Appendix B-3
Supplemental Biotechnical Report: 2010 Botanical Survey

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ELDORADO-IVANPAH TRANSMISSION PROJECT

SUPPLEMENTAL BIOTECHNICAL REPORT: 2010 BOTANICAL SURVEY

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Southern California Edison

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July 2010

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

INTRODUCTION

The proposed Southern California Edison (SCE) Eldorado-Ivanpah Transmission Project (EITP, project area) proposes to replace the existing 115 kilovolt (kV) Eldorado-Coolwater-Dunn Siding-Mountain Pass transmission line with a new double-circuit 230kV line between the existing Eldorado Substation in the Eldorado Valley in Clark County, Nevada and the proposed Ivanpah Substation in the Ivanpah Valley in San Bernardino County, California. The purpose of the project is to transmit power from proposed renewable energy generation facilities in California and Nevada.

This Supplemental Biological Technical Report (SBTR) was prepared to support permits from federal, state, and local agencies in Nevada and California. Existing transmission towers, proposed transmission towers, the Ivanpah Substation, proposed telecommunication retrofits of existing towers and associated facilities, laydown areas, and conductor and telecommunication cable pull sites were surveyed in detail for the following:

- Cactus and Yucca Densities in Nevada
- Invasive Weeds in Nevada and California
- Sensitive Plants in Nevada and California

Surveys were used to document existing conditions for protected cactus and yucca species in Nevada, record occurrences of: invasive weeds and sensitive plants, within the project area. A preliminary list of cacti and yuccas was developed from a previous report (EPG 2008). A list of noxious weeds for Nevada (NDA 2005) and California (CDFA 2003) was consulted to determine status.

Some of the sensitive plants within the project have special status from county, state, or federal agencies (Table 1 and 2). Typically the status is related to rarity in the environment or a potential to become scarce from development. Federally listed species include those recognized by the U.S. Fish and Wildlife Service (FWS) as threatened or endangered under the Endangered Species Act. The BLM may designate species at the State Directors Office as sensitive, and other species can be tracked by state and local programs. In California and Nevada species are tracked by various departments or programs and counties may have species conservation programs that are tracked by local or state agencies.

In Nevada the Department of Conservation and Natural Resources tracks species at risk. This data is compiled by the Nevada Natural Heritage Program (NNHP). The NNHP also assigns rank indicators to plant species based on rarity and perceived level of threat. Nevada Revised Statute 527 also protects species threatened with extinction, as well as cacti and yuccas. Clark County has implemented a Multiple Species Habitat Conservation Plan that coordinates with the NNHP.

In California, sensitive plant species are tracked and monitored by the California Department of Fish and Game (CDFG) via their California Natural Diversity Database (CNDDB). In California the California Native Plant Society's list of sensitive species is followed closely by CDFG. The

State of California through the Fish and Game Code may also formally designate plants by listing them as threatened or endangered.

A SCE contingent employee, and a contract biologist with the Environmental Planning Group (EPG) conducted botanical investigations along the existing rights-of-way (ROW), the proposed ROW and several alternates, at the site of the proposed Ivanpah substation, and along a proposed secondary telecommunication alternative supporting fiber optic ground wire (OPGW) placement with associated facilities related to the telecommunications route. The following supplemental report summarizes findings made by biologists during the spring of 2010. This supplemental report is based on the Eldorado-Ivanpah Transmission Project, Biological Technical Report produced by the Environmental Planning Group, Inc. (EPG) in 2008.

PROJECT DESCRIPTION

The project proposes to replace an existing 115kV transmission line built in the early 1930s to provide electrical power for the construction of Hoover Dam. Replacement of the line will occur between the existing Eldorado Substation in Boulder City, in Clark County, Nevada and the proposed Ivanpah Substation near Ivanpah Dry Lake in eastern San Bernardino County, California. The existing 115kV line is composed primarily of lattice steel H-frame structures with three conductors and occasionally with two- and three-pole wooden structures as replacements.

Lattice steel towers or steel poles will replace the existing structures for the new EITP 230kV double-circuit line. Due to the increased tower heights and span lengths it is likely that the majority of the new towers will be placed in new locations that will require construction of new temporary or permanent spur roads from the existing main access road. In one section of the project area, through the pass in the McCullough Range, the towers will be placed upon the existing tower locations. Alternative A and D will deviate from the existing SCE right-of-way at several locations either to provide a more efficient route, to cross other transmission lines, or to avoid resources. These alternatives were included in the survey area as well.

The proposed Ivanpah Substation site is located on the west side of Ivanpah Dry Lake adjacent to the existing SCE right of way. In addition to the new OPGW on the new 230kV transmission line, a secondary telecommunications route for the telecommunications facilities associated with the Ivanpah Substation will be constructed using existing and new infrastructure. This secondary route will use new OPGW on the existing Eldorado-Lugo 500kV line that will be retrofitted to hold the new OPGW. Where the Eldorado-Lugo line crosses Nipton Road/Highway 164, the OPGW will transition from overhead on the Eldorado-Lugo transmission line and to a new underground conduit within the existing disturbed road shoulder of Nipton Road/Highway 164 to Nipton, California. From Nipton, the telecommunications line will be installed underground to a new microwave communication system which will be connected by microwave signal to a second transmitter in the proposed Ivanpah Substation across the valley.

Survey Area Description

The EITP consists of an approximately 35 mile transmission line and 30 miles of new telecommunication line along routes from southern Clark County, Nevada into the eastern edge of San Bernardino, California, west of Ivanpah Dry Lake. About 222 acres was surveyed along the EITP. The majority of the project is within Nevada. The Eldorado substation is the eastern terminus of the transmission and telecommunications project, within Boulder City, Nevada. The transmission route starts at the Eldorado substation and travels up the north edge of alluvial deposits to the McCullough Range and west across an unnamed pass through the mountains and descends the alluvial deposit toward the northern end of the Lucy Gray Mountains. From the Lucy Grey Mountains the line heads south and wraps around the eastern edge of Roach Dry Lake and crosses the Nevada-California border at Primm, Nevada. From Primm the Transmission line will follow the existing 115kV transmission line corridor directly to the proposed Ivanpah Substation site. Transmission Alternative A starts at the Eldorado Substation but heads directly towards the McCullough Range. Transmission Alternative D jogs around Primm and crosses the Ivanpah Dry Lake bed to the south of the proposed route. Each of the existing and proposed tower sites was investigated, as well as laydown areas and conductor pulling sites along these routes.

The secondary telecommunications route will be installed on the existing Eldorado-Lugo 500kV transmission line in Southern Nevada and terminate in eastern San Bernardino County at the proposed microwave site at Nipton, California. The Eldorado-Lugo line starts in the Eldorado substation and continues south up the Eldorado Valley between the McCullough Range and the Highland Range. The line bends toward the west meeting up with Nevada State Route (SR) 164. The OPGW will follow SR 164 into California where the name changes to Nipton Road. The cable will be buried in a conduit on the north side of the road, within the disturbed road shoulder, for about 4.5 miles to Nipton. From Nipton the fiber optic cable will be installed underground approximately 0.7 miles to the proposed microwave facility for communication with the Ivanpah substation across the valley. The survey area included each tower that was indicated for retrofitting for OPGW as well as OPGW pulling sites and disturbance areas along the underground cable conduit route along Nipton Road and to the microwave communications facility and the facility. The previous Biological Survey Report (EPG 2008) documented animal and plant inventories in these areas.

METHODOLOGY

Field Botanists from EPG (Glenn Clifton) and AECOM (Joseph Betzler) conducted pedestrian surveys for the project area from March 29 to April 3, and April 8, 16, and 22, 2010. Previously EPG biologists conducted rare plant surveys April 7 to 10, April 14 to 15, August 25 to 26, and October 27 to 28, 2008 (EPG 2008). This Supplemental Biotechnical Report is not intended to repeat those surveys, however rare plants were noted here to supplement that work. For this report cactus and yucca plants were inventoried around each existing and proposed tower site, proposed disturbance areas used for pulling conductors or OPGW, unsurveyed laydown areas, and telecommunications infrastructure. Occasionally random surveys were used in areas where the terrain and the plant community was uniform. The numbers and species of cactus and yuccas

were recorded (Table 3), and the square foot area was noted (Table 3). Rare plants and weeds were recorded as part of the survey (Table 4).

The survey area included the entire existing transmission line route from Eldorado Substation west to the proposed Ivanpah Substation site. Surveys were performed along EITP Alternative A, from near the Eldorado Substation to the west, and Alternative D near Primm, Nevada. The proposed telecommunications route along the Eldorado-Lugo 500kV transmission line and Nipton Road/Highway 164 to Nipton, California and then to the microwave communications transmitter north of Nipton.

Surveys consisted of three types: walking three meter transects within the proposed disturbance areas; walking a random survey area 10 meters by 100 meters, with two transects out and back which fall within rare plant survey protocols outlined in Cypher (2002); or using intuitive controlled survey techniques outlined by the Bureau of Land Management (BLM) in Whiteaker et al (1998). The majority of the project area was surveyed by walking within the proposed disturbance areas for removing existing towers, installation of new towers, laydown areas, conductor and OPGW pulling sites. Cactus and yucca counts were made for areas within Nevada to meet BLM requirements for these state protected species (all cacti and yuccas are protected in Nevada) . In Nevada and California rare plants were recorded within the proposed disturbance areas. Weed species were recorded within the disturbance areas and within the proposed corridor ROW. Sensitive plants were each given a separate waypoint. Generally weeds occur in groups and recorded waypoints represent the outer edges of a patch when grouped together (a polygon). All coordinates are recorded in decimal degrees (NAD 83 datum). Photo points and locations of all observations were recorded with a hand-held global positioning unit (GPS).

Eighteen random surveys were made along expanses of uniform habitat from the center of the ROW. The survey location and orientations were based on a random number table. At mile 0 on the EITP ROW, a random number was chosen, 0 to 9, to determine the mile stopping point along the project area ROW to the 1/10th mile, then the direction of the survey along the north-south axis for an even random number or the east-west axis for an odd random number. The heading was determined with even numbers for starting out in the north and heading to south or east to west, for odd numbers the heading started out south heading north or west to east. Cactus and yucca counts were made within five meters to either side of the 100 meter transect. One of the surveys, Survey06, fell outside of the project area and was not completed.

Equipment used for the surveys consisted of a primary GPS unit and a back-up, survey forms, random number table, digital camera, compass, local floras and plant lists, detailed maps and project documents, four wheel drive vehicle to get to each site, plus proper clothing, and associated desert gear for safety.

Weather conditions for the survey dates were generally cool in the mornings; between 55 to 60 degrees Fahrenheit. The highest temperatures for the dates listed were about 80 degrees Fahrenheit. The air was generally calm with light intermittent breezes. The cloud cover was high and broker to clear.

A list of sensitive species likely to occur in the area was compiled form the previous Biological Technical Report (EPG 2008) to assist in the location of species for the current survey. Nevada and California noxious weed lists (California 2003, Nevada 2005) were consulted to check current status of weeds noted along the survey area.

VEGETATION RESOURCES

Vegetation Type Descriptions

As detailed previously (EPG 2008), five main vegetation types are located within the Project area: black bush series; catclaw acacia series (desert wash habitat); creosote scrub/creosote-white bursage scrub; Joshua tree series; and mixed saltbush series (saltbush scrub). Throughout the EITP disturbed areas occur including paved roads, parking lots, highways, access roads, cleared lots, mining operations, OHV trails and staging areas.

Saltbush Series

Saltbush scrub typically has low plant species diversity dominated by saltbush species, white bursage, and big galleta (*Pleuraphis rigida*) located in highly alkaline soils around the perimeter of the dry lake beds. Vegetation is an intermittent to open canopy, generally less than two feet in height. Generally this vegetation is bounded by creosote bush-white bursage scrub and open areas. Cacti and yuccas are sparse in these areas: cylindropuntias may be seen occasionally.

Creosote Bush Series/Creosote Bush-White Bursage Series

The creosote bush-white bursage scrub, is dominated by creosote bush and can have a variety of other perennial shrubs, including four-wing saltbush (*Atriplex canescens*), allscale (*A. polycarpa*), spiny senna (*Senna armata*), cheesebush (*Hymenoclea salsola*), and sweetbush (*Bebbia juncea*). A variety of other perennial and annual plants occur within this plant community. For the SBTR most of the survey area is of this habitat type. Cacti and yucca commonly occur in this community type. Cacti species present can include foxtail cactus (*Escobaria* cf. *vivipara* var. *deserti*), Buckhorn cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla (*Cylindropuntia echinocarpa*), pencil cholla, (*Cylindropuntia ramosissima*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), Johnson's fishhook cactus (*Echinomastus johnsonii*), cottontop cactus (*Echinocereus polycephalus*), California barrel cactus (*Ferocactus cylindraceus*), Matted cholla (*Grusonia parishii*), fishhook cactus (*Mammillaria tetrancistra*), beavertail cactus (*Opuntia basilaris*), Mojave prickly-pear (*Opuntia erinacea*), and Mojave yucca (*Yucca schidigera*).

Joshua Tree Series

Joshua tree woodland occurs at middle elevations in the Project area. This series is dominated by Joshua trees as the over-story plant with Mojave yucca, ephedras (*Ephedra* sp.), cheesebush, California buckwheat (*Eriogonum fasciculatum*), and wolfberry (*Lycium andersonii*) present as common shrub species. Creosote bush is typically the lower boundary and black bush is typically at the upper limits. Cacti and yucca species seen within this community in the project area include foxtail cactus, Buckhorn cholla, Wiggins' cholla, pencil cholla, Engelmann's hedgehog cactus, Johnson's fishhook cactus, cottontop cactus, California barrel cactus, fishhook cactus,

beavertail cactus, pancake prickly-pear (*Opuntia chlorotica*), Mojave prickly-pear, Banana yucca (*Yucca baccata*), Joshua tree, and Mojave yucca.

Black Bush Series

This plant community, typical of mid-elevation desert mountains, is dominated by black bush and features occasional Utah juniper (*Juniperus osteosperma*), singleleaf pinyon (*Pinus monophylla*), and numerous shrub species including ephedra, turpentinebroom (*Thamnosma montana*), goldenbush (*Ericameria* sp.), Mexican bladder sage (*Salazaria mexicana*), desert lupine (*Lupinus shockleyi*), and desert paintbrush (*Castilleja angustifolia*). Black bush scrub intergrades with creosote bush scrub at lower elevations and Joshua tree woodland at higher elevations. Cacti and yucca present include foxtail cactus, Buckhorn cholla, Wiggins' cholla, Pencil cholla, Engelmann's hedgehog cactus, cottontop cactus, California barrel cactus, beavertail cactus, pancake prickly-pear, Mojave prickly-pear, Banana yucca, Joshua tree, and Mojave yucca.

Catclaw Acacia Series

Vegetation present within the numerous desert washes support widely scattered catclaw acacia and more commonly ephedra, cheesebush, and sweetbush. Vegetation along canyon bottoms and washes in the McCullough Range is shrub-dominated with no emergent tree species. Shrubs present include catclaw acacia, wolfberry, Virgin River brittlebush, and California buckwheat. Depending on the elevation of this series; most cacti and yuccas can be found within and near this azonal series.

Invasive Weed Species

The following weeds are in order of scientific name:

Sahara mustard

Sahara mustard (*Brassica tournefortii*) is an annual herb from 4 to 40 inches tall. Yellow flowers are borne at the end of an inflorescences that are produces from January to June. This species is expanding its range and is able to grow in undisturbed desert areas, it is from Asia (Cal-IPC 2010, Baldwin 2002). This plant is considered a noxious weed in Nevada where it is on List B (NDA 2005)

Crossflower, purple mustard

Crossflower or purple mustard (*Chorispora tenella*) is an annual herb 4 to 18inches tall with large basin leaves. The purple flowers a borne on short inflorescences and reproduction is by seeds, it is from Europe (Baldwin 2002). It is common in waste places and agricultural areas. It is listed by California as a noxious weed on List B (CDFA 2003).

Russian thistle

Russian thistle (*Salsola tragus*) is an annual plant up to 3 feet tall that forms a rounded canopy of stiff stems. The leaves and small and form stiff bristles. The small flowers are greenish and inconspicuous. The plants grow in disturbed places (Hickman 1993) It is listed by California as a noxious weed in List C (CDFA 2003).

London Rocket
London Rocket (*Sisymbrium irio*) is an annual herb with basal leaves that are dissected. Flowers are yellow and form at the end of the stems, it is native to Europe (Hickman 1993). These plants grow near disturbed places where water pools in the winter and they grow faster than the native plants in the spring (Cal-IPC 2010). This species is not listed by Nevada or California, but it was recorded because of its invasive nature along the EITP corridor.

Tamarisk
Tamarisk (*Tamarix* sp.) is a shrub or small tree that can be found along wet areas in the desert. They are plants from Asia and India with pink to white flowers that are borne at the ends of the branches from May to July (Hickman 1993). This species is listed as a noxious weed in Nevada on the Category C Weed list (NDA 2005).

Special Status Species
Tables 1 and 2 were developed for the Biological Technical Report (EPG 2008). The tables have been modified in this report to reflect the current proposed project area and alternatives. The SBTR survey did not include the Mountain Pass alternative, or the telecommunications route from Nipton to the Mountain Pass Substation. The telecommunication alternative investigated here includes the microwave transmission facility in Nipton, California that will transmit data directly to the Ivanpah Substation. Alternative A and D were included in the survey area. The tables represent special status plant species with the greatest probability of occurrence within these California and Nevada portions of the project area.

Table 1. Special Status Plants with Potential to Occur in The California Portion Of The Project Area

Common Name	Scientific Name	Habitat	Status	Potential
PLANTS				
Small-flowered androstephium	*Androstephium breviflorum*	Mojave desertscrub	S1.3	O
White bearpoppy	*Arctomecon merriamii*	Mojave desertscrub	S2.2	L
Mojave milkweed	*Asclepias nyctaginifolia*	Arroyos and dry slopes in Mojave desertscrub	S1	O
Black grama	*Bouteloua eriopoda*	Dry, open, sandy to rocky slopes, flats, washes, scrub, woodland.	S3.2	U
Gilman's Cymopterus	*Cymopterus gilmanii*	Limestone or gypseous soils at 1,000 to 2,000 meters	S2.2	L
Utah vine milkweed	*Cynanchum utahense*	Sandy to gravelly soils in Mojave Desertscrub at 150-1,420 meters	BLM, S3.3	O
Desert pincushion	*Escobaria vivipara* var. *deserti**	Limestone soils 1,000 to 2,400 meters	S2.2	O
Viviparous foxtail cactus	*Escobaria vivipara* var. *rosea***	Sandy to rocky soils	S1, S2	L
Nine-awned pappus grass	*Enneapogon desvauxi*	Rocky slopes or in crevices on calcareous soils in desert woodland; piñon-juniper at 1,275 to 1,825 meters	S2?	O
California Barrel Cactus	*Ferocactus cylindraceus*	Gravelly or rocky hillsides, canyons, and alluvial fans	BLM‡	O
Parish club cholla	*Grusonia parishii*	Joshua tree habitat, this plant is present on the proposed Ivanpah Substation site	S2.3	O
Fineleaf Hymenopappus	*Hymenopappus filifolius* var. *eriopodus*	Limestone soils in piñon-juniper habitat in the New York and Clark mountains	S1.3	L
Plains flax	*Linum puberulum*	Dry ridges of desert mountains at 1,000 to 2,500 meters	S2.3	L
Rough Menodora	*Menodora scabra*	Rocky soils of canyons in the New York and Clark mountains	S2.3	L
Polished blazing star	*Mentzelia polita*	Limestone or gypseous soils between 1,200 and 1,500 meters in the Clark Mountains; associated with *Ephedra nevadensis* and *Rhus* spp.	S1.2	L
Curved-spine beavertail	*Opuntia curvospina*	Mojave desertscrub	S1.2	L
Rosy two-toned beardtongue	*Penstemon bicolor* ssp. *roseus*	Mojave desertscrub	S1.3	L
Stephens' penstemon	*Penstemon stephensii*	Mojave desertscrub or piñon-juniper woodland	BLM‡	L
Johnson's beehive cactus	*Sclerocactus johnsonii*	Creosote bush habitat on granitic soils from 500 to 1,200 meters	S1.3	U

Status:
FT = Federally listed as Threatened (ESA)
BLM = Bureau of Land Management sensitive species; BLM? – not on BLM list of sensitive plants
FPS – State of California Fully Protected Species
ST = California listed Threatened
CNDDB State Ranking:

Common Name	Scientific Name	Habitat	Status	Potential
S1 = Less than 6 Elements of Occurance (EOs), OR less than 1,000 individuals, Or less than 2,000 acres S1.1 = very threatened S1.2 = threatened S1.3 = no current threats known S2 = 6-20 EOs, OR 1,000-3,000 individuals, OR 2,000-10,000 acres S2.1 = very threatened S2.2 = threatened S2.3 = no current threats known S3 = 21-100 EOs, OR 3,000-10,000 individuals, OR 10,000-50,000 acres S3.1 = very threatened S3.2 = threatened S3.3 = no current threats known S4 = Apparently secure within California. NO THREAT RANK S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK Potential of Occurrence: L – Likely (moderate or better potential) U – Unlikely (low potential) O – Observed During Reconnaissance Studies References: Benson, L. 1982; CDFG 2003; Jepson 2008. . *synonym: *Coryphantha chlorantha*. ** synonym: *Coryphantha vivipara* var. r*osea* ‡ BLM sensitive species not listed in the CNDDB database. Potential of Occurrence: L – Likely (moderate or better potential) U – Unlikely (low potential) O – Observed During Reconnaissance Studies				

Table 2. Special Status Plant Species with Potential to Occur in the Nevada Portion Of The Project Area

Common Name	Scientific Name	Habitat	Status	Potential
PLANTS				
White bearpoppy	*Arctomecon merriamii*	Creosote bush scrub, limestone outcrops and dry lake beds	BLM, W	L
Rosy twotone beardtongue	*Penstemon bicolor* ssp. *roseus*	Rocky, calcareous soils in washes, on roadsides, or in scree at the base of outcrops – creosote bush or black bush desertscrub	BLM, ART	O
White-margined beardtongue	*Penstemon albomarginatus*	Sand dunes and/or deep, sandy soils	BLM, ART	O

Status Codes:
FT – Federally listed as threatened
BLM – BLM sensitive species
ST – Listed by the State of Nevada as threatened
W – Nevada Native Plant Society (NNPS) Watch List species; potentially vulnerable to becoming threatened or endangered
ART – Nevada Natural Heritage Program At Risk Taxa
501 – Protected under NRS 501

* Species detected during rare plant and/or reconnaissance surveys in spring 2008

Potential of Occurrence: L – Likely (moderate or better potential)
O – Observed During Reconnaissance Studies

Special Status Plants with the Potential to Occur in the Project Area

Small-flowered Androstephium

Small-flowered androstephium (*Androstephium breviflorum*) occurs in creosote bush communities in dry sandy habitat. It is a perennial herb arising from a bulb, forming few thin leaves and generally and pale pink flowers appear between March and June (Baldwin 2002). It has a CNDDB ranking of S1.2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). This plant is present near the project area and a few small individuals have been recorded at the Ivanpah Substation site in 2009 (EPG 2008). It is protected in California.

White Bearpoppy

White bearpoppy (*Arctomecon merriamii*) is found from Death Valley in southeastern California to the Meadow Valley Wash of southeastern Nevada. The plants occur on generally barren, calcareous soils, alluvial gravels and carbonate rock outcrops. The white bearpoppy is an evergreen short lived perennial herb with white flowers borne in the spring (Baldwin 2002). The leaves are basal, rounded-dentate and blue green, with moderately with long and erect hairs making it recognizable when not in flower. It has a CNDDB ranking of S2.2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California. In Nevada it is listed by the BLM as sensitive and as an NNHP watch list species.

Mojave Milkweed

Mojave milkweed (*Asclepias nyctaginifolia*) occurs along shallow arroyos and on dry slopes in the Mojave Desert in the Ivanpah Valley. This perennial herb arises in the winter from an underground tuber (Baldwin 2002). Dark green leaves lay on the sand for a few months then dry up as the weather warms. The pale white flowers are short lived as well and are gone by the time the leaves dry in June. It has a CNDDB status of S1 (CDFG 2010) and a CNPS ranking on List 2.1 (CNPS 2010). Mojave milkweed was found at one location within the California segment of the project approximately one half mile southwest of the proposed Ivanpah Substation site. This plant is protected in California and the rank has changed recently from S2 to its current S1 due to solar power development (CNPS 2010 notes for species).

Black Grama

Black grama (*Bouteloua eriopoda*) is a small perennial grass that occurs in dry habitats with sandy or rocky soils in flats, on slopes, along washes and in scrub and woodland communities, including piñon-juniper (Baldwin 2002). It has a CNDDB ranking of S3.2 (CDFG 2010) and a CNPS ranking on List 4.2 (CNPS 2010). With the present proposed project area it is unlikely to occur.

Gilman's Cymopterus

Gilman's cymopterus (*Cymopterus gilmanii*) is a perennial herb that occurs in Mojave desertscrub habitat, often on carbonate substrates, green to purple flowers appear in from April to May. It has a CNDDB ranking of S2.2 (CDFG 2010) and a CNPS ranking on List 2.3 (CNPS 2010). It is protected in California. This species could occur within the project area.

Utah Vine Milkweed

Utah vine milkweed (*Cynanchum utahense*) is a highly branched vine that grows on other shrubs for support. The plant typically grows on sandy to gravelly flats in creosote bush desert. The small yellow to orange flowers appear in April to June (Baldwin 2002). It has a state ranking of S3.3 (CDFG 2010) and a CNPS ranking on List 4.2 (CNPS 2010). The species was observed near the project area.

Desert Pincushion

The desert pincushion (*Escobaria vivipara* var. *deserti* synonym: *Coryphantha chlorantha*) is a cactus that occurs on limestone substrates in piñon-juniper woodland or on low hills and slopes in desertscrub in the Mojave Desert. It produces straw yellow, yellow-green, to pink flowers May to June (Baldwin 2002). It has a CNDDB state ranking of S2.2 (CDFG 2010) and a CNPS ranking on List 2.1 (CNPS 2010). It is protected in California and Nevada. This species is likely to occur within the project area.

Viviparous Foxtail Cactus

Viviparous foxtail cactus (*Escobaria vivipara* var. *rosea* synonym: *Coryphantha vivipara* var. *rosea*) is a cactus that also occurs on limestone substrates in piñon-juniper woodland or on low hills and slopes in desertscrub in the Mojave Desert, it is considered rare, the flowers are purple to magenta flowers, and prized by collectors (Baldwin 2002). It has a CNDDB state ranking of S2.2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California and Nevada. This species is unlikely to occur within the project area.

Nine-awned Pappus Grass

Nine-awned pappus grass (*Enneapogon desvauxi*) occurs on calcareous soils, usually associated with slopes or rocky crevices in desert woodland habitat. The species ranges from Colorado and southern California east to west Texas, and south to Peru. Plant stems may reach about 20 inches in height, with the inflorescences present in August and September (Baldwin 2002). It has a CNDDB state ranking of S2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California. It was observed near the project area.

California Barrel Cactus

The California barrel cactus (*Ferocactus cylindraceous*) prefer gravelly to rocky hillsides, canyon walls and wash margins in the desert between about 200 and 5,000 feet. They occur in a wide area from Arizona, Nevada, California, and Utah in desert habitats. Two varieties can occur: var. *lecontei* occurs from roughly between 2,500 and 5,000 feet while var. *acanthodes* occurs between 200 and 1,500 feet elevation. In Nevada it is protected, and observations of this species were recorded California (EPG 2008).

Parrish Club Cholla (Matted Cholla)

Parrish club cholla (*Grusonia parishii* syn: *Opuntia parishii*) or matted cholla grows in sprawling mats. The species is known from the Mojave and Sonoran Deserts of Arizona, California, and Nevada. Flowers appear in May to June (Baldwin 2002). It has a CNDDB state ranking of S2.3 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California and Nevada. This plant was observed in the Ivanpah Substation site and other locations near the project area (EPG 2008) and Nevada.

Plains Flax
Plains flax (*Linum puberulum*) is a small perennial herb grows on desert ridges, mountains and mesas. These perennial plants have yellow to orange flowers and can bloom between May and July (Baldwin 2002). It has a CNDDB ranking of S2.3 (CDFG 2010) and a CNPS ranking on List 2.3 (CNPS 2010). It is protected in California. Plains flax was not observed within the project area during any of the surveys, but is likely to be present in some areas.

Rough Menodora
Rough menodora (*Menodora scabra*) is a shrub to about 18 inches in height that produces yellow flowers between May and September. It occurs on rocky soils of slopes, dry mesas, foothills, and canyons, the white flowers are borne in May (Baldwin 2002). It has a CNDDB ranking of S2.3 (CDFG 2010) and a CNPS ranking on List 2.3 (CNPS 2010). It is protected in California. A single individual of rough menodora was observed near the project area.

Polished Blazing Star
The polished blazing star (*Mentzelia polita*) is an annual plant to about one foot tall with narrow white stems and peeling bark (Baldwin 2002). The plants grow on limestone soils and white to yellow flowers are borne in April or May. It has a CNDDB state ranking of S1.2 (CDFG 2010) and a CNPS ranking on List 1B.2 (CNPS 2010). It is protected in California. This species could occur on suitable substrate in the project area.

Curve-spined Beavertail
The curve-spined beavertail cactus (*Opuntia curvospina*) is a recognized hybrid between *O. phaeacantha* and *O. chlorotica* that has been proposed as a distinct species. It occurs in desertscrub, chaparral, and piñon-juniper woodland and flowers between May to June (under *Opuntia chlorotica* in Baldwin 2002). This plant has a CNDDB state ranking of S1.2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California. The curve-spined beavertail cactus could be present within the project limits in suitable habitat, though it has not been observed.

White-margined Beardtongue
The white-margined beardtongue (*Penstemon albomarginatus*) is known from the Mojave Desert of southern Nevada, southeastern California, and northwestern Arizona. The leaves are white on the margins and the flowers are pink, borne on the plants from March to May (Baldwin 2002). Its range is limited to four discrete areas. This plant has a CNDDB state ranking of S1 (CDFG 2010) and a CNPS ranking on List 1B.1 (CNPS 2010). It is protected in California and Nevada. It is a former Category 2 Candidate for federal listing, is currently a federal species of concern, and is designated a sensitive species by the BLM in Nevada and California (BLM 2009). It is also listed as an "at risk" species by the State of Nevada Natural Heritage Program. This plant was observed in Nevada.

Rosy Two-toned Beardtongue
The rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*) it is a calcareous soil obligate or near-obligate. The perennial herbs have stems up to 5 feet tall, leaves have strongly toothed

margins and are clasping (Baldwin 2002). The corolla is trumpet-shaped and the flowers are rose to rose-purple and borne in April to June. This plant has a CNDDB state ranking of S1 (CDFG 2010) and a CNPS ranking on List 1B.1 (CNPS 2010). It is protected in California and Nevada. The BLM lists it as sensitive in Nevada and California. Specimens of this plant are present within the project area in Nevada.

Stephens' Penstemon
Stephens' penstemon (*Penstemon stephensii*) occurs on rocky slopes or in bedrock crevices, and along washes, usually associated with carbonate soils, the flowers are borne in April to June (Baldwin 2002). It has a CNDDB ranking of S2 (CDFG 2010) and a CNPS ranking on List 1B.3 (CNPS 2010). It is protected in California. It is considered a sensitive species by the BLM in California. This species has not been observed during any of the Project field surveys, but suitable habitat is present in the Project area.

Johnson's Beehive Cactus
Johnson's beehive cactus (*Sclerocactus johnsonii* synonym: *Echinomastus johnsonii*) occurs in Creosote bush habitat on granitic soils and rocky habitats. The state of California assigns it a rank of S2.2 (CDFG 2010) and a CNPS ranking on List 2.2 (CNPS 2010). It is protected in California and Nevada. It was not observed in the project area in California, but is present in Nevada.

Cactus and Yuccas
In Nevada the BLM typically requires transplanting or salvage of cacti and yuccas and certain native plant species that may be lost to development on lands under their jurisdiction. In Nevada cacti and yuccas are protected, and a revegetation plan will need to be submitted and approved. Salvage and replanting after development will be required for most of these plants.

RESULTS

Surveys were made starting on March 29 and ended on April 16, 2010. Survey data was compiled into a database to record observations along the EITP project area and included surveys at existing tower locations, proposed tower locations, conductor and OPGW cable pulling sites, unsurveyed laydown areas, and random survey areas along uniform stretches of habitat. California and Nevada rare plants and weeds were noted and waypoints were recorded respective to state jurisdictions. For all of the locations in Nevada cacti and yucca counts were made for a 200 foot square area around tower sites, pull sites were typically larger. A compiled list of cacti observations is included Table 3.

Cacti and Yuccas Observed

Reviewing the results in Table 3 below there are totals for each species at the bottom of the columns. In summary, Cylindropuntias are the most common cactus species with 554 Wiggins' cholla and 491 Buckhorn cholla. Following these in descending order there were 157 beavertail cactus, 137 Engelmann's hedgehog cactus, 114 Pencil cholla, 67 California barrel cactus, 45 Johnson's fishhook cactus, 8 fishhook cactus, 7 Matted cholla, 6 pancake prickly-pear, 2 foxtail cactus, and a single cottontop cactus. Surprisingly, there were no Mojave prickly-pear (*Opuntia erinacea*) within the project area, although they were present at the upper elevations of the McCullough Range near Nevada SR 164, none were near the locations surveyed. There were also 32 Banana yucca, 102 Joshua trees, and 107 Mojave yuccas.

Reviewing the last column of Table 3, cacti and yuccas are most numerous around the McCullough Range. Cacti and yuccas do occur in the flat alluvial deposits, but the variety declines and numbers are not as great as they are around the mountains.

Due to the difference in protection in California, all cacti and yucca species counted. These plants were included in the California survey, Howe's hedgehog cactus (*Echinocereus engelmannii* var. *howei*), Johnson's fishhook cactus, any foxtail cactus or desert pincushion, California barrel cactus, and matted cholla. Since the Mountain Pass route was not considered here many of the cacti at these higher elevations were not rerecorded during this 2010 survey.

Invasive Weeds Observed

Table 4 contains the results of the rare plant and weed survey, as well as site identification, coordinate records, and other associated information. There were 127 weed locations noted during the survey. Most of the weeds are considered noxious, by Nevada or California except London rocket. See Appendix A Figures 2a – 2g for maps showing invasive plant observations.

The following species were observed in California, five Sahara mustard plants, a single crossflower, one Russian thistle, and four London rocket plants. In Nevada the following species were observed, one Sahara mustard plant, 38 Russian thistle plants, 20 London Rocket plants and two occurrences of Tamarisk in Primm.

The following weeds are on the Nevada Department of Agriculture Noxious Weed List (NDA 2010), Sahara mustard is on the Nevada Noxious Weed List B and Tamarisk is on the Nevada Noxious Weed List C. California Noxious Weed List (USDA 2010a), crossflower is on the California List B and Russian thistle in on the California List C.

London rocket is not listed as a noxious weed in Nevada or California, but it seems to have an expanding range. It was observed in low washes and areas where moisture accumulates. Red Brome (*Bromus madritensis* ssp. *rubens*) and Mediterranean grass (*Schismus* spp.) are not listed as noxious weeds, but they have invaded the southwest US. They are ubiquitous in most of the project area.

Sensitive Plants Observed

Four sensitive plant species were observed within the EITP project area. These include matted cholla (*Grusonia parishii*), Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*), white-margined beardtongue (*Penstemon albomarginatus*), and Small-flowered androstephium (*Androstephium breviflorum*). Four plants of matted cholla were observed, three in Nevada and one in California. Thirty-two rosy two-toned beardtongue individuals were observed in Nevada, none on California. Eighty-eight white-margined beardtongue plants were observed in Nevada, and none in California. Lastly, three Small-flowered androstephium plants were noted in Nevada, none in California. Within the project area in 2010 only one rare plant was noted within the foot print of the Ivanpah Substation, matted cholla. In the 2008 botanical report small-flowered androstephium was noted at this site, however, these plants were not seen in 2010. See Appendix A Figures 3a – 3g for maps showing sensitive plant observations.

Table 3. Cactus and Yucca Observations with Area Surveyed and Sums

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
A001																40,000	0
A002																40,000	0
A003																40,000	0
A004																40,000	0
A005																40,000	0
A006																40,000	0
A007			2								1					40,000	3
A008			2	1							1					40,000	4
A009			3								1					40,000	4
A010			11													40,000	11
A011			5													40,000	5
A012		1	5													40,000	6
A013		5	2								4					40,000	11
A014			2		1				1		2					40,000	6
A015		4		1	8											40,000	13
A016		3		1	1											40,000	5
A017		4		1	3				2							40,000	10
A018		4							1							40,000	5
A019		15		8	1			1	3		2				1	40,000	31
A020			3		1						1					40,000	5
A021			2	1							1					40,000	4
A022		2		1												40,000	3
A023			8													40,000	8
A024				1	1											40,000	2
A025															1	40,000	1
A026																40,000	0
A027																40,000	0
A028								1								40,000	1
A029		1														40,000	1

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
A030			5		2						1					40,000	8
A031					1								1		13	80,000	15
A032					1										1	40,000	2
A033					2											40,000	2
A034		9									2			5	1	40,000	17
A035		16			1						3		2	4	3	120,000	29
A036		4	8		4									7		40000	23
A037		8	10		1								1	13	7	40000	40
A038	1				4		1							11		40000	17
A039			9										1	5		40000	15
A040		39	12		9							2	8	10	1	120,000	81
A041		4											4	4		40,000	12
A042		8			2							3	1	6		40,000	20
A043	1	11			10							1*	2	7		40,000	31
B001		2						1					1		4	40,000	8
B002			2										1	5		40,000	8
B003			16		1			5			2		9	24	6	120,000	63
B004			7		3			7				1		1		40,000	19
B005			1										1			40,000	2
B006																40,000	0
B007																n.a.	0
B008																n.a.	0
B009																n.a.	0
B010																	0
B011																n.a.	0
B012																	0
B013																n.a.	0
B014																n.a.	0
B015																40,000	0
B016																40,000	0
B017																40,000	0

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
B018																40,000	0
B019																40,000	0
B020																40,000	0
B021																40,000	0
C001																40,000	0
C002																40,000	0
C003																40,000	0
C004																40,000	0
C005																40,000	0
C006																40,000	0
C007																40,000	0
C008																40,000	0
C009																40,000	0
C010																40,000	0
C011																40,000	0
C012																40,000	0
C013																40,000	0
C014																40,000	0
C015																40,000	0
C016																40,000	0
C017																40,000	0
C018																40,000	0
C019																40,000	0
C020																40,000	0
C021																40,000	0
C022																40,000	0
C023																40,000	0
C024																40,000	0
C025		1									1					40,000	2
C026																40,000	0
C027			4													40,000	4

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
C028			1													40,000	1
C029			3								2					40,000	5
C030			1	1												40,000	2
C031			1								1					40,000	2
C032											3					40,000	3
C033			1	1												40,000	2
C034		1									2					40,000	3
C035																40,000	0
C036																40,000	0
C037			1													40,000	1
C038				1												40,000	1
C039			1													40,000	1
C040		1									1					40,000	2
C041																40,000	0
C042				2							1					40,000	3
C043		1		5												40,000	6
C044			1								1					40,000	2
C045				2												40,000	2
C046		1	1					4								40,000	6
C047				3	1											40,000	4
C048				1												40,000	1
C049				4							1					40,000	5
C050											1					40,000	1
C051											1					40,000	1
C052				2												40,000	2
C053				1							2					40,000	3
C054																40,000	0
C055					1						1					40,000	2
C056											2					40,000	2
C057				1												40,000	1
C058			1	1												40,000	2

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
C059																40,000	0
C060		1														40,000	1
C061		1														40,000	1
C062		1														40,000	1
C063											1					40,000	1
C064				1												120,000	1
D001																n.a.	0
D002																n.a.	0
D003																n.a.	0
D004																n.a.	0
D005																n.a.	0
D006																n.a.	0
D007																n.a.	0
D008																n.a.	0
D009																n.a.	0
D010																n.a.	0
D011																n.a.	0
D012																n.a.	0
D013																n.a.	0
D014																n.a.	0
D015																n.a.	0
D016																n.a.	0
D017																n.a.	0
D018																n.a.	0
D019																n.a.	0
D020																n.a.	0
D021																n.a.	0
D022																n.a.	0
D023																n.a.	0
D024																n.a.	0
D025																n.a.	0

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
D026																n.a.	0
D027																n.a.	0
D028																n.a.	0
D029																n.a.	0
D030																n.a.	0
D031																n.a.	0
D032																n.a.	0
D033																n.a.	0
D034																n.a.	0
D035																n.a.	0
D036																n.a.	0
D037																n.a.	0
D038																n.a.	0
D039																10,764	0
D040			2	2												10,764	4
D041																10,764	0
D042																10,764	0
D043		1									1					10,764	2
D044																10,764	0
D045		3									5					40,000	8
D046		2									1					40,000	3
D047		1									8					40,000	9
D048		2									1					40,000	3
D049																40,000	0
D050				1							1					40,000	2
D051											1					40,000	1
D052				1				1			2					60,000	4
D053								2			6					80,000	8
D054		1		1												40,000	2
D055																40,000	0
D056		1				2										40,000	3

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
D057						1									1	40,000	2
D058																n.a.	0
D059																n.a.	0
D060																n.a.	0
D061																n.a.	0
D062																n.a.	0
D063																n.a.	0
D064																n.a.	0
D065		3			1	2				1	6				3	40,000	16
D066		2								1	2				1	40,000	6
D067		8			4	6					6					40,000	24
D068																n.a.	0
D069																n.a.	0
D070																n.a.	0
D071		14			1						1				1	40,000	17
D072								11			4					40,000	15
D073					2			4		4	2				1	40,000	13
D074		13														40,000	13
D075		13			6	4					1				2	80,000	26
E001		25			2	1		4							1	40,000	33
E002																n.a.	0
E003																n.a.	0
E004																n.a.	0
E005																n.a.	0
E006																n.a.	0
E007		8				3		4			2				2	40,000	19
E008		24			1						6				4	40,000	35
E009						9					6					40,000	15
E010		10						1							8	40,000	19
E011		3									2					40,000	5
E012		2								1					3	40,000	6

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
E013																n.a.	0
E014																n.a.	0
E015																n.a.	0
E016																n.a.	0
E017																n.a.	0
E018																n.a.	0
E019																n.a.	0
E020																n.a.	0
E021																n.a.	0
E022																n.a.	0
E023																n.a.	0
E024																n.a.	0
E025																n.a.	0
E026																n.a.	0
E027																n.a.	0
E028																n.a.	0
E029					1											40,000	1
E030																n.a.	0
E031																n.a.	0
E032																n.a.	0
E033																n.a.	0
E034		1			1										1	40,000	3
E035																40,000	0
E036																n.a.	0
E037																n.a.	0
E038																40,000	0
E039								1			1					40,000	2
E040											1					40,000	1
E041			2		1										1	40,000	4
E042		2						2								40,000	4
E043		21		8	12			3		1					4	40,000	49

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
E044		13			1	8					2				1	40,000	25
E045		12			7	2									4	40,000	25
E046		30		2	22			9			2				6	40,000	71
E047		21		7	3	1									2	40,000	34
E048		14			6						1				1	40,000	22
E049		5			1										1	40,000	7
E050		4		2							1				1	40,000	8
E051		3			1	1									4	40,000	9
E052		1			1										1	40,000	3
E053		2													3	40,000	5
E054				1							14					40,000	15
E055				1											1	40,000	2
E056											1				1	40,000	2
E057																40,000	0
E058																40,000	0
E059																n.a.	0
E060																10,764	0
E061			4								1					10,764	5
E062			4													10,764	4
E063			33								1				1	10,764	35
E064			14													10,764	14
E065			9	1							1					10,764	11
E066			3								2					10,764	5
E067			5	12											4	10,764	21
F001		2			1	5					1					40,000	9
F002		5														40,000	5
F003		30			1						4					40,000	35
F004		8									2				3	40,000	13
F005		14			1			1							2	40,000	18
F006		12			1						1					40,000	14
F007		1						2			1					40,000	4

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
F008		1						1								40,000	2
F009								2								40,000	2
F010																40,000	0
F011											1					40,000	1
F012											2					40,000	2
F013		2									4					40,000	6
F014			10	1							1					10,764	12
F015																n.a.	0
F016																n.a.	0
F017			7	1												40,000	8
F018																n.a.	0
F019			10													40,000	10
F020			12	4												40,000	16
F021																n.a.	0
F022		1	38	2												40,000	41
F023																n.a.	0
F024			31	3												40,000	34
F025		1	32	8							1					40,000	42
F026			38	7												40,000	45
F027																n.a.	0
F028		1	17	5							5					40,000	28
F029																n.a.	0
F030			19	1												40,000	20
F031			6	1												20,000	7
F032																n.a.	0
F033																n.a.	0
F034																n.a.	0
F035																n.a.	0
F036																n.a.	0
F037																n.a.	0
F038																n.a.	0

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
F039																n.a.	0
F040																n.a.	0
F041																n.a.	0
F042																n.a.	0
F043			2													40,000	2
F044																n.a.	0
F045																n.a.	0
F046																n.a.	0
F047																n.a.	0
F048																n.a.	0
F049			4													40,000	4
F050																n.a.	0
F051																n.a.	0
F052																n.a.	0
F053																n.a.	0
F054																n.a.	0
F055																n.a.	0
F056																n.a.	0
F057																n.a.	0
F058			4													40,000	4
F059			6	1												40,000	7
F060			7													40,000	7
F061			3													40,000	3
F062																n.a.	0
F063			2													40,000	2
F064																n.a.	0
F065			7													20,000	7
F066																n.a.	0
F067																n.a.	0
F068																n.a.	0
F069																n.a.	0

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
F070																n.a.	0
F071																n.a.	0
F072																n.a.	0
F073																n.a.	0
F074			12													40,000	12
F075																n.a.	0
F076																n.a.	0
F077																n.a.	0
F078																n.a.	0
F079																n.a.	0
F080																n.a.	0
F081																n.a.	0
F082																n.a.	0
F083																n.a.	0
F084																n.a.	0
F085																n.a.	0
F086																n.a.	0
F087																n.a.	0
F088																n.a.	0
F089																n.a.	0
F090																n.a.	0
F091																n.a.	0
F092																n.a.	0
F093																n.a.	0
F094																n.a.	0
F095																n.a.	0
F096			12													40,000	12
F097			7													40,000	7
F098																n.a.	0
F099																n.a.	0
F100																n.a.	0

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
F101																n.a.	0
F102																n.a.	0
F103																n.a.	0
F104																n.a.	0
F105																n.a.	0
F106																n.a.	0
F107																n.a.	0
F108			13													40,000	13
F109			12													40,000	12
F110																n.a.	0
F111																n.a.	0
F112																n.a.	0
F113																n.a.	0
F114																n.a.	0
F115																n.a.	0
F116																n.a.	0
F117																n.a.	0
F118																n.a.	0
F119																n.a.	0
F120																n.a.	0
F121																n.a.	0
F122																n.a.	0
F123																n.a.	0
F124																n.a.	0
F125																n.a.	0
F126																n.a.	0
F127			5													40,000	5
F128			20													60,000	20
F129																10,764	0
F130																10,764	0
F131			11													10,764	11

Rec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum
G001																n.a.	0
G002																n.a.	0
G003																n.a.	0
G004																n.a.	0
G005																40,000	0
G006									1							substation boundary	1
G007																40,000	0
G008																40,000	0
G009																40,000	0
G010																40,000	0
G011																40,000	0
G012																40,000	0
G013																40,000	0
G014																40,000	0
G015																40,000	0
G016																40,000	0
G017																n.a.	0
G018																n.a.	0
G019																n.a.	0
H001																40,000	0
H002																40,000	0
H003																40,000	0
H004																40,000	0
H005																40,000	0
Sum	2	491	554	114	137	45	1	67	8	8	157	6	32	102	107		1,831

Key:		Total
ESVID	foxtail cactus (Escobaria cf. vivipara var. deserti)	2
CYAC	buckhorn cholla (Cylindropuntia acanthocarpa var. coloradensis)	491
CYEC	Wiggins' cholla (Cylindropuntia echinocarpa)	554
CYRA	Pencil cholla, (*Cylindropuntia ramosissima*)	114

R ec #	ESVID	CYAC	CYEC	CYRA	ECEN	ECJO	ECPO	FECY	GRPA	MATE	OPBA	OPCH	YUBA	YUBR	YUSC	Area sqft	Sum

ECEN	Engelmann’s hedgehog cactus (Echinocereus engelmannii)	137
ECJO	Johnson's fishhook cactus (Echinomastus johnsonii)	45
ECPO	cottontop cactus (Echinocereus polycephalus)	1
FECY	California barrel cactus (Ferocactus cylindraceus)	67
GRPA	matted cholla (Grusonia parishii)	7
MATE	fishhook cactus (Mammillaria tetrancistra)	8
OPBA	beavertail cactus (Opuntia basilaris)	157
OPCH	pancake prickley-pear (Opuntia chlorotica)	6
YUBA	banana yucca (Yucca baccata)	32
YUBR	Joshua tree (Yucca brevifolia)	102
YUSC	Mojave yucca (Yucca schidigera)	107
shaded	California survey area	

Table 4. Rare Plants, Weeds, Site Information, and Figure Numbers.

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
A001	none		M176T2	OPGW	35.78882	115.00924		no	no
A002	none		M176T1	OPGW	35.78895	115.00929		no	no
A003	none		M175T4	OPGW	35.78507	115.01120		no	no
A004	none		M175T3	OPGW	35.78139	115.01335		no	no
A005	none		M175T2	OPGW	35.77746	115.01572		no	no
A006	none		M175T1	OPGW	35.77382	115.01785		no	no
A007	C		M173T4	OPGW	35.75857	115.02663		no	no
A008	C		M173T3	OPGW	35.75101	115.03099	Fig 4	no	no
A009	C, W		M173T2	OPGW	35.75101	115.03099	Fig 5	no	no
A010	C, W		M173T1	OPGW	35.74741	115.03310	Fig 6	no	no
A011	C, W		M172T3	OPGW	35.74357	115.03519	Fig 7	no	no
A012	C		M172T2	OPGW	35.73979	115.03735	Fig 8	no	no
A013	C		M172T1	OPGW	35.73591	115.03960	Fig 9	no	no
A014	C		M171T3	OPGW	35.72873	115.04377	Fig 10	no	no
A015	C		M171T3	OPGW	35.72484	115.04602	Fig 11	no	no
A016	C		M171T1	OPGW	35.72102	115.04807	Fig 12	no	no
A017	C	GRPA	M170T3	OPGW	35.71441	115.05176	Fig 13	no	no
A018	C	GRPA	M170T2	OPGW	35.71038	115.05366	Fig 14	no	no
A019	C	GRPA	M170T1	OPGW	35.70659	115.05569	Fig 15	no	no
A020	C		M169T1	OPGW	35.69600	115.06126	Fig 16	no	no
A021	C		M168T4	OPGW	35.69216	115.06344	Fig 17	no	no
A022	C		M168T3	OPGW	35.68826	115.06569	Fig 18	no	no
A023	C		M168T2	OPGW	35.68433	115.06739	Fig 19	no	no
A024	C		M168T1	OPGW	35.68056	115.06953	Fig 20	no	no
A025	C		M167T3	OPGW	35.67345	115.07220		No	no
A026	none		M167T2	OPGW	35.66988	115.07332		No	no
A027	none		M166T3	OPGW	35.66281	115.07522		No	no
A028	C		M166T1	OPGW	35.65512	115.07711	Fig 21	No	no
A029	C		M164T4	OPGW	35.63670	115.08140	Fig 22	No	no
A030	C		M164T1	OPGW	35.62487	115.08418	Fig 23	no	no
A031	C		M163T4	OPGW	35.62124	115.08528	Fig 24	no	no
A032	C		M163T2	OPGW	35.61354	115.08689	Fig 25	no	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
A033	C		M163T1	OPGW	35.60991	115.08794	Fig 26	no	no
A034	C		M161T4	OPGW	35.59138	115.09213	Fig 27	no	no
A035	C		M160T5	OPGW	35.57764	115.09562	Fig 28	no	no
A036	C		M159T4	OPGW	35.56479	115.10030	Fig 29	no	no
A037	C		M159T3	OPGW	35.56182	115.10310	Fig 30	no	no
A038	C		M158T4	OPGW	35.55295	115.11143		no	no
A039	C		M158T1	OPGW	35.54359	115.12007	Fig 31	no	no
A040	C		M157T2	OPGW	35.53745	115.12594	Fig 32	no	no
A041	C		M157T1	OPGW	35.53396	115.12914	Fig 33	no	no
A042	C		M156T4	OPGW	35.53092	115.13196	Fig 34	no	no
A043	C		M156T3	OPGW	35.52796	115.13502	Fig 35	no	no
B001	C		M156 T1	OPGW	35.52172	115.14083	Fig 36	no	no
B002	C		M155 T5	OPGW	35.51868	115.14351	Fig 37	no	no
B003	C		M155 T2	OPGW	35.51172	115.15010	Fig 38	no	no
B004	C		Mi54 T3	OPGW	35.50706	115.15648	Fig 39	no	no
B005	C		M154 T2	OPGW	35.50466	115.15995	Fig 40	no	no
B006	none		M152	OPGW	35.48150	115.19253	Fig 41	no	no
B007	W	BRTO	Nipton Road		35.47520	115.22975		yes	no
B008	W	BRTO	Nipton Road		35.47442	115.23442		yes	no
B009	W	BRTO	Nipton Road		35.47437	115.23505		yes	no
B010	none		Microwave Road		35.47900	115.26860		no	no
B011	R	ANBR	DLS13	Alt D	35.59929	115.38120		no	yes
B012	R	ANBR	Rare plant		35.59909	115.38255		no	yes
B013	none		Laydown	Alt D	35.61452	115.36872		no	no
B014	none				35.61627	115.36783		no	no
B015	none		DLS02	Alt D	35.61636	115.37140		no	no
B016	none		DLS01	Alt D	35.62260	115.36641	Fig 42	no	no
B017	none		63/190	existing	35.62153	115.36771	Fig 43	no	no
B018	none		62	existing	35.62016	115.36956	Fig 44	no	no
B019	none		61	existing	35.61871	115.37135	Fig 45	no	no
B020	none		192	proposed	35.61841	115.37170		no	no
B021	W	SATR	60	existing	35.61730	115.37320	Fig 46	yes	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
C001	none		260	proposed	35.80038	115.00469	Fig 47	no	no
C002	none		Wash	nr Eldorado	35.79704	115.01690	Fig 48	no	no
C003	none		259	proposed				no	no
C004	none		258	proposed				no	no
C005	none		257	proposed				no	no
C006	none		256	proposed				no	no
C007	none		255	proposed				no	no
C008	none		254	proposed				no	no
C009	none		253	proposed				no	no
C010	none	SIIR	252	proposed				yes	no
C011	none		251	proposed				no	no
C012	none		250	proposed				no	no
C013	none		249	proposed				no	no
C014	none		248	proposed				no	no
C015	none		247?	proposed				no	no
C016	none		246	proposed				no	no
C017	none		13	proposed	35.79507	115.02552	Fig 49	no	no
C018	none		244	proposed				no	no
C019	none		243	proposed				no	no
C020	none		242	proposed				no	no
C021	none		241	proposed				no	no
C022	none		240	proposed				no	no
C023	none		239	proposed				no	no
C024	none		238	proposed				no	no
C025	C		20	proposed	35.80595	115.03100	Fig 50	no	no
C026	none		236	existing	35.80480	115.03282	Fig 51	no	no
C027	C		21	proposed	35.80444	115.03330		no	no
C028	C		235	proposed	35.80340	115.03486	Fig 52	no	no
C029	C		22	proposed	35.80287	115.03563		no	no
C030	C		?	existing	35.80207	115.03680	Fig 53	no	no
C031	C		23	proposed	35.80133	115.03790		no	no
C032	C		233	existing	35.80012	115.03967	Fig 54	no	no
C033	C		323	existing	35.79943	115.04071	Fig 55	no	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
C034	C		25	proposed	35.79819	115.04248		no	no
C035	none		231	existing	35.79809	115.04266	Fig 56	no	no
C036	none		230	existing	35.79679	115.04461		no	no
C037	C		229	existing	35.79552	115.04650		no	no
C038	C		27	proposed	35.79514	115.04696		no	no
C039	C		228	existing	35.79416	115.04848	Fig 57	no	no
C040	C		28	proposed	35.79360	115.04925		no	no
C041	none		227	existing	35.79283	115.05040	Fig 58	no	no
C042	C		27	proposed	35.79230	115.05110		no	no
C043	C		226	existing	35.79152	115.05233	Fig 59	no	no
C044	C		30	proposed	35.79047	115.05385		no	no
C045	C		225	existing	35.79020	115.05427	Fig 60	no	no
C046	C		224	existing	35.78887	115.05621	Fig 61	no	no
C047	C		29	proposed	35.78842	115.05683		no	no
C048	C		223	existing	35.78753	115.05815	Fig 62	no	no
C049	C		32	proposed	35.78735	115.05839		no	no
C050	C		30	proposed	35.78647	115.05969		no	no
C051	C		222	existing	35.78623	115.06006	Fig 63	no	no
C052	C		33	proposed	35.78579	115.06069		no	no
C053	C		221	existing	35.78490	115.06202	Fig 64	no	no
C054	none		34	proposed	35.78426	115.06294		no	no
C055	C		220	existing	35.78358	115.06398		no	no
C056	C		35	proposed	35.78268	115.06526		no	no
C057	C		36	proposed	35.78115	115.06754		no	no
C058	C		218	existing	35.78091	115.06785		no	no
C059	none		37	proposed/existing	35.77963	115.06979	Fig 65	no	no
C060	C		216	existing	35.77832	115.07174	Fig 66	no	no
C061	C		38	proposed	35.77801	115.07213		no	no
C062	C		215	existing	35.77698	115.07368	Fig 67	no	no
C063	C		214	existing	35.77566	115.07562	Fig 68	no	no
C064	C		213	existing	35.77433	115.07757	Fig 69	no	no
D001	W	SATR			35.80050	115.00663		yes	no
D002	W	SATR			35.80049	115.00596		yes	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
D003	W	SATR			35.80045	115.00700		yes	no
D004	W	SATR			35.80029	115.00792		yes	no
D005	W	SATR			35.80039	115.00881		yes	no
D006	W	SATR			35.80033	115.00939		yes	no
D007	W	SATR			35.80041	115.01022		yes	no
D008	W	SATR			35.80049	115.01046		yes	no
D009	W	SATR			35.80044	115.01074		yes	no
D010	W	SATR			35.79984	115.01190		yes	no
D011	W	SATR			35.79941	115.01234		yes	no
D012	W	SATR			35.79926	115.01262		yes	no
D013	W	SATR			35.79870	115.01377		yes	no
D014	W	SATR			35.79848	115.01432		yes	no
D015	W	SATR			35.79816	115.01482		yes	no
D016	W	SATR			35.79792	115.01532		yes	no
D017	W	SATR			35.79759	115.01584		yes	no
D018	W	SATR			35.79720	115.01655		yes	no
D019	W	SATR			35.79713	115.01688		yes	no
D020	W	SATR			35.79726	115.01817		yes	no
D021	W	SATR			35.79715	115.01839		yes	no
D022	W	SATR			35.79718	115.01708		yes	no
D023	W	SIIR			35.79716	115.01705		yes	no
D024	W	SIIR			35.79715	115.01703		yes	no
D025	W	SIIR			35.79721	115.01695		yes	no
D026	W	SIIR			35.79725	115.01689		yes	no
D027	W	SIIR			35.79774	115.01650		yes	no
D028	W	SIIR			35.79776	115.01594		yes	no
D029	W	SIIR			35.79790	115.01567		yes	no
D030	W	SIIR			35.79728	115.01672		yes	no
D031	W	SIIR			35.79724	115.01671		yes	no
D032	W	SIIR			35.79722	115.01673		yes	no
D033	W	SIIR			35.79713	115.01677		yes	no
D034	W	SIIR			35.79705	115.01675		yes	no
D035	W	SIIR			35.79699	115.01676		yes	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
D036	W	SIIR			35.79697	115.01676		yes	no
D037	W	SATR			35.79767	115.01915		yes	no
D038	W	SATR			35.79800	115.01999		yes	no
D039	none		Random	Survey01	35.79434	115.02865		no	no
D040	C		Random	Survey02	35.77987	115.05400		no	no
D041	none		Random	Survey03	35.77735	115.06071	Fig 70	no	no
D042	none		Random	Survey04	35.76967	115.07354	Fig 71	no	no
D043	C		Random	Survey05	35.76270	115.09126	Fig 72	no	no
D044	none		Random	Survey06				no	no
D045	C		48	proposed	35.76315	115.09387		no	no
D046	C		204	existing	35.76233	115.09503	Fig 73	no	no
D047	C		49	proposed	35.76183	115.09586		no	no
D048	C		203	existing	35.76105	115.09694	Fig 74	no	no
D049	none		44	proposed	35.76050	115.09779		no	no
D050	C		202	existing	35.75974	115.09888	Fig 75	no	no
D051	C		45	proposed	35.75918	115.09998		no	no
D052	C		46	proposed	35.75899	115.10066		no	no
D053	C		201/47 (53)	existing/proposed	35.75975	115.10123	Fig 76	no	no
D054	C		s.n.	proposed	35.75975	115.10298		no	no
D055	none		200	existing	35.75975	115.10361	Fig 77	no	no
D056	C		199/55	existing/proposed	35.75977	115.10596	Fig 78	no	no
D057	C		198/56	existing/proposed	35.75978	115.10836	Fig 79	no	no
D058	R	PEBIR	Rare plants	near Helicopter pad	35.76349	115.12283		no	yes
D059	R	PEBIR	Rare plants	near Helicopter pad	35.76229	115.13024		no	yes
D060	R	PEBIR	Rare plants	near Helicopter pad	35.76227	115.13022		no	yes
D061	R	PEBIR	Rare plants	near Helicopter pad	35.76212	115.13061		no	yes
D062	R	PEBIR	Rare plants	near Helicopter pad	35.76201	115.13084		no	yes
D063	R	PEBIR	Rare plants	near Helicopter pad	35.76119	115.13247		no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
D064	R	PEBIR	Rare plants	near Helicopter pad	35.76120	115.13247		no	yes
D065	C		188/56	existing/proposed	35.75996	115.13364	Fig 80	no	no
D066	C		187/50	existing/proposed	35.75960	115.13655	Fig 81	no	no
D067	C		186/67	existing/proposed	35.75920	115.13937	Fig 82	no	no
D068	R	PEBIR	Rare plants		35.75959	115.13944		no	yes
D069	R	PEBIR	Rare plants		35.75959	115.13948		no	yes
D070	R	PEBIR	Rare plants		35.75962	115.13946		no	yes
D071	C		185/68	existing/proposed	35.75821	115.14102	Fig 83	no	no
D072	C		184/59	existing/proposed	35.75722	115.14264	Fig 84	no	no
D073	C		183/70	existing/proposed	35.75599	115.14464	Fig 85	no	no
D074	C		182/71	existing/proposed	35.75490	115.14652	Fig 86	no	no
D075	C		181/72 (62)	existing/proposed	35.75364	115.14860	Fig 87	no	no
E001	C		180/73	existing/proposed	35.75447	115.15084	Fig 88	no	no
E002	R	PEBIR	Rare plants	Rare plants	35.75422	115.15087	Fig 89	no	yes
E003	R	PEBIR	Rare plants	Rare plants	35.75424	115.15069		no	yes
E004	R	PEBIR	Rare plants	Rare plants	35.75462	115.15014		no	yes
E005	R	PEBIR	Rare plants	Rare plants	35.75470	115.15004		no	yes
E006	R	PEBIR	Rare plants	Rare plants	35.75515	115.14945		no	yes
E007	C		179/74	existing/proposed	35.75543	115.15298	Fig 90	no	no
E008	C		178/75	existing/proposed	35.75626	115.15517	Fig 91	no	no
E009	C		177/76	existing/proposed	35.75724	115.15751	Fig 92	no	no
E010	C		176/77	existing/proposed	35.75775	115.16068	Fig 93	no	no
E011	C		67	proposed	35.75897	115.16368	Fig 94	no	no
E012	C, W	SIIR	175	existing	35.75829	115.16376	Fig 95	yes	no
E013	W	SIIR	n.a.	Begin	35.75824	115.16371		yes	no
E014	W	SIIR	n.a.	End	35.75829	115.16366		yes	no
E015	R	PEBIR	n.a.	Rare Plant	35.75795	115.16389		no	yes
E016	R	PEBIR	n.a.	Rare Plant	35.75794	115.16385		no	yes
E017	R	PEBIR	n.a.	Rare Plant	35.75792	115.16379		no	yes
E018	R	PEBIR	n.a.	Rare Plant	35.75792	115.16376		no	yes
E019	R	PEBIR	n.a.	Rare Plant	35.75794	115.16374		no	yes
E020	R	PEBIR	n.a.	Rare Plant	35.75792	115.16371		no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
E021	R	PEBIR	n.a.	Rare Plant	35.75790	115.16370		no	yes
E022	R	PEBIR	n.a.	Rare Plant	35.75800	115.16364		no	yes
E023	R	PEBIR	n.a.	Rare Plant	35.75804	115.16340		no	yes
E024	R	PEBIR	n.a.	Rare Plant	35.75823	115.16315		no	yes
E025	W	SIIR		Weeds	35.75829	115.16319		yes	no
E026	W	SATR		Weeds	35.75826	115.16327		yes	no
E027	none				35.75821	115.16329		no	no
E028	W	SIIR		Weeds	35.75820	115.16331		yes	no
E029	C		174	existing	35.75926	115.16578	Fig 96	no	no
E030	R	PEBIR		Rare plants	35.75969	115.16550		no	yes
E031	R	PEBIR		Rare plants	35.75978	115.16564		no	yes
E032	R	PEBIR		Rare plants	35.75970	115.16607		no	yes
E033	R	PEBIR		Rare plants	35.75966	115.16605		no	yes
E034	C		76 (76)	proposed	35.75972	115.16550	Fig 97	no	no
E035	R	PEBIR	69 existing	proposed	35.76045	115.16771		no	yes
E036	R	PEBIR	n.a.	Rare plants	35.76040	115.16767		no	yes
E037	R	PEBIR		Rare plants	35.76045	115.16761		no	yes
E038	none		173	existing	35.76025	115.16785	Fig 98	no	no
E039	C		171	existing	35.76126	115.16990	Fig 99	no	no
E040	C		81 (78)	proposed	35.76108	115.16946		no	no
E041	C		171/82 (71)	existing/proposed	35.76229	115.17191	Fig 100	no	no
E042	C		169/83	existing/proposed	35.76205	115.17430	Fig 101	no	no
E043	C		168/84	existing/proposed	35.76178	115.17668	Fig 102	no	no
E044	C		167/85	existing/proposed	35.76156	115.17880	Fig 103	no	no
E045	C		166/86 (74)	existing/proposed	35.76135	115.18107	Fig 104	no	no
E046	C		87	proposed	35.76116	115.18257		no	no
E047	C		88 (76)	proposed	35.76000	115.18241		no	no
E048	C		165	existing	35.76016	115.18343	Fig 105	no	no
E049	C		89 (77)	proposed	35.75964	115.18446		no	no
E050	C		164	existing	35.75897	115.18576	Fig 106	no	no
E051	C		90	proposed	35.75854	115.18667		no	no
E052	C		163	existing	35.75784	115.18807	Fig 107	no	no
E053	C		91	proposed	35.75737	115.18900		no	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
E054	C		162	existing	35.75668	115.19039	Fig 108	no	no
E055	C		92	proposed	35.75621	115.19130		no	no
E056	C		161	existing	35.75549	115.19267	Fig 109	no	no
E057	none		93	existing	35.75503	115.19359		no	no
E058	none		160	existing	35.75441	115.19481	Fig 110	no	no
E059	W	SATR		Dist. Race Track	35.71124	115.28150		yes	no
E060	none		Random	Survey07	35.75126	115.20102		no	mo
E061	C		Random	Survey08	35.74130	115.22076		no	no
E062	C		Random	Survey09	35.73739	115.22879		no	no
E063	C		Random	Survey10	35.73221	115.23873		no	no
E064	C		Random	Survey11	35.72993	115.24323		no	no
E065	C		Random	Survey12	35.72227	115.25837		no	no
E066	C		Random	Survey13	35.71111	115.28143		yes	no
E067	C		Random	Survey14	35.70873	115.28752		no	no
F001	C		64	proposed	35.75995	115.13168		no	no
F002	C		189	existing	35.75998	115.13114	Fig 111	no	no
F003	C		190	existing	35.75996	115.12858	Fig 112	no	no
F004	C		191	existing	35.75991	115.12609	Fig 113	no	no
F005	C		192	existing	35.75991	115.12355	Fig 114	no	no
F006	C		193	existing	35.75989	115.12102	Fig 115	no	no
F007	C		194	existing	35.75987	115.11849	Fig 116	no	no
F008	C		59	proposed	35.75987	115.11766		no	no
F009	C		195	existing	35.75985	115.11598	Fig 117	no	no
F010	none		58	proposed	35.75982	115.11471		no	no
F011	C		196	existing	35.75983	115.11345	Fig 118	no	no
F012	C		57	proposed	35.75980	115.11172		no	no
F013	C		197	existing	35.75981	115.11091	Fig 119	no	no
F014	C		Random	Survey15	35.69769	115.31358		no	no
F015	R	PEAL			35.69088	115.31752	Fig 120	no	yes
F016	R	ANBR			35.69141	115.31721	Fig 121	no	yes
F017	C		?	proposed	35.69217	115.31673		no	no
F018	R	PEAL			35.69062	115.31762	Fig 122	no	yes
F019	C		102	existing	35.69062	115.31762	Fig 123	no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
F020	C		150	proposed	35.69008	115.31796		no	no
F021	R	PEAL			35.69023	115.31800		no	yes
F022	C		101	existing	35.68875	115.31874	Fig 124	no	no
F023	R	PEAL			35.68876	115.31858		no	yes
F024	C		151	proposed	35.68794	115.31918		no	no
F025	C		100	existing	35.68687	115.31982	Fig 125	no	no
F026	C		152	proposed	35.68578	115.32042		no	no
F027	R	PEAL			35.68565	115.32062		no	yes
F028	C		99	existing	35.68497	115.32088	Fig 126	no	no
F029	R	PEAL			35.68502	115.32095		no	yes
F030	C		153	proposed	35.68362	115.32166		no	no
F031	C		98	existing	35.68312	115.32197	Fig 127	no	no
F032	R	PEAL			35.68312	115.32190		no	yes
F033	R	PEAL			35.68333	115.32189		no	yes
F034	R	PEAL			35.68343	115.32190		no	yes
F035	R	PEAL			35.68346	115.32188		no	yes
F036	R	PEAL			35.68341	115.32179		no	yes
F037	R	PEAL			35.68346	115.32173		no	yes
F038	R	PEAL			35.68348	115.32169		no	yes
F039	R	PEAL			35.68352	115.32177		no	yes
F040	R	PEAL			35.68328	115.32197		no	yes
F041	R	PEAL			35.68298	115.32208		no	yes
F042	R	PEAL			35.68305	115.32219		no	yes
F043	C		97	existing	35.68124	115.32303	Fig 128	no	no
F044	R	PEAL			35.68115	115.32314		no	yes
F045	R	PEAL			35.68112	115.32330		no	yes
F046	R	PEAL			35.68130	115.32319		no	yes
F047	R	PEAL			35.68147	115.32305		no	yes
F048	R	PEAL			35.67946	115.32414		no	yes
F049	C		96/155	existing/proposed	35.67939	115.32410	Fig 129	no	no
F050	R	PEAL			35.67933	115.32425		no	yes
F051	R	PEAL			35.67933	115.32427		no	yes
F052	R	PEAL			35.67931	115.32426		no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
F053	R	PEAL			35.67933	115.32425		no	yes
F054	R	PEAL			35.67918	115.32424		no	yes
F055	R	PEAL			35.67913	115.32416		no	yes
F056	R	PEAL			35.67929	115.32424		no	yes
F057	R	PEAL			35.67933	115.32427		no	yes
F058	C, W	SATR	95	existing	35.67751	115.32514	Fig 130	yes	no
F059	C		156	proposed	35.67724	115.32530		no	no
F060	C, W	SATR	94	existing	35.67565	115.32624	Fig 131	yes	no
F061	C, W	BRTO	157	proposed	35.67503	115.32659		yes	no
F062	R	PEAL			35.67486	115.32657		no	yes
F063	C	SATR	93	existing	35.67382	115.32731	Fig 132	yes	no
F064	R	PEAL			35.67375	115.32742		no	yes
F065	C, W	SATR	158	proposed	35.67292	115.32779		yes	no
F066	R	PEAL			35.67297	115.32779		no	yes
F067	R	PEAL			35.67298	115.32774		no	yes
F068	R	PEAL			35.67293	115.32769		no	yes
F069	R	PEAL			35.67291	115.32767		no	yes
F070	R	PEAL			35.67290	115.32763		no	yes
F071	R	PEAL			35.67291	115.32757		no	yes
F072	R	PEAL			35.67310	115.32765		no	yes
F073	R	PEAL			35.67204	115.32814		no	yes
F074	C, W	SATR	192	existing	35.67194	115.32837	Fig 133	yes	no
F075	R	PEAL			35.67178	115.32837		no	yes
F076	R	PEAL			35.67174	115.32853		no	yes
F077	R	PEAL			35.67174	115.32852		no	yes
F078	R	PEAL			35.67099	115.32889		no	yes
F079	R	PEAL			35.67098	115.32890		no	yes
F080	R	PEAL			35.67097	115.32895		no	yes
F081	R	PEAL			35.67086	115.32893		no	yes
F082	R	PEAL			35.67088	115.32898		no	yes
F083	R	PEAL			35.67086	115.32894		no	yes
F084	R	PEAL			35.67068	115.32878		no	yes
F085	R	PEAL			35.67072	115.32908		no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
F086	R	PEAL			35.67074	115.32912		no	yes
F087	R	PEAL			35.67074	115.32912		no	yes
F088	R	PEAL			35.67078	115.32912		no	yes
F089	R	PEAL			35.67071	115.32917		no	yes
F090	R	PEAL			35.67069	115.32910		no	yes
F091	R	PEAL			35.67063	115.32908		no	yes
F092	R	PEAL			35.67063	115.32917		no	yes
F093	R	PEAL			35.67052	115.32918		no	yes
F094	R	PEAL			35.67050	115.32905		no	yes
F095	R	PEAL			35.67062	115.32897		no	yes
F096	C		159	proposed	35.67070	115.32903		no	no
F097	C, W	SATR	91	existing	35.67008	115.32946		yes	no
F098	R	PEAL			35.67017	115.32933		no	yes
F099	R	PEAL			35.67018	115.32938		no	yes
F100	R	PEAL			35.67022	115.32943		no	yes
F101	R	PEAL			35.67001	115.32952		no	yes
F102	R	PEAL			35.67001	115.32951		no	yes
F103	R	PEAL			35.66994	115.32947		no	yes
F104	R	PEAL			35.66992	115.32949		no	yes
F105	R	PEAL			35.66989	115.32945		no	yes
F106	R	PEAL			35.66988	115.32954		no	yes
F107	R	PEAL			35.66853	115.33035		no	yes
F108	C		160	proposed	35.66859	115.33029		no	no
F109	C		90	existing	35.66819	115.33057		no	no
F110	R	PEAL			35.66804	115.33048		no	yes
F111	R	PEAL			35.66803	115.33050		no	yes
F112	R	PEAL			35.66804	115.33056		no	yes
F113	R	PEAL			35.66801	115.33057		no	yes
F114	R	PEAL			35.66799	115.33057		no	yes
F115	R	PEAL			35.66797	115.33057		no	yes
F116	R	PEAL			35.66795	115.33056		no	yes
F117	R	PEAL			35.66798	115.33062		no	yes
F118	R	PEAL			35.66798	115.33071		no	yes

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
F119	R	PEAL			35.66798	115.33071		no	yes
F120	R	PEAL			35.66802	115.33070		no	yes
F121	R	PEAL			35.66802	115.33070		no	yes
F122	R	PEAL			35.66805	115.33067		no	yes
F123	R	PEAL			35.66805	115.33066		no	yes
F124	R	PEAL			35.66802	115.33061		no	yes
F125	R	PEAL			35.66797	115.33055		no	yes
F126	R	PEAL			35.66798	115.33055		no	yes
F127	C, W	SATR	89	existing	35.66631	115.33163		yes	no
F128	C, W	SATR	88/162	existing/proposed	35.66437	115.33277		yes	no
F129	C, W	SATR	Random	Survey16	35.65148	115.34015		yes	no
F130	none		Random	Survey17	35.64503	115.34384		no	no
F131	C		Random	Survey18	35.63408	115.35179		no	no
G001	W	SIIR	n.a.	laydown	35.58193	115.41786		yes	no
G002	W	CHTE	n.a.	laydown	35.58193	115.41786		yes	no
G003	W	SATR	n.a.	laydown	35.58193	115.41786		yes	no
G004	W	SIIR	n.a.	laydown	35.58004	115.42022		yes	no
G005	none		34	existing	35.58008	115.42040		no	no
G006	R	GRPA	n.a.	substation	35.54302	115.46856	Fig 134	no	yes
G007	none		s.n.	existing	35.53270	115.48040	Fig 135	no	no
G008	none		s.n.	existing	35.53414	115.47859	Fig 136	no	no
G009	none		s.n.	existing	35.53554	115.47680	Fig 137	no	no
G010	none		s.n.	existing	35.53697	115.47498	Fig 138	no	no
G011	none		s.n.	existing	35.53841	115.47316		no	no
G012	none		s.n.	existing	35.53985	115.47135	Fig 139	no	no
G013	none		s.n.	existing	35.54127	115.46956	Fig 140	no	no
G014	none		s.n.	existing	35.54275	115.46769	Fig 141	no	no
G015	none		s.n.	existing	35.54419	115.46587	Fig 142	no	no
G016	none		s.n.	existing	35.54559	115.46405	Fig 143	no	no
G017	W	BRTO	n.a.	Road	35.55206	115.44480		yes	no
G018	W	BRTO	n.a.	Road	35.54754	115.43161		yes	no
G019	W	SIIR	n.a.	laydown	35.54025	115.41580		yes	no
H001	W	SIIR	51	existing	35.60436	115.38954	Fig 144	yes	no

Rec #	Data Type	Species Symbol	Site Number	Site Type	GPS Lat	GPS Lon	Figure Number	Weeds	Rare Plants
H002	W	TAsp	200	proposed	35.60509	115.38864	Fig 145	yes	no
H003	W	TAsp	52	existing	35.60581	115.38772	Fig 146	yes	no
H004	W	SATR	57	existing	35.61297	115.37866	Fig 147	yes	no
H005	W	SATR	65	existing	35.62412	115.36450	Fig 148	yes	no
H005	W	SATR	65	existing	35.62412	115.36450	Fig 149	yes	no

Key:

Invasive Weeds

BRTO	Sahara mustard (*Brassica tournefortii*) NV Noxious Weed B-list
CHTE	crossflower/purple mustard (*Chorispora tenella*) CA Noxious Weed B-list
SATR	Russian thistle (*Salsoal tragus*) CA Noxious Weeds C-list
SIIR	London Rockey (*Sisymbrium irio*) not listed
TAsp	Tamarisk (*Tamarix* sp.) NV Noxious Weeds C-list

Sensitive Plants

ANBR	small-flowered androstephium (*Androstephium breviflorum*)
GRPA	matted cholla (*Grusonia parishii*)
PEBIR	rosy twotoned beardtongue (*Penstemon bicolor* ssp. *roseus*)
PEAL	white-margined beardtongue (*Penstemon albomarginatus*)

shaded	California survey area

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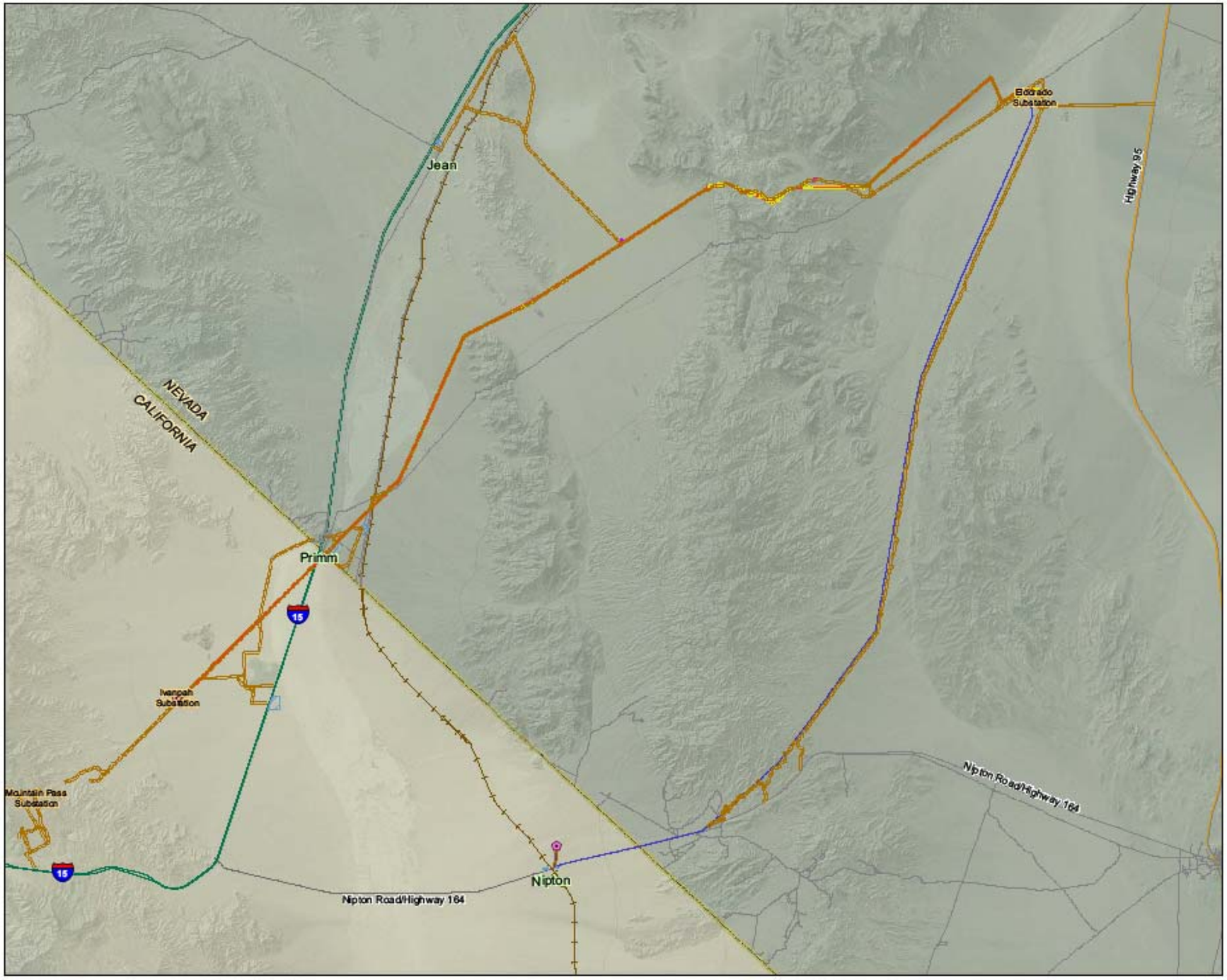
APPENDIX A

FIGURES 1 – 3g

Eldorado-Ivanpah Transmission Project

Figure 1

Project Area Overview

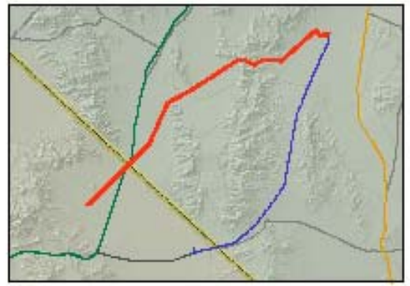


- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road

0 2.5 5 Miles

0 2.5 5 Kilometers

1:180,000 1 inch = 15,000 feet



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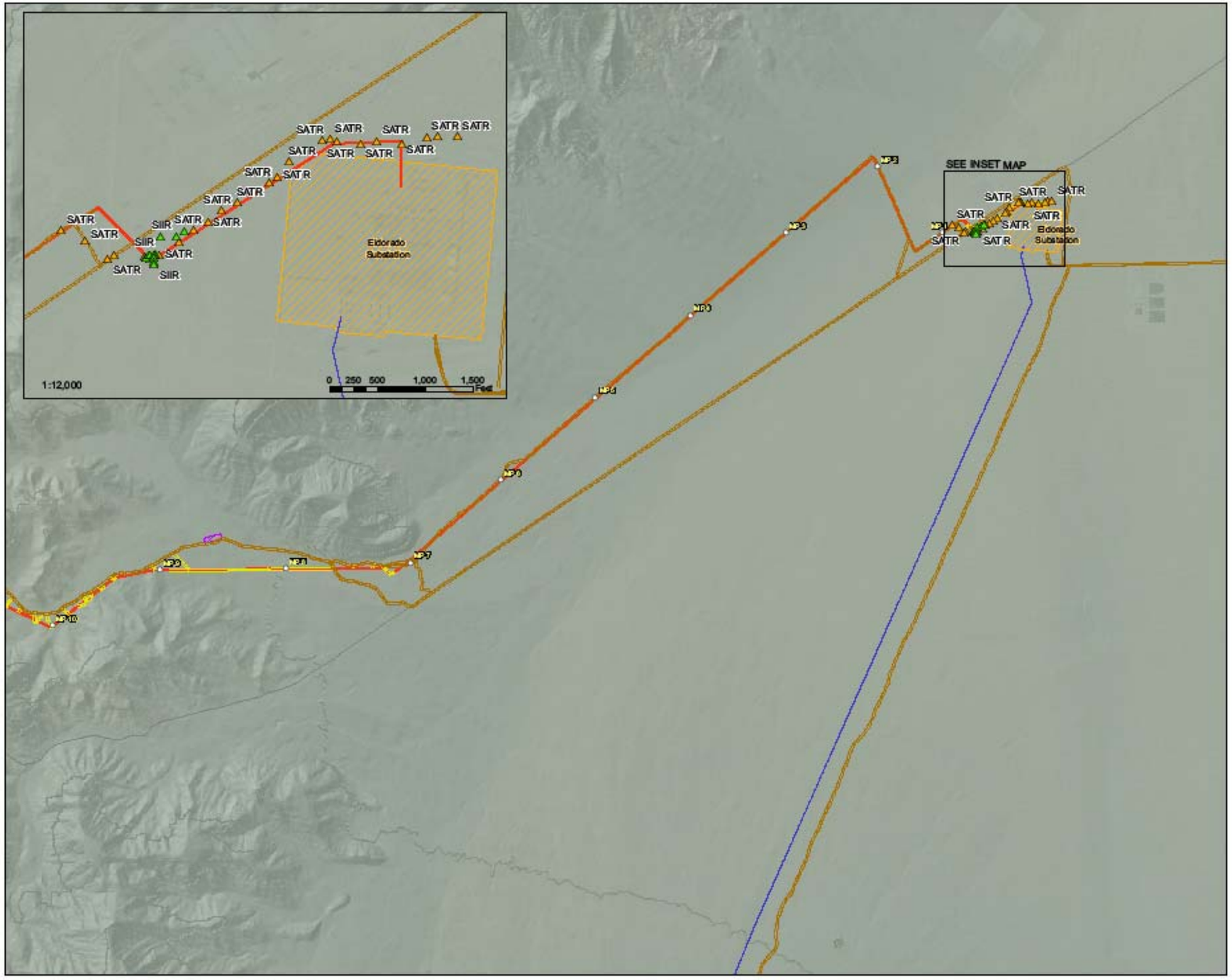
An EDISON INTERNATIONAL Company



Eldorado-Ivanpah Transmission Project

Figure 2a

Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorispora tenella
- SATR - Salsola tragus
- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet

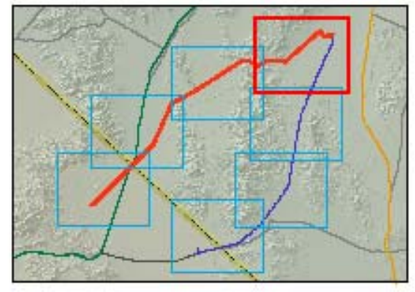


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Figure 2b

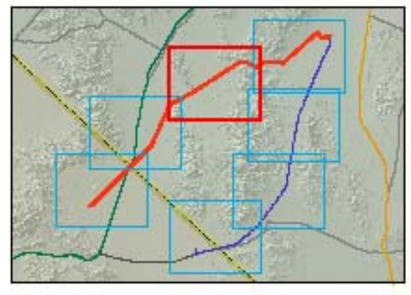
Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorisporia tenella
- SATR - Salsola tragus
- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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Eldorado-Ivanpah Transmission Project

Figure 2c

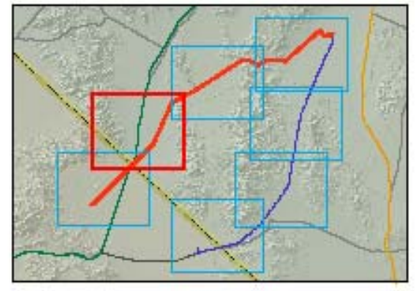
Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorispora tenella
- SATR - Salsola tragus
- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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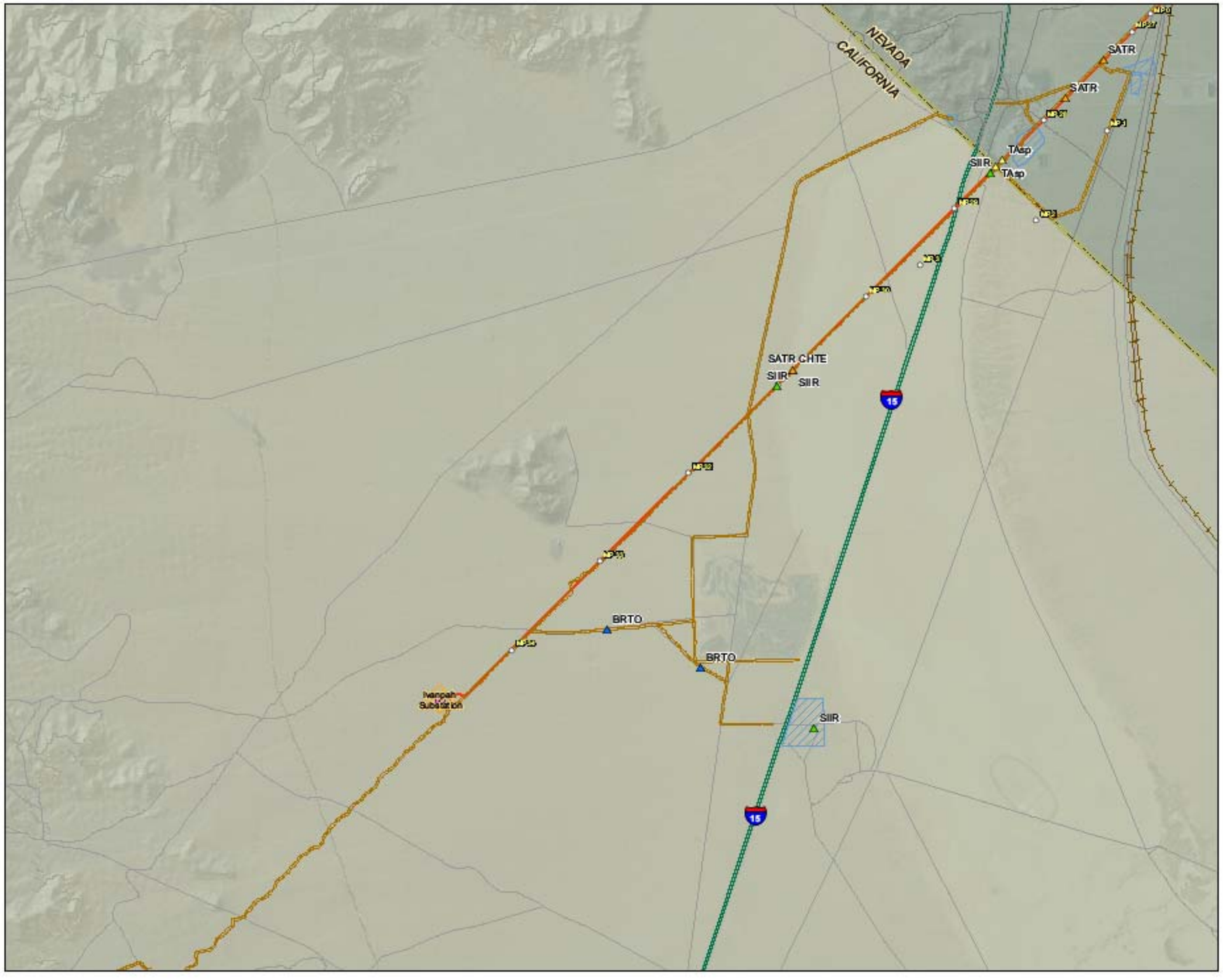

Eldorado-Ivanpah Transmission Project

Figure 2d

Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorispora tenella
- SATR - Salsola tragus
- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
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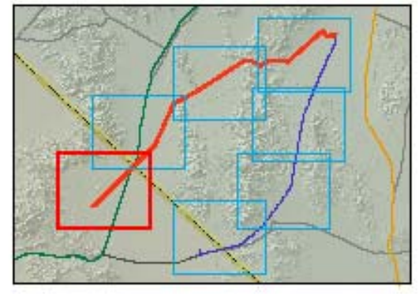
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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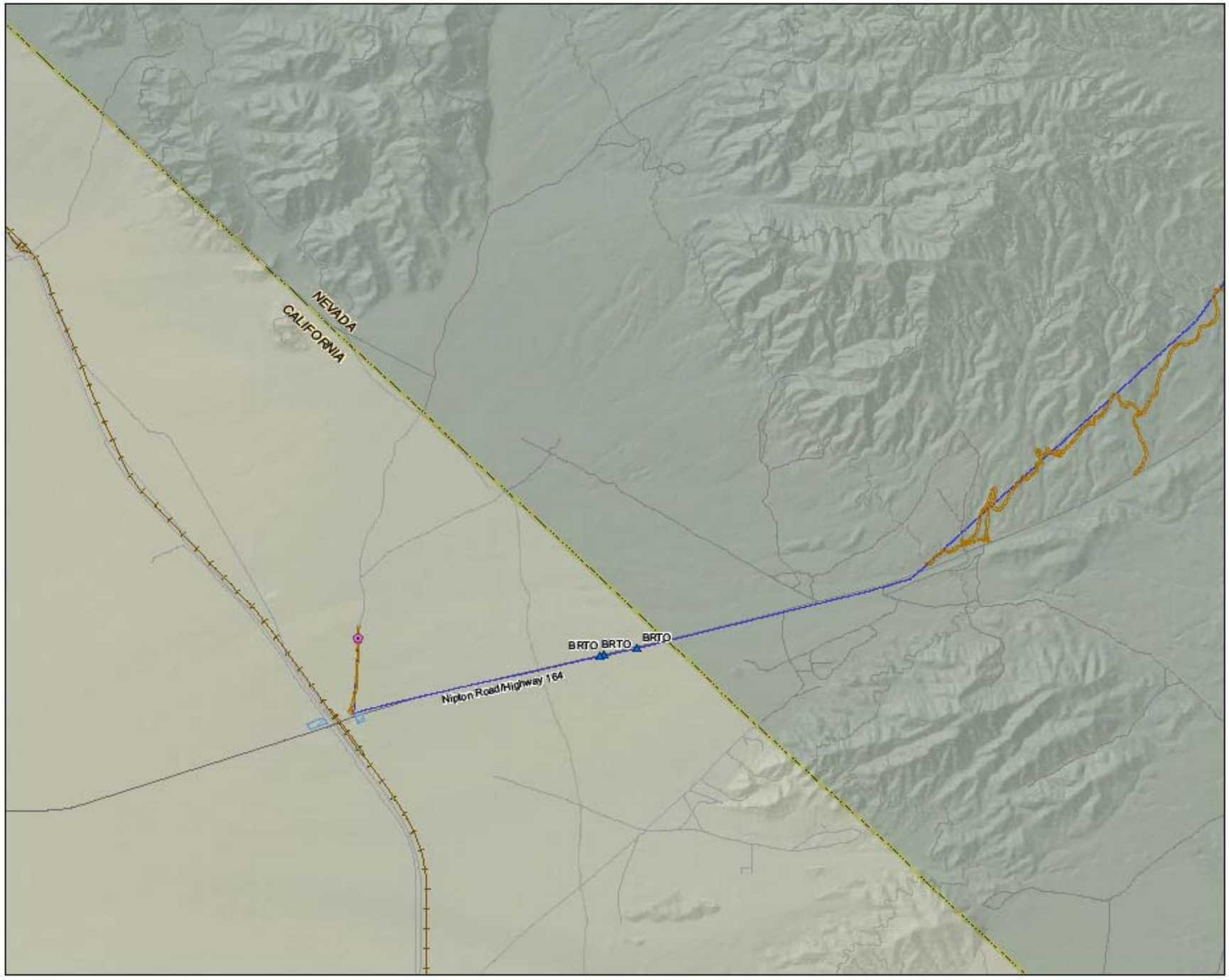

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Figure 2e

Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorispora tenella
- SATR - Salsola tragus
- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
- Milepost
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- Proposed Telecommunication Route
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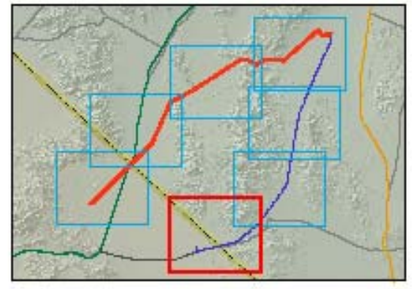
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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Eldorado-Ivanpah Transmission Project

Figure 2f

Invasive Plant Observations

- BRTO - Brassica tournefortii
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- SIIR - Sisymbrium irio
- TAsp - Tamarix sp.
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- Laydown Areas
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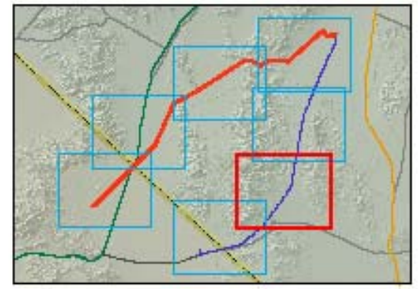
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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Eldorado-Ivanpah Transmission Project

Figure 2g

Invasive Plant Observations

- BRTO - Brassica tournefortii
- CHTE - Chorispora tenella
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- TAsp - Tamarix sp.
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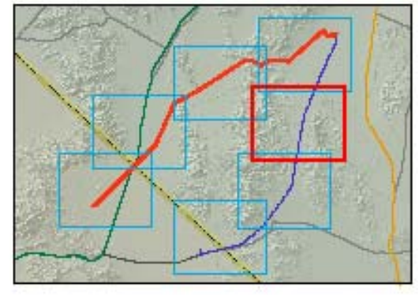
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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SOUTHERN CALIFORNIA EDISON

Eldorado-Ivanpah Transmission Project

Figure 3a

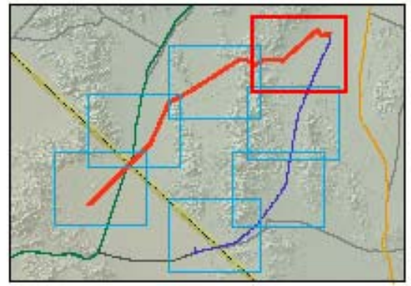
Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
- PEBIR - Penstemon bicolor ssp. roseus
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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Projection: NAD83 UTM Zone 11N

SOUTHERN CALIFORNIA EDISON

Eldorado-Ivanpah Transmission Project

Figure 3b

Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
- PEBIR - Penstemon bicolor ssp. roseus
- Milepost
- Proposed Transmission Route
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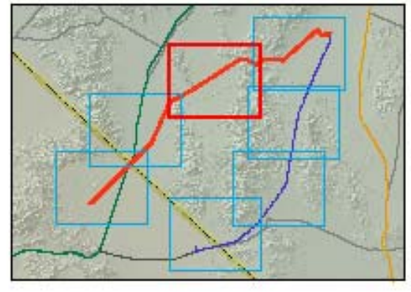
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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SOUTHERN CALIFORNIA EDISON

Eldorado-Ivanpah Transmission Project

Figure 3c

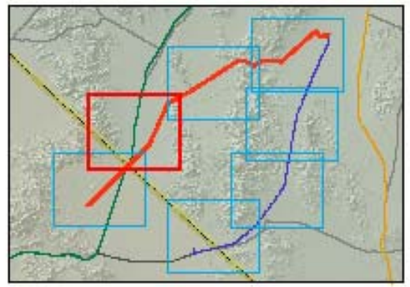
Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GIRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
- PEBIR - Penstemon bicolor ssp. roseus
- Milepost
- Proposed Transmission Route
- Proposed Telecommunication Route
- Existing Access Roads
- Proposed New Access Roads
- Substations
- Laydown Areas
- Helicopter Landing Zones
- Microwave Site
- Railroads
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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SOUTHERN CALIFORNIA EDISON

Eldorado-Ivanpah Transmission Project

Figure 3d

Sensitive Plant Observations

ANBR - Androstephium breviflorum
GRPA - Grusonia parishii
PEAL - Penstemon albomarginatus
PEBR - Penstemon bicolor ssp. roseus
Milepost
Proposed Transmission Route
Proposed Telecommunication Route
Existing Access Roads
Proposed New Access Roads
Substations
Laydown Areas
Helicopter Landing Zones
Railroads
Freeway
Highway
Primary Road
Secondary Road

0 0.5 1 2 Miles

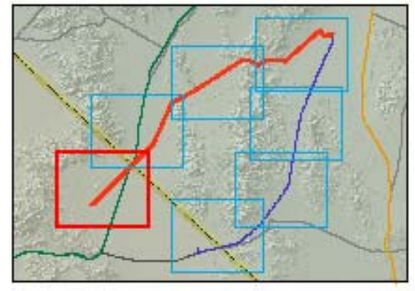
0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet

Ivanpah Substation GRPA

ANBR

15



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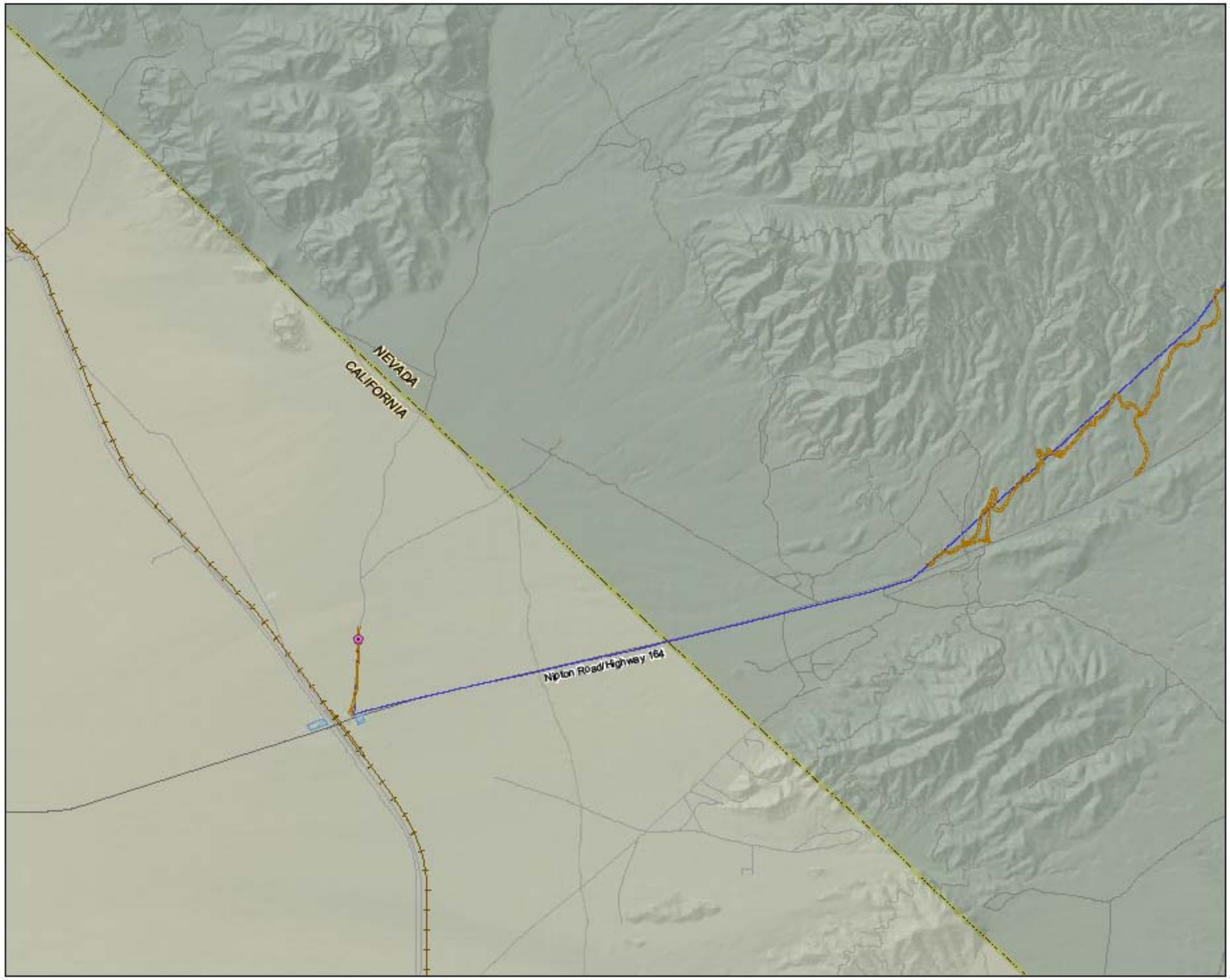

Eldorado-Ivanpah Transmission Project

Figure 3e

Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
- PEBIR - Penstemon bicolor ssp. roseus
- Milepost
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- Highway
- Primary Road
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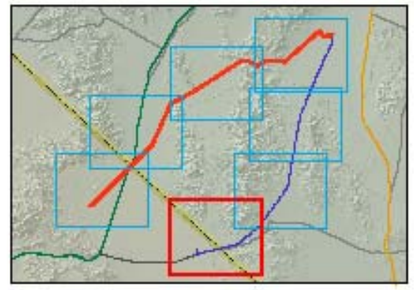
0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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Eldorado-Ivanpah Transmission Project

Figure 3f

Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
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- Milepost
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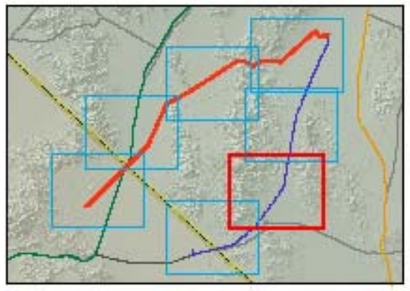
- Freeway
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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SOUTHERN CALIFORNIA EDISON

Eldorado-Ivanpah Transmission Project

Figure 3g

Sensitive Plant Observations

- ANBR - Androstephium breviflorum
- GRPA - Grusonia parishii
- PEAL - Penstemon albomarginatus
- PEBIR - Penstemon bicolor ssp. roseus
- Milepost
- Proposed Transmission Route
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- Railroads
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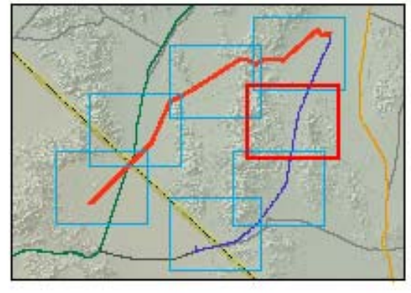
- Highway
- Primary Road
- Secondary Road

0 0.5 1 2 Miles

0 0.5 1 2 Kilometers

1:48,000 1 inch = 4,000 feet



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APPENDIX B

LIST OF CACTI AND YUCCAS,
INVASIVE WEEDS,
AND SENSITIVE PLANTS OBSERVED

Cactus and Yuccas, Invasive Weeds, and Sensitive Plants Observed

Symbol	Common Name	Scientific Name	CA	NV
Cacti and Yuccas				
CYACC	Buckhorn cholla	*Cylindropuntia acanthocarpa* var. *coloradensis*		x
CYEC	Wiggins' cholla	*Cylindropuntia echinocarpa*		x
CYRA	Pencil cholla	*Cylindropuntia ramosissima*		x
ECEN	Engelmann's hedgehog cactus	*Echinocereus engelmannii*		x
ECJO	Johnson's fishhook cactus	*Echinomastus johnsonii* syn: *Sclerocactus j.*		x
ECPO	cottontop cactus	*Echinocereus polycephalus*		x
ECVID	foxtail cactus	*Escobaria* cf. *vivipara* var. *deserti* syn: *Coryphantha chlorantha*		x
FECY	California barrel cactus	*Ferocactus cylindraceus*		x
GRPA	matted cholla	*Grusonia parishii*	x	x
MATE	fishhook cactus	*Mammillaria tetrancistra*		x
OPBA	beavertail cactus	*Opuntia basilaris*		x
OPCH	pancake prickley-pear	*Opuntia chlorotica*		x
YUBA	Banana yucca	*Yucca baccata*		x
YUBE	Joshua tree	*Yucca brevifolia*		x
YUSC	Mojave yucca	*Yucca schidigera*		x
Invasive Weeds				
BRTO	Sahara mustard	*Brassica tournefortii*	x	x
CHTE	crossflower/purple mustard	*Chorispora tenella*	x	
SATR	Russian thistle	*Salsola tragu*	x	x
SIIR	London Rockey	*Sisymbrium irio*	x	x
Tasp	Tamarisk	*Tamarix* sp.		x
Sensitive Plants				
ANBR	small-flowered androstephium	*Androstephium breviflorum*		x
GRPA	matted cholla	*Grusonia parishii*	x	
PEAL	White-margined beardtongue	*Penstemon albomarginatus*		x
PEBIR	Rosy twotoned beardtongue	*Penstemon bicolor* ssp. *Roseus*		x

APPENDIX C

REPRESENTATIVE PHOTOGRAPHS

APPENDIX D

EITP PLANT LIST

Eldorado-Ivanpah Transmission Project
List of Plants Observed

This plant list is based on observations made during botanical surveys for the Eldorado-Ivanpah Transmission Project (EITP). Surveys were conducted by Glenn Clifton over the period from 2008 to 2009. Joseph Betzler and Mr. Clifton resurveyed the EITP and Telecommunications route in Spring 2010, paying particular attention to Cactus, yuccas and weeds along the route.

EITP Vascular Plant Statistics:
Taxa observed in both California and Nevada: 168
Taxa observed only in California: 115
Taxa observed only in Nevada: 86
Total taxa observed in project area: 369

Table 1 is a compilation of all plant observations for the EITP project in California and Nevada. Note that some of the plant families are not standard according to Jepson. These are noted in Tables 2 and 3. The typical reference used is Jepson (1993).

Table 2 is a list of plants from the California portion of the project. It is in order of plant group, plant family, and genus.

Table 3 is a list of plants from the Nevada portion of the project in the same format as Table 2.

Table 1. Species list of plants observed in the EITP project area including plant family and the state jursdiction.

Latin Name	Common Name	Family	State
A			
Abronia villosa	Desert sand verbena	*Nyctaginaceae*	NV
Acacia greggii	Catclaw acacia	*Mimosaceae*	CA/NV
Acamptopappus shockleyi	Shockley's goldenhead	*Asteraceae*	CA/NV
Acamptopappus sphaerocephalus	Rayless goldenhead	*Asteraceae*	NV
Achnatherum hymenoides	Indian ricegrass	*Poaceae*	CA
Achnatherum speciosum	Desert needlegrass	*Poaceae*	CA/NV
Adenophyllum cooperi	Cooper's dogweed	*Asteraceae*	CA/NV
Aliciella hutchinsifolia	Desert pale gilia	*Polemoniaceae*	CA/NV
Aliciella subacaulis	Pinyon gilia	*Polemoniaceae*	NV
Allionia incarnata var. *villosa*	Trailing windmills	*Nyctaginaceae*	NV
Aloysia wrightii	Wright's beebrush	*Verbenaceae*	NV
Amaranthus crassipes	Spreading amaranth	*Amaranthaceae*	NV
Amaranthus fimbriatus	Fringed amaranth	*Amaranthaceae*	CA/NV
Ambrosia acanthicarpa	Flatspine bur ragweed	*Asteraceae*	CA
Ambrosia dumosa	White bursage (burrobush)	*Asteraceae*	CA/NV

Latin Name	Common Name	Family	State
Ambrosia eriocentra	Woolly fruit bur ragweed	*Asteraceae*	CA/NV
Amsinckia tessellata	Bristly fiddleneck	*Boraginaceae*	CA/NV
Amsonia tomentosa	Woolly bluestar	*Apocynaceae*	CA/NV
Androstephium breviflorum	Pink funnel lily	*Themidaceae*	CA/NV
Anemone tuberosa	Tuber anemone	*Ranunculaceae*	NV
Anisocoma acaulis	Scalebud	*Asteraceae*	NV
Antheropeas wallacei	Woolly easterbonnets	*Asteraceae*	CA/NV
Arabis perennans	Perennial rockcress	*Brassicaceae*	CA
Arabis pulchra	Beautiful rockcress	*Brassicaceae*	NV
Arabis pulchra var. *gracilis*	Beautiful rockcress	*Brassicaceae*	CA
Arenaria macradenia	Mojave sandwort	*Caryophyllaceae*	CA
Argemone corymbosa	Mojave pricklypopply	*Papaveraceae*	CA
Argemone minuta ssp. *rotundata*	Flatbud pricklypoppy	*Papaveraceae*	NV
Argythamnia neomexicana	New Mexico silverbush	*Euphorbiaceae*	NV
Aristida adscensionis	Sixweeks threeawn	*Poaceae*	CA/NV
Aristida purpurea	Purple threeawn	*Poaceae*	NV
Aristida purpurea complex	Purple threeawn	*Poaceae*	CA
Aristida purpurea var. *longiseta*	Fendler threeawn	*Poaceae*	CA
Artemisia ludoviciana var. *albula*	White sagebrush	*Asteraceae*	CA
Asclepias erosa	Desert milkweed	*Asclepiadaceae*	CA
Asclepias nyctaginifolia	Mojave milkweed	*Asclepiadaceae*	CA/NV
Astragalus bernardinus	San Bernardino milkvetch	*Fabaceae*	CA
Astragalus didymocarpus var. *dispermus*	Dwarf white milkvetch	*Fabaceae*	CA/NV
Astragalus lentiginosus var. *borreganus*	Borrego milkvetch	*Fabaceae*	CA
Astragalus lentiginosus var. *fremontii*	Fremont's milkvetch	*Fabaceae*	CA/NV
Astragalus minthorniae var. *villosus*	Minthorn's milkvetch	*Fabaceae*	CA
Astragalus nuttallianus	Smallflowered milkvetch	*Fabaceae*	NV
Astragalus nuttallianus var. *imperfectus*	Turkeypeas	*Fabaceae*	CA
Astragalus sabulonum	Gravel milkvetch	*Fabaceae*	NV
Atriplex canescens	Fourwing saltbush	*Chenopodiaceae*	CA
Atriplex confertifolia	Shadscale saltbush	*Chenopodiaceae*	CA/NV
Atriplex elegans var. *fasciculata*	Wheelscale saltbush	*Chenopodiaceae*	CA/NV
Atriplex hymenelytra	Desertholly	*Chenopodiaceae*	NV
Atriplex polycarpa	Cattle saltbush	*Chenopodiaceae*	CA/NV
Avena fatua	Wild oat	*Poaceae*	CA
B			
Baccharis brachyphylla	Shortleaf baccharis	*Asteraceae*	CA/NV
Baccharis sergiloides	Desert baccharis	*Asteraceae*	CA
Baileya multiradiata	Desert marigold	*Asteraceae*	CA/NV
Baileya pleniradiata	Woolly desert marigold	*Asteraceae*	CA/NV

Latin Name	Common Name	Family	State
Bebbia juncea var. *aspera*	Sweetbush	*Asteraceae*	NV
Boerhavia wrightii	Largebract spiderling	*Nyctaginaceae*	CA/NV
Bouteloua aristidoides	Needle grama	*Poaceae*	NV
Bouteloua barbata	Sixweeks grama	*Poaceae*	CA/NV
Bouteloua curtipendula	Sideoats grama	*Poaceae*	CA
Bouteloua eriopoda	Black grama	*Poaceae*	CA
Brassica tournefortii	Asian mustard	*Brassicaceae*	CA
Brickellia arguta	Pungent brickellbush	*Asteraceae*	NV
Brickellia californica	California brickellbush	*Asteraceae*	CA
Brickellia desertorum	Desert brickellbush	*Asteraceae*	NV
Brickellia incana	Woolly brickellbush	*Asteraceae*	CA/NV
Brickellia oblongifolia var. *linifolia*	Narrowleaf brickellbush	*Asteraceae*	CA/NV
Bromus madritensis	Compact brome	*Poaceae*	NV
Bromus rigidus	Ripgut brome	*Poaceae*	CA
Bromus rubens	Red brome	*Poaceae*	CA/NV
Bromus tectorum	Cheatgrass	*Poaceae*	CA/NV
Bromus trinii	Chilean chess	*Poaceae*	CA
C			
Calochortus kennedyi	Desert mariposa lily	*Liliaceae*	CA
Calycoseris parryi	Yellow tackstem	*Asteraceae*	NV
Calycoseris wrightii	White tackstem	*Asteraceae*	NV
Camissonia boothii var. *condensata*	Shredding suncup	*Onagraceae*	CA/NV
Camissonia brevipes	Yellow cups	*Onagraceae*	CA/NV
Camissonia campestris	Mojave suncup	*Onagraceae*	NV
Camissonia chamaenerioides	Longcapsule suncup	*Onagraceae*	CA/NV
Camissonia claviformis var. *aurantiaca*	Browneyes	*Onagraceae*	NV
Camissonia refracta	Narrowleaf suncup	*Onagraceae*	CA/NV
Castilleja angustifolia	Northwestern Indian paintbrush	*Scrophulariaceae*	CA/NV
Castilleja applegatei ssp. *martinii*	Wavyleaf Indian paintbrush	*Scrophulariaceae*	CA
Caulanthus cooperi	Cooper's wild cabbage	*Brassicaceae*	CA/NV
Caulanthus crassicaulis	Thickstem wild cabbage	*Brassicaceae*	CA
Chaenactis carphoclinia	Pebble pincushion	*Asteraceae*	CA/NV
Chaenactis fremontii	Pincushion flower	*Asteraceae*	CA/NV
Chaenactis macrantha	Bighead dustymaiden	*Asteraceae*	CA/NV
Chaenactis stevioides	Esteve's pincushion	*Asteraceae*	CA/NV
Chaetopappa ericoides	Rose heath	*Asteraceae*	CA/NV
Chamaesyce albomarginata	Whitemargin sandmat	*Euphorbiaceae*	CA/NV
Chamaesyce polycarpa	Smallseed sandmat	*Euphorbiaceae*	NV
Chamaesyce revoluta	Threadstem sandmat	*Euphorbiaceae*	CA

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Cheilanthes covillei	Coville's lipfern	*Pteridaceae*	CA
Chenopodium incanum var. *occidentale*	Mealy goosefoot	*Chenopodiaceae*	CA/NV
Chilopsis linearis	Desert willow	*Bignoniaceae*	CA/NV
Chorizanthe brevicornu	Brittle spineflower	*Polygonaceae*	CA/NV
Chorizanthe rigida	Devil's spineflower	*Polygonaceae*	CA/NV
Chorizanthe watsonii	Fivetooth spineflower	*Polygonaceae*	NV
Chrysothamnus depressus	Longflower rabbitbrush	*Asteraceae*	CA
Chrysothamnus paniculatus	Mojave rabbitbrush	*Asteraceae*	CA/NV
Cirsium neomexicanum	New Mexico thistle	*Asteraceae*	CA
Claytonia parviflora complex	Streambank springbeauty	*Portulacaceae*	CA
Coleogyne ramosissima	Black bush	*Rosaceae*	CA
Coryphantha sp.	Beehive cactus	*Cactaceae*	CA
Cryptantha angustifolia	Panamint cryptantha	*Boraginaceae*	CA/NV
Cryptantha barbigera	Bearded cryptantha	*Boraginaceae*	CA/NV
Cryptantha circumscissa	Cushion cryptantha	*Boraginaceae*	CA/NV
Cryptantha dumetorum	Bushloving cryptantha	*Boraginaceae*	CA/NV
Cryptantha gracilis	Narrowstem cryptantha	*Boraginaceae*	CA
Cryptantha maritima	Guadalupe cryptantha	*Boraginaceae*	NV
Cryptantha micrantha	Redroot cryptantha	*Boraginaceae*	CA/NV
Cryptantha nevadensis	Nevada cryptantha	*Boraginaceae*	CA/NV
Cryptantha pterocarya	Wingnut cryptantha	*Boraginaceae*	CA
Cryptantha pterocarya var. *cycloptera*	Wingnut cryptantha	*Boraginaceae*	CA/NV
Cryptantha pterocarya var. *stenoloba*	Wingnut cryptantha	*Boraginaceae*	NV
Cryptantha utahensis	Scented cryptantha	*Boraginaceae*	NV
Cryptantha virginensis	Virgin River cryptantha	*Boraginaceae*	NV
Cucurbita palmata	Coyote gourd	*Cucurbitaceae*	CA/NV
Cuscuta californica var. *apiculata*	Chaparral dodder	*Cuscutaceae*	NV
Cylindropuntia acanthocarpa var. *coloradensis*	Colorado buckhorn cholla	*Cactaceae*	CA/NV
Cylindropuntia echinocarpa	Wiggins' cholla	*Cactaceae*	CA/NV
Cylindropuntia ramosissima	Branched pencil cholla	*Cactaceae*	CA/NV
Cynanchum utahense	Utah swallow-wort	*Asclepiadaceae*	CA
Cynodon dactylon	Bermudagrass	*Poaceae*	NV
D			
Dalea mollissima	Soft prairie clover	*Fabaceae*	CA/NV
Dasyochloa pulchella	Low woollygrass	*Poaceae*	CA/NV
Datura wrightii	Sacred thorn-apple	*Solanaceae*	CA/NV
Delphinium parishii	Desert larkspur	*Helleboraceae*	CA
Delphinium parishii ssp. *parishii*	Parish's larkspur	*Helleboraceae*	NV
Descurainia pinnata var. *glabra*	Western tansymustard	*Brassicaceae*	CA/NV

Latin Name	Common Name	Family	State
Descurainia sophia	Herb sophia	*Brassicaceae*	CA/NV
Dichelostemma capitatum	Bluedicks	*Themidaceae*	CA
Dithyrea californica	California shieldpod	*Brassicaceae*	CA/NV
Draba cuneifolia var. *integrifolia*	Wedgeleaf draba	*Brassicaceae*	CA/NV
E			
Echinocactus polycephalus	Cottontop cactus	*Cactaceae*	CA/NV
Echinocereus engelmannii	Engelmann's hedgehog cactus	*Cactaceae*	CA/NV
Echinomastus johnsonii	Johnson's fishhook cactus	*Cactaceae*	NV
Eleocharis parishii	Parish's spikerush	*Cyperaceae*	CA
Elymus elymoides var. *brevifolius*	Squirreltail	*Poaceae*	CA
Encelia farinosa	Brittlebush	*Asteraceae*	NV
Encelia virginensis	Virgin River brittlebush	*Asteraceae*	CA/NV
Enceliopsis nudicaulis	Nakedstem sunray	*Asteraceae*	NV
Enneapogon desvauxii	Nineawn pappusgrass	*Poaceae*	CA/NV
Ephedra nevadensis	Nevada jointfir	*Ephedraceae*	CA/NV
Ephedra viridis	Mormon tea	*Ephedraceae*	CA
Eragrostis cilianensis	Stinkgrass	*Poaceae*	CA/NV
Eremalche rotundifolia	Desert fivespot	*Malvaceae*	CA
Eriastrum diffusum	Miniature woollystar	*Polemoniaceae*	CA/NV
Eriastrum eremicum	Desert woollystar	*Polemoniaceae*	NV
Ericameria cooperi	Cooper's goldenbush	*Asteraceae*	CA
Ericameria laricifolia	Turpentine bush	*Asteraceae*	CA/NV
Ericameria linearifolia	Narrowleaf goldenbush	*Asteraceae*	CA/NV
Eriogonum brachypodum	Parry's buckwheat	*Polygonaceae*	CA/NV
Eriogonum deflexum	Flatcrown buckwheat	*Polygonaceae*	CA
Eriogonum fasciculatum var. *polifolium*	Eastern Mojave buckwheat	*Polygonaceae*	CA/NV
Eriogonum heermannii var. *floccosum*	Clark Mountain buckwheat	*Polygonaceae*	CA
Eriogonum inflatum	Desert trumpet	*Polygonaceae*	CA/NV
Eriogonum maculatum	Spotted buckwheat	*Polygonaceae*	CA/NV
Eriogonum microthecum var. ?	Slender buckwheat	*Polygonaceae*	CA
Eriogonum nidularium	Birdnest buckwheat	*Polygonaceae*	CA
Eriogonum palmerianum	Palmer's buckwheat	*Polygonaceae*	CA/NV
Eriogonum plumatella	Yucca buckwheat	*Polygonaceae*	NV
Eriogonum pusillum	Yellowturbans	*Polygonaceae*	CA/NV
Eriogonum reniforme	Kidneyleaf buckwheat	*Polygonaceae*	NV
Eriogonum thomasii	Thomas' buckwheat	*Polygonaceae*	CA/NV
Eriogonum trichopes	Little deserttrumpet	*Polygonaceae*	CA/NV
Eriogonum umbellatum var. not in flower	Sulphur-flower buckwheat	*Polygonaceae*	CA

Latin Name	Common Name	Family	State
Eriogonum wrightii	Bastardsage	*Polygonaceae*	CA
Eriophyllum pringlei	Pringle's woolly sunflower	*Asteraceae*	CA/NV
Eriophyllum wallacei	Woolly easterbonnets	*Asteraceae*	CA/NV
Erodium cicutarium	Redstem stork's bill	*Geraniaceae*	NV
Eschscholzia glyptosperma	Desert poppy	*Papaveraceae*	CA/NV
Eschscholzia minutiflora	Pygmy poppy	*Papaveraceae*	CA/NV
Escobaria vivipara var. *deserti*	Beehive cactus	*Cactaceae*	CA
Escobaria vivipara var. *rosea*	Spinystar	*Cactaceae*	NV
Eucrypta micrantha	Dainty desert hideseed	*Hydrophyllaceae*	NV
F & **G**			
Fallugia paradoxa	Apache plume	*Rosaceae*	CA
Ferocactus cylindraceus	California barrel cactus	*Cactaceae*	CA/NV
Galium sp. several that were w/o fls.	Bedstraw	*Rubiaceae*	CA
Gilia cana ssp. *speciformis*	Showy gilia	*Polemoniaceae*	CA/NV
Gilia clokeyi	Clokey's gilia	*Polemoniaceae*	CA
Gilia hutchinsifolia	Desert pale gilia	*Polemoniaceae*	NV
Gilia ophthalmoides	Eyed gilia	*Polemoniaceae*	CA/NV
Gilia scopulorum	Rock gilia	*Polemoniaceae*	CA/NV
Gilia sinuata	Rosy gilia	*Polemoniaceae*	CA/NV
Gilia stellata	Star gilia	*Polemoniaceae*	CA/NV
Gilia subacaulis	Pinyon gilia	*Polemoniaceae*	NV
Gilia transmontana	Transmontane gilia	*Polemoniaceae*	CA/NV
Glyptopleura marginata	Carveseed	*Asteraceae*	NV
Grayia spinosa	Spiny hopsage	*Chenopodiaceae*	NV
Grusonia parishii	Matted cholla	*Cactaceae*	CA/NV
Guillenia lasiophylla	California mustard	*Brassicaceae*	CA/NV
Gutierrezia microcephala	Threadleaf snakeweed	*Asteraceae*	CA/NV
Gutierrezia sarothrae	Broom snakeweed	*Asteraceae*	CA
H, **I**, **J** & **K**			
Heliomeris multiflora var. *nevadensis*	Nevada goldeneye	*Asteraceae*	CA
Hirschfeldia incana	Shortpod mustard	*Brassicaceae*	CA
Hordeum murinum	Mouse barley	*Poaceae*	CA/NV
Hymenoclea salsola	Burrobrush	*Asteraceae*	CA/NV
Ipomopsis polycladon	Manybranched ipomopsis	*Polemoniaceae*	CA/NV
Juniperus osteosperma	Utah juniper	*Cupressaceae*	CA
Kallstroemia californica	California caltrop	*Zygophyllaceae*	CA
Kallstroemia parviflora	Warty caltrop	*Zygophyllaceae*	CA
Koeleria nitida	Prairie Junegrass	*Poaceae*	CA
Krameria grayi	White ratany	*Krameriaceae*	CA/NV
Krascheninnikovia lanata	Winterfat	*Chenopodiaceae*	CA/NV

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L			
Langloisia punctata	Great Basin langloisia	*Polemoniaceae*	CA
Langloisia setosissima ssp. *punctata*	Great Basin langloisia	*Polemoniaceae*	CA
Langloisia setosissima ssp. *setosissima*	Moth langloisia	*Polemoniaceae*	CA/NV
Larrea tridentata	Creosote bush	*Zygophyllaceae*	CA/NV
Layia glandulosa	Whitedaisy tidytips	*Asteraceae*	CA
Lepidium fremontii	Desert pepperweed	*Brassicaceae*	NV
Lepidium lasiocarpum	Shaggyfruit pepperweed	*Brassicaceae*	CA/NV
Lepidium sp.	Pepperweed	*Brassicaceae*	CA
Lepidium virginicum var. *pubescens*	Hairy pepperweed	*Brassicaceae*	NV
Linanthus aureus	Golden linanthus	*Polemoniaceae*	CA/NV
Linanthus cf. *bigelovii* (need seeds)	Bigelow's linanthus	*Polemoniaceae*	CA
Linanthus demissus	Desertsnow	*Polemoniaceae*	CA/NV
Linanthus filiformis	Yellow gilia	*Polemoniaceae*	CA/NV
Linanthus jonesii	Jones' linanthus	*Polemoniaceae*	CA/NV
Linanthus sp. (cf. *bigelovii* need seeds)	Linanthus	*Polemoniaceae*	NV
Loeseliastrum matthewsii	Desert calico	*Polemoniaceae*	CA/NV
Loeseliastrum schottii	Schott's calico	*Polemoniaceae*	CA/NV
Logfia depressa	Dwarf cottonrose	*Asteraceae*	NV
Lomatium nevadense var. *parishii*	Parish's biscuitroot	*Apiaceae*	CA
Lotus rigidus	Shrubby deervetch	*Fabaceae*	CA
Lotus salsuginosus var. *brevivexillus*	Coastal bird's-foot trefoil	*Fabaceae*	CA/NV
Lotus strigosus var. *tomentellus*	Strigose bird's-foot trefoil	*Fabaceae*	CA
Lupinus brevicaulis	Shortstem lupine	*Fabaceae*	CA
Lupinus concinnus var. *orcuttii*	Orcutt's lupine	*Fabaceae*	CA/NV
Lupinus flavoculatus	Yelloweyes	*Fabaceae*	CA/NV
Lupinus shockleyi	Purple desert lupine	*Fabaceae*	CA/NV
Lycium andersonii	Water jacket	*Solanaceae*	CA/NV
Lycium cooperi	Peach thorn	*Solanaceae*	CA/NV
M			
Machaeranthera arida	Arid tansyaster	*Asteraceae*	CA/NV
Malacothrix glabrata	Smooth desert dandelion	*Asteraceae*	CA/NV
Malacothrix sonchoides	Sowthistle desertdandelion	*Asteraceae*	NV
Malcolmia africana	African mustard	*Brassicaceae*	CA/NV
Mammillaria tetrancistra	Common fishhook cactus	*Cactaceae*	CA/NV
Menodora scabra	Rough menodora	*Menodoraceae*	CA
Menodora spinescens	Spiny menodora	*Menodoraceae*	NV
Mentzelia albicaulis	Whitestem blazingstar	*Loasaceae*	NV
Mentzelia obscura	Pacific blazingstar	*Loasaceae*	NV
Mentzelia tricuspis	Spinyhair blazingstar	*Loasaceae*	NV

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Mimulus bigelovii	Bigelow's monkeyflower	*Scrophulariaceae*	CA
Mimulus guttatus	Seep monkeyflower	*Scrophulariaceae*	CA
Mirabilis laevis var. *retrorsa*	Wishbone-bush	*Nyctaginaceae*	NV
Mirabilis laevis var. *villosa*	Wishbone-bush	*Nyctaginaceae*	CA
Mirabilis multiflora	Colorado four o'clock	*Nyctaginaceae*	CA
Mirabilis multiflora var. *pubescens*	Colorado four o'clock	*Nyctaginaceae*	NV
Mollugo cerviana	Threadstem carpetweed	*Molluginaceae*	NV
Monolepis nuttalliana	Nuttall's povertyweed	*Chenopodiaceae*	CA
Monoptilon bellidiforme	Daisy desertstar	*Asteraceae*	CA/NV
Monoptilon bellioides	Mojave desertstar	*Asteraceae*	CA/NV
Muhlenbergia porteri	Bush muhly	*Poaceae*	CA/NV
N			
Nama demissum	Purplemat	*Hydrophyllaceae*	CA/NV
Nama pusillum	Eggleaf fiddleleaf	*Hydrophyllaceae*	NV
Nemacladus glanduliferus var. *orientalis*	Glandular threadplant	*Campanulaceae*	CA/NV
Neogaerrhinum filipes	Yellow twining snapdragon	*Scrophulariaceae*	CA/NV
Nicotiana obtusifolia	Desert tobacco	*Solanaceae*	CA/NV
O			
Oenothera caespitosa ssp. *crinita*	Tufted evening primrose	*Onagraceae*	CA
Oenothera caespitosa ssp. *marginata*	Tufted evening primrose	*Onagraceae*	NV
Oenothera cavernae	Cavedwelling evening primrose	*Onagraceae*	NV
Oenothera deltoides ssp. *deltoides*	Birdcage evening primrose	*Onagraceae*	NV
Oenothera primiveris ssp. *bufonis*	Desert evening primrose	*Onagraceae*	CA/NV
Oenothera primiveris ssp. *primiveris*	Desert evening primrose	*Onagraceae*	CA
Oligomeris linifolia	Lineleaf whitepuff	*Resedaceae*	CA/NV
Opuntia basilaris	Beavertail pricklypear	*Cactaceae*	CA/NV
Opuntia chlorotica	Dollarjoint pricklypear	*Cactaceae*	CA
Opuntia phaeacantha	Tulip pricklypear	*Cactaceae*	CA
Opuntia polyacantha var. *erinacea*	Grizzlybear pricklypear	*Cactaceae*	CA/NV
Orobanche cooperi	Desert broomrape	*Orobanchaceae*	CA/NV
P			
Palafoxia arida	Desert palafox	*Asteraceae*	NV
Parkinsonia aculeata	Jerusalem thorn	*Caesalpiniaceae*	NV
Pectis papposa	Manybristle chinchweed	*Asteraceae*	CA
Pectocarya heterocarpa	Chuckwalla combseed	*Boraginaceae*	CA/NV
Pectocarya platycarpa	Broadfruit combseed	*Boraginaceae*	CA/NV
Pectocarya recurvata	Curvenut combseed	*Boraginaceae*	CA/NV
Pectocarya setosa	Moth combseed	*Boraginaceae*	CA/NV
Penstemon albomarginatus	Whitemargin beardtongue	*Scrophulariaceae*	NV

Latin Name	Common Name	Family	State
Penstemon bicolor ssp. *roseus*	Pinto beardtongue	*Scrophulariaceae*	NV
Penstemon palmeri	Palmer's penstemon	*Scrophulariaceae*	CA
Pentagramma triangularis ssp. *triangularis*	Gold-back Fern	*Pteridaceae*	CA
Petalonyx thurberi	Thurber's sandpaper plant	*Loasaceae*	NV
Phacelia anelsonii	Aven Nelson's phacelia	*Hydrophyllaceae*	CA
Phacelia coerulea	Skyblue phacelia	*Hydrophyllaceae*	CA
Phacelia crenulata var. *ambigua*	Purplestem phacelia	*Hydrophyllaceae*	NV
Phacelia cryptantha	Hiddenflower phacelia	*Hydrophyllaceae*	CA
Phacelia distans	Distant phacelia	*Hydrophyllaceae*	CA
Phacelia fremontii	Fremont's phacelia	*Hydrophyllaceae*	CA/NV
Phacelia rotundifolia	Roundleaf phacelia	*Hydrophyllaceae*	NV
Phoradendron californicum	Mesquite mistletoe	*Viscaceae*	CA/NV
Physalis crassifolia	Yellow nightshade groundcherry	*Solanaceae*	CA/NV
Physalis hederifolia var. *fendleri*	Fendler's groundcherry	*Solanaceae*	CA/NV
Pinus monophylla	Singleleaf piñon	*Pinaceae*	CA
Plagiobothrys arizonicus	Arizona popcornflower	*Boraginaceae*	CA/NV
Plagiobothrys jonesii	Mojave popcornflower	*Boraginaceae*	CA/NV
Plantago ovata	Desert Indianwheat	*Plantaginaceae*	CA/NV
Pleuraphis jamesii	James' galleta	*Poaceae*	CA
Pleuraphis rigida	Big galleta	*Poaceae*	CA/NV
Poa bigelovii	Bigelow's bluegrass	*Poaceae*	NV
Poa fendleriana	Muttongrass	*Poaceae*	CA
Polypogon sp.	Rabbitsfoot grass	*Poaceae*	CA
Porophyllum gracile	Slender poreleaf	*Asteraceae*	CA/NV
Prenanthella exigua	Brightwhite	*Asteraceae*	CA/NV
Prunus fasciculata	Desert almond	*Rosaceae*	CA
Psilostrophe cooperi	Whitestem paperflower	*Asteraceae*	CA
Psorothamnus arborescens var. *minutifolius*	Johnson's indigobush	*Fabaceae*	NV
Psorothamnus fremontii	Fremont's dalea	*Fabaceae*	NV
Psorothamnus fremontii complex	Fremont's dalea	*Fabaceae*	NV
Purshia glandulosa	Desert bitterbrush	*Rosaceae*	CA
Purshia stansburiana	Stansbury cliffrose	*Rosaceae*	CA
Purshia tridentata	Antelope bitterbrush	*Rosaceae*	CA
Q & R			
Quincula lobata	Chinese lantern	*Solanaceae*	NV
Rafinesquia californica	California plumeseed	*Asteraceae*	CA
Rafinesquia neomexicana	New Mexico plumeseed	*Asteraceae*	CA/NV
Rhus aromatica var. *trilobata*	Skunkbush sumac	*Anacardiaceae*	CA/NV

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Rumex hymenosepalus	Canaigre dock	*Polygonaceae*	CA/NV
Rumex violascens	Violet dock	*Polygonaceae*	NV
S			
Salazaria mexicana	Mexican bladdersage	*Lamiaceae*	CA/NV
Salix gooddingii	Goodding's willow	*Salicaceae*	CA
Salsola tragus	Prickly Russian thistle	*Chenopodiaceae*	CA/NV
Salvia columbariae	Chia	*Lamiaceae*	CA/NV
Salvia dorrii	Purple sage	*Lamiaceae*	NV
Salvia mohavensis	Mojave sage	*Lamiaceae*	CA
Schismus barbatus	Common Mediterranean grass	*Poaceae*	CA/NV
Senecio multilobatus	Lobeleaf groundsel	*Asteraceae*	CA
Senna armata	Desertsenna	*Caesalpiniaceae*	NV
Sesuvium verrucosum	Verrucose seapurslane	*Aizoaceae*	CA
Silene antirrhina	Sleepy silene	*Caryophyllaceae*	CA
Sisymbrium altissimum	Tall tumblemustard	*Brassicaceae*	CA
Sisymbrium irio	London rocket	*Brassicaceae*	CA/NV
Sisymbrium orientale	Indian hedgemustard	*Brassicaceae*	CA
Sphaeralcea ambigua	Desert globemallow	*Malvaceae*	CA/NV
Sphaeralcea angustifolia	Copper globemallow	*Malvaceae*	NV
Sphaeralcea emoryi	Emory's globemallow	*Malvaceae*	CA/NV
Sphaeralcea parvifolia	Smallflower globemallow	*Malvaceae*	NV
Sporobolus contractus	Spike dropseed	*Poaceae*	CA
Sporobolus cryptandrus	Sand dropseed	*Poaceae*	CA/NV
Sporobolus flexosus	Mesa dropseed	*Poaceae*	NV
Stanleya pinnata	Desert princesplume	*Brassicaceae*	CA
Stephanomeria exigua	Small wirelettuce	*Asteraceae*	NV
Stephanomeria parryi	Parry's wirelettuce	*Asteraceae*	CA
Stephanomeria pauciflora	Brownplume wirelettuce	*Asteraceae*	CA/NV
Streptanthella longirostris	Longbeak streptanthella	*Brassicaceae*	CA/NV
Stylocline intertexta	Morefield's neststraw	*Asteraceae*	NV
Stylocline micropoides	Woollyhead neststraw	*Asteraceae*	CA/NV
Suaeda nigra	Mojave seablite	*Chenopodiaceae*	CA/NV
T			
Tamarix aphylla	Athel tamarisk	*Tamaricaceae*	CA
Tamarix cf. *ramosissima*	Saltcedar	*Tamaricaceae*	NV
Tamarix parviflora	Smallflower tamarisk	*Tamaricaceae*	CA
Tamarix ramosissima	Saltcedar	*Tamaricaceae*	CA
Tetradymia stenolepis	Mojave cottonthorn	*Asteraceae*	CA
Thamnosma montana	Turpentinebroom	*Rutaceae*	CA

Latin Name	Common Name	Family	State
Thymophylla pentachaeta var. *belenidium*	Fiveneedle pricklyleaf	*Asteraceae*	CA/NV
Thysanocarpus curvipes	Sand fringepod	*Brassicaceae*	CA/NV
Tidestromia oblongifolia	Arizona honeysweet	*Amaranthaceae*	CA/NV
Tiquilia canescens	Woody crinklemat	*Boraginaceae*	NV
Tiquilia plicata	Fanleaf crinklemat	*Boraginaceae*	CA/NV
Trianthema portulacastrum	Desert horsepurslane	*Aizoaceae*	CA/NV
Tridens muticus var. *elongatus*	Slim tridens	*Poaceae*	NV
U to **Y**			
Uropappus lindleyi	Lindley's silverpuffs	*Asteraceae*	CA/NV
Verbena gooddingii	Southwestern mock vervain	*Verbenaceae*	CA
Viguiera parishii	Parish's goldeneye	*Asteraceae*	NV
Vulpia octoflora var. *hirtella*	Sixweeks fescue	*Poaceae*	CA/NV
Vulpia octoflora var. *octoflora*	Sixweeks fescue	*Poaceae*	CA
Xylorhiza tortifolia	Mojave woodyaster	*Asteraceae*	CA/NV
Yucca baccata	Banana yucca	*Agavaceae*	CA
Yucca brevifolia	Joshua tree	*Agavaceae*	CA
Yucca schidigera	Mojave yucca	*Agavaceae*	CA/NV

Table 3. Plants found within the EITP project area in California.

Family	Latin Name	Common Name (California)
	PTEROPHYTA – Spore-bearing plants including ferns	
Pteridaceae – Brake Family		
	Cheilanthes covillei	Coville's lipfern
	Pentagramma triangularis ssp. *triangularis*	Gold-back Fern
	GYMNOSPERMS – Cone-bearing plants	
Cupressaceae – Cypress Family		
	Juniperus osteosperma	Utah juniper
Ephedraceae – Ephedra Family		
	Ephedra nevadensis	Nevada jointfir
	Ephedra viridis	Mormon tea
Pinaceae – Pine Family		
	Pinus monophylla	Singleleaf piñon
	ANGIOSPERMS: Dicotyledons – Flowering plants with two seed leaves	
Aizoaceae – Fig-Marigold Family		
	Sesuvium verrucosum	Verrucose seapurslane
	Trianthema portulacastrum	Desert horsepurslane
Amaranthaceae – Amaranthus Family		
	Amaranthus fimbriatus	Fringed amaranth
	Tidestromia oblongifolia	Arizona honeysweet
Anacardiaceae – Sumac or Cashew Family		
	Rhus aromatica var. *trilobata*	Skunkbush sumac
Apiaceae (Umbelliferae) – Carrot Family		
	Lomatium nevadense var. *parishii*	Parish's biscuitroot
Apocynaceae – Dogbane Family		
	Amsonia tomentosa	Woolly bluestar
Asclepiadaceae – Milkweed Family		
	Asclepias erosa	Desert milkweed
	Asclepias nyctaginifolia	Mojave milkweed
	Cynanchum utahense	Utah swallow-wort
Asteraceae (Compositae) – Sunflower Family		
	Acamptopappus shockleyi	Shockley's goldenhead
	Adenophyllum cooperi	Cooper's dogweed
	Ambrosia acanthicarpa	Flatspine bur ragweed
	Ambrosia dumosa	White bursage (burrobush)
	Ambrosia eriocentra	Woolly fruit bur ragweed
	Antheropeas wallacei	Woolly easterbonnets
	Artemisia ludoviciana var. *albula*	White sagebrush
	Baccharis brachyphylla	Shortleaf baccharis
	Baccharis sergiloides	Desert baccharis

Family	Latin Name	Common Name (California)
	Baileya multiradiata	Desert marigold
	Baileya pleniradiata	Woolly desert marigold
	Brickellia californica	California brickellbush
	Brickellia incana	Woolly brickellbush
	Brickellia oblongifolia var. *linifolia*	Narrowleaf brickellbush
	Chaenactis carphoclinia	Pebble pincushion
	Chaenactis fremontii	Pincushion flower
	Chaenactis macrantha	Bighead dustymaiden
	Chaenactis stevioides	Esteve's pincushion
	Chaetopappa ericoides	Rose heath
	Chrysothamnus depressus	Longflower rabbitbrush
	Chrysothamnus paniculatus	Mojave rabbitbrush
	Cirsium neomexicanum	New Mexico thistle
	Encelia virginensis	Virgin River brittlebush
	Ericameria cooperi	Cooper's goldenbush
	Ericameria laricifolia	Turpentine bush
	Ericameria linearifolia	Narrowleaf goldenbush
	Eriophyllum pringlei	Pringle's woolly sunflower
	Eriophyllum wallacei	Woolly easterbonnets
	Gutierrezia microcephala	Threadleaf snakeweed
	Gutierrezia sarothrae	Broom snakeweed
	Heliomeris multiflora var. *nevadensis*	Nevada goldeneye
	Hymenoclea salsola	Burrobrush
	Layia glandulosa	Whitedaisy tidytips
	Machaeranthera arida	Arid tansyaster
	Malacothrix glabrata	Smooth desert dandelion
	Monoptilon bellidiforme	Daisy desertstar
	Monoptilon bellioides	Mojave desertstar
	Pectis papposa	Manybristle chinchweed
	Porophyllum gracile	Slender poreleaf
	Prenanthella exigua	Brightwhite
	Psilostrophe cooperi	Whitestem paperflower
	Rafinesquia californica	California plumeseed
	Rafinesquia neomexicana	New Mexico plumeseed
	Senecio multilobatus	Lobeleaf groundsel
	Stephanomeria parryi	Parry's wirelettuce
	Stephanomeria pauciflora	Brownplume wirelettuce
	Stylocline micropoides	Woollyhead neststraw
	Tetradymia stenolepis	Mojave cottonthorn
	Thymophylla pentachaeta var. *belenidium*	Fiveneedle pricklyleaf

Family	Latin Name	Common Name (California)
	Uropappus lindleyi	Lindley's silverpuffs
	Xylorhiza tortifolia	Mojave woodyaster
Bignoniaceae – Bignonia Family		
	Chilopsis linearis	Desert willow
Boraginaceae – Borage Family		
	Amsinckia tessellata	Bristly fiddleneck
	Cryptantha angustifolia	Panamint cryptantha
	Cryptantha barbigera	Bearded cryptantha
	Cryptantha circumscissa	Cushion cryptantha
	Cryptantha pterocarya var. *cycloptera*	Wingnut cryptantha
	Cryptantha dumetorum	Bushloving cryptantha
	Cryptantha gracilis	Narrowstem cryptantha
	Cryptantha micrantha	Redroot cryptantha
	Cryptantha nevadensis	Nevada cryptantha
	Cryptantha pterocarya	Wingnut cryptantha
	Pectocarya heterocarpa	Chuckwalla combseed
	Pectocarya platycarpa	Broadfruit combseed
	Pectocarya recurvata	Curvenut combseed
	Pectocarya setosa	Moth combseed
	Plagiobothrys arizonicus	Arizona popcornflower
	Plagiobothrys jonesii	Mojave popcornflower
	Tiquilia plicata	Fanleaf crinklemat
Brassicaceae (Cruciferae) – Mustard Family		
	Arabis perennans	Perennial rockcress
	Arabis pulchra var. *gracilis*	Beautiful rockcress
	Brassica tournefortii	Asian mustard
	Caulanthus cooperi	Cooper's wild cabbage
	Caulanthus crassicaulis	Thickstem wild cabbage
	Descurainia pinnata var. *glabra*	Western tansymustard
	Descurainia sophia	Herb sophia
	Dithyrea californica	California shieldpod
	Draba cuneifolia var. *integrifolia*	Wedgeleaf draba
	Guillenia lasiophylla	California mustard
	Hirschfeldia incana	Shortpod mustard
	Lepidium lasiocarpum	Shaggyfruit pepperweed
	Lepidium sp.	Pepperweed
	Malcolmia africana	African mustard
	Sisymbrium altissimum	Tall tumblemustard
	Sisymbrium irio	London rocket
	Sisymbrium orientale	Indian hedgemustard

Family	Latin Name	Common Name (California)
	Stanleya pinnata	Desert princesplume
	Streptanthella longirostris	Longbeak streptanthella
	Thysanocarpus curvipes	Sand fringepod
Cactaceae – Cactus Family		
	Coryphantha sp.	Beehive cactus
	Cylindropuntia acanthocarpa var. *coloradensis*	Colorado buckhorn cholla
	Cylindropuntia echinocarpa	Wiggins' cholla
	Cylindropuntia ramosissima	Branched pencil cholla
	Echinocactus polycephalus	Cottontop cactus
	Echinocereus engelmannii	Engelmann's hedgehog cactus
	Escobaria sp.	Beehive cactus
	Ferocactus cylindraceus	California barrel cactus
	Grusonia parishii	Matted cholla
	Mammillaria tetrancistra	Common fishhook cactus
	Opuntia basilaris	Beavertail pricklypear
	Opuntia chlorotica	Dollarjoint pricklypear
	Opuntia phaeacantha	Tulip pricklypear
	Opuntia polyacantha var. *erinacea*	Grizzlybear pricklypear
Campanulaceae – Bellflower Family		
	Nemacladus glanduliferus var. *orientalis*	Glandular threadplant
Caryophyllaceae – Pink Family		
	Arenaria macradenia	Mojave sandwort
	Silene antirrhina	Sleepy silene
Chenopodiaceae – Goosefoot Family		
	Atriplex canescens	Fourwing saltbush
	Atriplex confertifolia	Shadscale saltbush
	Atriplex elegans var. *fasciculata*	Wheelscale saltbush
	Atriplex polycarpa	Cattle saltbush
	Chenopodium incanum var. *occidentale*	Mealy goosefoot
	Krascheninnikovia lanata	Winterfat
	Monolepis nuttalliana	Nuttall's povertyweed
	Salsola tragus	Prickly Russian thistle
	Suaeda nigra	Mojave seablite
Cucurbitaceae – Gourd Family		
	Cucurbita palmata	Coyote gourd
Euphorbiaceae – Spurge Family		
	Chamaesyce albomarginata	Whitemargin sandmat
	Chamaesyce revoluta	Threadstem sandmat
Fabaceae (Leguminosae) – Legume Family		
	Astragalus bernardinus	San Bernardino milkvetch

Family	Latin Name	Common Name (California)
	Astragalus didymocarpus var. *dispermus*	Dwarf white milkvetch
	Astragalus lentiginosus var. *borreganus*	Borrego milkvetch
	Astragalus lentiginosus var. *fremontii*	Fremont's milkvetch
	Astragalus minthorniae var. *villosus*	Minthorn's milkvetch
	Astragalus nuttallianus var. *imperfectus*	Turkeypeas
	Dalea mollissima	Soft prairie clover
	Lotus rigidus	Shrubby deervetch
	Lotus salsuginosus var. *brevivexillus*	Coastal bird's-foot trefoil
	Lotus strigosus var. *tomentellus*	Strigose bird's-foot trefoil
	Lupinus brevicaulis	Shortstem lupine
	Lupinus concinnus var. *orcuttii*	Orcutt's lupine
	Lupinus flavoculatus	Yelloweyes
	Lupinus shockleyi	Purple desert lupine
***Geraniaceae* –** Geranium Family		
	Erodium cicutarium	Redstem stork's bill
***Helleboraceae* (Jepson: *Ranunculaceae*) –** Hellebore Family		
	Delphinium parishii	Desert larkspur
***Hydrophyllaceae* –** Waterleaf Family		
	Eucrypta micrantha	Dainty desert hideseed
	Nama demissum	Purplemat
	Phacelia crenulata var. *ambigua*	Purplestem phacelia
	Phacelia anelsonii	Aven Nelson's phacelia
	Phacelia coerulea	Skyblue phacelia
	Phacelia cryptantha	Hiddenflower phacelia
	Phacelia distans	Distant phacelia
	Phacelia fremontii	Fremont's phacelia
***Krameriaceae* –** Rhatany Family		
	Krameria grayi	White ratany
***Lamiaceae* –** Mint Family		
	Salazaria mexicana	Mexican bladdersage
	Salvia columbariae	Chia
	Salvia dorrii	Purple sage
	Salvia mohavensis	Mojave sage
***Loasaceae* –** Loasa Family		
	Mentzelia albicaulis	Whitestem blazingstar
***Malvaceae* –** Mallow Family		
	Eremalche rotundifolia	Desert fivespot
	Sphaeralcea ambigua	Desert globemallow
	Sphaeralcea emoryi	Emory's globemallow
***Menodoraceae* (Jepson: *Oleaceae*) –** Menodora Family		

Family	Latin Name	Common Name (California)
	Menodora scabra	Rough menodora
	Menodora spinescens	Spiny menodora
***Mimosaceae* (Jepson: *Fabaceae*) –** Mimosa Family		
	Acacia greggii	Catclaw acacia
***Nyctaginaceae* –** Four O'Clock Family		
	Allionia incarnata var. *villosa*	Trailing windmills
	Boerhavia wrightii	Largebract spiderling
	Mirabilis laevis var. *villosa*	Wishbone-bush
	Mirabilis multiflora	Colorado four o'clock
***Oleaceae* –** Olive Family		
	Forestiera pubescens	Stretchberry
***Onagraceae* –** Primrose Family		
	Camissonia boothii var. *condensata*	Shredding suncup
	Camissonia brevipes	Yellow cups
	Camissonia campestris	Mojave suncup
	Camissonia chamaenerioides	Longcapsule suncup
	Camissonia claviformis var. *aurantiaca*	Browneyes
	Camissonia refracta	Narrowleaf suncup
	Oenothera caespitosa ssp. *crinita*	Tufted evening primrose
	Oenothera primiveris ssp. *bufonis*	Desert evening primrose
	Oenothera primiveris ssp. *primiveris*	Desert evening primrose
***Orobanchaceae* –** Broom-Rape Family		
	Orobanche cooperi	Desert broomrape
***Papaveraceae* –** Poppy Family		
	Argemone corymbosa	Mojave pricklypopply
	Eschscholzia glyptosperma	Desert poppy
	Eschscholzia minutiflora	Pygmy poppy
***Plantaginaceae* –** Plantain Family		
	Plantago ovata	Desert Indianwheat
***Polemoniaceae* –** Phlox Family		
	Aliciella hutchinsifolia	Desert pale gilia
	Eriastrum diffusum	Miniature woollystar
	Gilia cana ssp. *speciformis*	Showy gilia
	Gilia clokeyi	Clokey's gilia
	Gilia ophthalmoides	Eyed gilia
	Gilia scopulorum	Rock gilia
	Gilia sinuata	Rosy gilia
	Gilia stellata	Star gilia
	Gilia transmontana	Transmontane gilia
	Ipomopsis polycladon	Manybranched ipomopsis

Family	Latin Name	Common Name (California)
	Langloisia punctata	Great Basin langloisia
	Langloisia setosissima ssp. *punctata*	Great Basin langloisia
	Langloisia setosissima ssp. *setosissima*	Moth langloisia
	Linanthus aureus	Golden linanthus
	Linanthus cf. *bigelovii* (need seeds to confirm)	Bigelow's linanthus
	Linanthus demissus	Desertsnow
	Linanthus filiformis	Yellow gilia
	Linanthus jonesii	Jones' linanthus
	Loeseliastrum matthewsii	Desert calico
	Loeseliastrum schottii	Schott's calico
Polygonaceae – Buckwheat Family		
	Chorizanthe brevicornu	Brittle spineflower
	Chorizanthe rigida	Devil's spineflower
	Eriogonum brachypodum	Parry's buckwheat
	Eriogonum deflexum	Flatcrown buckwheat
	Eriogonum fasciculatum var. *polifolium*	Eastern Mojave buckwheat
	Eriogonum heermannii var. *floccosum*	Clark Mountain buckwheat
	Eriogonum inflatum	Desert trumpet
	Eriogonum maculatum	Spotted buckwheat
	Eriogonum microthecum var. ?	Slender buckwheat
	Eriogonum nidularium	Birdnest buckwheat
	Eriogonum palmerianum	Palmer's buckwheat
	Eriogonum pusillum	Yellowturbans
	Eriogonum thomasii	Thomas' buckwheat
	Eriogonum trichopes	Little deserttrumpet
	Eriogonum umbellatum var. not in flower	Sulphur-flower buckwheat
	Eriogonum wrightii	Bastardsage
	Rumex hymenosepalus	Canaigre dock
Portulacaceae – Purslane Family		
	Claytonia parviflora complex	Streambank springbeauty
Resedaceae – Mignonette Family		
	Oligomeris linifolia	Lineleaf whitepuff
Rosaceae – Rose Family		
	Coleogyne ramosissima	Black bush
	Fallugia paradoxa	Apache plume
	Prunus fasciculata	Desert almond
	Purshia glandulosa	Desert bitterbrush
	Purshia stansburiana	Stansbury cliffrose
	Purshia tridentata	Antelope bitterbrush
Rubiaceae – Madder Family		

Family	Latin Name	Common Name (California)
	Galium sp. several that were not flowering yet	Bedstraw
***Rutaceae* –** Rue Family		
	Thamnosma montana	Turpentinebroom
***Salicaceae* –** Willow Family		
	Salix gooddingii	Goodding's willow
***Scrophulariaceae* –** Figwort Family		
	Castilleja applegatei ssp. *martinii*	Wavyleaf Indian paintbrush
	Castilleja angustifolia	Northwestern Indian paintbrush
	Mimulus bigelovii	Bigelow's monkeyflower
	Mimulus guttatus	Seep monkeyflower
	Neogaerrhinum filipes	Yellow twining snapdragon
	Penstemon palmeri	Palmer's penstemon
***Solanaceae* –** Nightshade Family		
	Datura wrightii	Sacred thorn-apple
	Lycium andersonii	Water jacket
	Lycium cooperi	Peach thorn
	Nicotiana obtusifolia	Desert tobacco
	Physalis crassifolia	Yellow nightshade groundcherry
	Physalis hederifolia var. *fendleri*	Fendler's groundcherry
***Tamaricaceae* –** Tamarisk Family		
	Tamarix aphylla	Athel tamarisk
	Tamarix parviflora	Smallflower tamarisk
	Tamarix ramosissima	Saltcedar
***Verbenaceae* –** Vervain Family		
	Verbena gooddingii	Southwestern mock vervain
***Viscaceae* –** Mistletoe Family		
	Phoradendron californicum	Mesquite mistletoe
***Zygophyllaceae* –** Caltrop Family		
	Kallstroemia californica	California caltrop
	Kallstroemia parviflora	Warty caltrop
	Larrea tridentata	Creosote bush
	ANGIOSPERMS: Monocotyledons – Flowering plants with one seed leaf	
***Agavaceae* (Jepson: *Liliaceae*) –** Agave Family		
	Yucca baccata	Banana yucca
	Yucca brevifolia	Joshua tree
	Yucca schidigera	Mojave yucca
***Cyperaceae* –** Sedge Family		
	Eleocharis parishii	Parish's spikerush
***Liliaceae* –** Lily Family		
	Calochortus kennedyi	Desert mariposa lily

Family	Latin Name	Common Name (California)
Poaceae (Gramineae) **–** Grass Family		
	Achnatherum hymenoides	Indian ricegrass
	Achnatherum speciosum	Desert needlegrass
	Aristida adscensionis	Sixweeks threeawn
	Aristida purpurea var. *longiseta*	Fendler threeawn
	Aristida purpurea complex	Purple threeawn
	Avena fatua	Wild oat
	Bouteloua barbata	Sixweeks grama
	Bouteloua curtipendula	Sideoats grama
	Bouteloua eriopoda	Black grama
	Bromus rigidus	Ripgut brome
	Bromus rubens	Red brome
	Bromus tectorum	Cheatgrass
	Bromus trinii	Chilean chess
	Dasyochloa pulchella	Low woollygrass
	Elymus elymoides var. *brevifolius*	Squirreltail
	Enneapogon desvauxii	Nineawn pappusgrass
	Eragrostis cilianensis	Stinkgrass
	Hordeum murinum	Mouse barley
	Koeleria nitida	Prairie Junegrass
	Muhlenbergia porteri	Bush muhly
	Pleuraphis jamesii	James' galleta
	Pleuraphis rigida	Big galleta
	Poa fendleriana	Muttongrass
	Polypogon sp.	Rabbitsfoot grass
	Schismus barbatus	Common Mediterranean grass
	Sporobolus contractus	Spike dropseed
	Sporobolus cryptandrus	Sand dropseed
	Vulpia octoflora var. *hirtella*	Sixweeks fescue
	Vulpia octoflora var. *octoflora*	Sixweeks fescue
Themidaceae **(Jepson: *Liliaceae*)** – Brodiaea Family		
	Androstephium breviflorum	Pink funnel lily
	Dichelostemma capitatum	Bluedicks

Table 4. Plants found within the EITP project area in Nevada.

Family	Latin Name	Common Name (Nevada)
	GYMNOSPERMS – Cone-bearing Plants	
Ephedraceae – Ephedra Family		
	Ephedra nevadensis	Jointfir
	ANGIOSPERMS: Dicotyledons – Flowering plants with two seed leaves	
Aizoaceae – Fig-Marigold Family		
	Trianthema portulacastrum	Desert horsepurslane
Amaranthaceae – Amaranthus Family		
	Amaranthus crassipes	Spreading amaranth
	Amaranthus fimbriatus	Fringed amaranth
	Tidestromia oblongifolia	Arizona honeysweet
Anacardiaceae – Sumac or Cashew Family		
	Rhus aromatica var. *trilobata*	Skunkbush sumac
Apocynaceae – Dogbane Family		
	Amsonia tomentosa	Woolly bluestar
Asclepiadaceae – Milkweed Family		
	Asclepias nyctaginifolia	Mojave milkweed
Asteraceae (Compositae) – Sunflower Family		
	Acamptopappus shockleyi	Shockley's goldenhead
	Acamptopappus sphaerocephalus	Rayless goldenhead
	Adenophyllum cooperi	Cooper's dogweed
	Ambrosia dumosa	White bursage (burrobush)
	Ambrosia eriocentra	Woolly fruit bur ragweed
	Anisocoma acaulis	Scalebud
	Antheropeas wallacei	Woolly easterbonnets
	Baccharis brachyphylla	Shortleaf baccharis
	Baileya multiradiata	Desert marigold
	Baileya pleniradiata	Woolly desert marigold
	Bebbia juncea var. *aspera*	Sweetbush
	Brickellia arguta	Pungent brickellbush
	Brickellia desertorum	Desert brickellbush
	Brickellia incana	Woolly brickellbush
	Brickellia oblongifolia var. *linifolia*	Narrowleaf brickellbush
	Calycoseris parryi	Yellow tackstem
	Calycoseris wrightii	White tackstem
	Chaenactis carphoclinia	Pebble pincushion
	Chaenactis fremontii	Pincushion flower
	Chaenactis macrantha	Bighead dustymaiden
	Chaenactis stevioides	Esteve's pincushion
	Chaetopappa ericoides	Rose heath

Family	Latin Name	Common Name (Nevada)
	Chrysothamnus paniculatus	Mojave rabbitbrush
	Encelia farinosa	Brittlebush
	Encelia virginensis	Virgin River brittlebush
	Enceliopsis nudicaulis	Nakedstem sunray
	Ericameria laricifolia	Turpentine bush
	Ericameria linearifolia	Narrowleaf goldenbush
	Eriophyllum pringlei	Pringle's woolly sunflower
	Eriophyllum wallacei	Woolly easterbonnets
	Glyptopleura marginata	Carveseed
	Gutierrezia microcephala	Threadleaf snakeweed
	Hymenoclea salsola	Burrobrush
	Logfia depressa	Dwarf cottonrose
	Machaeranthera arida	Arid tansyaster
	Malacothrix glabrata	Smooth desertdandelion
	Malacothrix sonchoides	Sowthistle desertdandelion
	Monoptilon bellidiforme	Daisy desertstar
	Monoptilon bellioides	Mojave desertstar
	Palafoxia arida	Desert palafox
	Porophyllum gracile	Slender poreleaf
	Prenanthella exigua	Brightwhite
	Rafinesquia neomexicana	New Mexico plumeseed
	Stephanomeria exigua	Small wirelettuce
	Stephanomeria pauciflora	Brownplume wirelettuce
	Stylocline intertexta	Morefield's neststraw
	Stylocline micropoides	Woollyhead neststraw
	Thymophylla pentachaeta var. *belenidium*	Fiveneedle pricklyleaf
	Uropappus lindleyi	Lindley's silverpuffs
	Viguiera parishii	Parish's goldeneye
	Xylorhiza tortifolia	Mojave woodyaster
Bignoniaceae – Bignonia Family		
	Chilopsis linearis	Desert willow
***Boraginaceae* –** Borage Family		
	Amsinckia tessellata	Bristly fiddleneck
	Cryptantha angustifolia	Panamint cryptantha
	Cryptantha barbigera	Bearded cryptantha
	Cryptantha circumscissa	Cushion cryptantha
	Cryptantha pterocarya var. *cycloptera*	Wingnut cryptantha
	Cryptantha pterocarya var. *stenoloba*	Wingnut cryptantha
	Cryptantha dumetorum	Bushloving cryptantha
	Cryptantha maritima	Guadalupe cryptantha

Family	Latin Name	Common Name (Nevada)
	Cryptantha micrantha	Redroot cryptantha
	Cryptantha nevadensis	Nevada cryptantha
	Cryptantha utahensis	Scented cryptantha
	Cryptantha virginensis	Virgin River cryptantha
	Pectocarya heterocarpa	Chuckwalla combseed
	Pectocarya platycarpa	Broadfruit combseed
	Pectocarya recurvata	Curvenut combseed
	Pectocarya setosa	Moth combseed
	Plagiobothrys arizonicus	Arizona popcornflower
	Plagiobothrys jonesii	Mojave popcornflower
	Tiquilia canescens	Woody crinklemat
	Tiquilia plicata	Fanleaf crinklemat
Brassicaceae (Cruciferae) – Mustard Family		
	Arabis pulchra	Beautiful rockcress
	Caulanthus cooperi	Cooper's wild cabbage
	Descurainia pinnata var. *glabra*	Western tansymustard
	Descurainia sophia	Herb sophia
	Dithyrea californica	California shieldpod
	Draba cuneifolia var. *integrifolia*	Wedgeleaf draba
	Guillenia lasiophylla	California mustard
	Lepidium fremontii	Desert pepperweed
	Lepidium lasiocarpum	Shaggyfruit pepperweed
	Lepidium virginicum var. *pubescens*	Hairy pepperweed
	Malcolmia africana	African mustard
	Sisymbrium irio	London rocket
	Streptanthella longirostris	Longbeak streptanthella
	Thysanocarpus curvipes	Sand fringepod
Cactaceae – Cactus Family		
	Cylindropuntia acanthocarpa var. *coloradensis*	Colorado buckhorn cholla
	Cylindropuntia echinocarpa	Wiggins' cholla
	Cylindropuntia ramosissima	Branched pencil cholla
	Echinocactus polycephalus	Cottontop cactus
	Echinocereus engelmannii	Engelmann's hedgehog cactus
	Echinomastus johnsonii	Johnson's fishhook cactus
	Escobaria vivipara var. *rosea*	Spinystar
	Ferocactus cylindraceus	California barrel cactus
	Grusonia parishii	Matted cholla
	Mammillaria tetrancistra	Common fishhook cactus
	Opuntia basilaris	Beavertail pricklypear
	Opuntia polyacantha var. *erinacea*	Grizzlybear pricklypear

Family	Latin Name	Common Name (Nevada)
***Caesalpiniaceae* (Jepson: *Fabaceae*) –** Senna Family		
	Parkinsonia aculeata	Jerusalem thorn
	Senna armata	Desertsenna
***Campanulaceae* –** Bellflower Family		
	Nemacladus glanduliferus var. *orientalis*	Glandular threadplant
***Chenopodiaceae* –** Goosefoot Family		
	Atriplex confertifolia	Shadscale saltbush
	Atriplex elegans var. *fasciculate*	Wheelscale saltbush
	Atriplex hymenelytra	Desertholly
	Atriplex polycarpa	Cattle saltbush
	Chenopodium incanum var. *occidentale*	Mealy goosefoot
	Grayia spinosa	Spiny hopsage
	Krascheninnikovia lanata	Winterfat
	Salsola tragus	Prickly Russian thistle
	Suaeda nigra	Mojave seablite
***Cucurbitaceae* –** Gourd Family		
	Cucurbita palmata	Coyote gourd
***Cuscutaceae* –** Dodder Family		
	Cuscuta californica var. *apiculata*	Chaparral dodder
***Euphorbiaceae* –** Spurge Family		
	Argythamnia neomexicana	New Mexico silverbush
	Chamaesyce albomarginata	Whitemargin sandmat
	Chamaesyce polycarpa	Smallseed sandmat
***Fabaceae (Leguminosae)* –** Legume Family		
	Astragalus didymocarpus var. *dispermus*	Dwarf white milkvetch
	Astragalus lentiginosus var. *fremontii*	Fremont's milkvetch
	Astragalus nuttallianus	Smallflowered milkvetch
	Astragalus sabulonum	Gravel milkvetch
	Dalea mollissima	Soft prairie clover
	Lotus salsuginosus var. *brevivexillus*	Coastal bird's-foot trefoil
	Lupinus concinnus var. *orcuttii*	Orcutt's lupine
	Lupinus flavoculatus	Yelloweyes
	Lupinus shockleyi	Purple desert lupine
	Psorothamnus arborescens var. *minutifolius*	Johnson's indigobush
	Psorothamnus fremontii	Fremont's dalea
	Psorothamnus fremontii complex	Fremont's dalea
***Geraniaceae* –** Geranium Family		
	Erodium cicutarium	Redstem stork's bill
***Helleboraceae* (Jepson: *Ranunculaceae*) –** Hellebore Family		
	Delphinium parishii ssp. *parishii*	Parish's larkspur

Family	Latin Name	Common Name (Nevada)
***Hydrophyllaceae* –** Waterleaf Family		
	Eucrypta micrantha	Dainty desert hideseed
	Nama demissum	Purplemat
	Nama pusillum	Eggleaf fiddleleaf
	Phacelia crenulata var. *ambigua*	Purplestem phacelia
	Phacelia fremontii	Fremont's phacelia
	Phacelia rotundifolia	Roundleaf phacelia
***Krameriaceae* –** Rhatany Family		
	Krameria grayi	White ratany
***Lamiaceae* –** Mint Family		
	Salazaria mexicana	Mexican bladdersage
	Salvia columbariae	Chia
	Salvia dorrii	Purple sage
***Loasaceae* –** Loasa Family		
	Mentzelia albicaulis	Whitestem blazingstar
	Mentzelia obscura	Pacific blazingstar
	Mentzelia tricuspis	Spinyhair blazingstar
	Petalonyx thurberi	Thurber's sandpaper plant
***Malvaceae* –** Mallow Family		
	Sphaeralcea ambigua	Desert globemallow
	Sphaeralcea angustifolia	Copper globemallow
	Sphaeralcea emoryi	Emory's globemallow
	Sphaeralcea parvifolia	Smallflower globemallow
***Menodoraceae* (Jepson: *Oleaceae*) –** Menodora Family		
	Menodora spinescens	Spiny menodora
***Mimosaceae* (Jepson: *Fabaceae*) –** Mimosa Family		
	Acacia greggii	Catclaw acacia
***Molluginaceae* –** Carpet-Weed Family		
	Mollugo cerviana	Threadstem carpetweed
***Nyctaginaceae* –** Four O'Clock Family		
	Abronia villosa	Desert sand verbena
	Allionia incarnata var. *villosa*	Trailing windmills
	Boerhavia wrightii	Largebract spiderling
	Mirabilis laevis var. *retrorsa*	Wishbone-bush
	Mirabilis multiflora var. *pubescens*	Colorado four o'clock
***Onagraceae* –** Primrose Family		
	Camissonia boothii var. *condensata*	Shredding suncup
	Camissonia brevipes	Yellow cups
	Camissonia campestris	Mojave suncup
	Camissonia chamaenerioides	Longcapsule suncup

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	Camissonia claviformis var. *aurantiaca*	Browneyes
	Camissonia refracta	Narrowleaf suncup
	Oenothera cavernae	Cavedwelling evening primrose
	Oenothera caespitosa ssp. *marginata*	Tufted evening primrose
	Oenothera deltoides ssp. *deltoides*	Birdcage evening primrose
	Oenothera primiveris ssp. *bufonis*	Desert evening primrose
***Orobanchaceae* –** Broom-Rape Family		
	Orobanche cooperi	Desert broomrape
***Papaveraceae* –** Poppy Family		
	Argemone minuta ssp. *rotundata*	Flatbud pricklypoppy
	Eschscholzia glyptosperma	Desert poppy
	Eschscholzia minutiflora	Pygmy poppy
***Plantaginaceae* –** Plantain Family		
	Plantago ovata	Desert Indianwheat
***Polemoniaceae* –** Phlox Family		
	Aliciella hutchinsifolia	Desert pale gilia
	Aliciella subacaulis	Pinyon gilia
	Eriastrum diffusum	Miniature woollystar
	Eriastrum eremicum	Desert woollystar
	Gilia cana ssp. *speciformis*	Showy gilia
	Gilia hutchinsifolia	Desert pale gilia
	Gilia ophthalmoides	Eyed gilia
	Gilia scopulorum	Rock gilia
	Gilia sinuata	Rosy gilia
	Gilia stellata	Star gilia
	Gilia subacaulis	Pinyon gilia
	Gilia transmontana	Transmontane gilia
	Ipomopsis polycladon	Manybranched ipomopsis
	Langloisia setosissima ssp. *setosissima*	Moth langloisia
	Linanthus aureus	Golden linanthus
	Linanthus demissus	Desertsnow
	Linanthus filiformis	Yellow gilia
	Linanthus jonesii	Jones' linanthus
	Linanthus sp. (like *bigelovii* but need seeds for I.D.)	Linanthus
	Loeseliastrum matthewsii	Desert calico
	Loeseliastrum schottii	Schott's calico
***Polygonaceae* –** Buckwheat Family		
	Chorizanthe brevicornu	Brittle spineflower
	Chorizanthe rigida	Devil's spineflower
	Chorizanthe watsonii	Fivetooth spineflower

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	Eriogonum brachypodum	Parry's buckwheat
	Eriogonum fasciculatum var. *polifolium*	Eastern Mojave buckwheat
	Eriogonum inflatum	Desert trumpet
	Eriogonum maculatum	Spotted buckwheat
	Eriogonum palmerianum	Palmer's buckwheat
	Eriogonum plumatella	Yucca buckwheat
	Eriogonum pusillum	Yellowturbans
	Eriogonum reniforme	Kidneyleaf buckwheat
	Eriogonum thomasii	Thomas' buckwheat
	Eriogonum trichopes	Little deserttrumpet
	Rumex hymenosepalus	Canaigre dock
	Rumex violascens	Violet dock
***Ranunculaceae* –** Buttercup Family		
	Anemone tuberosa	Tuber anemone
***Resedaceae* –** Mignonette Family		
	Oligomeris linifolia	Lineleaf whitepuff
***Scrophulariaceae* –** Figwort Family		
	Castilleja angustifolia	Northwestern Indian paintbrush
	Neogaerrhinum filipes	Yellow twining snapdragon
	Penstemon albomarginatus	Whitemargin beardtongue
	Penstemon bicolor ssp. *roseus*	Pinto beardtongue
***Solanaceae* –** Nightshade Family		
	Datura wrightii	Sacred thorn-apple
	Lycium andersonii	Water jacket
	Lycium cooperi	Peach thorn
	Nicotiana obtusifolia	Desert tobacco
	Physalis crassifolia	Yellow nightshade groundcherry
	Physalis hederifolia var. *palmeri*	Palmer's groundcherry
	Quincula lobata	Chinese lantern
***Tamaricaceae* –** Tamarisk Family		
	Tamarix cf. *ramosissima*	Saltcedar
***Verbenaceae* –** Vervain Family		
	Aloysia wrightii	Wright's beebrush
***Viscaceae* –** Mistletoe Family		
	Phoradendron californicum	Mesquite mistletoe
***Zygophyllaceae* –** Caltrop Family		
	Larrea tridentata	Creosote bush
	ANGIOSPERMS: Monocotyledons – Flowering plants with one seed leaf	
***Agavaceae* (Jepson: *Liliaceae*) –** Agave Family		
	Yucca schidigera	Mojave yucca

Family	Latin Name	Common Name (Nevada)
Poaceae (Gramineae) **–** Grass Family		
	Achnatherum speciosum	Desert needlegrass
	Aristida adscensionis	Sixweeks threeawn
	Aristida purpurea	Purple threeawn
	Bouteloua aristidoides	Needle grama
	Bouteloua barbata	Sixweeks grama
	Bromus madritensis	Compact brome
	Bromus rubens	Red brome
	Bromus tectorum	Cheatgrass
	Cynodon dactylon	Bermudagrass
	Dasyochloa pulchella	Low woollygrass
	Enneapogon desvauxii	Nineawn pappusgrass
	Eragrostis cilianensis	Stinkgrass
	Hordeum murinum	Mouse barley
	Muhlenbergia porteri	Bush muhly
	Pleuraphis rigida	Big galleta
	Poa bigelovii	Bigelow's bluegrass
	Schismus barbatus	Common Mediterranean grass
	Sporobolus cryptandrus	Sand dropseed
	Sporobolus flexosus	Mesa dropseed
	Tridens muticus var. *elongatus*	Slim tridens
	Vulpia octoflora var. *hirtella*	Sixweeks fescue
Themidaceae **(Jepson: *Liliaceae*)** – Brodiaea Family		
	Androstephium breviflorum	Pink funnel lily