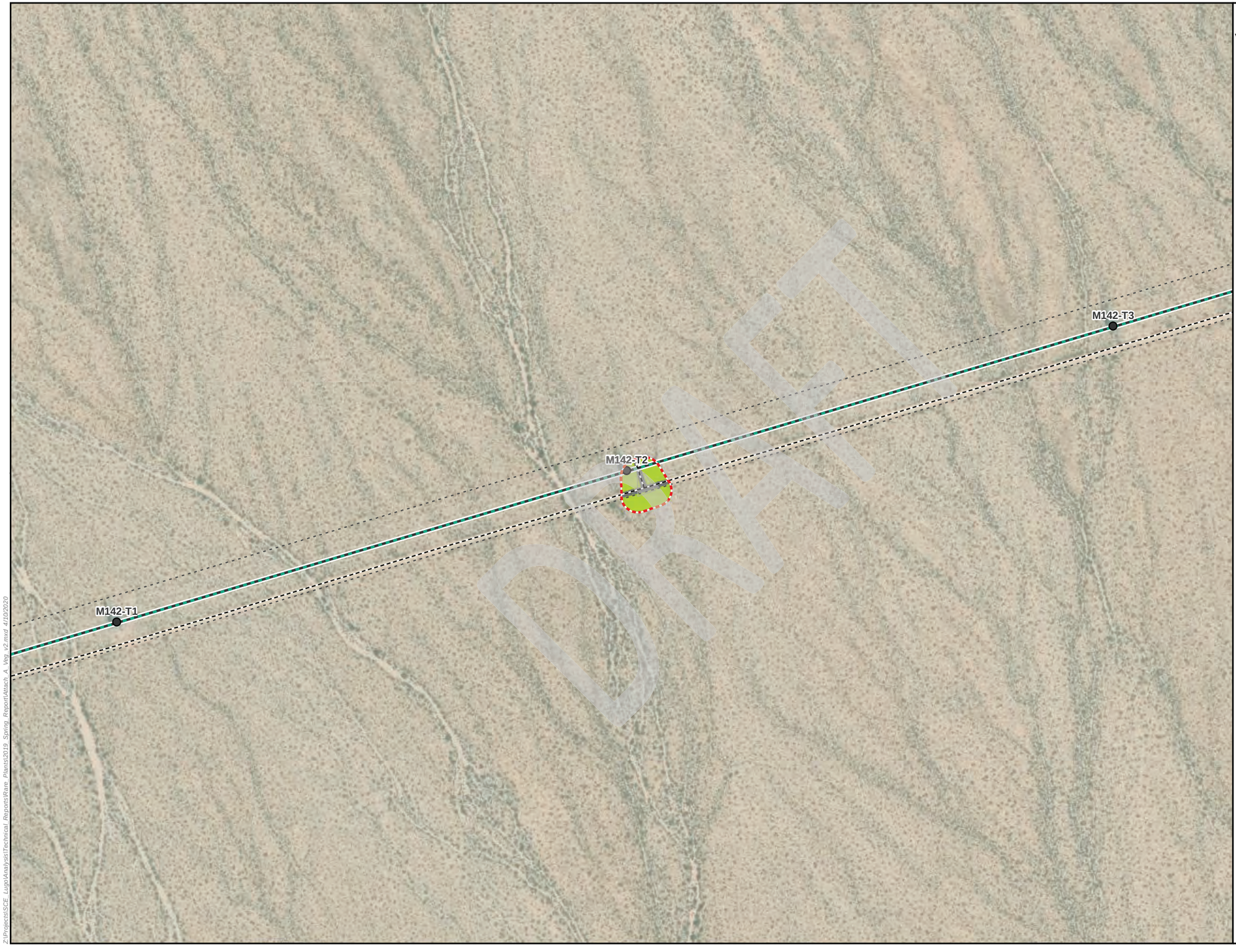

Attachment A:
Vegetation Communities and Land Covers
Map 126 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

Attachment A:
Vegetation Communities and Land Covers
Map 127 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Existing Distribution Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

M144-T2

M144-T1

Lanfair Rd

Lanfair Rd

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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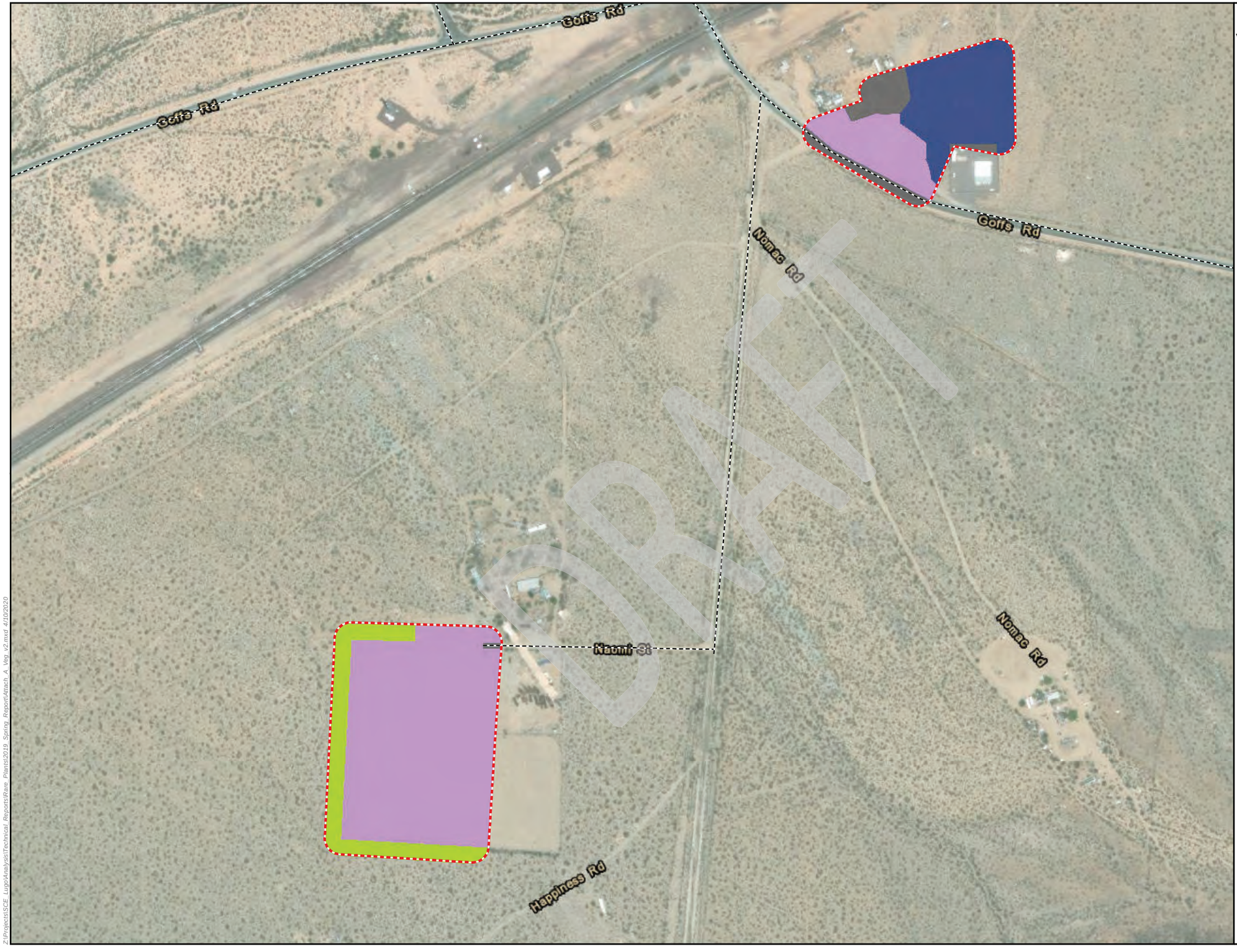

Attachment A:
Vegetation Communities and Land Covers
Map 128 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area
Access Road

Vegetation Community/Land Cover

Barren - Not Developed
Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance
Larrea tridentata Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 129 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

M145-T3

M145-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 130 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M148-T1

M147-T4

M147-T3

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 131 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Walter Rd

M150-T3

M150-T2

M150-T1

Walter Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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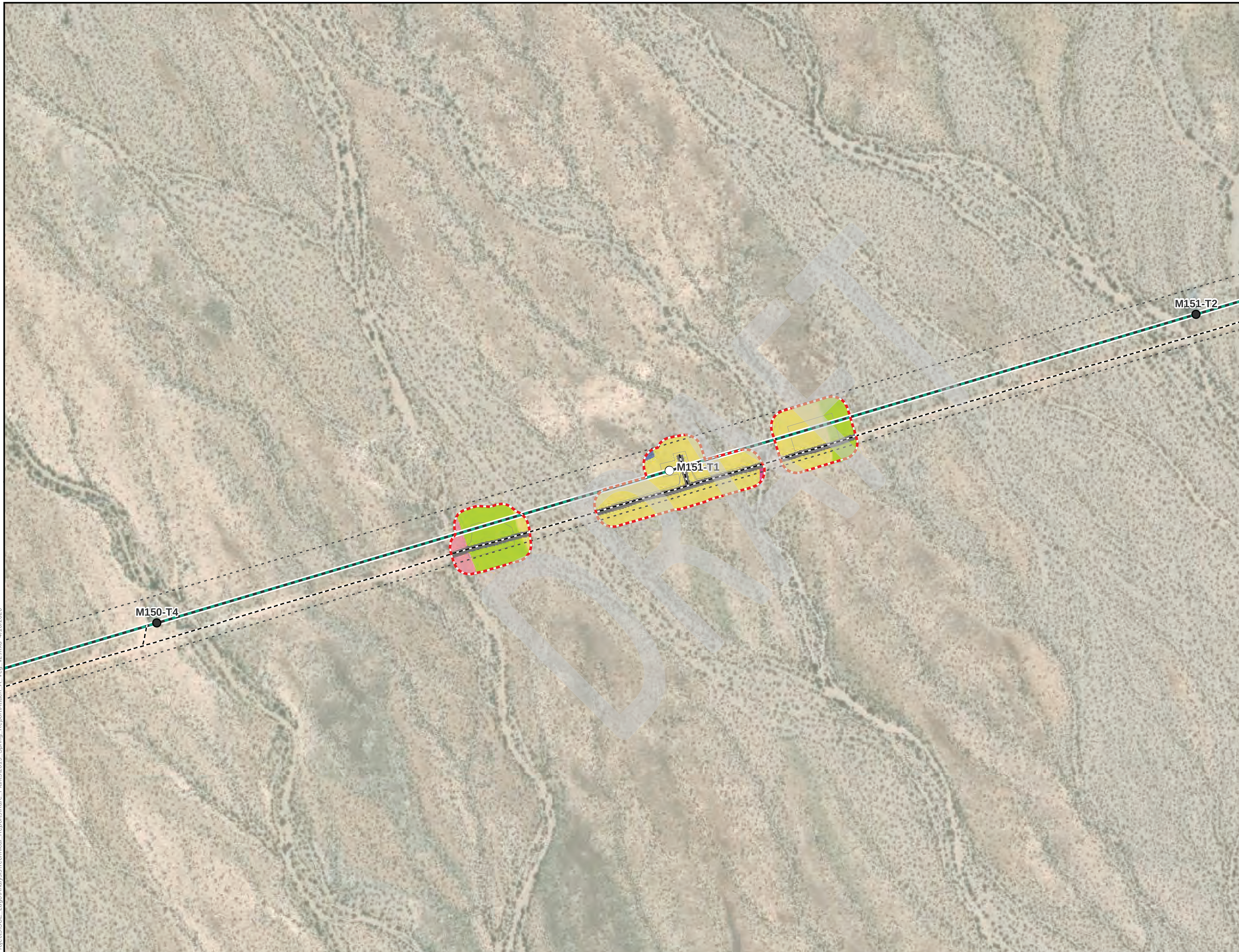


Attachment A: Vegetation Communities and Land Covers
Map 132 of 191

Eldorado-Lugo-Mohave Series Capacitor Project

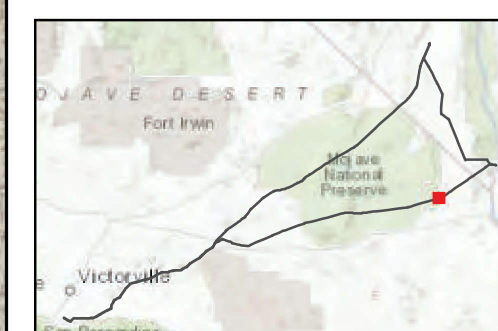
Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Ambrosia salsola - Bebbia juncea* Shrubland Alliance
- *Chorizanthe rigida – Geraea canescens* Desert Pavement Sparsely Vegetated Alliance
- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance
- *Yucca schidigera* Shrubland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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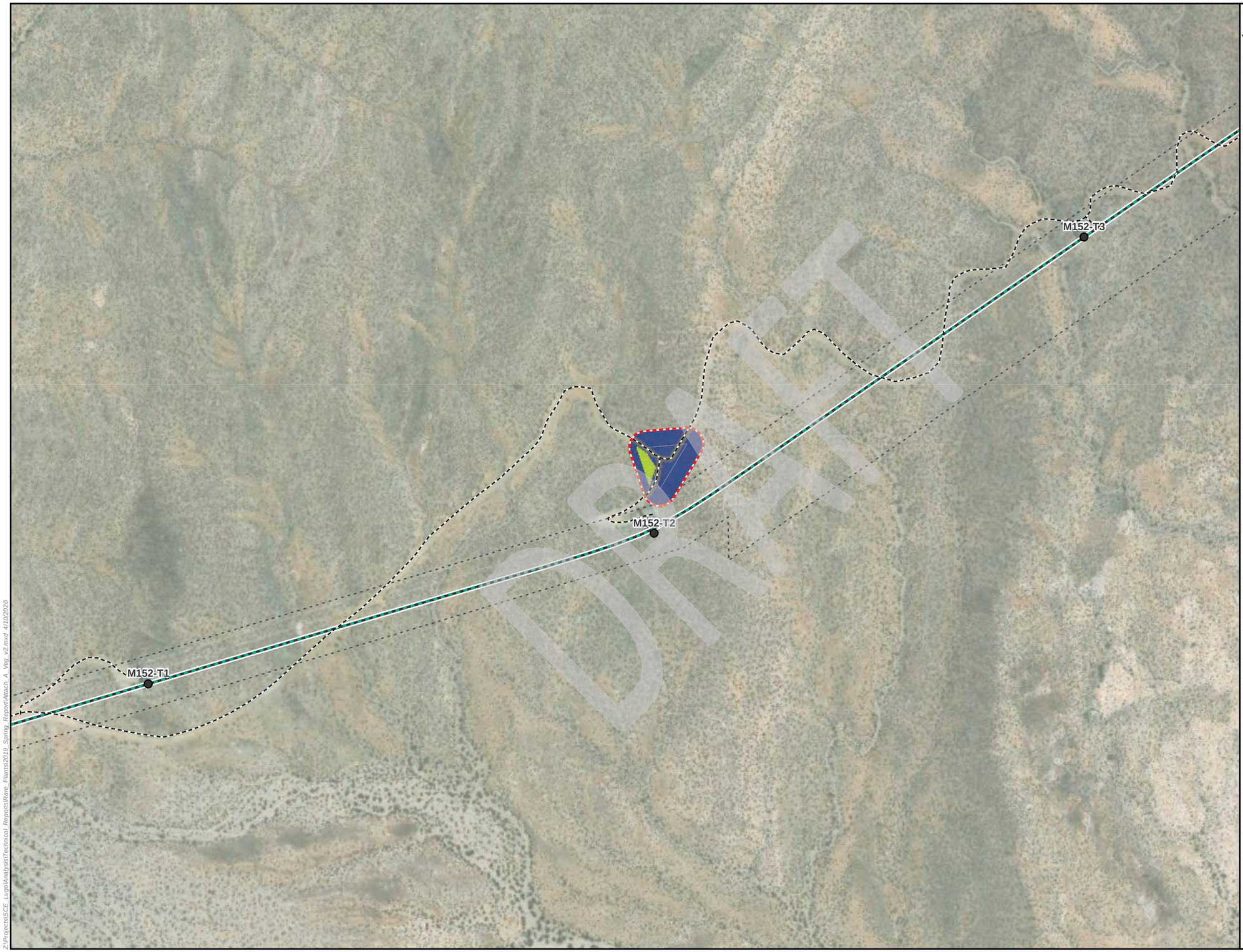

Attachment A:
Vegetation Communities and Land Covers
Map 133 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 134 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M154-T4

M154-T3

M154-T2

M154-T1

Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata - Encelia farinosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 135 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M156-T2

M156-T1

M155-T4

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 136 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M157-T1

M156-T4

DRAFT

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

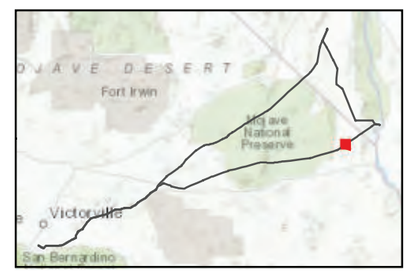
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 137 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

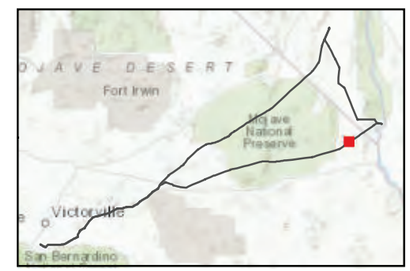
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M158-T1



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 138 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Ericameria paniculata* Shrubland Alliance
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M164-T1

M163-T4

M163-T3

Attachment A:
Vegetation Communities and Land Covers
Map 139 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 140 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

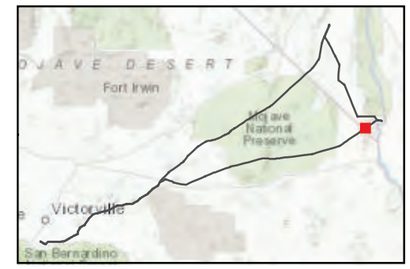
Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M167-T2

M167-T1

M166-T3



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 141 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia salsola - Bebbia juncea Shrubland Alliance

Cylindropuntia bigelovii Shrubland Alliance

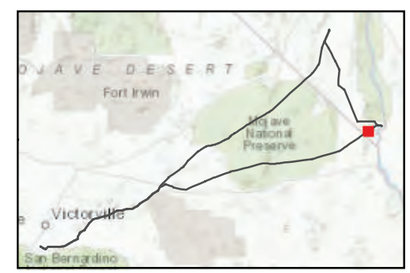
Developed

Encelia farinosa Shrubland Alliance

M168-T4

M168-T3

M168-T2



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 142 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M170-T3

M170-T2

M170-T1

M169-T5

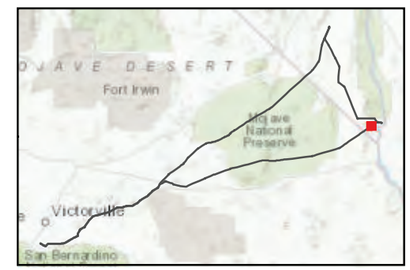
Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Encelia farinosa* Shrubland Alliance
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata - Encelia farinosa* Shrubland Alliance
- *Larrea tridentata* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 143 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M172-T1

M171-T4

M171-T3

M171-T2

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

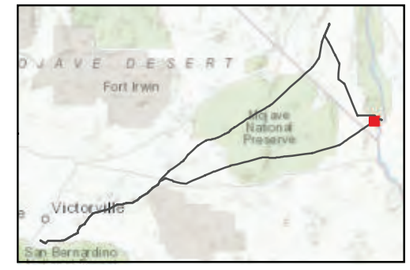
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Encelia farinosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 144 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Encelia farinosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

M172-T4

M172-T3

M172-T2

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 145 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Eldorado - Mohave 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Ambrosia salsola - Bebbia juncea* Shrubland Alliance
- Barren - Not Developed
- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata - Encelia farinosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance

M2-T2
M2-T1
M173-T2
M173-T3
M173-T1
Brookings Harbor Dr
Ellis Plantation St
Brookfield Bay Ave
Monroe Manor Pl
Illumination Bay Pl
Morrow Ridge
Dillons Cove Dr

Mojave Desert
Fort Irwin
Mojave National Preserve
Victorville
San Bernardino

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 146 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia salsola - Bebbia juncea Shrubland Alliance

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata - Encelia farinosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 147 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Access Road

Vegetation Community/Land Cover

Developed

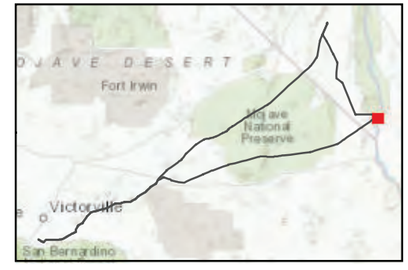
Larrea tridentata - Encelia farinosa Shrubland Alliance

M1-T1

M174-T3

M0-T4

M174-T4



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 148 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Existing Substation Boundary

Construction Area

Access Road

Vegetation Community/Land Cover

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata - Encelia farinosa Shrubland Alliance

M0-T3

M0-T2

M175-T2

M0-T1

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 149 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Substation

Existing Transmission Structure

Existing Substation Boundary

Construction Area

Access Road

Vegetation Community/Land Cover

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata - Encelia farinosa Shrubland Alliance

M0-T2

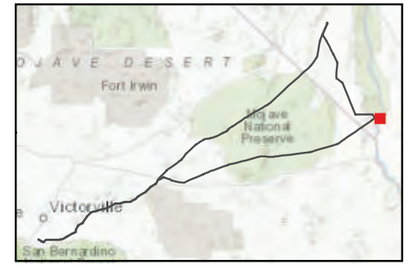
M175-T2

M0-T1

Cap Bank

Edison Way

MOHAVE SUBSTATION



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 150 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

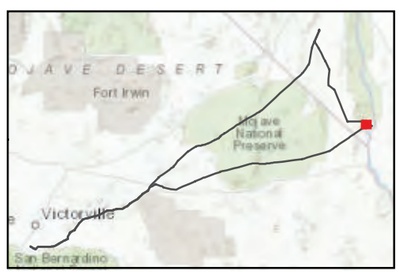
Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Existing Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Barren - Not Developed
Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 151 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

- Eldorado - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- *Ambrosia salsola - Bebbia juncea* Shrubland Alliance
- Developed
- *Encelia farinosa* Shrubland Alliance
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 152 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Barren - Not Developed

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

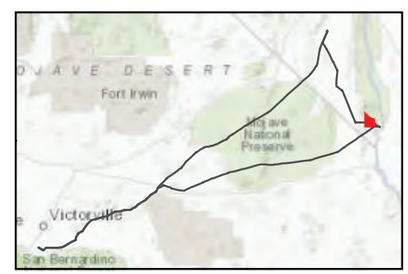
Larrea tridentata - Encelia farinosa Shrubland Alliance

NV-163

M5-T4

M5-T3

M5-T2



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 153 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

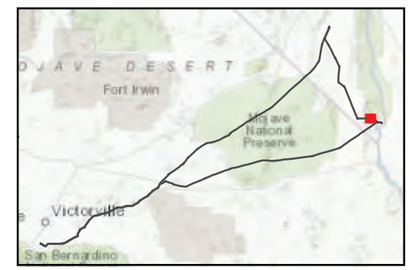
Survey Area

Project Components

- Eldorado - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Barren - Not Developed
- Developed
- *Encelia farinosa* Shrubland Alliance
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance
- *Larrea tridentata - Encelia farinosa* Shrubland Alliance
- *Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 154 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

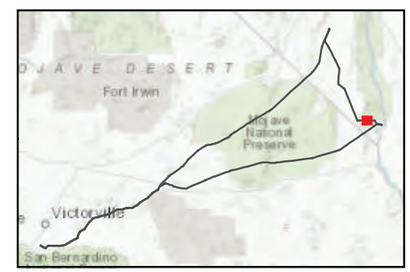
Ambrosia salsola - Bebbia juncea Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M8-T1

M7-T3



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 155 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Access Road

Vegetation Community/Land Cover

- *Ambrosia salsola - Bebbia juncea* Shrubland Alliance
- Developed

NV-163 W
NV-163 E
163

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 156 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Ambrosia salsola - Bebbia juncea Shrubland Alliance

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata - Encelia farinosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

Yucca schidigera Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 157 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Yucca schidigera Shrubland Alliance

M11-T1

M10-T5

M10-T4

M10-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 158 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M12-T2

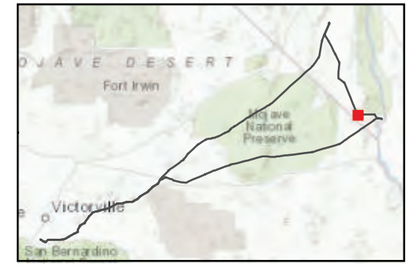
M12-T1

M11-T4

NV-163 E

NV-163 W

163



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 159 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

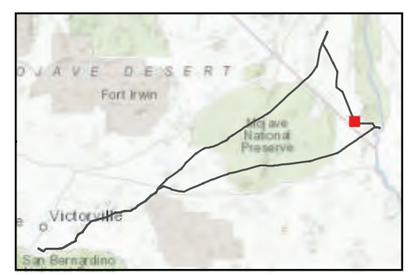
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 160 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

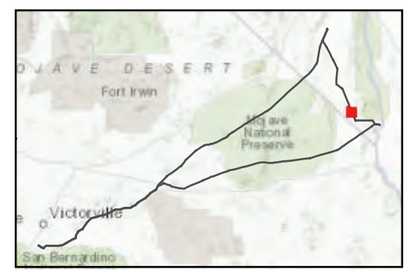
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 161 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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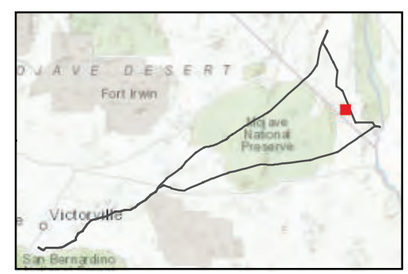
Attachment A:
Vegetation Communities and Land Covers
Map 162 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 163 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

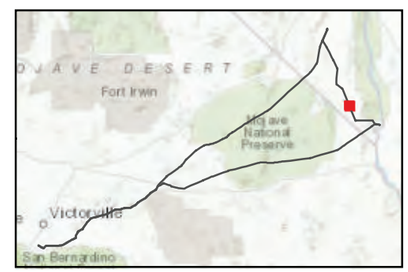
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 164 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

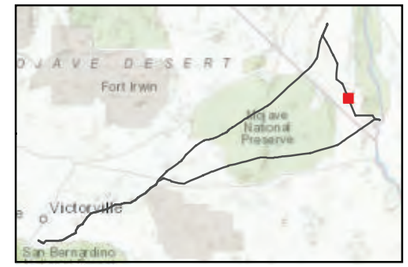
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 165 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

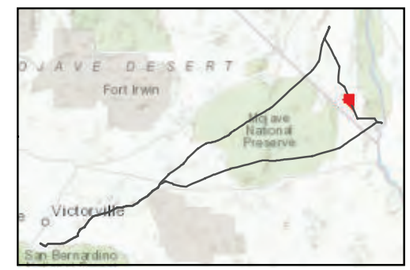
Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Existing Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 166 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

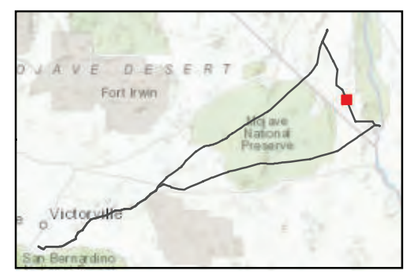
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance



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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 167 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 168 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 169 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Larrea tridentata Shrubland Alliance

M28-T4

M28-T3

M28-T2

US-95 N

US-95 S

Veterans Memorial Hwy

95

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 170 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

M30-T1

M29-T4

M29-T3

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 171 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 172 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata Shrubland Alliance

Senegalia greggii - Hyptis emoryi - Justicia californica Shrubland Alliance

Yucca brevifolia Woodland Alliance

Gulch Rd

M33-T2

Gulch Rd

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 173 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Existing Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata Shrubland Alliance

M34-T1
M33-T4
Barnwell & Searchlight
Gulch Rd
W Hobson St
Gas Pipeline Rd

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 174 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

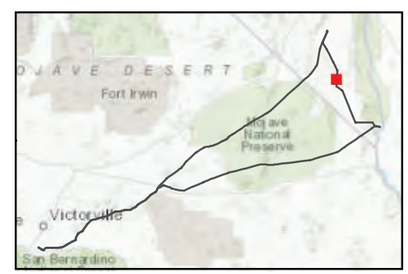
Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance



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Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 175 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

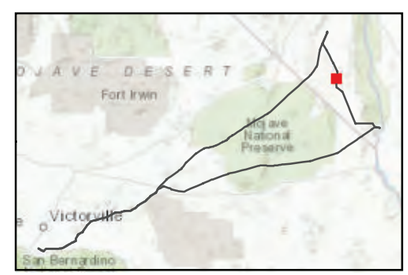
Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Gas Pipeline Rd

M35-T3

M35-T2



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SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 176 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Yucca brevifolia Woodland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 177 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

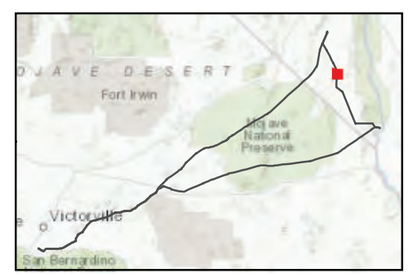
Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca brevifolia Woodland Alliance



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0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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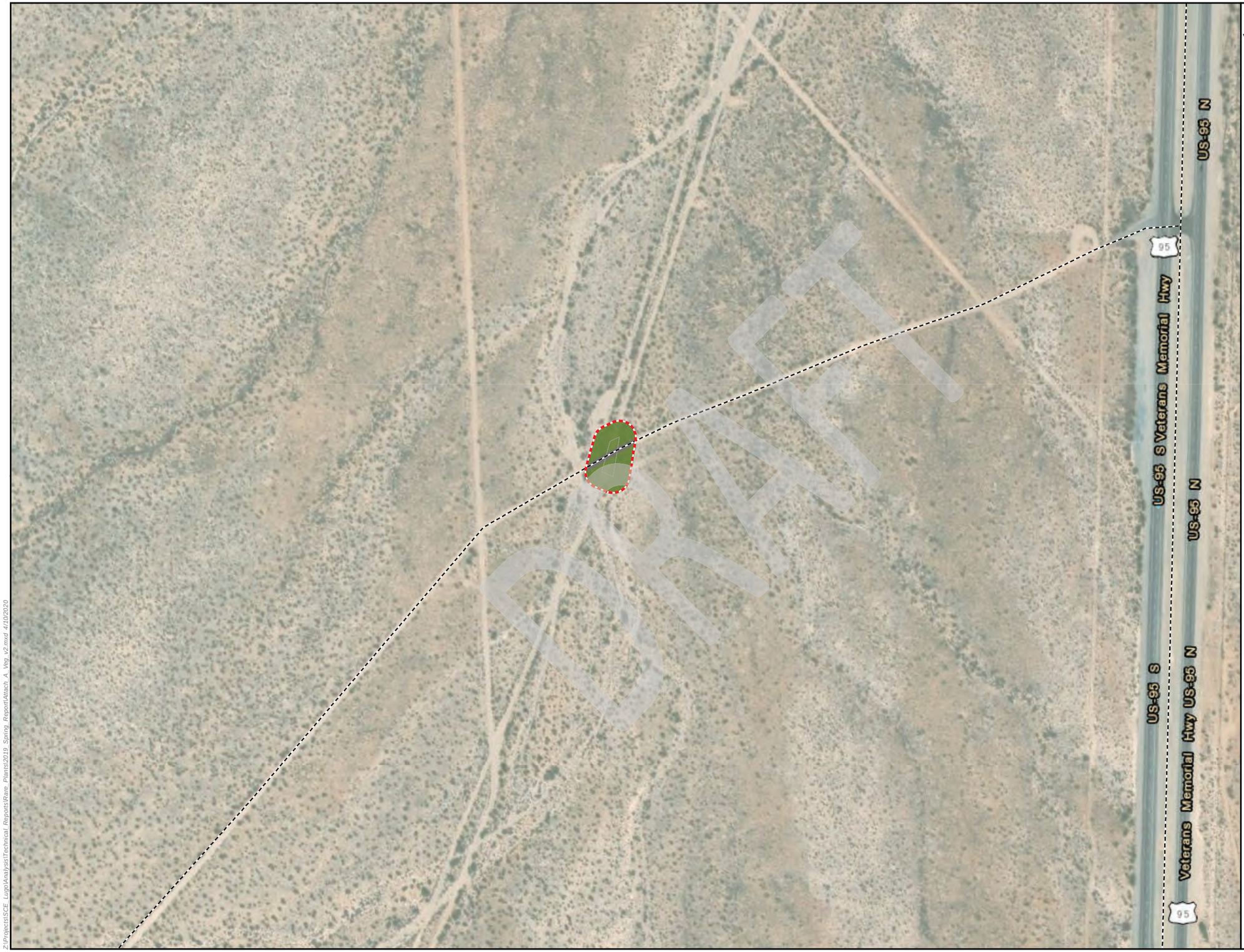

Attachment A:
Vegetation Communities and Land Covers
Map 178 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area
- Construction Area
- Access Road

Vegetation Community/Land Cover

- Developed
- *Yucca brevifolia* Woodland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 179 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Yucca brevifolia Woodland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M40-T2

M40-T1

M39-T4

DRAFT

Attachment A:
Vegetation Communities and Land Covers
Map 180 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Yucca brevifolia Woodland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 181 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M41-T1

M40-T4

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

Yucca brevifolia Woodland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_Lugo\Analysis\Technical_Reports\Rare_Plants\2019_Spring_Report\Attach_A_Veg_v2.mxd 4/10/2020

Attachment A:
Vegetation Communities and Land Covers
Map 182 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_Lugo\Analysis\Technical_Reports\Rare_Plants\2019_Spring_Report\Attach_A_Veg_v2.mxd 4/10/2020

Attachment A:
Vegetation Communities and Land Covers
Map 183 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area
Construction Area
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 184 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M46-T3

M46-T2

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Ericameria paniculata Shrubland Alliance

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 185 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M47-T1

M46-T4

DRAFT

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 186 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Existing Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance
Larrea tridentata Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_Lugo\Analysis\Technical_Reports\Rare_Plants\2019_Spring_Report\Attach_A_Veg_v2.mxd 4/10/2020

Attachment A:
Vegetation Communities and Land Covers
Map 187 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Vegetation Community/Land Cover

Developed

Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 188 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M170-T4
M5-T3
M53-T3
M53-T2
M5-T4
M53-T1
M6-T1
M170-T3

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Transmission Line not part of Project
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Ambrosia salsola - Bebbia juncea Shrubland Alliance
Developed
Ericameria paniculata Shrubland Alliance
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 189 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

M173-T3
M2-T4
M56-T1
M173-T2
M3-T1
M55-T4

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line
Transmission Line not part of Project
Existing Transmission Structure
Modified Transmission Structure
Construction Area
Right-of-Way
Access Road

Vegetation Community/Land Cover

Developed
Larrea tridentata - Ambrosia dumosa Shrubland Alliance

1:3,500
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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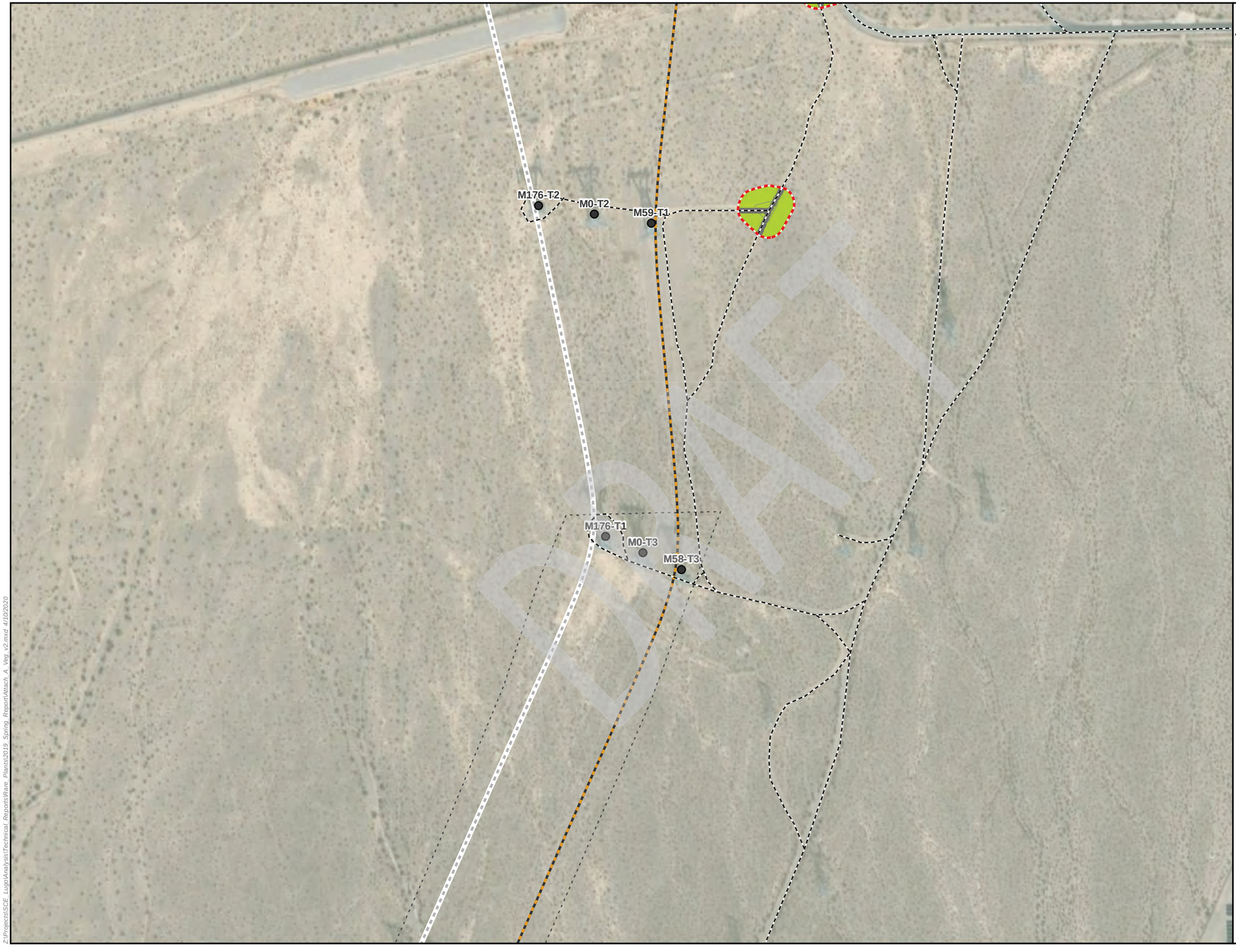

Attachment A:
Vegetation Communities and Land Covers
Map 190 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

- Survey Area

Project Components

- Eldorado - Mohave 500 kV Transmission Line
- Transmission Line not part of Project
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment A:
Vegetation Communities and Land Covers
Map 191 of 191

Eldorado-Lugo-Mohave
Series Capacitor Project

ELDORADO SUBSTATION

Cap Bank

Cap Bank

M176-T3

M0-T1

M59-T2

Eldorado Valley Dr

Eldorado Valley Dr

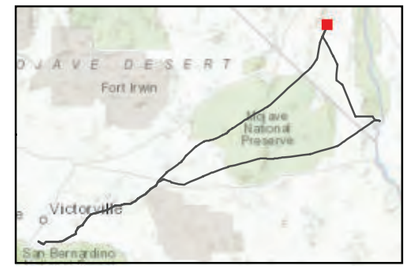
Survey Area

Project Components

- Eldorado - Mohave 500 kV Transmission Line
- Transmission Line not part of Project
- Existing Substation
- Existing Transmission Structure
- Existing Substation Boundary
- Construction Area
- Access Road

Vegetation Community/Land Cover

- Developed
- *Larrea tridentata - Ambrosia dumosa* Shrubland Alliance



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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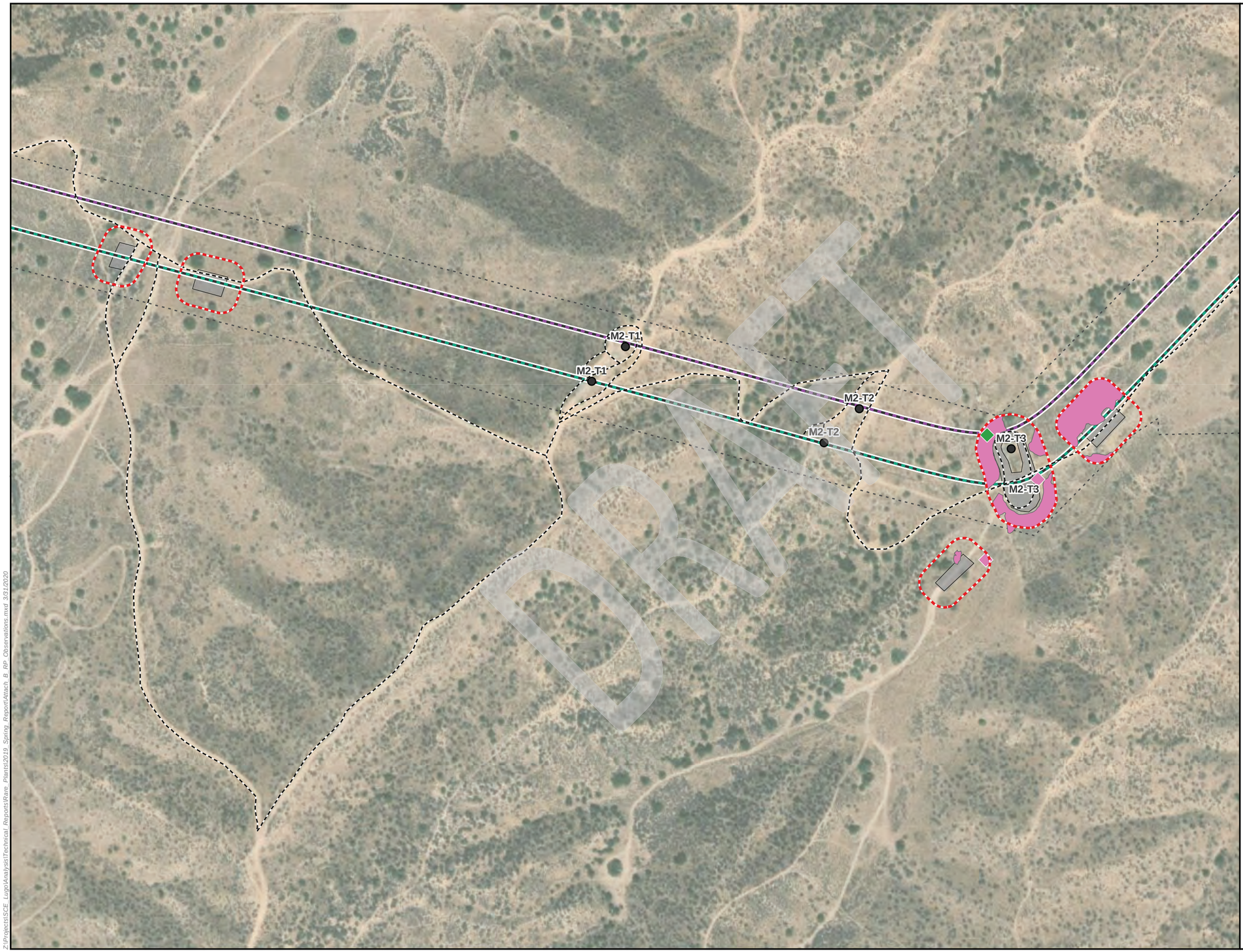
ATTACHMENT B: LOCATIONS OF SPECIAL-STATUS PLANTS OBSERVED

Attachment B: Locations of Special-Status Plants Observed
Map 1 of 24

Eldorado-Lugo-Mohave Series Capacitor Project



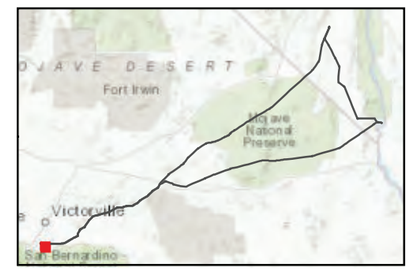
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Opuntia basilaris* var. *brachyclada*
- *Pentachaeta aurea* ssp. *aurea*
- *Pentachaeta aurea* ssp. *aurea*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 2 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

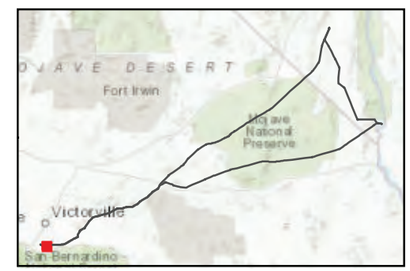
Right-of-Way

Access Road

Survey Results

Pentachaeta aurea ssp. *aurea*

Pentachaeta aurea ssp. *aurea*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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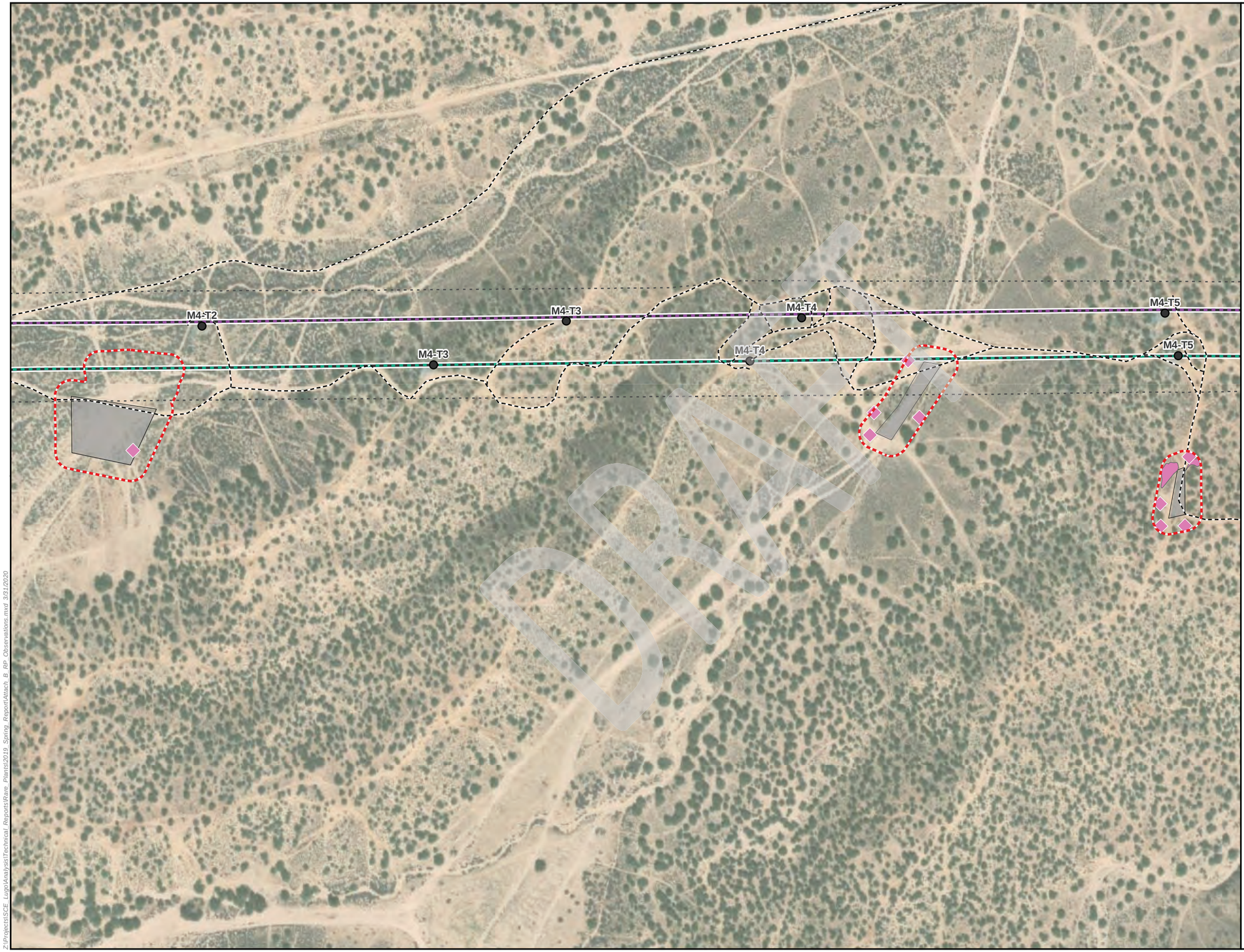


Attachment B: Locations of Special-Status Plants Observed
Map 3 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

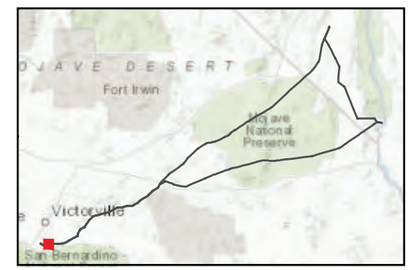
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Pentachaeta aurea* ssp. *aurea*
- *Pentachaeta aurea* ssp. *aurea*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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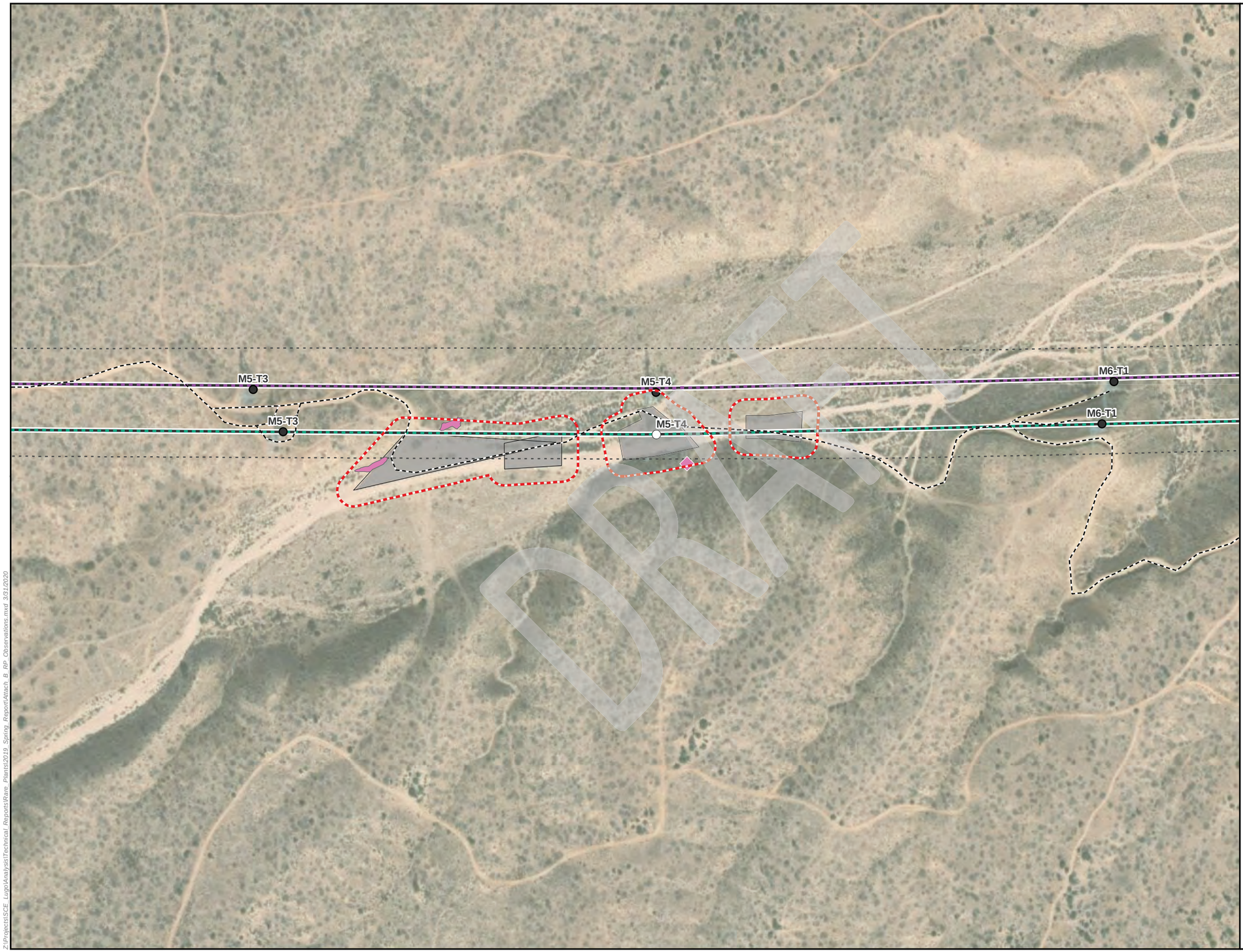
Attachment B: Locations of Special-Status Plants Observed
Map 4 of 24

Eldorado-Lugo-Mohave Series Capacitor Project



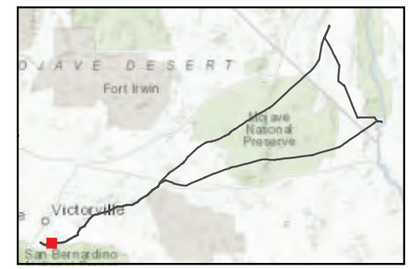
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Pentachaeta aurea* ssp. *aurea*
- *Pentachaeta aurea* ssp. *aurea*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 5 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

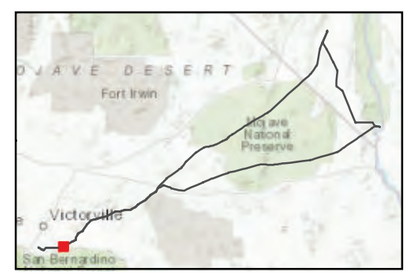
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Castilleja plagiotoma*
- *Castilleja plagiotoma*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 6 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Menodora spinescens var. *mohavensis*

Menodora spinescens var. *mohavensis*

Camp Rock Rd

M43-T2

M43-T1

M42-T4

M43-T2

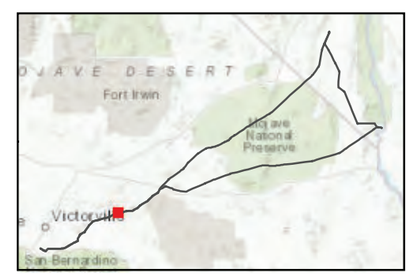
M43-T1

M42-T4

Powerline Rd

Powerline Rd

Camp Rock Rd



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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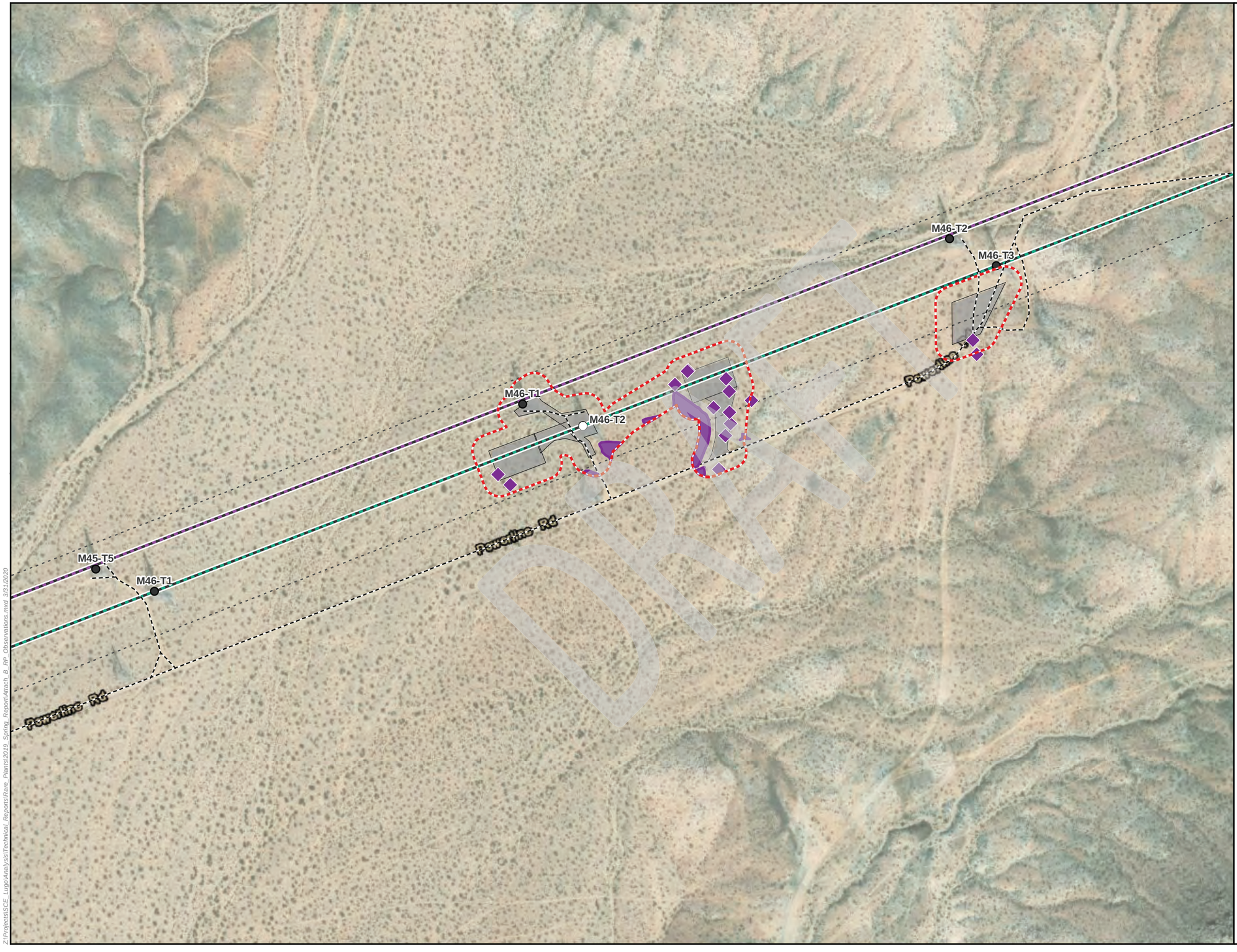


Attachment B: Locations of Special-Status Plants Observed
Map 7 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

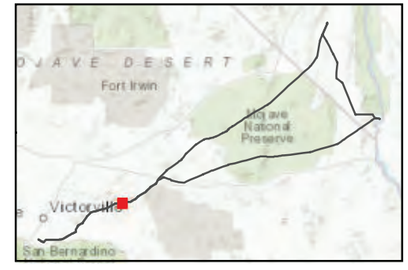
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Menodora spinescens* var. *mohavensis*
- *Menodora spinescens* var. *mohavensis*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 8 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

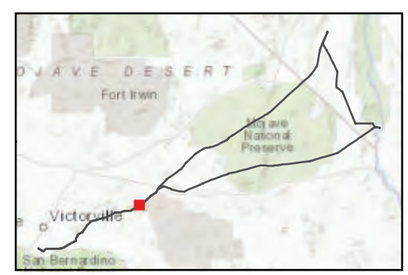
- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Menodora spinescens* var. *mohavensis*



1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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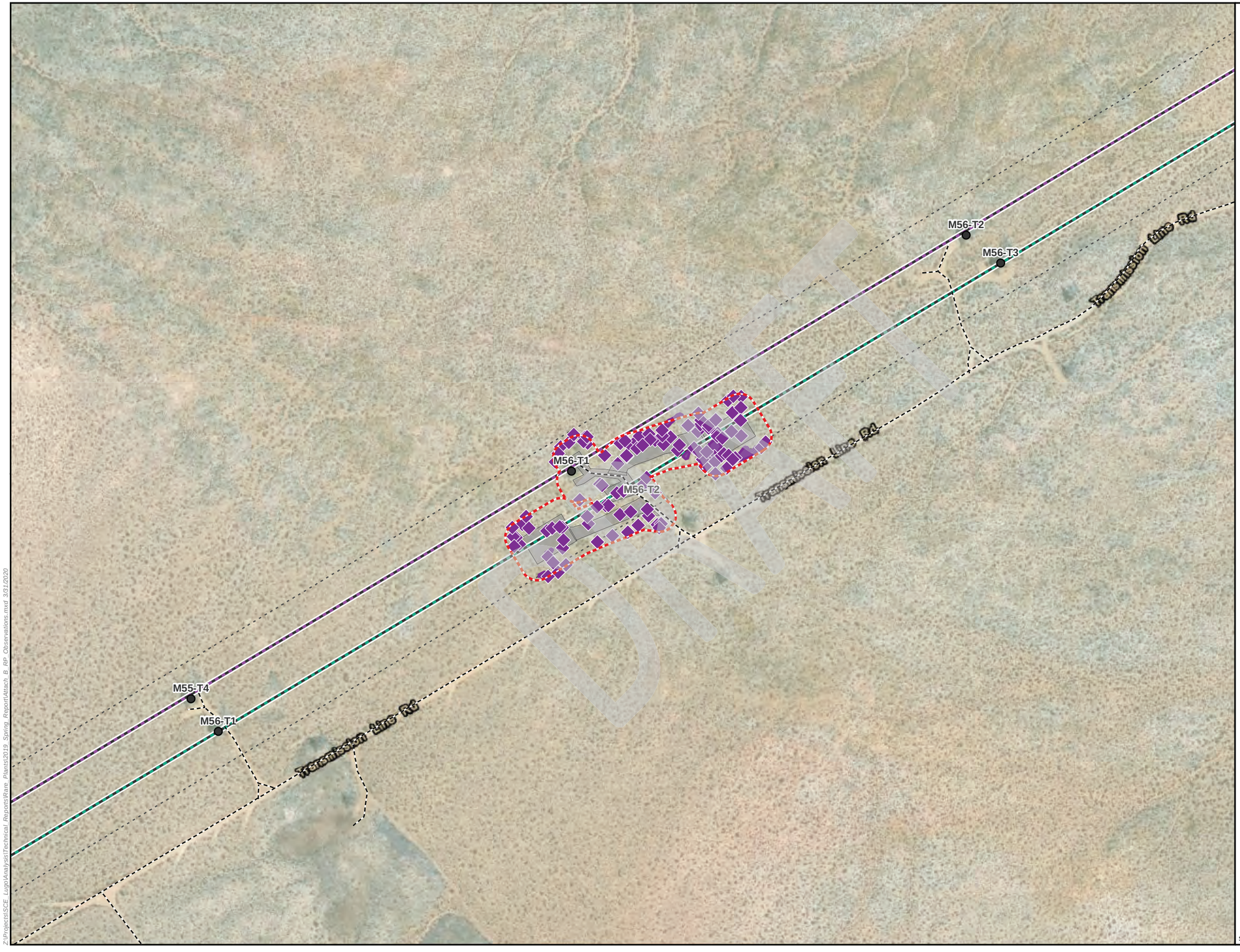

Attachment B: Locations of Special-Status Plants Observed
Map 9 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

- Survey Area

Project Components

- Eldorado - Lugo 500 kV Transmission Line
- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Menodora spinescens* var. *mohavensis*
- *Menodora spinescens* var. *mohavensis*

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 10 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

M57-T3

M57-T3

M57-T2

M57-T2

M57-T1

M57-T1

Transmission Line Rd

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

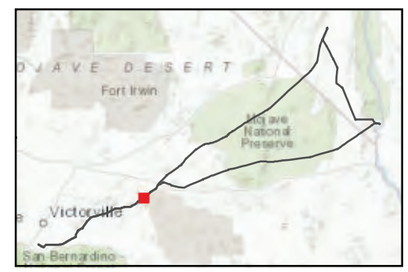
Right-of-Way

Access Road

Survey Results

Menodora spinescens var. *mohavensis*

Menodora spinescens var. *mohavensis*



1:3,500

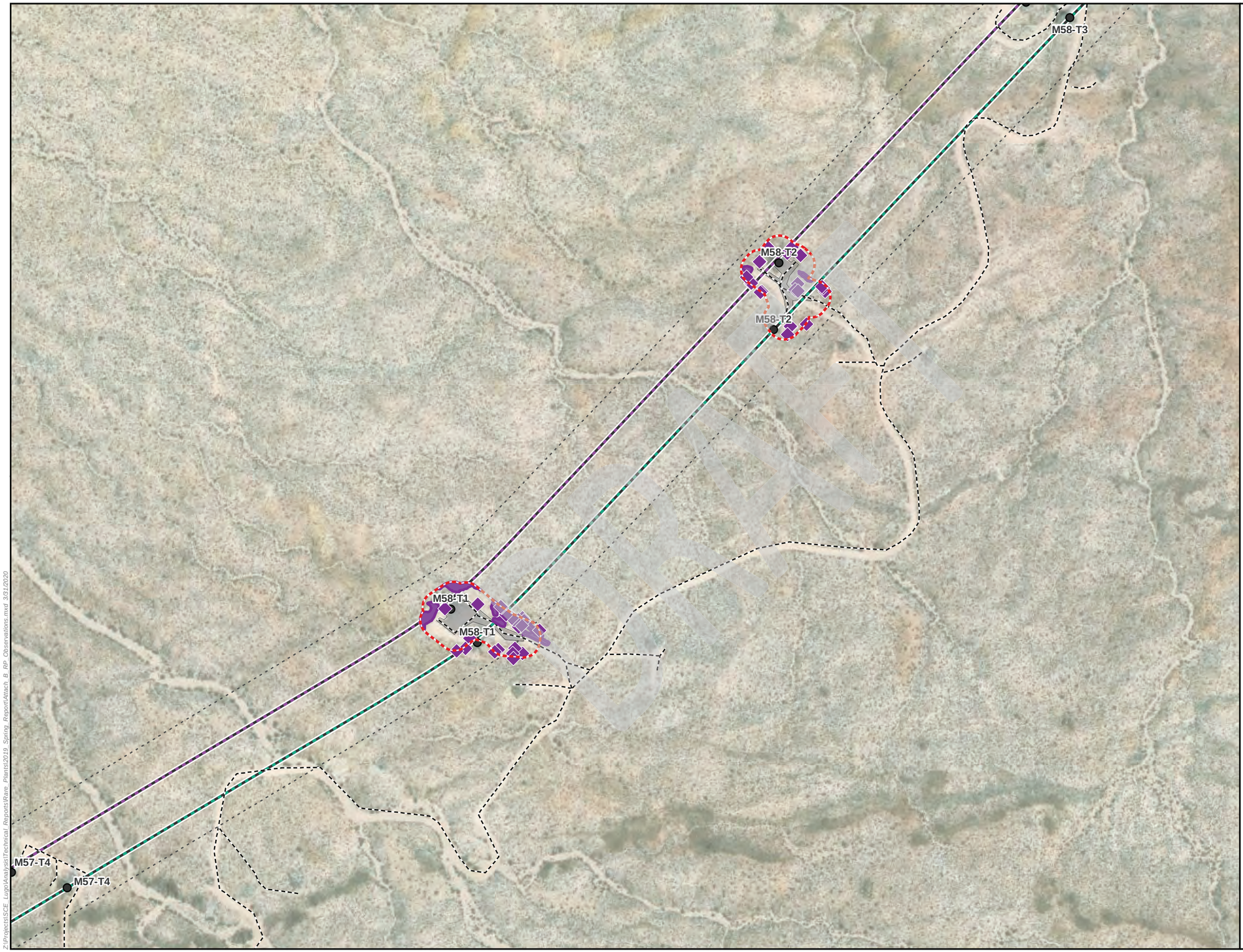
0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_Lugo\Analysis\Technical_Reports\Rare_Plants\2019_Spring_Report\Attach_B_RP_Observations.mxd 3/31/2020



Attachment B: Locations of Special-Status Plants Observed
Map 11 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Menodora spinescens var. *mohavensis*

Menodora spinescens var. *mohavensis*

1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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M59-T1

M59-T1

M58-T4

M58-T4

M58-T3

M58-T3

Attachment B: Locations of Special-Status Plants Observed
Map 12 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Menodora spinescens var. *mohavensis*

Menodora spinescens var. *mohavensis*

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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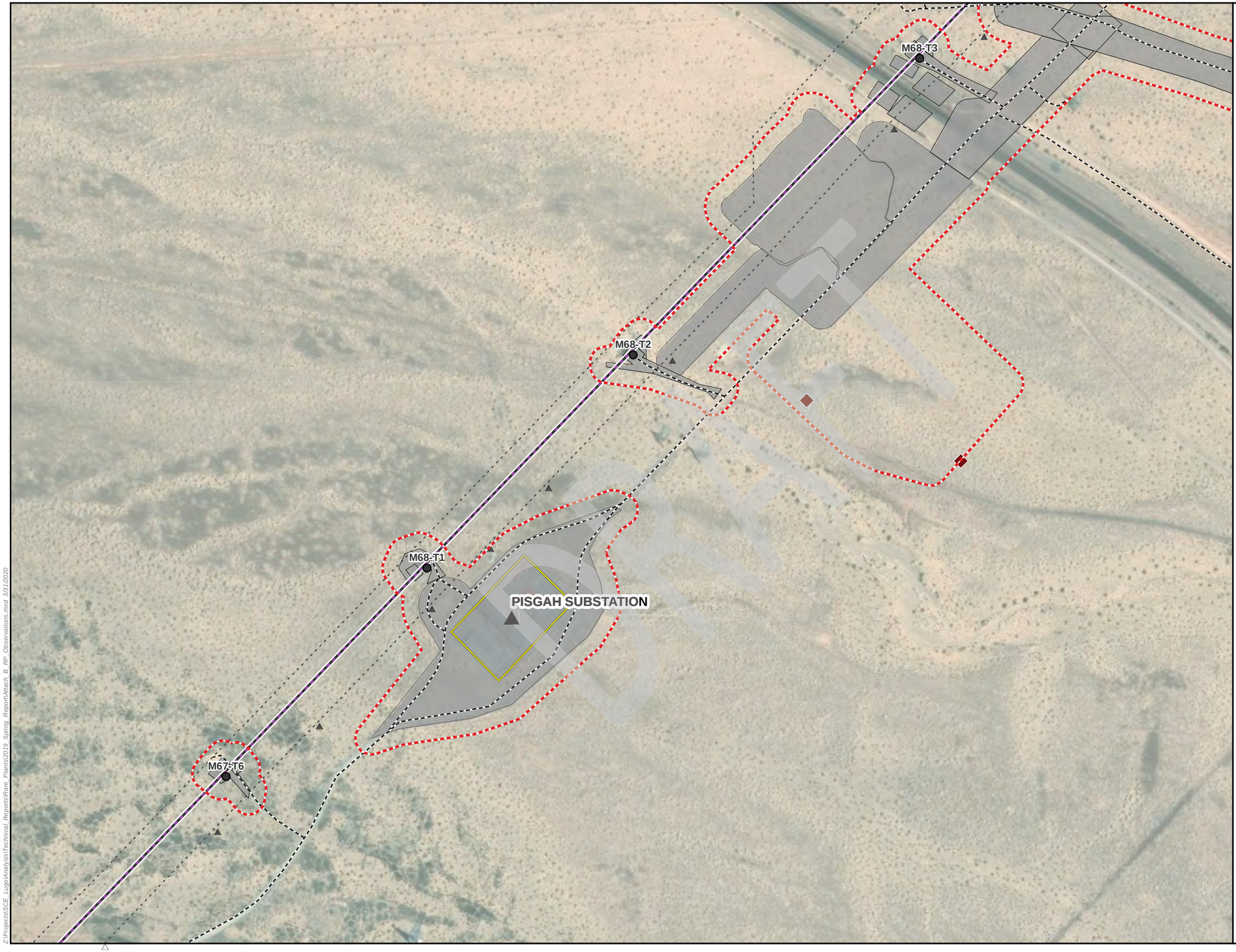


Attachment B: Locations of Special-Status Plants Observed
Map 13 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Lugo 500 kV Transmission Line

Existing Substation

Existing Transmission Structure

Existing Distribution Structure

Existing Substation Boundary

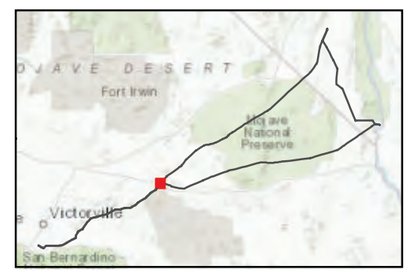
Construction Area

Right-of-Way

Access Road

Survey Results

Androstephium breviflorum



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 14 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

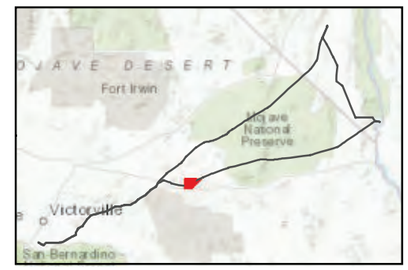
Right-of-Way

Access Road

Survey Results

Androstephium breviflorum

Androstephium breviflorum



1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_LugoAnalysis\Technical_Reports\Rare_Plants\2019_Spring_Report\Attach_B_RP_Observations.mxd 3/31/2020

Attachment B: Locations of Special-Status Plants Observed
Map 15 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

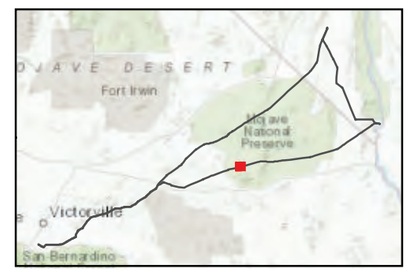
Construction Area

Right-of-Way

Access Road

Survey Results

Nemacaulis denudata var. *gracilis*



1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

Z:\Projects\SCE_LugoAnalysis\Technical_Reports\Rare_Plants\2019_Spring_ReportAttach_B_RP_Observations.mxd 3/31/2020

Attachment B: Locations of Special-Status Plants Observed
Map 16 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Sphaeralcea rusbyi var. *eremicola*

Sphaeralcea rusbyi var. *eremicola*

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 17 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Sphaeralcea rusbyi var. *eremicola*

Sphaeralcea rusbyi var. *eremicola*

Vulcan Mine Rd

Vulcan Mine Rd

M116-T5

M117-T1

M117-T2

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Vulcan Mine Rd

Vulcan Mine Rd

Vulcan Mine Rd

M118-T1

M118-T2

M118-T3

M118-T4

Attachment B: Locations of Special-Status Plants Observed
Map 18 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

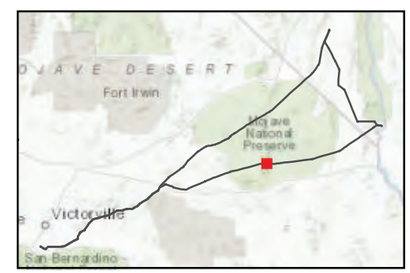
Access Road

Survey Results

Muhlenbergia appressa

Sphaeralcea rusbyi var. *eremicola*

Sphaeralcea rusbyi var. *eremicola*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 19 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Sphaeralcea rusbyi var. *eremicola*

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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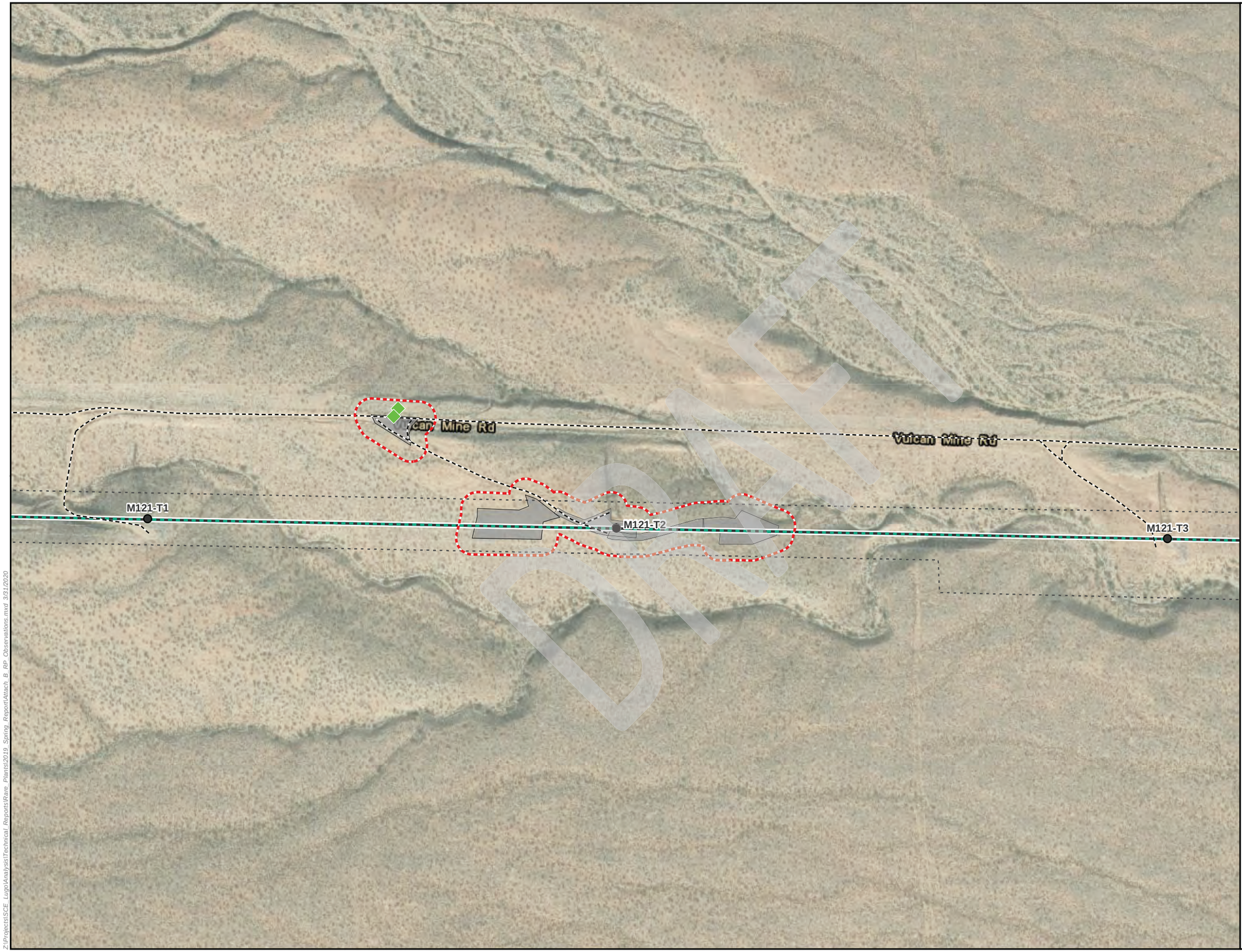

Attachment B: Locations of Special-Status Plants Observed
Map 20 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Sphaeralcea rusbyi var. *eremicola*

1:3,500

0 150 300 600 Feet

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Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 21 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Lugo - Mohave 500 kV Transmission Line

Existing Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Sphaeralcea rusbyi var. *eremicola*

M123-T4

M123-T3

M123-T2

Vulcan Mine Rd

Vulcan Mine Rd

Vulcan Mine Rd

Essex Rd

1:3,500

0 150 300 600 Feet

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 22 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

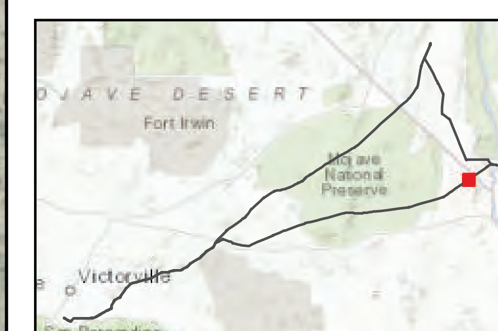
Survey Area

Project Components

- Lugo - Mohave 500 kV Transmission Line
- Existing Transmission Structure
- Modified Transmission Structure
- Construction Area
- Right-of-Way
- Access Road

Survey Results

- *Mentzelia tricuspis*
- *Mentzelia tricuspis*



1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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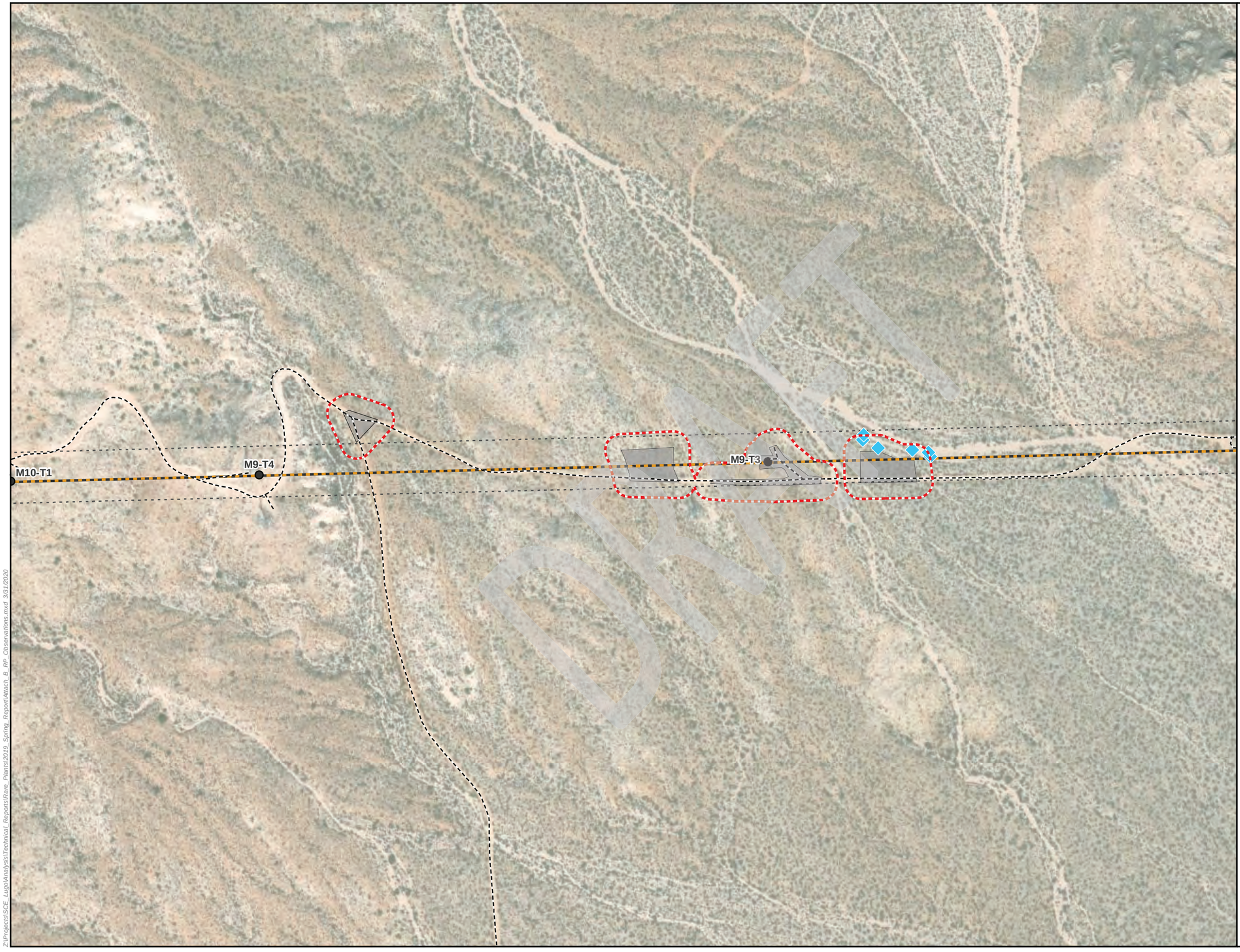

Attachment B: Locations of Special-Status Plants Observed
Map 23 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

Construction Area

Right-of-Way

Access Road

Survey Results

Eriogonum plumatella

1:3,500

0 150 300 600 Feet

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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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Attachment B: Locations of Special-Status Plants Observed
Map 24 of 24

Eldorado-Lugo-Mohave Series Capacitor Project

Survey Area

Project Components

Eldorado - Mohave 500 kV Transmission Line

Existing Transmission Structure

Modified Transmission Structure

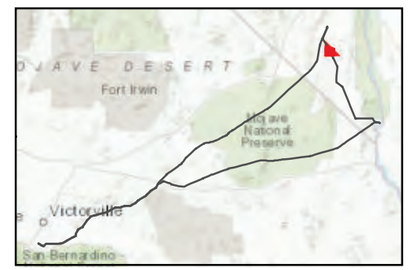
Construction Area

Right-of-Way

Access Road

Survey Results

Penstemon bicolor ssp. *roseus*



1:3,500

0 150 300 600 Feet

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

Source: Insignia, 2019; SCE, 2019

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ATTACHMENT C: INVENTORY OF PLANT SPECIES OBSERVED

ATTACHMENT C: INVENTORY OF PLANT SPECIES OBSERVED

Family	Scientific Name	Common Name	Non-native
Ferns and Allies			
Pteridaceae	*Myriopteris parryi*	Parry's lip fern	
Gymnosperms			
Cupressaceae	*Juniperus californica*	California juniper	
Ephedraceae	*Ephedra californica*	Desert tea	
Ephedraceae	*Ephedra nevadensis*	Nevada ephedra	
Ephedraceae	*Ephedra viridis*	Green jointfir	
Angiosperms - Monocots			
Agavaceae	*Agave deserti* var. *simplex*	Simple desert agave	
Agavaceae	*Hesperocallis undulata*	Desert lily	
Agavaceae	*Hesperoyucca whipplei*	Our Lord's candle	
Agavaceae	*Yucca baccata* var. *baccata*	Spanish bayonet	
Agavaceae	*Yucca brevifolia*	Joshua tree	
Agavaceae	*Yucca schidigera*	Mohave yucca	
Aliaceae	*Allium atrorubens*	Dark red onion	
Aliaceae	*Allium lacunosum*	Pitted onion	
Liliaceae	*Calochortus flexuosus*	Winding mariposa lily	
Liliaceae	*Calochortus kennedyi* var. *kennedyi*	Mariposa lily	
Melanthiaceae	*Toxicoscordion brevibracteatum*	Desert death camas	
Poaceae	*Aristida adscensionis*	Six-weeks three-awn	
Poaceae	*Aristida purpurea* var. *fendleriana*	Fendler three-awn	
Poaceae	*Aristida purpurea* var. *longiseta*	Red three awn	
Poaceae	*Avena barbata*	Slender wild oat	x
Poaceae	*Bromus arenarius*	Australian brome	x
Poaceae	*Bromus arizonicus*	Arizona brome	
Poaceae	*Bromus diandrus*	Ripgut brome	x
Poaceae	*Bromus madritensis* ssp. *rubens*	Foxtail chess	x
Poaceae	*Bromus tectorum*	Cheat grass	x
Poaceae	*Cynodon dactylon*	Bermudagrass	x
Poaceae	*Dasyochloa pulchella*	Fluff grass	

Family	Scientific Name	Common Name	Non-native
Poaceae	*Elymus elymoides* var. *elymoides*	Squirreltail	
Poaceae	*Elymus trachycaulus*	Slender wheatgrass	
Poaceae	*Festuca octoflora*	Six-week's fescue	
Poaceae	*Hilaria rigida*	Big galleta	
Poaceae	*Hordeum murinum* ssp. *murinum*	Wall barley	x
Poaceae	*Melica imperfecta*	Little California melic	
Poaceae	*Muhlenbergia appressa*	Appressed muhly	
Poaceae	*Muhlenbergia porteri*	Muhly	
Poaceae	*Pennisetum setaceum*	Crimson fountain grass	x
Poaceae	*Poa secunda* ssp. *juncifolia*	Big alkali grass	
Poaceae	*Poa secunda* ssp. *secunda*	Pacific bluegrass	
Poaceae	*Schismus barbatus*	Mediterranean grass	x
Poaceae	*Sporobolus cryptandrus*	Sand dropseed	
Poaceae	*Stipa comata* var. *comata*	Needle-and-thread	
Poaceae	*Stipa hymenoides*	Indian ricegrass	
Poaceae	*Stipa speciosa*	Desert needlegrass	
Poaceae	*Triticum aestivum*	Common wheat	x
Themidaceae	*Androstephium breviflorum*	Small-flowered androstephium	
Themidaceae	*Dichelostemma capitatum* ssp. *capitatum*	Grassnut	
Themidaceae	*Dichelostemma capitatum* ssp. *pauciflorum*	Few-flowered blue dicks	
Angiosperms - Dicots			
Adoxaceae	*Sambucus nigra*	Black elderberry	
Agavaceae	*Nolina bigelovii*	Bigelow's nolina	
Aizoaceae	*Mesembryanthemum nodiflorum*	Slender-leaved iceplant	x
Amaranthaceae	*Amaranthus fimbriatus*	Fringed amaranth	
Amaranthaceae	*Tidestromia lanuginosa*	Woolly tidestromia	
Amaranthaceae	*Tidestromia suffruticosa* var. *oblongifolia*	Honeysweet	
Apiaceae	*Cymopterus purpurascens*	Cymopterus	
Apiaceae	*Lomatium mohavense*	Mohave wild parsley	
Apiaceae	*Lomatium nevadense* var. *nevadense*	Nevada lomatium	

Family	Scientific Name	Common Name	Non-native
Apocynaceae	*Amsonia tomentosa*	Amsonia	
Apocynaceae	*Asclepias erosa*	Desert milkweed	
Apocynaceae	*Asclepias nyctaginifolia*	Mojave milkweed	
Apocynaceae	*Asclepias subulata*	Ajamete	
Apocynaceae	*Carissa macrocarpa*	Natal plum	x
Apocynaceae	*Funastrum hirtellum*	Trailing townula	
Apocynaceae	*Nerium oleander*	Oleander	x
Asteraceae	*Acamptopappus sphaerocephalus* var. *sphaerocephalus*	Rayless goldenhead	
Asteraceae	*Adenophyllum cooperi*	Dogweed	
Asteraceae	*Adenophyllum porophylloides*	Adenophyllum	
Asteraceae	*Ambrosia acanthicarpa*	Annual burweed	
Asteraceae	*Ambrosia dumosa*	Sandbur	
Asteraceae	*Ambrosia eriocentra*	Woolly bur-sage	
Asteraceae	*Ambrosia salsola*	Common burrobrush	
Asteraceae	*Amphipappus fremontii* var. *spinosus*	Spiny Fremont's chaffbush	
Asteraceae	*Anisocoma acaulis*	Scalebud	
Asteraceae	*Artemisia ludoviciana* ssp. *incompta*	Mountain wormwood	
Asteraceae	*Artemisia tridentata* ssp. *tridentata*	Great Basin sagebrush	
Asteraceae	*Atrichoseris platyphylla*	Gravel-ghost	
Asteraceae	*Bahiopsis parishii*	Parish's goldeneye	
Asteraceae	*Baileya multiradiata*	Desert-marigold	
Asteraceae	*Bebbia juncea* var. *aspera*	Rush sweetbush	
Asteraceae	*Brickellia atractyloides*	Pungent grickellbush	
Asteraceae	*Brickellia desertorum*	Desert brickellbush	
Asteraceae	*Brickellia incana*	White brickellbush	
Asteraceae	*Calycoseris parryi*	Yellow tack-stem	
Asteraceae	*Chaenactis carphoclinia* var. *carphoclinia*	Pebble pincushion	
Asteraceae	*Chaenactis fremontii*	Fremont pincushion	
Asteraceae	*Chaenactis macrantha*	Bighead dusty maidens	
Asteraceae	*Chaenactis stevioides*	Desert pincushion	

Family	Scientific Name	Common Name	Non-native
Asteraceae	*Chaenactis xantiana*	Fleshcolor pincushion	
Asteraceae	*Chaetopappa ericoides*	Rose heath	
Asteraceae	*Cirsium neomexicanum*	Desert thistle	
Asteraceae	*Dicoria canescens*	Dicoria	
Asteraceae	*Dieteria canescens* var. *leucanthemifolia*	Hoary aster	
Asteraceae	*Encelia actoni*	Bush encelia	
Asteraceae	*Encelia farinosa*	Brittlebush	
Asteraceae	*Encelia frutescens*	Bush encelia	
Asteraceae	*Encelia virginensis*	Encelia	
Asteraceae	*Ericameria cooperi* var. *cooperi*	Cooper's goldenbush	
Asteraceae	*Ericameria cuneata* var. *cuneata*	Rock goldenbush	
Asteraceae	*Ericameria laricifolia*	Turpentine-brush	
Asteraceae	*Ericameria linearifolia*	Narrowleaf goldenbush	
Asteraceae	*Ericameria nauseosa*	Rubber rabbitbrush	
Asteraceae	*Ericameria paniculata*	Sticky rabbitbrush	
Asteraceae	*Eriophyllum lanosum*	White easterbonnets	
Asteraceae	*Eriophyllum pringlei*	Pringle's woolly sunflower	
Asteraceae	*Eriophyllum wallacei*	Woolly easterbonnets	
Asteraceae	*Geraea canescens*	Desert-sunflower	
Asteraceae	*Gutierrezia sarothrae*	Broom snakeweed	
Asteraceae	*Lasthenia californica* ssp. *californica*	California goldfields	
Asteraceae	*Layia glandulosa*	White layia	
Asteraceae	*Leptosyne bigelovii*	Tickseed	
Asteraceae	*Malacothrix coulteri*	Snake's-head	
Asteraceae	*Malacothrix glabrata*	Smooth desert dandelion	
Asteraceae	*Monoptilon bellidiforme*	Desert star	
Asteraceae	*Monoptilon bellioides*	Desert star	
Asteraceae	*Palafoxia arida* var. *arida*	Spanish needles	
Asteraceae	*Pentachaeta aurea* ssp. *aurea*	Golden-rayed pentachaeta	
Asteraceae	*Perityle emoryi*	Emory's rock daisy	

Family	Scientific Name	Common Name	Non-native
Asteraceae	*Peucephyllum schottii*	Pygmy-cedar	
Asteraceae	*Pleurocoronis pluriseta*	Arrow-leaf	
Asteraceae	*Porophyllum gracile*	Odora	
Asteraceae	*Prenanthella exigua*	Thorny skeleton plant	
Asteraceae	*Prenanthella exigua*	Brightwhite	
Asteraceae	*Psathyrotes ramosissima*	Turtleback	
Asteraceae	*Psilostrophe cooperi*	Whitestem paperflower	
Asteraceae	*Rafinesquia californica*	California chicory	
Asteraceae	*Rafinesquia neomexicana*	Desert chicory	
Asteraceae	*Senecio spartioides*	Broom groundsel	
Asteraceae	*Sonchus asper*	Spiny sowthistle	x
Asteraceae	*Stephanomeria exigua* ssp. *exigua*	Small wirelettuce	
Asteraceae	*Stephanomeria pauciflora*	Desert milk-aster	
Asteraceae	*Stylocline intertexta*	Tangled nest straw	
Asteraceae	*Stylocline psilocarphoides*	Peck's stylocline	
Asteraceae	*Tetradymia axillaris* var. *longisppina*	Horsebrush	
Asteraceae	*Tetradymia stenolepis*	Mojave horsebrush	
Asteraceae	*Trichoptilium incisum*	Yellowhead	
Asteraceae	*Uropappus lindleyi*	Silver puffs	
Asteraceae	*Xylorhiza tortifolia* var. *tortifolia*	Mojave-aster	
Bignoniaceae	*Chilopsis linearis* ssp. *arcuata*	Desert willow	
Boraginaceae	*Amsinckia intermedia*	Common fiddleneck	
Boraginaceae	*Amsinckia menziesii*	Small-flowered fiddleneck	
Boraginaceae	*Amsinckia tessellata* var. *tessellata*	Desert fiddleneck	
Boraginaceae	*Cryptantha angustifolia*	Narrow-leaved cryptantha	
Boraginaceae	*Cryptantha barbigera* var. *barbigera*	Bearded cryptantha	
Boraginaceae	*Cryptantha circumscissa* var. *circumscissa*	Cushion cryptantha	
Boraginaceae	*Cryptantha gracilis*	Slender cryptantha	
Boraginaceae	*Cryptantha maritima*	Guadalupe cryptantha	

Family	Scientific Name	Common Name	Non-native
Boraginaceae	*Cryptantha micrantha* var. *micrantha*	Red-root cryptantha	
Boraginaceae	*Cryptantha nevadensis*	Nevada cryptantha	
Boraginaceae	*Cryptantha oxygona*	Sharp nut cryptantha	
Boraginaceae	*Cryptantha pterocarya*	Winged-nut cryptantha	
Boraginaceae	*Cryptantha pterocarya* var. *pterocarya*	Winged-nut cryptantha	
Boraginaceae	*Cryptantha simulans*	Pine cryptantha	
Boraginaceae	*Eriodictyon trichocalyx* var. *trichocalyx*	Yerba santa	
Boraginaceae	*Eucrypta chrysanthemifolia* var. *bipinnatifida*	Eucrypta	
Boraginaceae	*Eucrypta micrantha*	Eucrypta	
Boraginaceae	*Lithospermum ruderale*	Stoneseed	
Boraginaceae	*Nama californicum*	Purple mat	
Boraginaceae	*Nama demissum* var. *demissum*	Purple mat	
Boraginaceae	*Nama pusilla*	Small Leaf Nama	
Boraginaceae	*Pectocarya penicillata*	Northern pectocarya	
Boraginaceae	*Pectocarya platycarpa*	Wide-toothed pectocarya	
Boraginaceae	*Pectocarya recurvata*	Arched-nut pectocarya	
Boraginaceae	*Pectocarya setosa*	Round-nut pectocarya	
Boraginaceae	*Phacelia bicolor*	Twocolor phacelia	
Boraginaceae	*Phacelia campanularia* var. *campanularia*	Desert bluebells	
Boraginaceae	*Phacelia crenulata* var. *ambigua*	Phacelia	
Boraginaceae	*Phacelia crenulata* var. *minutiflora*	Phacelia	
Boraginaceae	*Phacelia curvipes*	Washoe phacelia	
Boraginaceae	*Phacelia distans*	Distant scorpion-weed	
Boraginaceae	*Phacelia fremontii*	Phacelia	
Boraginaceae	*Phacelia neglecta*	Alkali phacelia	
Boraginaceae	*Phacelia rotundifolia*	Round leaf phacelia	
Boraginaceae	*Phacelia tanacetifolia*	Tansy-leaf phacelia	
Boraginaceae	*Phacelia vallis-mortae*	Death Valley phacelia	

Family	Scientific Name	Common Name	Non-native
Boraginaceae	*Plagiobothrys arizonicus*	Arizona popcornflower	
Boraginaceae	*Plagiobothrys jonesii*	Mojave popcornflower	
Boraginaceae	*Tiquilia canescens* var. *canescens*	Tiquilia	
Boraginaceae	*Tiquilia palmeri*	Palmer's crinklemat	
Boraginaceae	*Tiquilia plicata*	Fan-leaved tiquilia	
Brassicaceae	*Boechera perennans*	Perennial rockcress	
Brassicaceae	*Boechera pulchra*	Beautiful rockcress	
Brassicaceae	*Brassica nigra*	Black mustard	x
Brassicaceae	*Brassica tournefortii*	Sahara mustard	x
Brassicaceae	*Caulanthus cooperi*	Jewelflower	
Brassicaceae	*Caulanthus lasiophyllus*	California mustard	
Brassicaceae	*Chorispora tenella*	Crossflower	x
Brassicaceae	*Descurainia pinnata* ssp. *glabra*	Tansy mustard	
Brassicaceae	*Descurainia sophia*	Tansy mustard	x
Brassicaceae	*Dithyrea californica*	Spectacle-pod	
Brassicaceae	*Draba cuneifolia*	Draba	
Brassicaceae	*Hirschfeldia incana*	Summer mustard	x
Brassicaceae	*Lepidium densiflorum*	Dense-flower peppergrass	
Brassicaceae	*Lepidium fremontii*	Desert peppergrass	
Brassicaceae	*Lepidium lasiocarpum* ssp. *lasiocarpum*	Sand peppergrass	
Brassicaceae	*Physaria tenella*	Bladderpod	
Brassicaceae	*Raphanus sativus*	Wild radish	x
Brassicaceae	*Sisymbrium altissimum*	Tall hedge-mustard	x
Brassicaceae	*Sisymbrium irio*	London rocket	x
Brassicaceae	*Sisymbrium orientale*	Sisymbrium	x
Brassicaceae	*Streptanthella longirostris*	Streptanthella	
Brassicaceae	*Thysanocarpus curvipes* ssp. *curvipes*	Lacepod	
Brassicaceae	*Tropidocarpum gracile*	Dobie pod	
Cactaceae	*Cylindropuntia acanthocarpa*	Buckhorn cholla	
Cactaceae	*Cylindropuntia bigelovii*	Teddy-bear cholla	

Family	Scientific Name	Common Name	Non-native
Cactaceae	*Cylindropuntia echinocarpa*	Golden cholla	
Cactaceae	*Cylindropuntia ramosissima*	Pencil cholla	
Cactaceae	*Echinocactus polycephalus* var. *polycephalus*	Clustered barrel cactus	
Cactaceae	*Echinocereus engelmannii*	Hedgehog cactus	
Cactaceae	*Echinocereus mojavensis*	Hedgehog cactus	
Cactaceae	*Ferocactus cylindraceus*	California barrel cactus	
Cactaceae	*Grusonia parishii*	Club cholla	
Cactaceae	*Mammillaria tetrancistra*	Fish-hook cactus	
Cactaceae	*Opuntia basilaris* var. *brachyclada*	Short-jointed beavertail	
Cactaceae	*Opuntia basilaris* var. *basilaris*	Beavertail cactus	
Cactaceae	*Opuntia engelmannii* var. *engelmannii*	Engelmann prickly-pear	
Cactaceae	*Opuntia polyacantha* var. *erinacea*	Mojave prickly-pear	
Campanulaceae	*Nemacladus ramosissimus*	Nemacladus	
Caprifoliaceae	*Symphoricarpos rotundifolius* var. *parishii*	Parish's snowberry	
Caryophyllaceae	*Achyronychia cooperi*	Frost-mat	
Caryophyllaceae	*Eremogone macradenia* var. *macradenia*	Desert sandwort	
Chenopodiaceae	*Atriplex canescens* var. *canescens*	Wingscale	
Chenopodiaceae	*Atriplex elegans*	Wheelscale	
Chenopodiaceae	*Atriplex hymenelyrta*	Desert holly	
Chenopodiaceae	*Atriplex polycarpa*	Allscale	
Chenopodiaceae	*Chenopodium album*	Lambs quarters	x
Chenopodiaceae	*Chenopodium californicum*	California goosefoot	
Chenopodiaceae	*Grayia spinosa*	Hop-sage	
Chenopodiaceae	*Krascheninnikovia lanata*	Winter fat	
Chenopodiaceae	*Salsola tragus*	Tumbleweed	x
Chenopodiaceae	*Suaeda nigra*	Desert blite	
Cleomaceae	*Peritoma arborea* var. *angustata*	Bladderpod	
Convolvulaceae	*Convolvulus arvensis*	Field bindweed	x
Convolvulaceae	*Cuscuta denticulata*	Small-tooth dodder	

Family	Scientific Name	Common Name	Non-native
Crassulaceae	*Dudleya lanceolata*	Southern california dudleya	
Crassulaceae	*Dudleya saxosa* ssp. *aloides*	Panamint dudleya	
Cucurbitaceae	*Cucurbita palmata*	Coyote melon	
Euphorbiaceae	*Croton californicus*	Croton	
Euphorbiaceae	*Croton setiger*	Turkey-mullein	
Euphorbiaceae	*Ditaxis neomexicana*	Ditaxis	
Euphorbiaceae	*Ditaxis serrata* var. *serrata*	Saw toothed ditaxis	
Euphorbiaceae	*Euphorbia albomarginata*	Rattlesnake sandmat	
Euphorbiaceae	*Euphorbia polycarpa*	Smallseed sandmat	
Euphorbiaceae	*Stillingia linearifolia*	Desert stillingia	
Euphorbiaceae	*Stillingia spinulosa*	Broad leaved stillingia	
Fabaceae	*Acmispon brachycarpus*	Hill lotus	
Fabaceae	*Acmispon glaber* var. *brevialatus*	Short winged deerweed	
Fabaceae	*Acmispon maritimus* var. *brevivexillus*	Coastal lotus	
Fabaceae	*Acmispon rigidus*	Broom lotus	
Fabaceae	*Acmispon strigosus*	Strigose lotus	
Fabaceae	*Acmispon wrangelianus*	Calf lotus	
Fabaceae	*Astragalus didymocarpus*	Dwarf white milk vetch	
Fabaceae	*Astragalus layneae*	Layne's milkvetch	
Fabaceae	*Astragalus lentiginosus* var. *fremontii*	Fremont's freckled milkvetch	
Fabaceae	*Astragalus nuttallianus* var. *imperfectus*	Small-flowered milkvetch	
Fabaceae	*Dalea mollis*	Hairy prairie clover	
Fabaceae	*Dalea mollissima*	Silky dalea	
Fabaceae	*Lupinus arizonicus*	Arizona lupine	
Fabaceae	*Lupinus bicolor*	Tiny-flowered lupine	
Fabaceae	*Lupinus brevicaulis*	Shortstem lupine	
Fabaceae	*Lupinus concinnus*	Bajada lupine	
Fabaceae	*Lupinus flavoculatus*	Lupine	
Fabaceae	*Lupinus sparsiflorus*	Coulter's lupine	
Fabaceae	*Marina parryi*	Parry's marina	

Family	Scientific Name	Common Name	Non-native
Fabaceae	*Melilotus officinalis*	Yellow sweet clover	x
Fabaceae	*Parkinsonia florida*	Blue palo verde	
Fabaceae	*Prosopis glandulosa* var. *torreyana*	Honey mesquite	
Fabaceae	*Psorothamnus arborescens*	Johnson's indigobush	
Fabaceae	*Psorothamnus fremontii* var. *fremontii*	Indigo bush	
Fabaceae	*Psorothamnus polydenius*	Nevada indigobush	
Fabaceae	*Psorothamnus spinosus*	Smoke tree	
Fabaceae	*Senegalia greggii*	Catclaw acacia	
Fabaceae	*Senna armata*	Armed senna	
Fabaceae	*Senna covesii*	Cove’s cassia	
Fouquieriaceae	*Fouquieria splendens*	Ocotillo	
Geraniaceae	*Erodium cicutarium*	Red-stem filaree	x
Geraniaceae	*Erodium texanum*	Texas storksbill	
Krameriaceae	*Krameria bicolor*	White rhatany	
Krameriaceae	*Krameria erecta*	Purple heather	
Lamiaceae	*Condea emoryi*	Desert lavender	
Lamiaceae	*Salvia columbariae*	Chia	
Lamiaceae	*Salvia dorrii* var. *dorrii*	Desert sage	
Lamiaceae	*Salvia dorrii* var. *pilosa*	Sage	
Lamiaceae	*Scutellaria mexicana*	Mexican bladder sage	
Loasaceae	*Mentzelia affinis*	Yellow blazing star	
Loasaceae	*Mentzelia albicaulis*	White stemmed blazing star	
Loasaceae	*Mentzelia congesta*	Clustered blazing star	
Loasaceae	*Mentzelia involucrata*	Blazing star	
Loasaceae	*Mentzelia nitens*	Blazing star	
Loasaceae	*Mentzelia oreophila*	Blazing star	
Loasaceae	*Mentzelia tricuspis*	Spiny hair blazing star	
Loasaceae	*Petalonyx thurberi* ssp. *thurberi*	Sandpaper plant	
Malpighiaceae	*Janusia gracilis*	Slender janusia	
Malvaceae	*Eremalche exilis*	White mallow	
Malvaceae	*Eremalche rotundifolia*	Desert five-spot	

Family	Scientific Name	Common Name	Non-native
Malvaceae	*Sphaeralcea ambigua* var. *ambigua*	Apricot mallow	
Malvaceae	*Sphaeralcea ambigua* var. *rugosa*	Roughleaf apricot mallow	
Malvaceae	*Sphaeralcea rusbyi* var. *eremicola*	Rusby's desert mallow	
Martyniaceae	*Proboscidea parviflora*	Doubleclaw	
Montiaceae	*Calandrinia menziesii*	Kisses	
Montiaceae	*Calyptridium monandrum*	Common pussypaws	
Montiaceae	*Claytonia perfoliata*	Miner's lettuce	
Myrtaceae	*Eucalyptus* sp.	Eucalyptus	x
Nyctaginaceae	*Abronia pogonantha*	Sand verbena	
Nyctaginaceae	*Abronia villosa* var. *villosa*	Sand verbena	
Nyctaginaceae	*Allionia incarnata* var. *incarnata*	Trailing windmills	
Nyctaginaceae	*Allionia incarnata* var. *villosa*	Windmills	
Nyctaginaceae	*Mirabilis albida*	Four o'clock	
Nyctaginaceae	*Mirabilis laevis* var. *crassifolia*	Wishbone bush	
Nyctaginaceae	*Mirabilis laevis* var. *retrorsa*	Four o'clock	
Nyctaginaceae	*Mirabilis laevis* var. *villosa*	Four o'clock	
Nyctaginaceae	*Mirabilis multiflora* var. *pubescens*	Four o'clock	
Oleaceae	*Menodora scabra var. glabrescens*	Desert olive	
Oleaceae	*Menodora spinescens* var. *mohavensis*	Mojave menodora	
Onagraceae	*Camissonia campestris* ssp. *campestris*	Mojave sun cup	
Onagraceae	*Camissoniopsis pallida*	Pale yellow sun cup	
Onagraceae	*Chylismia brevipes* ssp. *brevipes*	Yellow cups	
Onagraceae	*Chylismia claviformis* ssp. *aurantiaca*	Evening primrose	
Onagraceae	*Chylismia claviformis* ssp. *claviformis*	Evening primrose	
Onograceae	*Chylismia claviformis* ssp. *peirsonii*	Peirson's clavate fruited primrose	
Onagraceae	*Chylismia multijuga*	Froststem suncup	
Onagraceae	*Eremothera boothii* ssp. *condensata*	Evening-primrose	
Onagraceae	*Eremothera chamaenerioides*	Long fruit suncup	

Family	Scientific Name	Common Name	Non-native
Onagraceae	*Eremothera refracta*	Sun cup	
Onagraceae	*Eulobus californicus*	Camissonia	
Onograceae	*Oenothera californica* ssp. *avita*	California evening primrose	
Onagraceae	*Oenothera californica* ssp. *californica*	Evening primrose	
Onagraceae	*Oenothera cespitosa*	Tufted evening-primrose	
Onagraceae	*Oenothera deltoides*	Devil's lantern	
Onagraceae	*Oenothera primiveris* ssp. *primiveris*	Evening primrose	
Onograceae	*Tetrapteron palmeri*	Palmer's evening primrose	
Orobanchaceae	*Aphyllon cooperi*	Desert broom-rape	
Orobanchaceae	*Castilleja chromosa*	Desert paintbrush	
Orobanchaceae	*Castilleja plagiotoma*	Mojave paintbrush	
Papaveraceae	*Argemone corymbosa*	Prickly poppy	
Papaveraceae	*Eschscholzia californica*	California poppy	
Papaveraceae	*Eschscholzia glyptosperma*	Desert golden poppy	
Papaveraceae	*Eschscholzia minutiflora*	Pygmy golden poppy	
Papaveraceae	*Platystemon californicus*	Cream cups	
Phrymaceae	*Diplacus bigelovii*	Bigelow's monkeyflower	
Picrodendraceae	*Tetracoccus hallii*	Hall's purple bush	
Plantaginaceae	*Antirrhinum filipes*	Snapdragon	
Plantaginaceae	*Mohavea confertiflora*	Mohavea	
Plantaginaceae	*Penstemon bicolor* ssp. *roseus*	Rosy two-toned beardtongue	
Plantaginaceae	*Plantago ovata*	Desert Indianwheat	
Plantaginaceae	*Plantago patagonica*	Plantain	
Polemoniaceae	*Aliciella latifolia* ssp. *latifolia*	Broad-leaved aliciella	
Polemoniaceae	*Aliciella leptomeria*	Sand gilia	
Polemoniaceae	*Eriastrum diffusum*	Miniature wool star	
Polemoniaceae	*Eriastrum eremicum* ssp. *eremicum*	Woollystar	
Polemoniaceae	*Eriastrum sapphirinum*	Sapphire wool star	
Polemoniaceae	*Eriastrum wilcoxii*	Wilcox's woollystar	
Polemoniaceae	*Gilia aliquanta* ssp. *breviloba*	Puff calyx gilia	

Family	Scientific Name	Common Name	Non-native
Polemoniaceae	*Gilia brecciarum*	Nevada gilia	
Polemoniaceae	*Gilia cana* ssp. *bernardina*	Showy gilia	
Polemoniaceae	*Gilia minor*	Little gilia	
Polemoniaceae	*Gilia scopulorum*	Rock gilia	
Polemoniaceae	*Gilia stellata*	Star gilia	
Polemoniaceae	*Ipomopsis polycladon*	Sprawling skyrocket	
Polemoniaceae	*Langloisia setosissima* ssp. *punctata*	Lilac sunbonnet	
Polemoniaceae	*Langloisia setosissima* ssp. *setosissima*	Bristly langloisia	
Polemoniaceae	*Leptosiphon aureus* ssp. *aureus*	Desert gold	
Polemoniaceae	*Leptosiphon aureus* ssp. *decorus*	Linanthus	
Polemoniaceae	*Leptosiphon breviculus*	Mojave linanthus	
Polemoniaceae	*Leptosiphon ciliatus*	Whiskerbrush	
Polemoniaceae	*Linanthus bigelovii*	Linanthus	
Polemoniaceae	*Linanthus demissus*	Linanthus	
Polemoniaceae	*Linanthus jonesii*	Linanthus	
Polemoniaceae	*Linanthus parryae*	Linanthus	
Polemoniaceae	*Loeseliastrum matthewsii*	Desert calico	
Polemoniaceae	*Loeseliastrum schottii*	Loeseliastrum	
Polemoniaceae	*Saltugilia* sp.	Gilia	
Polygonaceae	*Centrostegia thurberi*	Thurber's spineflower	
Polygonaceae	*Chorizanthe brevicornu* var. *brevicornu*	Brittle spineflower	
Polygonaceae	*Chorizanthe corrugata*	Wrinkled spineflower	
Polygonaceae	*Chorizanthe rigida*	Devil's spineflower	
Polygonaceae	*Chorizanthe watsonii*	Fivetooth spineflower	
Polygonaceae	*Eriogonum brachypodum*	Parry's wild buckwheat	
Polygonaceae	*Eriogonum deflexum* var. *deflexum*	Flat topped buckwheat	
Polygonaceae	*Eriogonum deflexum* var. *nevadense*	Nevada skeleton weed	
Polygonaceae	*Eriogonum fasciculatum* var. *polifolium*	Mojave Desert California buckwheat	
Polygonaceae	*Eriogonum gracillimum*	Rose-and-white wild buckwheat	

Family	Scientific Name	Common Name	Non-native
Polygonaceae	*Eriogonum heermannii* var. *floccosum*	Clark Mountain buckwheat	
Polygonaceae	*Eriogonum inflatum*	Desert trumpet	
Polygonaceae	*Eriogonum maculatum*	Spotted wild buckwheat	
Polygonaceae	*Eriogonum nidularium*	Birdnest wild buckwheat	
Polygonaceae	*Eriogonum palmerianum*	Palmer's wild buckwheat	
Polygonaceae	*Eriogonum plumatella*	Yucca buckwheat	
Polygonaceae	*Eriogonum pusillum*	Yellow turbans	
Polygonaceae	*Eriogonum reniforme*	Kidney-leaf wild buckwheat	
Polygonaceae	*Eriogonum thomasii*	Thomas's wild buckwheat	
Polygonaceae	*Eriogonum trichopes*	Little desert trumpet	
Polygonaceae	*Nemacaulis denudata var. gracilis*	Slender cottonheads	
Polygonaceae	*Pterostegia drymarioides*	Woodland threadstem	
Polygonaceae	*Rumex hymenosepalus*	Canaigre	
Resedaceae	*Oligomeris linifolia*	Oligomeris	
Rhamnaceae	*Ceanothus pauciflorus*	Mojave ceanothus	
Rosaceae	*Adenostoma fasciculatum* var. *fasciculatum*	Chamise	
Rosaceae	*Coleogyne ramosissima*	Blackbush	
Rosaceae	*Prunus fasciculata* var. *fasciculata*	Desert almond	
Rosaceae	*Purshia tridentata* var. *glandulosa*	Antelope brush	
Rutaceae	*Thamnosma montana*	Turpentine-broom	
Scrophulariaceae	*Scrophularia desertorum*	Desert figwort	
Solanaceae	*Datura wrightii*	Moon-lily	
Solanaceae	*Lycium andersonii*	Anderson desert thorn	
Solanaceae	*Lycium cooperi*	Cooper desert thorn	
Solanaceae	*Lycium torreyi*	Squawthorn	
Solanaceae	*Nicotiana obtusifolia*	Desert tobacco	
Solanaceae	*Physalis crassifolia*	Ground-cherry	
Solanaceae	*Physalis hederifolia* var. *fendleri*	Fendler's ground-cherry	
Tamaricaceae	*Tamarix chinensis*	Chinese tamarisk	x
Urticaceae	*Parietaria hespera* var. *hespera*	Rillita pellitory	

Family	Scientific Name	Common Name	Non-native
Viscaceae	*Phoradendron californicum*	California mistletoe	
Zygophyllaceae	*Fagonia laevis*	California fagonia	
Zygophyllaceae	*Larrea tridentata*	Creosote bush	

ATTACHMENT D: SPECIAL-STATUS PLANT SPECIES PHOTOGRAPHS

ATTACHMENT D: SPECIAL-STATUS PLANT SPECIES PHOTOGRAPHS

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

Photograph 2: Golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*), a CRPR 4.2 species.

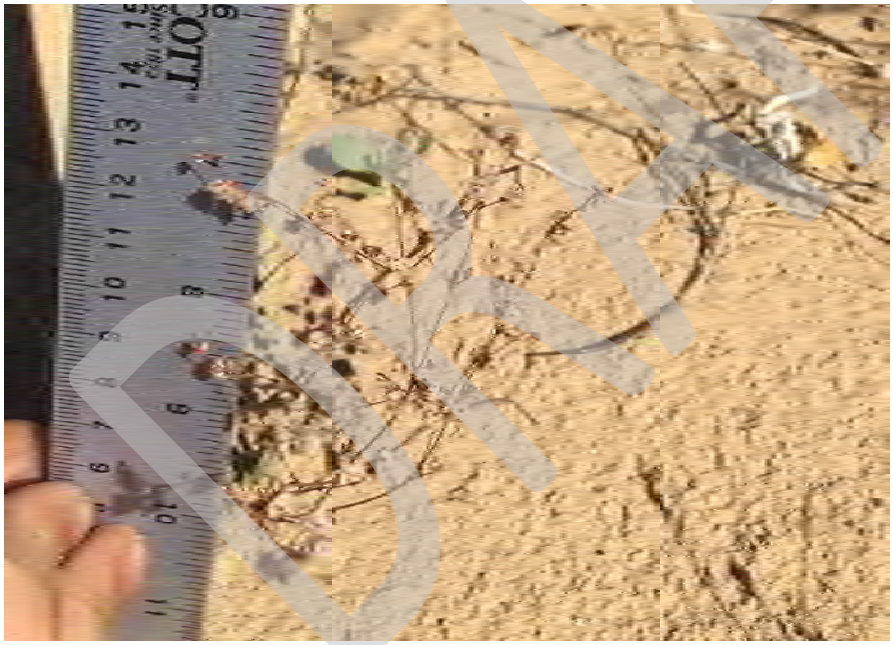
Photograph 3: Mojave menodora (*Menodora spinescens* var. *mohavensis*), a Bureau of Land Management (BLM) sensitive species and CRPR 1B.2 species.

Photograph 4: Mojave paintbrush (*Castilleja plagiotoma*), a CRPR 4.3 species.

Photograph 5: Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*), a BLM sensitive species, CRPR 1B.1 species, and Nevada S3 species.

Photograph 6: Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*), a CRPR 1B.2 species.

Photograph 7: Short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*), a BLM sensitive species and CRPR 1B.2 species.



Photograph 8: Slender cottonheads (*Nemacaulis denudata* var. *gracilis*), a CRPR 2B.2 species.

Photograph 9: Small flowered androstephium (*Androstephium breviflorum*), a CRPR 2B.2 species.

Photograph 10: Spiny-hair blazing star (*Mentzelia tricuspis*), a CRPR 2B.1 species.

Photograph 11: Yucca buckwheat (*Eriogonum plumatella*), a Nevada S3 species.