

## **APPENDIX F-N**

### **Special-Status Plant Survey Report for the Proposed Segment 4C Alignment**



# **SPECIAL-STATUS PLANT SURVEY REPORT FOR THE PROPOSED SEGMENT 4C ALIGNMENT DESERTXPRESS PROJECT**

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## List of Abbreviated Terms

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Applicant	DesertXpress Enterprises, LLC
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
DFG	Department of Fish and Game
ESA	federal Endangered Species Act
ESL	environmental study limits
FR	Federal Register
FRA	Federal Railroad Administration
HCP	Habitat Conservation Plan
NAC	Nevada Administrative Code
USGS	U.S. Geological Survey





# DesertXpress Project Special-Status Plant Survey Report for the Proposed Segment 4C Alignment, San Bernardino County

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## Introduction

This report provides the methods and results of the special-status plants survey within the environmental study limits (ESL) of the proposed Segment 4C alignment. The ESL includes the footprint for the rail alignment in addition to a 100-foot wide buffer on either side of the alignment. In preparing this report, ICF International compiled and reviewed information from previously completed botanical survey reports prior to initiating pedestrian surveys for the proposed alignment.

## Project Description

DesertXpress Enterprises, LLC (Applicant) proposes to construct and operate a privately financed interstate high-speed passenger train between Victorville, California and Las Vegas, Nevada. The proposed action is to construct and operate a fully grade-separated, dedicated, double-track passenger-only railroad along an approximately 200-mile corridor from Victorville, California, to Las Vegas, Nevada (Figure 1). The Federal Railroad Administration (FRA) is the federal lead agency for the proposed action.

## Project Location

Located in San Bernardino County, California, and Clark County, Nevada, the proposed Segment 4C alignment would be approximately 20.7 miles long (Figure 1). The west end of the Segment 4C alignment starts in Mountain Pass within the I-15 right-of-way. The rail alignment then leaves the I-15 freeway right-of-way and heads northeast, passing through three new dual track tunnels into the Clark Mountain Range. The Segment 4C alignment travels northward from the Clark Mountains and turns east to cross the California-Nevada state line and connects back to the I-15 freeway corridor in the vicinity of Primm, Nevada. Within the vicinity of Primm, the alignment would connect with the proposed Segment 5B rail alignment.

## Project Setting

The segment 4C rail alignment is located within the State Line Pass, Ivanpah Lake, Clark Mountain, Mineral Hill, and Mescal Range (USGS) 7.5- minute quadrangles, and is located within the Mojave Desert bioregion of the California Floristic Province (Hickman 1993). Elevations of the proposed alignment range from approximately 2600 to 4850 feet above mean sea level (792-1478 meters). Precipitation in the area averages approximately 8.66 inches per year and falls as rain and snow (NRCS 2010). Habitats in the project site and in the project vicinity are typical of mountain slopes and valleys in the Mojave Desert and are dominated by creosote and Mojave mixed woody scrub.

## Definitions

Special-status plants are species that are legally protected under the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), Nevada Administrative Code (NAC), or other federal and state regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing.

For the purposes of this botanical report, special-status plants are:

- species listed or proposed for listing as threatened or endangered under ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants] and various notices in the Federal Register [FR] [proposed species]);
- species that are candidates for possible future listing as threatened or endangered under ESA (72 FR 69034, December 6, 2007; 74 FR 57804–57878, November 9, 2009);
- species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 CCR 670.5);
- species that meet the definitions of rare or endangered under the California Environmental Quality Act (CEQA) (State CEQA Guidelines Section 15380);
- plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.);
- plants considered by California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (Lists 1B and 2, California Native Plant Society 2010) (State CEQA Guidelines Section 15381[d]);
- plants on CNPS’s Lists 3 and 4 (plants about which more information is needed to determine their status and plants of limited distribution) (California Native Plant Society 2010) may be included as special-status species on the basis of local significance or recent biological information.
- plant species listed as “sensitive” by the BLM (BLM 2010)
- plant species listed as “covered” by the Clark County Habitat Conservation Plan (USFWS 2000)

## Methods

### Pre-Field Investigation: Special-Status Plants

Before conducting the field surveys, ICF botanists reviewed existing database information to determine the location and types of botanical resources that could exist in the survey area. This pre-field investigation included searches of the California Natural Diversity Database (CNDDDB) (California Natural Diversity Database 2010), and the CNPS’s online *Inventory of Rare and Endangered Plants* (California Native Plant Society 2010). These databases provide information on known occurrences of state- and federally listed plants and CNPS Lists 1B, 2, and 3 plants. Both databases can be queried by USGS 7.5-minute quadrangle as described below to generate a list of sensitive plant species with known occurrences in the project region (*region* is conventionally defined as the quadrangle (s) within which the project site is located and the immediately surrounding quadrangles). CNPS List 4 plants are recorded at the county level and are not included



Graphics ... 06334.06 (10/10) AB

**Figure 1**  
**Project Vicinity**



on lists generated from specific quadrangles. The project botanists reviewed the list of CNPS List 4 plants recorded in San Bernardino County and were prepared to evaluate these species on the basis of local significance or recent biological information if they were encountered in the field.

The database searches were conducted for the State Line Pass, Ivanpah Lake, Clark Mountain, Mineral Hill, and Mescal Range quadrangles in addition to any quadrangle adjacent to the aforementioned. The results of the CNDDDB and CNPS records search are provided in Appendix A. Additional resources consulted included information from previously completed project reports and other botanical evaluations in the region. The resulting information was used to prepare a list of special-status plants that could occur at the project site (Table 2). The records search found that 84 special-status plants had been previously observed in the vicinity of the project site. The environmental study area was determined to be suitable habitat for 40 of these species. No special-status plant species have been recorded within the project ESL. Details of these plants—their status, distribution, habitat, and an assessment of their potential to occur in the study area—are in Table 2. The existing information on species distributions and habitat requirements was reviewed to determine the potential for each species to occur at the project site.

## Pre-Field Investigation: Rare Natural Communities

The Natural Communities Program of the CNDDDB maintains records on occurrences of natural communities considered to be rare or sensitive by California Department of Fish and Game (DFG). A records search was conducted as described above, and found that two occurrences of one rare natural community, have been recorded in the region of the project site (Appendix A). Based on the rare communities recorded from the project region and the location of the project site it was determined that the mesquite shrubland rare natural community has the potential to occur in the project site.

## Field Surveys: Special-Status Plants

ICF botanists conducted the special-status plant surveys on March 29 through April 1, 2010 (John Holson, Seth Kirby), April 19 through April 23 (John Holson, Ramona Robison, Bruce Lund, Glen Kinoshita), and May 24 through May 27, 2010 (John Holson, Seth Kirby, Bruce Lund, Rob Preston). The surveys were timed to coincide with the blooming and identification periods of special-status plant species in the area. Weather conditions during the visits were varied, with weather ranging from clear and sunny to overcast with light snow. Details of the weather conditions during each survey are discussed below.

**Table 1. Weather Conditions During Special-Status Plant Surveys for DesertXpress Segment 4C**

<b>Dates of Surveys</b>	<b>Weather Conditions</b>	<b>Approximate Temperatures During Surveys</b>
03/29/10-04/01/10	Clear with winds from 25-35 mph	55-75 degrees Fahrenheit
04/19/10-04/23/10	Partly cloudy with winds from 20-30 mph; light snow on 4/21	45-70 degrees Fahrenheit
05/24/10-05/27/10	Clear with winds from 5-10 mph	70-90 degrees Fahrenheit

All botanical surveys were conducted in accordance with DFG's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California Department of Fish and Game 2009). The botanists that conducted the surveys meet the required qualifications to conduct botanical surveys and are familiar with the vegetation and flora of the region. The surveys were conducted when the potentially occurring special-status plants species were evident and identifiable, according to their known blooming and identification periods (see Table 3).

The botanists covered the entire study area, employing a transect approach to the ESL. They examined the study area on foot, focusing on habitats and microhabitats that had potential to support sensitive species in the region. Areas that were inaccessible by foot (e.g., steep slopes) were examined to the extent possible using binoculars and the naked eye. The survey intensity was considered to be high because approximately 95% of the study area was accessible and was surveyed. Special-status plant species found within the ESL were marked and mapped using a sub-meter Trimble GPS unit; maps containing the aforementioned data can be found in Appendix B. The botanists accumulated a running checklist of observed plants for the project site during the surveys (Appendix C).

The survey was floristic, with every higher plant encountered identified to the lowest taxonomic level (species, subspecies, or variety) possible, based on the availability of flowers, fruits, or other diagnostic features. A few plants could not be identified below the level of genus because they lacked flowers or other characteristics needed to differentiate between similar species. However, all plants were identified to the lowest taxonomic level necessary to determine whether they were special-status plants or were species with unusual or significant range extensions. Resources used to identify plants included *The Jepson Manual* (Hickman 1993), *A California Flora* (Munz and Keck 1959), and internet resources such as Calflora (2010). Nomenclature follows *The Jepson Manual* (Hickman 1993) and updates published online by the Jepson Flora Project, Jepson Online Interchange (University of California 2010).

## Field Surveys: Natural Communities

Vegetation surveys were conducted concurrently with special-status plant surveys in order to assess and map the vegetation types in the project alignment, including ancillary facilities. The natural communities at the project site were identified and mapped in the study area following the Central Mojave Vegetation Database (USGS 2004) classification.

## Results

The cumulative list of plant species observed at the project site is in Appendix C. In total, 203 plant taxa were observed in the ESL, of which approximately 3% were nonnative. Details on communities and plant species observed are included below. Representative photos of some of the onsite vegetation communities can be found in Appendix D.

## Vegetation Communities

The project site supports six vegetation communities, all of which are natural communities found in the local area. The vegetation communities are described in Table 2.

**Table 2. Vegetation Communities within the DesertXpress Segment 4C Project Area**

<b>Vegetation Community Type</b>	<b>Associated Species</b>	<b>Description</b>	<b>Occurrence in Project Study Area</b>
Creosote Bush Shrubland	A group of alliances: creosote bush may be the only shrub, other alliances are characterized by shared dominance with white bursage and/or brittlebush; also desert holly, saltbush species, and many other shrubs may be present in low densities	Various substrates and settings, including sandy substrates, alluvial fans, bajadas; may occur on disturbed sites	Common throughout project study area
Desert Holly Shrubland	Creosote bush, other saltbush species, white bursage, brittlebush	The most drought-tolerant scrub, occurring on rocky slopes, bajadas, playa edges	Uncommon in the project study area
Mojave Mixed Woody Scrub	A group of alliances: Mojave yucca is the dominant species with a shrub/herb understory consisting of California buckwheat, blackbrush, buckhorn cholla, nevada ephedra, and big galleta	Occurs in mountain areas north of mountain pass	Common in the mountainous regions of project study area
Desert Wash Scrub	Cheesebush, catclaw acacia, and Cooper's lycium	Occurs in flashy, ephemeral drainages throughout the project study area	Occurs throughout the project study area
Blackbrush Shrubland	Blackbrush, California buckwheat, white bursage, nevada ephedra, and a variety of other desert shrubs	Alluvial slopes, rocky slopes, bajadas, generally in caliche soils	Occurs in the foothill regions on the west and south edges of Ivanpah Valley
Mesquite Shrubland (Intermittently Flooded)	Mesquite bushes, saltbush species	Rarely flooded edges of washes, floodplains, playa edges	Rare; occurs at a few sites in the mountain pass area

## Special-Status and Rare Plants

In summary, seven special-status plant species (CNPS Lists 1 and 2) and one CNPS List 4 plant species were found within the project site. The status, geographic range, and habitats of these species can be found in Table 3. A map containing the locations of these plants in reference to the Segment 4C alignment can be found in Appendix B.

### CNPS List 1 Plants

One CNPS list 1B.2, Rusby's desert mallow (*Sphaeralcea rusbyi* var. *eremicola*), has been documented at the project sites during the botanical surveys in 2010 and is summarized in Table 3. Rusby's desert mallow is also listed by the BLM as "sensitive."

## CNPS List 2 Plants

Two 2.1 special-status plant species [Mojave milkweed (*Asclepias nyctaginifolia*), desert pincushion (*Coryphantha chlorantha*)], three 2.2 special-status plant species [small-flowered androstephium (*Androstephium breviflorum*), Tidestrom's milkvetch (*Astragalus tidestromii*), Parish's club-cholla (*Grusonia parishii*)], and one 2.3 special-status plant species [Mormon needle grass (*Achnatherum aridum*)] have been documented at the project sites during the botanical surveys in 2010 and are summarized in Table 3.

## CNPS List 4 Plants

One CNPS List 4.3 species, Utah vine milkweed (*Funastrum utahense*), has been documented and is also included in Table 3.

Although CNPS List 4 plants do not meet the definition of "rare, threatened, or endangered," they are considered of limited distribution in California. Specific List 4 species in a project area may be considered of local concern or rare or unique to a region and therefore qualify as special-status species under CEQA (State CEQA guidelines Sections 15380 and 15125[a]) if for example they are at the periphery of the species' range, at the type locality, or occur in unusual habitats or elevations.

## Rare Natural Communities

As shown in Appendix B, several areas on site are characterized as mesquite shrubland. This community is considered "Rare" by the CDFG and of "high priority for inventory" (CNDDDB 2003). Mesquite shrubland (3.08 acres) occurs on site, near the southernmost end of Segment 4C (Appendix B). This community, which is found along the edge of a major wash system, is dominated by mesquite shrubs (*Prosopis glandulosa*), and contains other shrub species such as four-wing saltbush (*Atriplex canescens*) and cheesebush.



**Table 3. Special-status Plants with Potential to Occur within the Proposed DesertXpress Segment 4C Alignment**

<b>Common and Scientific Name</b>	<b>Federal/State/CNPS/BLM/HCP</b>	<b>Geographic Distribution/Floristic Province</b>	<b>Habitat Requirements</b>	<b>Blooming Period</b>	<b>Potential for Occurrence in the Biological Study Area</b>
Mormon needle grass <i>Achnatherum aridum</i>	-/-/2.3/-/-	Eastern Mojave desert with occurrences in Inyo, Mono, and San Bernardino Counties; Nevada, Arizona	Carbonate soils in pinyon-juniper woodland, Joshua tree "woodland"; 500–2,570 meters	May–Jul	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Desert ageratina <i>Ageratina herbacea</i>	-/-/2.3/-/-	Eastern Desert mountains; Colorado, New Mexico, Texas	Rocky soils in pinyon-juniper woodland; 1,525–2,200 meters	Jul–Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the known elevation range of this species.
Coyote gilia <i>Aliciella triodon</i>	-/-/2.2/-/-	Inyo, Mono, and San Bernardino Counties; Arizona, Colorado, New Mexico, Nevada, Utah	Great Basin scrub, pinyon-juniper woodland, sometimes in sandy soils; 610–1,700 meters	Apr–Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment
Small-flowered androstephium <i>Androstephium breviflorum</i>	-/-/2.2/-/-	Eastern Desert with occurrences in Inyo, Riverside, and San Bernardino Counties; Arizona, Nevada, Utah	Desert dunes, bajadas in Mojavean desert scrub; 220–640 meters	Mar–Apr	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Nevada onion <i>Allium nevadense</i>	-/-/2.3/-/-	Desert mountains: San Bernardino County; Arizona, Nevada, Idaho, Oregon	Sandy or gravelly areas in pinyon-juniper woodland, between 4,200–5,600'	Apr–May	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
White bear poppy <i>Arctomecon merriamii</i>	-/-/2.2/-/C	Northeastern Mojave desert; southern Nevada	Rocky soils in chenopod scrub, Mojavean desert scrub; 490–1,800 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.

<b>Common and Scientific Name</b>	<b>Federal/State/CNPS/BLM/HCP</b>	<b>Geographic Distribution/Floristic Province</b>	<b>Habitat Requirements</b>	<b>Blooming Period</b>	<b>Potential for Occurrence in the Biological Study Area</b>
Charleston sandwort ( <i>Arenaria congest</i> var. <i>charlestonensis</i> )	-/-/1B.3/-/-	San Bernardino County, Nevada	Sandy soils in pinyon-juniper woodland; 2200-2225 meters	Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Mojave milkweed <i>Asclepias nyctaginifolia</i>	-/-/2.1/-/-	Mojave Desert; New Mexico	Mojavean desert scrub, pinyon-juniper woodland; 1,000-1,700 meters	May-Jun	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Cima milk-vetch <i>Astragalus cimae</i> var. <i>cimae</i>	-/-/1B.2/-/-	Eastern Desert mountains	Clay soils in pinyon-juniper woodland, Great Basin scrub, Joshua tree woodland; 890-1,850 meters	Apr-May	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Playa milk-vetch <i>Astragalus allochrous</i> var. <i>playanus</i>	-/-/2.2/-/-	Eastern Mojave Desert, San Bernardino County, Arizona, New Mexico, Texas, Utah	Mojavean desert scrub, in sandy areas	Apr	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Preuss' milk-vetch <i>Astragalus preusii</i> var. <i>preusii</i>	-/-/2.3/-/-	Eastern Mojave Desert, southeastern Inyo County, northeastern San Bernardino County, Arizona, Nevada, Utah	Clay soils of chenopod scrub, Mojavean desert scrub	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Tidestrom's milk-vetch <i>Astragalus tidestromii</i>	-/-/2.2/-/-	Inyo and San Bernardino Counties; Nevada	Mojavean desert scrub, pinyon-juniper woodland; carbonate (limestone), sandy, or gravelly soils; 600-1,585 meters	Apr-Jul	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Scaly cloak fern <i>Astrolepis cochisensis</i> <i>ssp. cochisensis</i>	-/-/2.3/-/-	Desert mountains with reported occurrences in San Bernardino County; Arizona, Baja California, New Mexico	Carbonate soils in pinyon-juniper woodland, Joshua tree "woodland"; 900-1,800 meters	Apr-Oct	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Fremont barberry <i>Berberis fremontii</i>	-/-/3/-/-	Eastern and southern Mojave desert, Peninsular ranges in San Bernardino and San Diego Counties; Arizona, Nevada, Baja California, Sonora Mexico	Rocky areas in chaparral, Joshua tree woodland, and pinyon-juniper woodland; 840-1850 meters	Apr-Jun	Suitable habitat occurs in the project area, however, species was not observed during 2010 botanical surveys.
Three-awned grama <i>Bouteloua trifida</i>	-/-/2.3/-/-	Eastern Desert mountains; Utah, Texas	Carbonate or rocky soils in Mojavean desert scrub; 700-2,000 meters	May-Sep	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Alkali mariposa lily <i>Calochortus striatus</i>	-/-/1B.2/S/C	Western Mojave Desert, Kern, Los Angeles, San Bernardino, and Tulare Counties; Nevada	Alkaline mesic soils in chaparral, chenopod scrub, Mojavean desert scrub; 70-1,595 meters	Apr-Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Wooton's lace fern <i>Cheilanthes wootonii</i>	-/-/2.3/-/-	East of Sierra Nevada, desert mountains. Inyo and San Bernardino Counties, Arizona, Baja California, New Mexico, Nevada, Sonora Mexico, Utah	Rocky places in Joshua tree woodland, pinyon-juniper woodland	May-Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Small-flowered bird's-beak <i>Cordylanthus parviflorus</i>	-/-/2.3/-/-	Eastern desert mountains, New York mountains, Providence mountains, San Bernardino County, Arizona, Idado, Nevada, Utah	Joshua tree woodland, Mojavean desert scrub, pinyon-juniper woodland	Aug-Oct	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Desert pincushion <i>Coryphantha chlorantha</i>	-/-/2.1/-/-	Inyo and San Bernardino Counties; Arizona, Nevada, Utah	Joshua tree "woodland", Mojavean desert scrub, pinyon-juniper woodland, in carbonate, gravelly, or rocky soils; 45–1,525 meters	Apr–Sep	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Viviparous foxtail cactus <i>Coryphantha vivipara</i> var. <i>rosea</i>	-/-/2.2/-/-	Desert mountains in northeastern San Bernardino County; southern Nevada, northwestern Arizona	Carbonate soils in Mojavean desert scrub and pinyon-juniper woodland; 1,250–2,700 meters	May–Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Pointed dodder <i>Cuscuta californica</i> var. <i>apiculata</i>	-/-/3/-/-	Riverside, San Bernardino Counties, Baja, Nevada	Sandy soils in Mojavean desert scrub and Sonoran desert scrub; 0-500 meters	Feb-Aug	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Gilman's cymopterus <i>Cymopterus gilmanii</i>	-/-/2.3/-/-	Inyo and San Bernardino Counties; Nevada	Mojavean desert scrub, often on carbonate; 915–2,000 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Purple-nerve cymopterus <i>Cymopterus multinervatus</i>	-/-/2.2/-/-	San Bernardino County; Arizona, Baja California, New Mexico, Nevada, Texas, Utah	Gravelly or sandy soils in Mojavean desert scrub and pinyon-juniper woodland; 790–1,800 meters	Mar–Apr	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Nine-awned pappus grass <i>Enneapogon desvauxii</i>	-/-/2/.2/-/-	Eastern Mojave desert; Texas, Colorado, northern Mexico	Rocky or carbonate soils in pinyon-juniper woodland; 1,275–1,825 meters	Aug–Sep	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.

<b>Common and Scientific Name</b>	<b>Federal/State/CNPS/BLM/HCP</b>	<b>Geographic Distribution/Floristic Province</b>	<b>Habitat Requirements</b>	<b>Blooming Period</b>	<b>Potential for Occurrence in the Biological Study Area</b>
Limestone daisy <i>Erigeron uncialis</i> var. <i>uncialis</i>	-/-/1B.2/-/-	Inyo and San Bernardino Counties; Nevada	Carbonate substrates in Great Basin scrub, subalpine coniferous forest; 2,100-3,130 meters	Jun-Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Utah daisy <i>Erigeron utahensis</i>	-/-/2.3/-/-	San Bernardino, Arizona, Utah, Nevada	Carbonate substrates in pinyon-juniper woodland; 1500-2320 meters	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Hairy erioneuron <i>Erioneuron pilosum</i>	-/-/2.3/-/-	East of Sierra Nevada, eastern Desert mountains	Rocky, sometimes carbonate soils in pinyon-juniper woodland; 1,500-2,010 meters	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Forked buckwheat <i>Eriogonum bifurcatum</i>	-/-/1B.2/S/C	Inyo and San Bernardino Counties; Nevada	Sandy soils in chenopod scrub; 700-810 meters	Aug-Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Las Vegas buckwheat <i>Eriogonum corymbosum</i> var. <i>aureum</i>	-/-/-/S/-	Known occurrences in Clark County, Nevada.	On and near gypsum soils, often forming low mounds or outcrops in washes and drainages, or in areas of generally low relief; 579-1170 meters.	Sep-Nov	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Thorne's buckwheat <i>Eriogonum thornei</i>	-/-/1B.2/-/-	San Bernardino County	Pinyon-juniper woodland on gravelly substrate	Jul-Aug	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Juniper sulphur-flowered buckwheat <i>Eriogonum umbellatum</i> var. <i>juniporinum</i>	-/-/2.3/-/-	San Bernardino County; Nevada	Mojavean desert scrub, pinyon-juniper woodland	Jul-Oct	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Hairy erioneuron <i>Erioneuron pilosum</i>	-/-/2.3/-/-	Inyo and San Bernardino Counties; Nevada	Pinyon-juniper woodland on rocky, sometimes carbonate substrate	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Clark Mountain spurge <i>Euphorbia exstipulata</i> var. <i>exstipulata</i>	-/-/2.1/-/-	San Bernardino County; Arizona and elsewhere	Rocky areas in Mojavean desert scrub; 1,800–2,000 meters	Sep	No potential, project area is outside the elevation range of this species.
Utah vine milkweed <i>Funastrum utahense</i> (aka <i>Cynanchum utahense</i> )	-/-/4.2/-/-	San Bernardino County; also in Arizona and Utah	Dry, sandy, or gravelly areas in Mojavean desert scrub; less than 1,000 meters	Apr-Jun	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Desert bedstraw <i>Galium proliferum</i>	-/-/2.2/-/-	San Bernardino County; also Utah and Arizona	Dry, sandy, or gravelly areas in Joshua tree “woodland”, Mojavean desert scrub, pinyon-juniper woodland, rocky or carbonate soils; 1,190–1,570 meters	Mar-Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Wright’s bedstraw <i>Galium wrightii</i>	-/-/2.3/-/-	San Bernardino County; Arizona, Baja California, New Mexico, Texas, Sonora Mexico	Rocky areas in lower montane coniferous forest, pinyon-juniper woodland, on carbonate substrate; 1,600–2,000 meters	Jun-Oct	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Pungent glossopetalon <i>Glossopetalon pungens</i>	-/-/1B.2/S/C	San Bernardino County; Nevada	Carbonate soils in chaparral, pinyon-juniper woodland; 1,675–2,000 meters	May–Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Smooth pungent greasebush <i>Glossopetalon pungens</i> var. <i>glabra</i>	-/-/-/-/C	Endemic to Mojave Desert mountains in San Bernardino County; Nevada	Pinyon-juniper and sagebrush communities on limestone cliffs and rocky slopes; 1,219–1,981 meters	Apr–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Parish's club-cholla <i>Grusonia parishii</i>	-/-/2.2/-/-	Riverside and San Bernardino Counties, population status in Imperial County is unknown; Arizona, Nevada	Joshua tree "woodland", Mojavean desert scrub, Sonoran desert scrub in sandy or rocky soils; 300–1,524 meters	May–Jun (uncommonly Jul)	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.
Drummond's false pennyroyal <i>Hedeoma drummondii</i>	-/-/2.2/-/-	San Bernardino County, Arizona, Colorado, New Mexico, Nevada, Texas, Utah, Wyoming	Gravelly, carbonate substrates in Great Basin scrub, pinyon-juniper woodland; 1400–1700 meters	May–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Hairy-podded fine-leaf hymenopappus <i>Hymenopappus filifolius</i> var. <i>eriopodus</i>	-/-/2.3/-/-	San Bernardino County; Nevada, Utah	Carbonate soils in pinyon-juniper woodland; 1,600–1,700 meters	May–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Jaeger's ivesia <i>Ivesia jaegeri</i>	-/-/1B.3/S/C	San Bernardino County; Nevada	Rocky areas derived from carbonate in pinyon-juniper woodland, upper montane coniferous forest; 1,830–3,600 meters	Jun–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Inland rush <i>Juncus interior</i>	-/-/2.2/-/-	Humboldt and San Bernardino Counties, Arizona, Idaho, New Mexico, Oregon, Utah, Washington	Pinyon and juniper woodland; 1830-1845 meters	Jun-Aug	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Sierra rush <i>Juncus nevadensis</i> var. <i>inventus</i>	-/-/2.2/-/-	Humboldt, San Bernardino, Oregon, Washington	Bogs and fens; 0-10 meters	Jul-Nov	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Knotted rush <i>Juncus nodosus</i>	-/-/2.3/-/-	Inyo, San Bernardino, Stanislaus, and possibly Tulare Counties; elsewhere	Moist meadows and lake margins; 30-1,980 meters	Jul-Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Hillside wheat grass <i>Leymus salinus</i> ssp. <i>mojavensis</i>	-/-/2.3/-/-	Desert mountains; Idaho, Colorado	Rocky soils in pinyon-juniper woodland; 1,350-2,135	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Plains flax <i>Linum puberulum</i>	-/-/2.3/-/-	San Bernardino County; Arizona, New Mexico, Nevada, Texas, Utah, Wyoming, and elsewhere	Great Basin scrub, Joshua tree "woodland", Mojavean desert scrub, pinyon-juniper woodland; 1,000-2,500 meters	May-Jul	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Plains stoneseed <i>Lithospermum incisum</i>	-/-/2.3/-/-	San Bernardino County, Arizona, New Mexico, Nevada, Texas, Utah	Pinyon-juniper woodland; 1650-1720 meters	May	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Scrub lotus <i>Lotus argyraeus</i> var. <i>multicaulis</i>	-/-/1B.3/-/-	San Bernardino County	Pinyon-juniper woodland on granitic substrate	Apr-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.



Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Rough menodora <i>Menodora scabra</i>	-/-/2.3/-/-	San Bernardino County; Arizona, Baja California, New Mexico, Nevada, Texas, Utah, and elsewhere	Joshua tree "woodland", Mojavean desert scrub, pinyon-juniper woodland; 1,200–1,800 meters	May–Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Polished blazing star <i>Mentzelia polita</i>	-/-/1B.2/-/-	Known in California only from the Clark Mountains in San Bernardino County	Carbonate soils in Mojavean desert scrub; 1,200–1,500 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Wing-seed blazing star <i>Mentzelia pterosperma</i>	-/-/2.2/-/-	San Bernardino County, Arizona, Nevada, Utah	Clay/gypsum substrates in Mojavean desert scrub; known from 1140 meters	Apr–Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Red four o'clock <i>Mirabilis coccinea</i>	-/-/2.3/-/-	San Bernardino County, Arizona, New Mexico, Nevada, Sonora - Mexico	Pinyon-juniper woodland; 1070-1800 meters	May–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Tough muhly <i>Muhlenbergia arsenei</i>	-/-/2.3/-/-	Desert mountains in the Clark mountains; Utah, New Mexico, Baja California	Rocky or carbonate soils in pinyon-juniper woodland; 1,400–1,860 meters	Aug–Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Delicate muhly <i>Muhlenbergia fragilis</i>	-/-/2.3/-/-	San Bernardino County; Arizona, Baja California, New Mexico, Sonora (Mexico), Texas	Pinyon-juniper woodland on carbonate, gravelly substrates; 1,600 meters	Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Few-flowered muhly <i>Muhlenbergia pauciflora</i>	-/-/2.3/-/-	San Bernardino County, Arizona	Rocky areas in pinyon-juniper woodland	Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
False buffalo-grass <i>Munroa squarrosa</i>	-/-/2.2/-/-	San Bernardino County; Arizona, Nevada, elsewhere	Pinyon-juniper woodland on gravelly or rocky substrates; 1,500–1,800 meters	Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Forked purple mat <i>Nama dichotomum</i> var. <i>dichotomum</i>	-/-/2.3/-/-	San Bernardino County, Arizona, New Mexico, Texas	Pinyon-juniper woodland on granitic or carbonate substrate	Sep-Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Cave evening-primrose <i>Oenothera cavernae</i>	-/-/2.1/-/-	San Bernardino County; Arizona, Nevada, Utah	Great Basin scrub, Joshua tree “woodland”, Mojavean desert scrub, in gravelly, often calcareous soils; 760–1,280 meters	Mar–May (uncommonly Oct)	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Long-stemmed primrose <i>Oenothera longissima</i>	-/-/2.2/-/-	Inyo and San Bernardino Counties; Arizona, Colorado, New Mexico, Nevada, Utah	Mojavean desert scrub, pinyon-juniper woodland	Jul-Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Curved-spine beavertail <i>Opuntia curvospina</i>	-/-/2.2/-/-	Desert mountains in the New York mountains and eastern San Bernardino County	Chaparral, Mojavean desert scrub, pinyon-juniper woodland; 1,000–1,400 meters	Apr–Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Charleston pinewood lousewort <i>Pedicularis semibarbata</i> var. <i>charlestonensis</i>	-/-/-/-/C	Southern Nevada endemic, all of range within Clark County.	Mixed conifer forest and bristlecone pine communities. All known populations occur between elevations of 2800 and 3,300 meters.	May-Aug	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Cliff brake <i>Pellaea truncata</i>	-/-/2.3/-/-	Eastern Desert mountains in the New York and Providence mountains	Volcanic, granitic, or rocky soils in pinyon-juniper woodland; 1,200–2,150 meters	Apr–Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
White-margined beardtongue <i>Penstemon albomarginatus</i>	-/-/-/S/C	San Bernardino County; Arizona, Nevada.	Stabilized desert dunes, Mojavean desert scrub, on sandy soils	Mar-May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Yellow twotone beardtongue <i>Penstemon bicolor</i> ssp. <i>bicolor</i>	-/-/-/S/-	Known from Clark County, Nevada.	Calcareous or carbonate soils in washes, roadsides, rock crevices, outcrops, in creosote-bursage, blackbrush, mixed-shrub, and lower juniper habitats.	Apr-May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Rosy two-toned beardtongue <i>Penstemon bicolor</i> ssp. <i>roseus</i>	-/-/1B.1/-/-	San Bernardino County; Arizona, Nevada	On rocky or gravelly soils, sometimes in disturbed areas in Joshua tree woodland and Mojavean desert scrub; 700–1,500 meters	May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Parish's phacelia <i>Phacelia parishii</i>	-/-/-/S/C	Western Mojave desert in northwestern San Bernardino County; Nevada	Clay or alkaline soils in playas, Mojavean desert scrub; 540–1,200 meters	Apr-Jul	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Thompson's beardtongue <i>Penstemon thompsoniae</i>	-/-/2.3/-/-	Eastern Desert mountains in the New York and Clark mountains; Utah, Arizona	Gravelly, carbonate soils in pinyon-juniper woodland; 1,500–2,700 meters	May-Jun	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Utah beardtongue <i>Penstemon utahensis</i>	-/-/2.3/-/-	Eastern Desert mountains in the New York and Kingston mountains; Utah, Arizona	Rocky soils in chenopod scrub, Great Basin scrub, Mojavean desert scrub, pinyon-juniper woodland; 1,065–2,500 meters	Apr-May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.

<b>Common and Scientific Name</b>	<b>Federal/State/CNPS/BLM/HCP</b>	<b>Geographic Distribution/Floristic Province</b>	<b>Habitat Requirements</b>	<b>Blooming Period</b>	<b>Potential for Occurrence in the Biological Study Area</b>
Aven Nelson's phacelia <i>Phacelia anelsonii</i>	-/-/2.3/-/-	Eastern Desert mountains in the New York mountains; Utah	Carbonate, sandy, or gravelly soils in Joshua tree "woodland", pinyon-juniper woodland; 1,200–1,500 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Barneby's phacelia <i>Phacelia barnebyana</i>	-/-/2.3/-/-	Inyo and San Bernardino Counties; Nevada	Great Basin scrub, pinyon-juniper woodland, usually carbonate, gravelly, or rocky soils; 1,600–2,700 meters	May–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Sky-blue phacelia <i>Phacelia coerulea</i>	-/-/2.3/-/-	Eastern Mojave desert; Utah, Texas, Mexico	Mojavean desert scrub, pinyon-juniper woodland; 1,400–2,000 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Jaegaer's phacelia <i>Phacelia perityloides</i> var. <i>jaegeri</i>	-/-/1B.3/-/-	San Bernardino County; Nevada	Pinyon-juniper woodland on rocky, often carbonate substrates; 1,830–2,345 meters	May–Jul	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Goodding's phacelia <i>Phacelia pulchella</i> var. <i>gooddingii</i>	-/-/2.3/-/-	Inyo County; Arizona, Nevada, Utah	Mojavean desert scrub on clay, often alkaline soils; 800–1,000 meters	Apr–Jun	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Chambers's physaria <i>Physaria chambersii</i>	-/-/2.3/-/-	Northern Desert mountains in the Clark and Grapevine mountains	Carbonate or rocky soils in pinyon-juniper woodland; 1,500–2,590 meters	Apr–May	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Two-needle pinyon pine <i>Pinus edulis</i>	-/-/3.3/-/-	San Bernardino County, Arizona	Lower montane coniferous forest, pinyon-juniper woodland		No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Small-flowered rice grass <i>Piptatherum micranthum</i>	-/-/2.3/-/-	Eastern Mojave Desert, in Inyo, Mono, and San Bernardino Counties; Idaho and elsewhere	Pinyon-juniper woodland, on gravelly, carbonate substrates; 700–2,950 meters	Jun–Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Thorny milkwort <i>Polygala acanthoclada</i>	-/-/2.3/-/-	Riverside and San Bernardino Counties; Arizona, Nevada, Utah	Chenopod scrub, Joshua tree woodland, pinyon-juniper woodland; 760–2285 meters	May– Aug	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Abert's sanvitalia <i>Sanvitalia abertii</i>	-/-/2.2/-/-	San Bernardino County; Arizona, Sonora (Mexico), Texas	Pinyon-juniper woodland on carbonate derived soils; 1,570–1,800 meters	Aug–Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.
Many-flowered schkuhria <i>Schkuhria multiflora</i> var. <i>multiflora</i>	-/-/2.3/-/-	Eastern Mojave desert; Texas, New Mexico	Sandy soils in pinyon-juniper woodland; 1,500–1,700 meters	Sep–Oct	No potential for species occurrence; suitable habitat does not occur in the proposed alignment. In addition, proposed alignment is outside the elevation range of this species.
Johnson's bee-hive cactus <i>Sclerocactus johnsonii</i>	-/-/2.2/-/-	San Bernardino County; Arizona, Nevada, elsewhere	Granitic soils in Mojavean desert scrub; 500–1,200 meters	Apr–May	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Rusby's desert mallow <i>Sphaeralcea rusbyi</i> var. <i>eremicola</i>	-/-/1B.2/ S/-	Death Valley region, eastern Inyo County, Clark Mountains, northeastern San Bernardino County;	Mojavean desert scrub, Joshua tree "woodland"; 975–1,500 meters	May–Jun	Potential for species occurrence; suitable habitat occurs in the proposed alignment. Species was observed during 2010 botanical surveys.

Common and Scientific Name	Federal/State/CNPS/BLM/HCP	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Potential for Occurrence in the Biological Study Area
Jackass-clover <i>Wislizenia refracta</i> <i>ssp. refracta</i>	-/-/2.2/-/-	Riverside County, San Bernardino, Arizona, New Mexico, Texas	Desert dunes, Creosote bush scrub, and playas	Apr-Nov	Potential for species occurrence; Suitable habitat occurs in the proposed alignment, however, species was not observed during 2010 botanical surveys.
Plummer's woodsia <i>Woodsia plummerae</i>	-/-/2.3/-/-	San Bernardino County, Arizona, Baja California, New Mexico, Sonora Mexico	Rocky areas in pinyon-juniper woodland, on granitic substrate	May-Sep	No potential for species occurrence; suitable habitat does not occur in the proposed alignment.

Federal

- = no listing.

California State

- = no listing.

CNPS

1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere

3 = List 3 species: more information is needed

4 = List 4 species: limited distribution (watch list)

.1 = seriously endangered in California

.2 = fairly endangered in California

.3 = not very endangered in California

- = no listing.

BLM

S = plant species that are not on federal or state lists as endangered, threatened, candidate, or proposed, but are designated by the BLM State Director for special management consideration

- = no listing.

HCP

C = species listed as "Covered" by the Clark County Multiple Species Habitat Conservation Plan

## References Cited

- BLM. 2009. California-BLM Sensitive Plants List. Accessed March-October, 2010 from: [http://www.blm.gov/ca/pa/ssp/lists/by\\_species/ssplist\\_all.html](http://www.blm.gov/ca/pa/ssp/lists/by_species/ssplist_all.html). Updated March 2009.
- Calflora. 2010. Information on California plants for education, research and conservation. [web application]. 1700 Shattuck Av #198, Berkeley, California: The Calflora Database [a non-profit organization]. Available: <http://www.calflora.org/>. (Accessed: March 2010–October 2010).
- California Department of Fish and Game. 2003. *The Vegetation Classification and Mapping Program; List of California terrestrial natural communities recognized by the California Natural Diversity Database*. Wildlife and Habitat Data Analysis Branch. Sacramento, CA.
- . 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. State of California, California Natural Resources Agency (November 24, 2009).
- California Native Plant Society. 2010. Inventory of Rare and Endangered Plants (online edition, v7-10c 8-24-2010). Available: <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed: March–October 2010. California Native Plant Society. Sacramento, CA.
- California Natural Diversity Database. 2010. RareFind 3, Version 3.1.0 (July 3, 2010, update). Records search of the U.S. Geological Survey 7.5- State Line Pass, Ivanpah Lake, Clark Mountain, Mineral Hill, and Mescal Range quadrangles. Sacramento, CA: California Department of Fish and Game.
- Hickman, J. C. (ed.). 1993. *The Jepson Manual: Higher Plants of California*. Berkeley: University of California Press.
- Munz, P. A., and D. D. Keck. 1959. *A California flora*. Berkeley, CA: University of California Press.
- Natural Resources Conservation Service. 2010. Climate Analysis for Wetlands by County (Historical Climate Information), Mountain Pass, California (Station CA5890). National Water and Climate Center. Available: <http://www.wcc.nrcs.usda.gov/ftpref/support/climate/wetlands/ca/06071.txt>. Accessed: October 2010.
- Nevada Natural Heritage Database 2007. Nevada Natural Heritage Program: GIS data downloads for species occurrences. Department of Conservation and Natural Resources, Carson City, Nevada.
- University of California, Berkeley. 2010. Jepson Online Interchange [web application]. University Herbarium and the Jepson Herbarium, University of California, Berkeley. Available: <http://ucjeps.herb.berkeley.edu/interchange.html>. Accessed March 2010–October 2010.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2009. The PLANTS database. Available: <http://plants.usda.gov/index.html>. Accessed March–October 2010.
- USFWS. 2000. Clark County Multi Species Habitat Conservation Plan. September 2000.





Appendix A  
**CNDDDB & CNPS**

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California Department of Fish and Game  
 Natural Diversity Database  
 Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Achnatherum aridum</i> Mormon needle grass	PMPOA5X010			G5	S2?	2.3
2 <i>Ageratina herbacea</i> desert ageratina	PDASTBX0J0			G5	S2	2.3
3 <i>Aliciella triodon</i> coyote gilia	PDPLM041T0			G5	S1.2	2.2
4 <i>Allium nevadense</i> Nevada onion	PMLIL021J0			G4	S2	2.3
5 <i>Androstephium breviflorum</i> small-flowered androstephium	PMLIL06010			G5	S1.2	2.2
6 <i>Arctomecon merriamii</i> white bear poppy	PDPAP02030			G3	S2.2	2.2
7 <i>Asclepias nyctaginifolia</i> Mojave milkweed	PDASC02190			G4G5	S1	2.1
8 <i>Astragalus cimae var. cimae</i> Cima milk-vetch	PDFAB0F231			G2T2	S2	1B.2
9 <i>Astragalus preussii var. preussii</i> Preuss' milk-vetch	PDFAB0F722			G4T4	S1.2	2.3
10 <i>Astragalus tidestromii</i> Tidestrom's milk-vetch	PDFAB0F8X0			G4G5	S2	2.2
11 <i>Astrolepis cochisensis ssp. cochisensis</i> scaly cloak fern	PPADI0P013			G5?T4	S2.3	2.3
12 <i>Bouteloua trifida</i> three-awned grama	PMPOA100L0			G4G5	S2?	2.3
13 <i>Coryphantha chlorantha</i> desert pincushion	PDCAC040J0			G2G3	S1	2.1
14 <i>Coryphantha vivipara var. rosea</i> viviparous foxtail cactus	PDCAC0X0G8			G5T3	S2.2	2.2
15 <i>Cymopterus gilmanii</i> Gilman's cymopterus	PDAP10U0C0			G3?	S2.2	2.3
16 <i>Cymopterus multinervatus</i> purple-nerve cymopterus	PDAP10U0G0			G5?	S2	2.2
17 <i>Enneapogon desvauxii</i> nine-awned pappus grass	PMPOA2J010			G5	S2	2.2
18 <i>Erigeron uncialis var. uncialis</i> limestone daisy	PDAST3M452			G3G4T2	S2.2	1B.2
19 <i>Eriogonum bifurcatum</i> forked buckwheat	PDPGN080R0			G2	S1.2	1B.2
20 <i>Eriogonum umbellatum var. juniporinum</i> juniper sulphur-flowered buckwheat	PDPGN086U6			G5T3?	S1S2	2.3
21 <i>Erioneuron pilosum</i> hairy erioneuron	PMPOA2S020			G5	S2S3	2.3
22 <i>Euphorbia exstipulata var. exstipulata</i> Clark Mountain spurge	PDEUP0Q0P1			G5T5?	S1.3	2.1
23 <i>Galium proliferum</i> desert bedstraw	PDRUB0N1V0			G5	S2	2.2
24 <i>Galium wrightii</i> Wright's bedstraw	PDRUB0N2F0			G3G4	S1.2	2.3

California Department of Fish and Game  
Natural Diversity Database  
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
25 <i>Glossopetalon pungens</i> pungent glossopetalon	PDCRO04020			G2G3	S1.3	1B.2
26 <i>Grusonia parishii</i> Parish's club-cholla	PDCAC0D2H0			G3G4	S2	2.2
27 <i>Hymenopappus filifolius</i> var. <i>eripodus</i> hairy-podded fine-leaf hymenopappus	PDAST51032			G5T3	S1.3	2.3
28 <i>Ivesia jaegeri</i> Jaeger's ivesia	PDROS0X080			G2G3	S1.3	1B.3
29 <i>Juncus nodosus</i> knotted rush	PMJUN01210			G5	S2.3	2.3
30 <i>Leymus salinus</i> ssp. <i>mojavensis</i> hillside wheat grass	PMPOA6P013			G5T3?	S1.3	2.3
31 <i>Linum puberulum</i> plains flax	PDLIN020P0			G5	S1S2.3	2.3
32 <i>Lotus argyraeus</i> var. <i>multicaulis</i> scrub lotus	PDFAB2A052			G4?T1	S1.3	1B.3
33 <i>Menodora scabra</i> rough menodora	PDOLE09040			G5	S2.3	2.3
34 <i>Mentzelia polita</i> polished blazing star	PDLOA031D0			G2	S1.2	1B.2
35 <i>Mentzelia pterosperma</i> wing-seed blazing star	PDLOA031E0			G4	S1.2	2.2
36 <i>Mesquite Bosque</i>	CTT61820CA			G3	S2.1	
37 <i>Mirabilis coccinea</i> red four o'clock	PDNYC0A090			G5	S2	2.3
38 <i>Muhlenbergia arsenei</i> tough muhly	PMPOA48060			G5	S1S2	2.3
39 <i>Munroa squarrosa</i> false buffalo-grass	PMPOA49010			G5	S1S2	2.2
40 <i>Oenothera cavernae</i> cave evening-primrose	PDONA0C090			G2G3	S1	2.1
41 <i>Pellaea truncata</i> spiny cliff-brake	PPADI0H0C0			G5	S2	2.3
42 <i>Penstemon bicolor</i> ssp. <i>roseus</i> rosy two-toned beardtongue	PDSCR1L0S2			G3T3Q	S1	1B.1
43 <i>Penstemon thompsoniae</i> Thompson's beardtongue	PDSCR1L670			G4	S1.3	2.3
44 <i>Penstemon utahensis</i> Utah beardtongue	PDSCR1L6G0			G4	S2	2.3
45 <i>Phacelia anelsonii</i> Aven Nelson's phacelia	PDHYD0C060			G2G3	S2.3?	2.3
46 <i>Phacelia barnebyana</i> Barneby's phacelia	PDHYD0C0C0			G3?	S2.3	2.3
47 <i>Phacelia coerulea</i> sky-blue phacelia	PDHYD0C0U0			G5	S1.3	2.3
48 <i>Phacelia perityloides</i> var. <i>jaegeri</i> Jaeger's phacelia	PDHYD0C1M0			G4T2	S1.3	1B.3
49 <i>Phacelia pulchella</i> var. <i>gooddingii</i> Goodding's phacelia	PDHYD0C3V1			G5T2T3	S1.3?	2.3

California Department of Fish and Game  
 Natural Diversity Database  
 Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
50 <i>Physaria chambersii</i> Chambers' physaria	PDBRA22050			G4	S2.3	2.3
51 <i>Piptatherum micranthum</i> small-flowered rice grass	PMPOA4J070			G5	S2S3	2.3
52 <i>Polygala acanthoclada</i> thorny milkwort	PDPGL02020			G4	S1	2.3
53 <i>Sanvitalia abertii</i> Abert's sanvitalia	PDAST89010			G5	S1S2	2.2
54 <i>Schkuhria multiflora var. multiflora</i> many-flowered schkuhria	PDAST8C021			G5T5	S1.3	2.3
55 <i>Sclerocactus johnsonii</i> Johnson's bee-hive cactus	PDCAC0J0H0			G3G4	S2.2	2.2
56 <i>Sphaeralcea rusbyi var. eremicola</i> Rusby's desert-mallow	PDMAL140L1			G4T2	S2	1B.2
57 <i>Wislizenia refracta ssp. refracta</i> jackass-clover	PDCPP09013			G5T5?	S1.2?	2.2
58 <i>Woodsia plummerae</i> Plummer's woodsia	PPDRY0U0A0			G5	S1.3?	2.3

# CNPS California Native Plant Society Inventory of Rare and Endangered Plants

v7-10c 8-24-10

Status: search results - Mon, Oct. 11, 2010 18:31 c

{QUADS\_123} =~ m/249D|226A|226B|248B|248C|225B|249A|249E

**Tip:** Want to search by county? Try the [county index](#). [all tips and help.] [search history]



























**Your Quad Selection:** Clark Mountain (249D) 3511555, Mescal Range (226A) 3511545, Valley Wells (226B) 3511546, State Line Pass (248B) 3511564, Ivanpah Lake (248C) 3511554, Mineral Hill (225B) 3511544, Mesquite Lake (249A) 3511565, Mesquite Mountains (249B) 3511566, Pachalka Spring (249C) 3511556









































Hits 1 to 50 of 54





















Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<u><a href="#">Achnatherum aridum</a></u> 	Mormon needle grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Ageratina herbacea</a></u>	desert ageratina	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Aliciella triodon</a></u> 	coyote gilia	Polemoniaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Allium nevadense</a></u> 	Nevada onion	Liliaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Androstephium breviflorum</a></u> 	small-flowered androstephium	Liliaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Arctomecon merriamii</a></u> 	white bear poppy	Papaveraceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Asclepias nyctaginifolia</a></u> 	Mojave milkweed	Asclepiadaceae	List 2.1
	<input type="checkbox"/>	1	<u><a href="#">Astragalus cimae</a></u> var. <u><a href="#">cimae</a></u> 	Cima milk-vetch	Fabaceae	List 1B.2
	<input type="checkbox"/>	1	<u><a href="#">Astragalus tidestromii</a></u> 	Tidestrom's milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Astrolepis cochisensis</a></u> ssp. <u><a href="#">cochisensis</a></u>	scaly cloak fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Bouteloua trifida</a></u> 	three-awned grama	Poaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Coryphantha chlorantha</a></u> 	desert pincushion	Cactaceae	List 2.1
	<input type="checkbox"/>	1	<u><a href="#">Coryphantha vivipara</a></u> var. <u><a href="#">rosea</a></u> 	viviparous foxtail cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Cymopterus gilmanii</a></u> 	Gilman's cymopterus	Apiaceae	List 2.3

	<input type="checkbox"/>	1	<b><u>Cymopterus multinervatus</u></b> 	purple-nerve cymopterus	Apiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Enneapogon desvauxii</u></b> 	nine-awned pappus grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Erigeron uncialis</u></b> var. <b><u>uncialis</u></b>	limestone daisy	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Eriogonum umbellatum</u></b> var. <b><u>juniporinum</u></b>	juniper sulphur-flowered buckwheat	Polygonaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Erioneuron pilosum</u></b> 	hairy erioneuron	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Euphorbia exstipulata</u></b> var. <b><u>exstipulata</u></b> 	Clark Mountain spurge	Euphorbiaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Galium proliferum</u></b>	desert bedstraw	Rubiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Galium wrightii</u></b>	Wright's bedstraw	Rubiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Glossopetalon pungens</u></b> 	pungent glossopetalon	Crossosomataceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Grusonia parishii</u></b> 	Parish's club-cholla	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Hymenopappus filifolius</u></b> var. <b><u>eriopodus</u></b> 	hairy-podded fine-leaf hymenopappus	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ivesia jaegeri</u></b> 	Jaeger's ivesia	Rosaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Juncus nodosus</u></b> 	knotted rush	Juncaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Leymus salinus</u></b> ssp. <b><u>mojavensis</u></b>	hillside wheat grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Linum puberulum</u></b> 	plains flax	Linaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Lotus argyraeus</u></b> var. <b><u>multicaulis</u></b> 	scrub lotus	Fabaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Menodora scabra</u></b> 	rough menodora	Oleaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Mentzelia polita</u></b> 	polished blazing star	Loasaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Mentzelia pterosperma</u></b> 	wing-seed blazing star	Loasaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Mirabilis coccinea</u></b> 	red four o'clock	Nyctaginaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia arsenei</u></b>	tough muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia fragilis</u></b>	delicate muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Munroa squarrosa</u></b> 	false buffalo-grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Oenothera cavernae</u></b>	cave evening-primrose	Onagraceae	List 2.1
		1	<b><u>Pellaea truncata</u></b>	spiny cliff-brake	Pteridaceae	List

	<input type="checkbox"/>					2.3
	<input type="checkbox"/>	1	<b><u>Penstemon bicolor</u></b> <b>ssp. roseus</b> 	rosy two-toned beardtongue	Scrophulariaceae	List 1B.1
	<input type="checkbox"/>	1	<b><u>Penstemon</u></b> <b>thompsoniae</b> 	Thompson's beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon utahensis</u></b> 	Utah beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia anelsonii</u></b> 	Aven Nelson's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia barnebyana</u></b>	Barneby's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia coerulea</u></b> 	sky-blue phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia perityloides</u></b> <b>var. jaegeri</b>	Jaeger's phacelia	Hydrophyllaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Physaria chambersii</u></b> 	Chambers' physaria	Brassicaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Piptatherum</u></b> <b>micranthum</b>	small-flowered rice grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Polygala</u></b> <b>acanthoclada</b> 	thorny milkwort	Polygalaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sanvitalia abertii</u></b> 	Abert's sanvitalia	Asteraceae	List 2.2

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

For more results click below:







# Inventory of Rare and Endangered Plants

v7-10c 8-24-10

**Status:** search results - Tue, Oct. 12, 2010 15:04 c

**Tip:** Terms prefixed by "+" are required, and by "-" excluded.[\[all tips and help.\]](#)[\[search history\]](#)

**Your Quad Selection:** Clark Mountain (249D) 3511555, Mescal Range (226A) 3511545, Valley Wells (226B) 3511546, State Line Pass (248B) 3511564, Ivanpah Lake (248C) 3511554, Mineral Hill (225B) 3511544, Mesquite Lake (249A) 3511565, Mesquite Mountains (249B) 3511566, Pachalka Spring (249C) 3511556

**Hits 51 to 54 of 54**

**Requests that specify topo quads will return only Lists 1-3.**

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b>Schkuhria multiflora</b> var. <b>multiflora</b>	many-flowered schkuhria	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b>Sclerocactus johnsonii</b>	Johnson's beehive cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b>Sphaeralcea rusbyi</b> var. <b>eremicola</b>	Rusby's desert-mallow	Malvaceae	List 1B.2
	<input type="checkbox"/>	1	<b>Wislizenia refracta</b> ssp. <b>refracta</b>	jackass-clover	Capparaceae	List 2.2

**For more results click below:**





# Inventory of Rare and Endangered Plants

v7-10c 8-24-10

**Status:** search results - Mon, Oct. 11, 2010 18:30 c

{QUADS\_123} =~ m/248C|225A|225B|249D|249A|226A|248D

**Tip:** +DNT Jun Jul returns Del Norte taxa with those blooming both months listed first.  
[\[all tips and help.\]](#)[\[search history\]](#)

**Your Quad Selection:** Ivanpah Lake (248C) 3511554, Nipton (225A) 3511543, Mineral Hill (225B) 3511544, Clark Mountain (249D) 3511555, Mesquite Lake (249A) 3511565, Mescal Range (226A) 3511545, Desert (248D) 3511553, State Line Pass (248B) 3511564












































**Hits 1 to 50 of 51**




















**Requests that specify topo quads will return only Lists 1-3.**

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b><u>Achnatherum aridum</u></b> 	Mormon needle grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ageratina herbacea</u></b>	desert ageratina	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Aliciella triodon</u></b>	coyote gilia	Polemoniaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Allium nevadense</u></b>	Nevada onion	Liliaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Androstephium breviflorum</u></b>	small-flowered androstephium	Liliaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Arctomecon merriamii</u></b>	white bear poppy	Papaveraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Asclepias nyctaginifolia</u></b>	Mojave milkweed	Asclepiadaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Astragalus cimae</u> var. cimae</b>	Cima milk-vetch	Fabaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Astragalus tidestromii</u></b>	Tidestrom's milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Astrolepis cochisensis</u> ssp. cochisensis</b>	scaly cloak fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Bouteloua trifida</u></b>	three-awned grama	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Coryphantha chlorantha</u></b>	desert pincushion	Cactaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Coryphantha vivipara</u> var. rosea</b>	viviparous foxtail cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Cymopterus gilmanii</u></b>	Gilman's cymopterus	Apiaceae	List 2.3

	<input type="checkbox"/>	1	<b><u>Enneapogon desvauxii</u></b> 	nine-awned pappus grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Erigeron uncialis</u></b> var. <b><u>uncialis</u></b>	limestone daisy	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Erioneuron pilosum</u></b> 	hairy erioneuron	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Euphorbia extipulata</u></b> var. <b><u>extipulata</u></b> 	Clark Mountain spurge	Euphorbiaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Galium proliferum</u></b>	desert bedstraw	Rubiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Galium wrightii</u></b>	Wright's bedstraw	Rubiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Glossopetalon pungens</u></b> 	pungent glossopetalon	Crossosomataceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Grusonia parishii</u></b> 	Parish's club-cholla	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Hymenopappus filifolius</u></b> var. <b><u>eriopodus</u></b> 	hairy-podded fine-leaf hymenopappus	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ivesia jaegeri</u></b> 	Jaeger's ivesia	Rosaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Juncus nodosus</u></b> 	knotted rush	Juncaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Leymus salinus</u></b> ssp. <b><u>mojavensis</u></b>	hillside wheat grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Linum puberulum</u></b> 	plains flax	Linaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Lotus argyraeus</u></b> var. <b><u>multicaulis</u></b> 	scrub lotus	Fabaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Menodora scabra</u></b> 	rough menodora	Oleaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Mentzelia polita</u></b> 	polished blazing star	Loasaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Mirabilis coccinea</u></b> 	red four o'clock	Nyctaginaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia arsenei</u></b>	tough muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia fragilis</u></b>	delicate muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Munroa squarrosa</u></b> 	false buffalo-grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Oenothera cavernae</u></b> 	cave evening-primrose	Onagraceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Opuntia curvispina</u></b>	curved-spine beavertail	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Pellaea truncata</u></b> 	spiny cliff-brake	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon bicolor</u></b> ssp. <b><u>roseus</u></b> 	rosy two-toned beardtongue	Scrophulariaceae	List 1B.1
	<input type="checkbox"/>	1	<b><u>Penstemon thompsoniae</u></b> 	Thompson's beardtongue	Scrophulariaceae	List 2.3


	<input type="checkbox"/>	1	<b><u>Penstemon utahensis</u></b> 	Utah beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia anelsonii</u></b> 	Aven Nelson's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia barnebyana</u></b>	Barneby's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia coerulea</u></b> 	sky-blue phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia perityloides</u></b> <b>var. <u>jaegeri</u></b>	Jaeger's phacelia	Hydrophyllaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Physaria chambersii</u></b> 	Chambers' physaria	Brassicaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Piptatherum micranthum</u></b>	small-flowered rice grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Polygala acanthoclada</u></b> 	thorny milkwort	Polygalaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sanvitalia abertii</u></b> 	Abert's sanvitalia	Asteraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Schkuhria multiflora</u></b> <b>var. <u>multiflora</u></b> 	many-flowered schkuhria	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sclerocactus johnsonii</u></b> 	Johnson's bee-hive cactus	Cactaceae	List 2.2

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

For more results click below:





## Inventory of Rare and Endangered Plants

v7-10c 8-24-10

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**Status:** search results - Tue, Oct. 12, 2010 17:05 c

{QUADS\_123} =~ m/248C|225A|225B|249D|249A|226A|248D



**Tip:** Word fragments must be completed with a wildcard, e.g., *esch\** *hyp\** for *Eschscholzia hypecoides*. [\[all tips and help.\]](#) [\[search history\]](#)

**Your Quad Selection:** Ivanpah Lake (248C) 3511554, Nipton (225A) 3511543, Mineral Hill (225B) 3511544, Clark Mountain (249D) 3511555, Mesquite Lake (249A) 3511565, Mescal Range (226A) 3511545, Desert (248D) 3511553, State Line Pass (248B) 3511564







**Hits 51 to 51 of 51**  
**Requests that specify topo quads will return only Lists 1-3.**


To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b>Sphaeralcea rusbyi</b> var. <b>eremicola</b> 	Rusby's desert-mallow	Malvaceae	List 1B.2

**For more results click below:**



# CNPS *California Native Plant Society*

## Inventory of Rare and Endangered Plants

v7-10c 8-24-10

Status: search results - Mon, Oct. 11, 2010 18:35 c

{QUADS\_123} =~ m/226A|249C|249D|225B|225C|248C|226B|226C

**Tip:** +DNT Jun Jul returns Del Norte taxa with those blooming both months listed first.  
[all tips and help.] [search history]


























**Your Quad Selection:** **Mescal Range (226A)** 3511545, Pachalka Spring (249C) 3511556, Clark Mountain (249D) 3511555, Mineral Hill (225B) 3511544, Joshua (225C) 3511534, Ivanpah Lake (248C) 3511554, Valley Wells (226B) 3511546, Cow Cove (226C) 3511536, Cima Dome (226D) 3511535


















































Hits 1 to 50 of 56






















Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b><u>Achnatherum aridum</u></b> 	Mormon needle grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ageratina herbacea</u></b>	desert ageratina	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Aliciella triodon</u></b> 	coyote gilia	Polemoniaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Allium nevadense</u></b> 	Nevada onion	Liliaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Androstephium breviflorum</u></b> 	small-flowered androstephium	Liliaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Arctomecon merriamii</u></b> 	white bear poppy	Papaveraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Asclepias nyctaginifolia</u></b> 	Mojave milkweed	Asclepiadaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Astragalus cimae</u> var. <u>cimae</u></b> 	Cima milk-vetch	Fabaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Astragalus tidestromii</u></b> 	Tidestrom's milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Astrolepis cochisensis</u> ssp. <u>cochisensis</u></b>	scaly cloak fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Bouteloua trifida</u></b> 	three-awned grama	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Coryphantha chlorantha</u></b> 	desert pincushion	Cactaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Coryphantha vivipara</u> var. <u>rosea</u></b> 	viviparous foxtail cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Cuscuta californica</u> var. <u>apiculata</u></b>	pointed dodder	Convolvulaceae	List 3

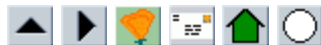
	<input type="checkbox"/>	1	<b><u>Cymopterus gilmanii</u></b> 	Gilman's cymopterus	Apiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Cymopterus multinervatus</u></b> 	purple-nerve cymopterus	Apiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Enneapogon desvauxii</u></b> 	nine-awned pappus grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Erigeron uncialis</u></b> var. <b><u>uncialis</u></b> 	limestone daisy	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Eriogonum umbellatum</u></b> var. <b><u>juniporinum</u></b> 	juniper sulphur-flowered buckwheat	Polygonaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Erioneuron pilosum</u></b> 	hairy erioneuron	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Euphorbia extipulata</u></b> var. <b><u>extipulata</u></b> 	Clark Mountain spurge	Euphorbiaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Galium proliferum</u></b> 	desert bedstraw	Rubiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Galium wrightii</u></b> 	Wright's bedstraw	Rubiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Glossopetalon pungens</u></b> 	pungent glossopetalon	Crossosomataceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Grusonia parishii</u></b> 	Parish's club-cholla	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Hymenopappus filifolius</u></b> var. <b><u>eriopodus</u></b> 	hairy-podded fine-leaf hymenopappus	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ivesia jaegeri</u></b> 	Jaeger's ivesia	Rosaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Juncus nodosus</u></b> 	knotted rush	Juncaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Leymus salinus</u></b> ssp. <b><u>mojavensis</u></b> 	hillside wheat grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Linum puberulum</u></b> 	plains flax	Linaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Lotus argyraeus</u></b> var. <b><u>multicaulis</u></b> 	scrub lotus	Fabaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Menodora scabra</u></b> 	rough menodora	Oleaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Mentzelia polita</u></b> 	polished blazing star	Loasaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Mentzelia pterosperma</u></b> 	wing-seed blazing star	Loasaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Mirabilis coccinea</u></b> 	red four o'clock	Nyctaginaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia arsenei</u></b> 	tough muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Muhlenbergia fragilis</u></b> 	delicate muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Munroa squarrosa</u></b> 	false buffalo-grass	Poaceae	List 2.2
		1	<b><u>Oenothera cavernae</u></b> 	cave evening-	Onagraceae	List

	<input type="checkbox"/>			primrose		2.1
	<input type="checkbox"/>	1	<b><u>Pellaea truncata</u></b> 	spiny cliff-brake	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon bicolor</u></b> <b><u>ssp. roseus</u></b> 	rosy two-toned beardtongue	Scrophulariaceae	List 1B.1
	<input type="checkbox"/>	1	<b><u>Penstemon thompsoniae</u></b> 	Thompson's beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon utahensis</u></b> 	Utah beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia anelsonii</u></b> 	Aven Nelson's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia barnebyana</u></b>	Barneby's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia coerulea</u></b> 	sky-blue phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia perityloides</u></b> <b><u>var. jaegeri</u></b>	Jaeger's phacelia	Hydrophyllaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Physaria chambersii</u></b> 	Chambers' physaria	Brassicaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Pinus edulis</u></b> 	two-needle pinyon pine	Pinaceae	List 3.3
	<input type="checkbox"/>	1	<b><u>Piptatherum micranthum</u></b>	small-flowered rice grass	Poaceae	List 2.3

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

For more results click below:







# Inventory of Rare and Endangered Plants

v7-10c 8-24-10

**Status:** search results - Mon, Oct. 11, 2010 18:35 c

**Tip:** Want to search by habitat? Try the [Checkbox and Preset](#) search page.[\[all tips and help.\]](#)  
[\[search history\]](#)

**Your Quad Selection:** Mescal Range (226A) 3511545, Pachalka Spring (249C) 3511556, Clark Mountain (249D) 3511555, Mineral Hill (225B) 3511544, Joshua (225C) 3511534, Ivanpah Lake (248C) 3511554, Valley Wells (226B) 3511546, Cow Cove (226C) 3511536, Cima Dome (226D) 3511535

**Hits 51 to 56 of 56**

**Requests that specify topo quads will return only Lists 1-3.**

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b><u>Polygala acanthoclada</u></b>	thorny milkwort	Polygalaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sanvitalia abertii</u></b>	Abert's sanvitalia	Asteraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Schkuhria multiflora</u> var. <u>multiflora</u></b>	many-flowered schkuhria	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sclerocactus johnsonii</u></b>	Johnson's bee-hive cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Sphaeralcea rusbyi</u> var. <u>eremicola</u></b>	Rusby's desert-mallow	Malvaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Wislizenia refracta</u> ssp. <u>refracta</u></b>	jackass-clover	Capparaceae	List 2.2

For more results click below:



# CNPS California Native Plant Society

## Inventory of Rare and Endangered Plants

v7-10c 8-24-10

Status: search results - Mon, Oct. 11, 2010 18:32 c

{QUADS\_123} =~ m/225B|248C|248D|226A|226D|249D|225A|225C

**Tip:** +Lathyrus +"coastal dunes" returns only those Lathyrus in coastal dunes. Note the "+" and quotes.[[all tips and help.](#)][[search history](#)]























**Your Quad Selection:** Mineral Hill (225B) 3511544, Ivanpah Lake (248C) 3511554, Desert (248D) 3511553, Mescal Range (226A) 3511545, Cima Dome (226D) 3511535, Clark Mountain (249D) 3511555, Nipton (225A) 3511543, Joshua (225C) 3511534, Ivanpah (225D) 3511533











































Hits 1 to 50 of 71























Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b><u>Achnatherum aridum</u></b> 	Mormon needle grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ageratina herbacea</u></b>	desert ageratina	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Aliciella triodon</u></b> 	coyote gilia	Polemoniaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Allium nevadense</u></b> 	Nevada onion	Liliaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Androstephium breviflorum</u></b> 	small-flowered androstephium	Liliaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Arctomecon merriamii</u></b> 	white bear poppy	Papaveraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Arenaria congesta</u></b> <b>var. <u>charlestonensis</u></b>	Charleston sandwort	Caryophyllaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Argyrochosma limitanea</u></b> var. <b><u>limitanea</u></b>	southwestern false cloak-fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Asclepias nyctaginifolia</u></b> 	Mojave milkweed	Asclepiadaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Astragalus allochrous</u></b> var. <b><u>playanus</u></b> 	playa milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Astragalus cimae</u></b> var. <b><u>cimae</u></b> 	Cima milk-vetch	Fabaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Astragalus tidestromii</u></b> 	Tidestrom's milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Astrolepis cochisensis</u></b> ssp. <b><u>cochisensis</u></b>	scaly cloak fern	Pteridaceae	List 2.3

	<input type="checkbox"/>	1	<b><u>Berberis fremontii</u></b> 	Fremont barberry	Berberidaceae	List 3
	<input type="checkbox"/>	1	<b><u>Bouteloua trifida</u></b> 	three-awned grama	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Cheilanthes wootonii</u></b>	Wooton's lace fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Cirsium arizonicum</u></b> <b>var. <u>tenuisectum</u></b> 	desert mountain thistle	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Cordylanthus parviflorus</u></b> 	small-flowered bird's-beak	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Coryphantha chlorantha</u></b> 	desert pincushion	Cactaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Coryphantha vivipara</u></b> <b>var. <u>rosea</u></b> 	viviparous foxtail cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Cymopterus gilmanii</u></b> 	Gilman's cymopterus	Apiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Enneapogon desvauxii</u></b> 	nine-awned pappus grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Erigeron uncialis</u></b> var. <b><u>uncialis</u></b>	limestone daisy	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Erigeron utahensis</u></b> 	Utah daisy	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Eriodictyon angustifolium</u></b> 	narrow-leaved yerba santa	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Eriogonum thornei</u></b> 	Thorne's buckwheat	Polygonaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Eriogonum umbellatum</u></b> var. <b><u>juniporinum</u></b>	juniper sulphur-flowered buckwheat	Polygonaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Erioneuron pilosum</u></b> 	hairy erioneuron	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Euphorbia extipulata</u></b> var. <b><u>extipulata</u></b> 	Clark Mountain spurge	Euphorbiaceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Galium proliferum</u></b>	desert bedstraw	Rubiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Galium wrightii</u></b>	Wright's bedstraw	Rubiaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Glossopetalon pungens</u></b> 	pungent glossopetalon	Crossosomataceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Grusonia parishii</u></b> 	Parish's club-cholla	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Hedeoma drummondii</u></b> 	Drummond's false pennyroyal	Lamiaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Hymenopappus filifolius</u></b> var. <b><u>eriopodus</u></b> 	hairy-podded fine-leaf hymenopappus	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Ivesia jaegeri</u></b> 	Jaeger's ivesia	Rosaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Juncus interior</u></b>	inland rush	Juncaceae	List 2.2
			<b><u>Juncus nevadensis</u></b>			List


	<input type="checkbox"/>	1	<b>var. <u>inventus</u></b>		Juncaceae	2.2
	<input type="checkbox"/>	1	<b>Juncus <u>nodosus</u></b> 	knotted rush	Juncaceae	List 2.3
	<input type="checkbox"/>	1	<b>Leymus <u>salinus</u> ssp. <u>mojavensis</u></b>	hillside wheat grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Linum <u>puberulum</u></b> 	plains flax	Linaceae	List 2.3
	<input type="checkbox"/>	1	<b>Lithospermum <u>incisum</u></b> 	plains stoneseed	Boraginaceae	List 2.3
	<input type="checkbox"/>	1	<b>Lotus <u>argyraeus</u> var. <u>multicaulis</u></b> 	scrub lotus	Fabaceae	List 1B.3
	<input type="checkbox"/>	1	<b>Menodora <u>scabra</u></b> 	rough menodora	Oleaceae	List 2.3
	<input type="checkbox"/>	1	<b>Mentzelia <u>polita</u></b> 	polished blazing star	Loasaceae	List 1B.2
	<input type="checkbox"/>	1	<b>Mirabilis <u>coccinea</u></b> 	red four o'clock	Nyctaginaceae	List 2.3
	<input type="checkbox"/>	1	<b>Muhlenbergia <u>arsenei</u></b>	tough muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Muhlenbergia <u>fragilis</u></b>	delicate muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Muhlenbergia <u>pauciflora</u></b> 	few-flowered muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Munroa <u>squarrosa</u></b> 	false buffalo-grass	Poaceae	List 2.2

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

For more results click below:





## Inventory of Rare and Endangered Plants

v7-10c 8-24-10

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**Status:** search results - Mon, Oct. 11, 2010 18:33 c

{QUADS\_123} =~ m/225B|248C|248D|226A|226D|249D|225A|225C

**Tip:** +DNT Jun Jul returns Del Norte taxa with those blooming both months listed first.  
[\[all tips and help.\]](#)[\[search history\]](#)







**Your Quad Selection:** Mineral Hill (225B) 3511544, Ivanpah Lake (248C) 3511554, Desert (248D) 3511553, Mescal Range (226A) 3511545, Cima Dome (226D) 3511535, Clark Mountain (249D) 3511555, Nipton (225A) 3511543, Joshua (225C) 3511534, Ivanpah (225D) 3511533

**Hits 51 to 71 of 71**  
**Requests that specify topo quads will return only Lists 1-3.**

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<b><u>Nama dichotomum</u></b> var. <b><u>dichotomum</u></b>	forked purple mat	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Oenothera cavernae</u></b>	cave evening-primrose	Onagraceae	List 2.1
	<input type="checkbox"/>	1	<b><u>Oenothera longissima</u></b>	long-stem evening-primrose	Onagraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Opuntia curvispina</u></b>	curved-spine beavertail	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Pellaea truncata</u></b>	spiny cliff-brake	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon bicolor</u></b> ssp. <b><u>roseus</u></b>	rosy two-toned beardtongue	Scrophulariaceae	List 1B.1
	<input type="checkbox"/>	1	<b><u>Penstemon thompsoniae</u></b>	Thompson's beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Penstemon utahensis</u></b>	Utah beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia anelsonii</u></b>	Aven Nelson's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia barnebyana</u></b>	Barneby's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia coerulea</u></b>	sky-blue phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Phacelia perityloides</u></b> var. <b><u>jaegeri</u></b>	Jaeger's phacelia	Hydrophyllaceae	List 1B.3
	<input type="checkbox"/>	1	<b><u>Physaria chambersii</u></b>	Chambers' physaria	Brassicaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Pinus edulis</u></b>	two-needle pinyon pine	Pinaceae	List 3.3
	<input type="checkbox"/>	1	<b><u>Piptatherum micranthum</u></b>	small-flowered rice grass	Poaceae	List 2.3


	<input type="checkbox"/>	1	<b><u>Polygala acanthoclada</u></b> 	thorny milkwort	Polygalaceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sanvitalia abertii</u></b> 	Abert's sanvitalia	Asteraceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Schkuhria multiflora</u></b> <b>var. multiflora</b> 	many-flowered schkuhria	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b><u>Sclerocactus johnsonii</u></b> 	Johnson's bee-hive cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b><u>Sphaeralcea rusbyi</u></b> var. <b>eremicola</b> 	Rusby's desert-mallow	Malvaceae	List 1B.2
	<input type="checkbox"/>	1	<b><u>Woodsia plummerae</u></b> 	Plummer's woodsia	Dryopteridaceae	List 2.3

To save selected records for later study, click the ADD button.

Selections will appear in a new window.

For more results click below:





**CNPS**  
*California Native Plant Society*

## Inventory of Rare and Endangered Plants

v7-10c 8-24-10

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**Status:** search results - Mon, Oct. 11, 2010 18:27 c

{QUADS\_123} =~ m/248B|249A|249D|273D|248C|2

**Tip:** CNPS\_LIST: "List 3" (note the field name) returns only taxa on List 3. "List 3" by itself, matches the phrase wherever found. Browse the list of [field names](#).[\[all tips and help.\]](#)  
[\[search history\]](#)

**Your Quad Selection:** State Line Pass (248B) 3511564, Mesquite Lake (249A) 3511565, Clark Mountain (249D) 3511555, Shenandoah Peak (273D) 3511575, Ivanpah Lake (248C) 3511554, Desert (248D) 3511553












































**Hits 1 to 45 of 45**  
**Requests that specify topo quads will return only Lists 1-3.**

To save selected records for later study, click the ADD button.













Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	<input type="checkbox"/>	1	<u><a href="#">Achnatherum aridum</a></u>	Mormon needle grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Ageratina herbacea</a></u>	desert ageratina	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Aliciella triodon</a></u>	coyote gilia	Polemoniaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Androstephium breviflorum</a></u>	small-flowered androstephium	Liliaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Arctomecon merriamii</a></u>	white bear poppy	Papaveraceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Asclepias nyctaginifolia</a></u>	Mojave milkweed	Asclepiadaceae	List 2.1
	<input type="checkbox"/>	1	<u><a href="#">Astragalus preussii</a></u> var. <u><a href="#">preussii</a></u>	Preuss' milk-vetch	Fabaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Astragalus tidestromii</a></u>	Tidestrom's milk-vetch	Fabaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Astrolepis cochisensis</a></u> ssp. <u><a href="#">cochisensis</a></u>	scaly cloak fern	Pteridaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Bouteloua trifida</a></u>	three-awned grama	Poaceae	List 2.3
	<input type="checkbox"/>	1	<u><a href="#">Coryphantha chlorantha</a></u>	desert pincushion	Cactaceae	List 2.1
	<input type="checkbox"/>	1	<u><a href="#">Coryphantha vivipara</a></u> var. <u><a href="#">rosea</a></u>	viviparous foxtail cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<u><a href="#">Cymopterus gilmanii</a></u>	Gilman's cymopterus	Apiaceae	List 2.3
			<u><a href="#">Enneapogon</a></u>	nine-awned pappus		List



	<input type="checkbox"/>	1	<b>desvauxii</b> 	grass	Poaceae	2.2
	<input type="checkbox"/>	1	<b>Erigeron uncialis</b> var. <b>uncialis</b>	limestone daisy	Asteraceae	List 1B.2
	<input type="checkbox"/>	1	<b>Eriogonum bifurcatum</b> 	forked buckwheat	Polygonaceae	List 1B.2
	<input type="checkbox"/>	1	<b>Erioneuron pilosum</b> 	hairy erioneuron	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Euphorbia exstipulata</b> var. <b>exstipulata</b> 	Clark Mountain spurge	Euphorbiaceae	List 2.1
	<input type="checkbox"/>	1	<b>Galium proliferum</b>	desert bedstraw	Rubiaceae	List 2.2
	<input type="checkbox"/>	1	<b>Galium wrightii</b>	Wright's bedstraw	Rubiaceae	List 2.3
	<input type="checkbox"/>	1	<b>Glossopetalon pungens</b> 	pungent glossopetalon	Crossosomataceae	List 1B.2
	<input type="checkbox"/>	1	<b>Grusonia parishii</b> 	Parish's club-cholla	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b>Hymenopappus filifolius</b> var. <b>eriopodus</b> 	hairy-podded fine-leaf hymenopappus	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b>Ivesia jaegeri</b> 	Jaeger's ivesia	Rosaceae	List 1B.3
	<input type="checkbox"/>	1	<b>Juncus nodosus</b> 	knotted rush	Juncaceae	List 2.3
	<input type="checkbox"/>	1	<b>Leymus salinus</b> ssp. <b>mojavensis</b>	hillside wheat grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Linum puberulum</b> 	plains flax	Linaceae	List 2.3
	<input type="checkbox"/>	1	<b>Menodora scabra</b> 	rough menodora	Oleaceae	List 2.3
	<input type="checkbox"/>	1	<b>Mentzelia polita</b> 	polished blazing star	Loasaceae	List 1B.2
	<input type="checkbox"/>	1	<b>Muhlenbergia arsenei</b>	tough muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Muhlenbergia fragilis</b>	delicate muhly	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Munroa squarrosa</b> 	false buffalo-grass	Poaceae	List 2.2
	<input type="checkbox"/>	1	<b>Oenothera cavernae</b> 	cave evening-primrose	Onagraceae	List 2.1
	<input type="checkbox"/>	1	<b>Penstemon bicolor</b> ssp. <b>roseus</b> 	rosy two-toned beardtongue	Scrophulariaceae	List 1B.1
	<input type="checkbox"/>	1	<b>Penstemon thompsoniae</b> 	Thompson's beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b>Penstemon utahensis</b> 	Utah beardtongue	Scrophulariaceae	List 2.3
	<input type="checkbox"/>	1	<b>Phacelia barnebyana</b>	Barneby's phacelia	Hydrophyllaceae	List 2.3
	<input type="checkbox"/>	1	<b>Phacelia coerulea</b> 	sky-blue phacelia	Hydrophyllaceae	List 2.3
			<b>Phacelia perityloides</b>			List



	<input type="checkbox"/>	1	<b>var. jaegeri</b>	Jaeger's phacelia	Hydrophyllaceae	1B.3
	<input type="checkbox"/>	1	<b>Physaria chambersii</b> 	Chambers' physaria	Brassicaceae	List 2.3
	<input type="checkbox"/>	1	<b>Piptatherum micranthum</b>	small-flowered rice grass	Poaceae	List 2.3
	<input type="checkbox"/>	1	<b>Sanvitalia abertii</b> 	Abert's sanvitalia	Asteraceae	List 2.2
	<input type="checkbox"/>	1	<b>Schkuhria multiflora</b> <b>var. multiflora</b> 	many-flowered schkuhria	Asteraceae	List 2.3
	<input type="checkbox"/>	1	<b>Sclerocactus johnsonii</b> 	Johnson's bee-hive cactus	Cactaceae	List 2.2
	<input type="checkbox"/>	1	<b>Sphaeralcea rusbyi</b> <b>var. eremicola</b> 	Rusby's desert-mallow	Malvaceae	List 1B.2

To save selected records for later study, click the ADD button.

**ADD checked items to Plant Press**

check all

check none

Selections will appear in a new window.

No more hits.





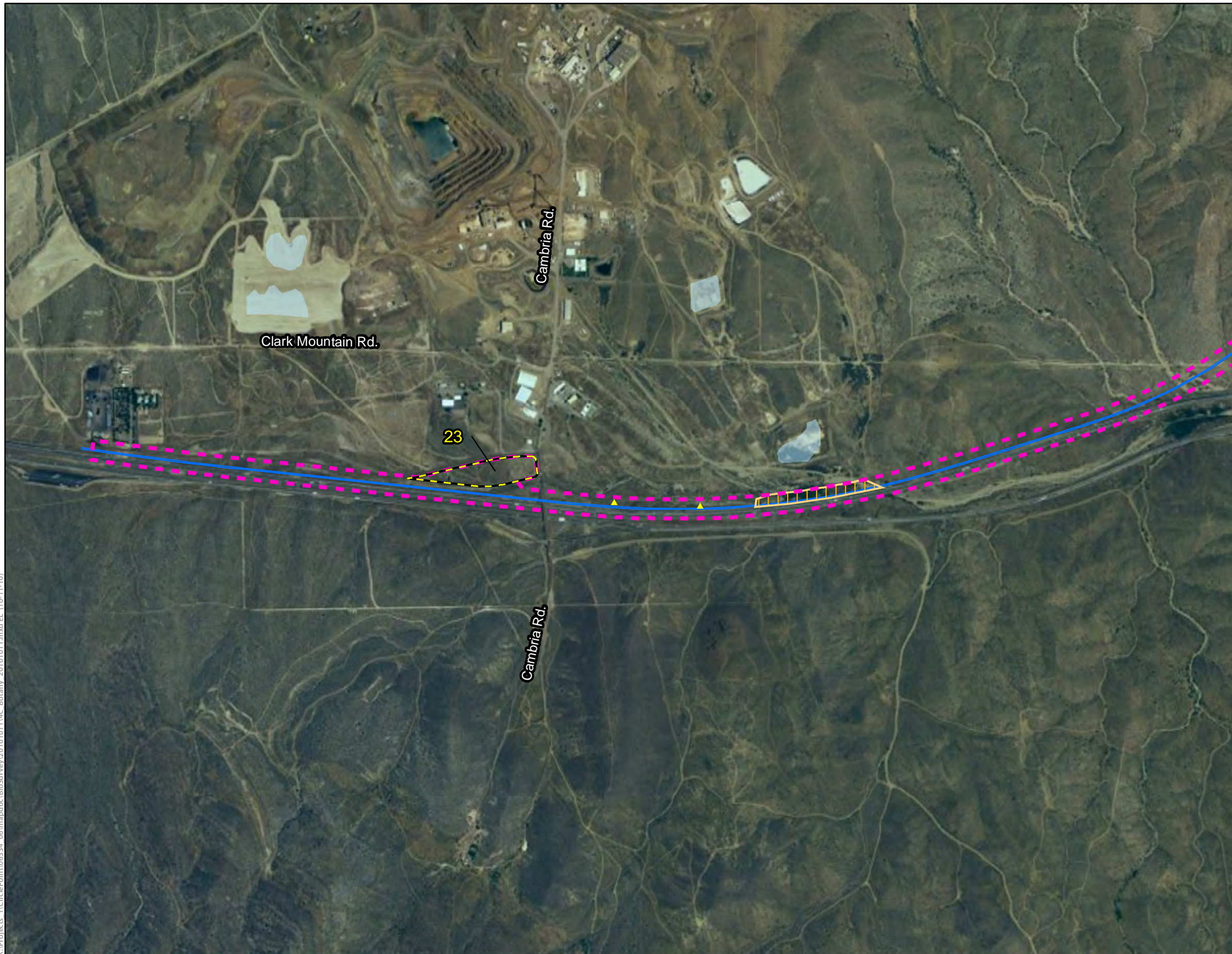
Appendix B  
**Botanical Survey Map**

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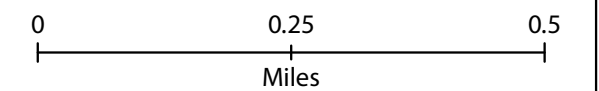


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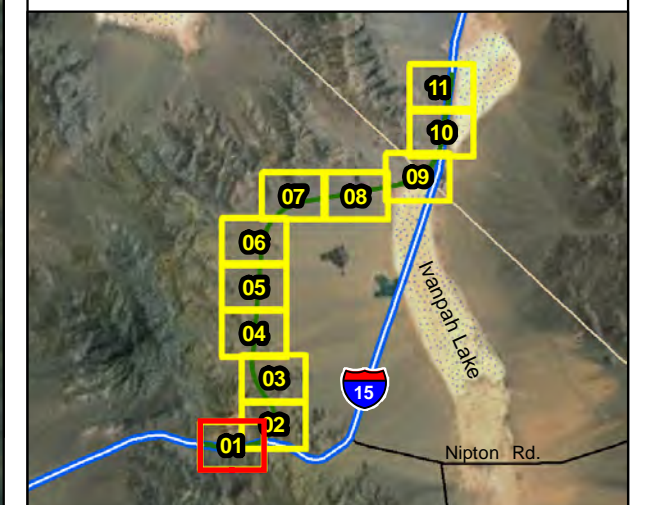


**Appendix B  
Segment 4c Rare Plant Survey  
2010 (DesertXpress)**

- ▲ Desert pincushion
- Tidestrom's milk vetch
- Utah vine milkweed
- ★ Morman needle grass
- Parish's club-cholla
- Mojave milkweed
- Small-flowered androstephium
- ▭ Rusby's desert mallow
- ▨ Mesquite shrubland (3.08 Acres)
- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



**Sheet 01**

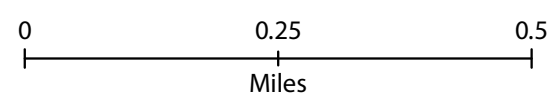




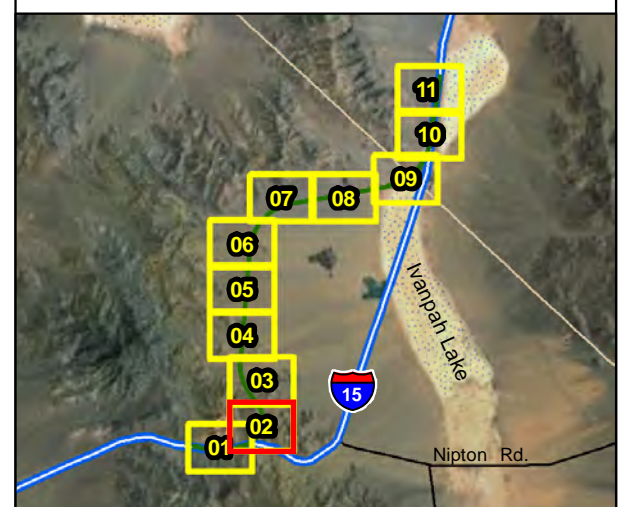


**Appendix B  
Segment 4c Rare Plant Survey  
2010 (DesertXpress)**

- ▲ Desert pincushion
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- Mojave milkweed
- Small-flowered androstrophium
- ▭ Rusby's desert mallow
- ▭ Mesquite shrubland (3.08 Acres)
- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



**Sheet 02**



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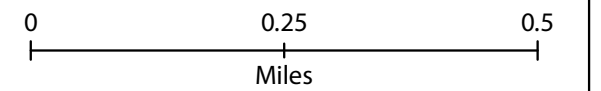


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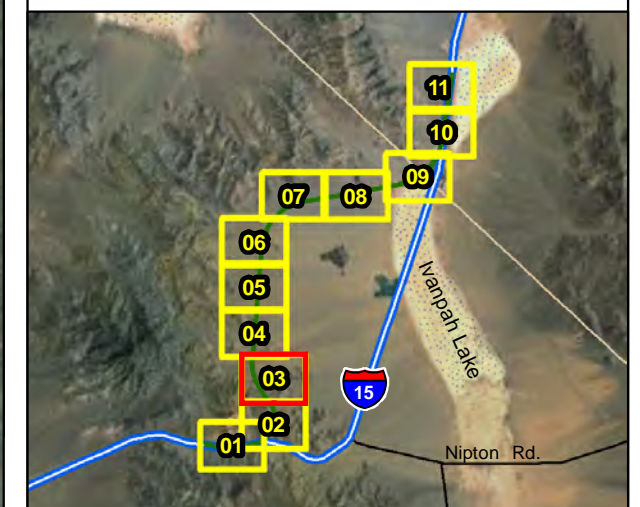


### Appendix B Segment 4c Rare Plant Survey 2010 (DesertXpress)

- ▲ Desert pincushion
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- Parish's club-cholla
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- Small-flowered androstephium
- ▭ Rusby's desert mallow
- ▭ Mesquite shrubland (3.08 Acres)
- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



Sheet 03



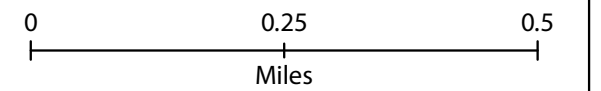


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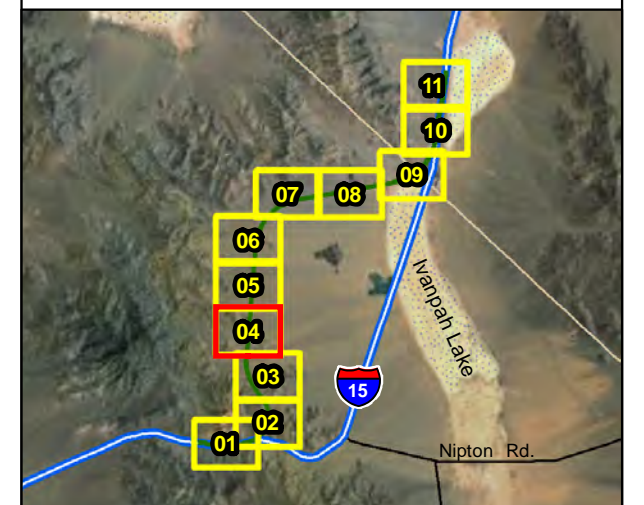


### Appendix B Segment 4c Rare Plant Survey 2010 (DesertXpress)

- ▲ Desert pincushion
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- Parish's club-cholla
- Mojave milkweed
- Small-flowered androstephium
- ▭ Rusby's desert mallow
- ▭ Mesquite shrubland (3.08 Acres)
- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



Sheet 04



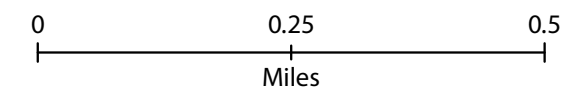


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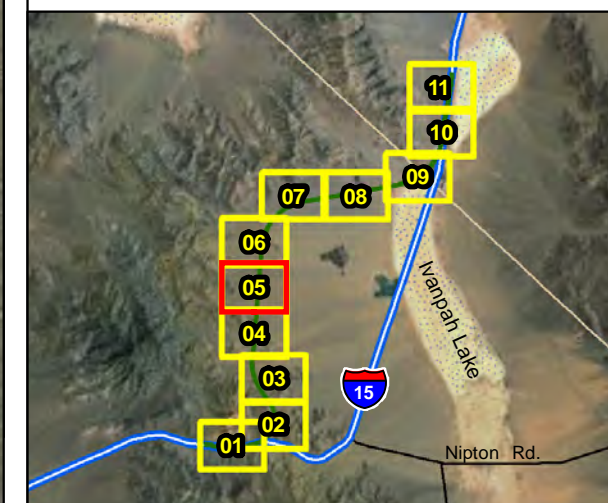


### Appendix B Segment 4c Rare Plant Survey 2010 (DesertXpress)

- ▲ Desert pincushion
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- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area

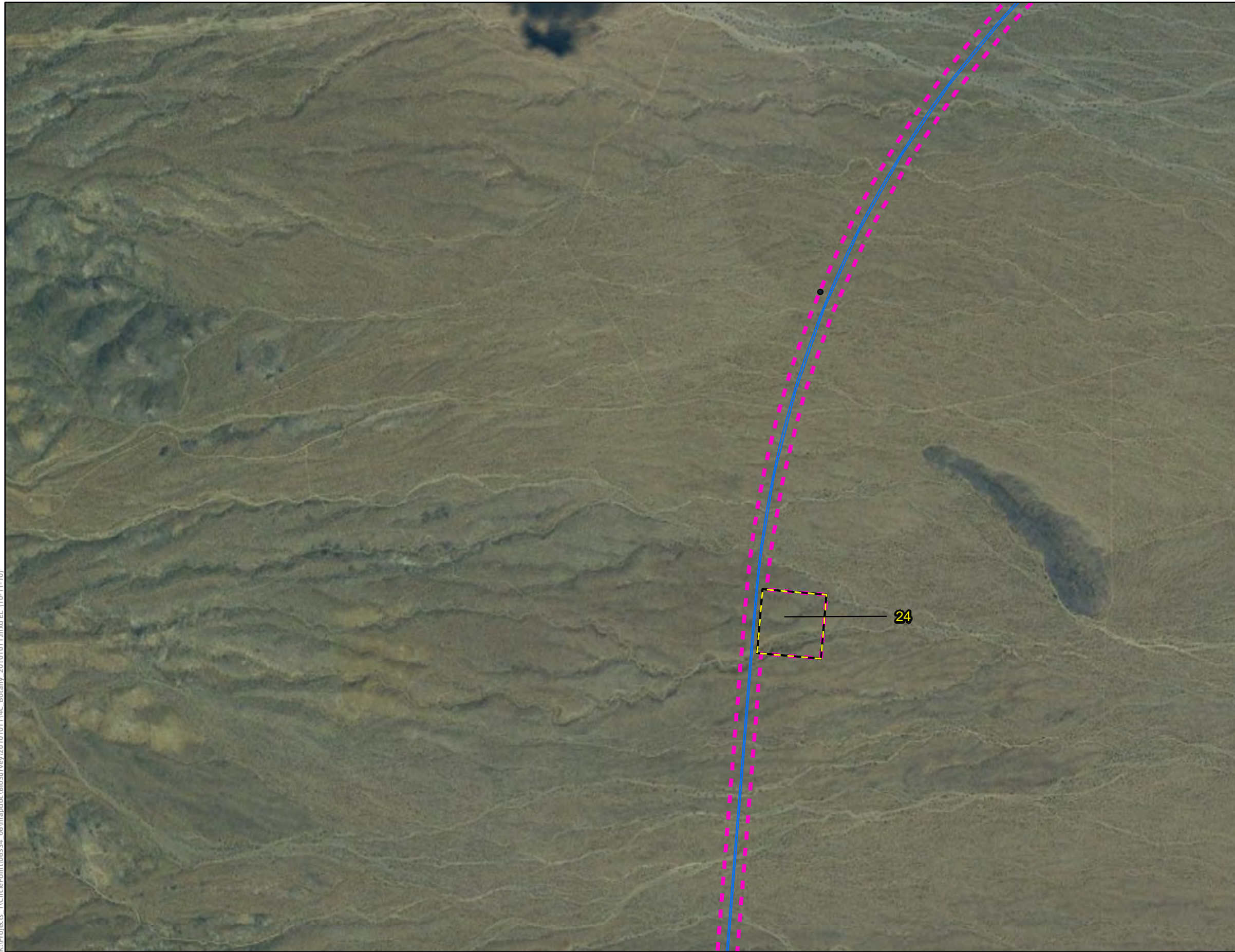


Sheet 05



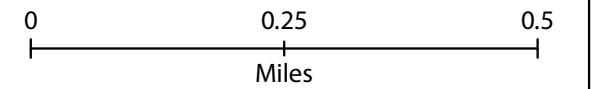


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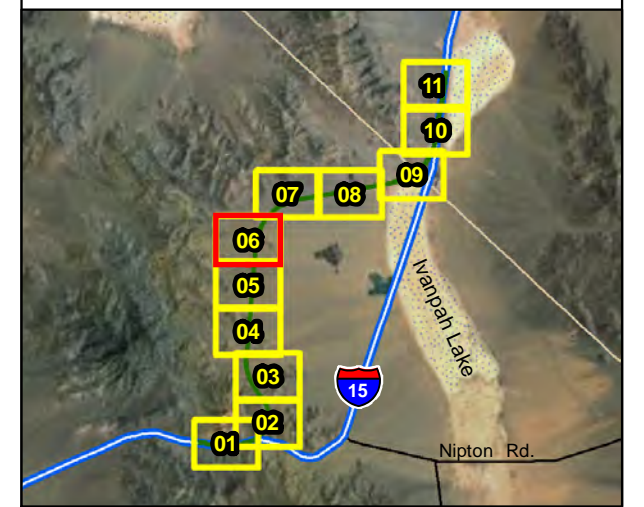


**Appendix B  
Segment 4c Rare Plant Survey  
2010 (DesertXpress)**

- ▲ Desert pincushion
- Tidestrom's milk vetch
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- Small-flowered androstephium
- ▭ Rusby's desert mallow
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- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



**Sheet 06**



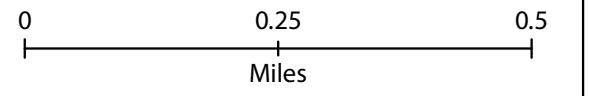


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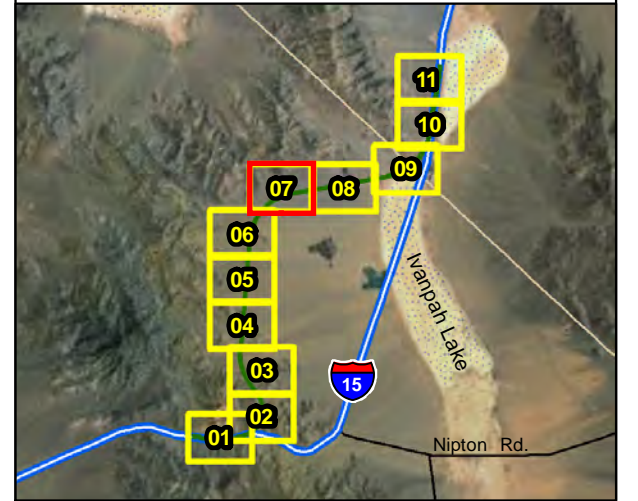


### Appendix B Segment 4c Rare Plant Survey 2010 (DesertXpress)

- ▲ Desert pincushion
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- ★ Morman needle grass
- Parish's club-cholla
- Mojave milkweed
- Small-flowered androstephium
- ▭ Rusby's desert mallow
- ▭ Mesquite shrubland (3.08 Acres)
- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



Sheet 07



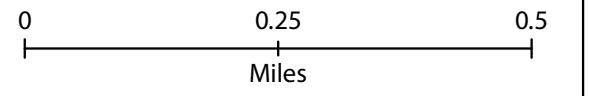


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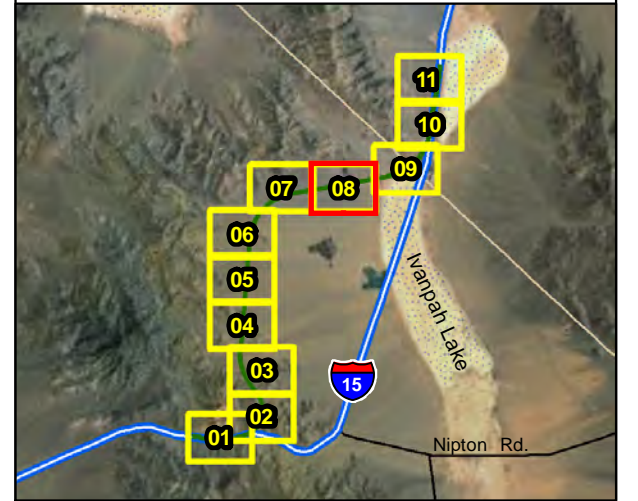


### Appendix B Segment 4c Rare Plant Survey 2010 (DesertXpress)

- ▲ Desert pincushion
- Tidestrom's milk vetch
- Utah vine milkweed
- ★ Morman needle grass
- Parish's club-cholla
- Mojave milkweed
- Small-flowered androstephium
- ▭ Rusby's desert mallow
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- Segment 4c
- ▭ Survey Corridor
- ▭ Temporary Construction Area



Sheet 08

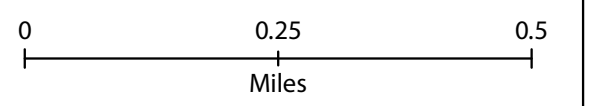




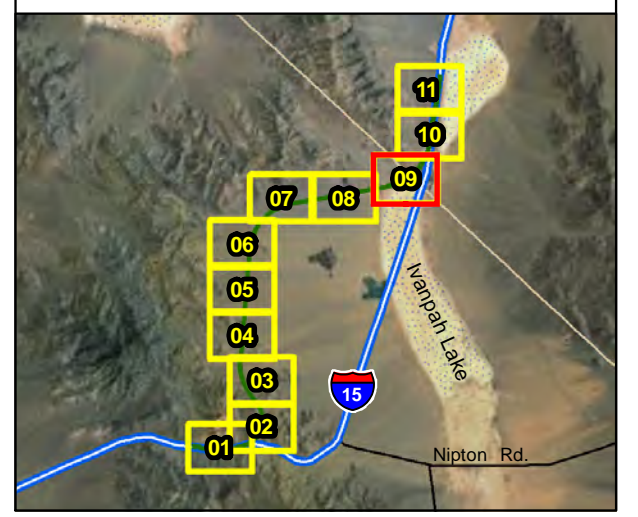


**Appendix B  
Segment 4c Rare Plant Survey  
2010 (DesertXpress)**

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- ▭ Survey Corridor
- ▭ Temporary Construction Area



**Sheet 09**



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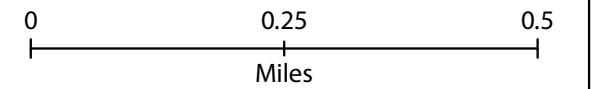


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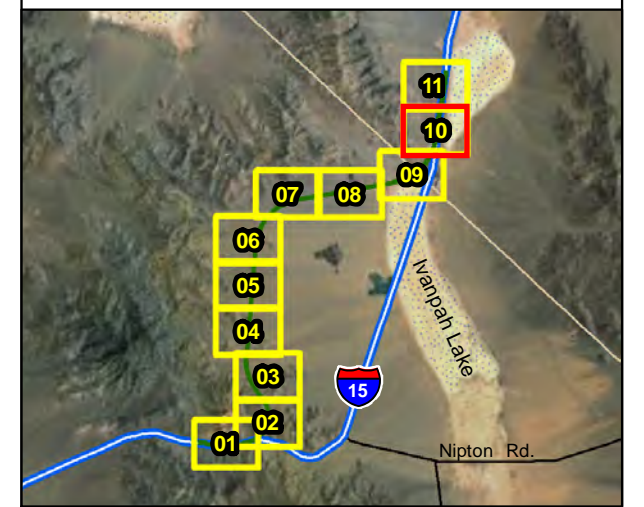


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Segment 4c Rare Plant Survey  
2010 (DesertXpress)**

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- Segment 4c
- ⬮ Survey Corridor
- ⬮ Temporary Construction Area



**Sheet 10**



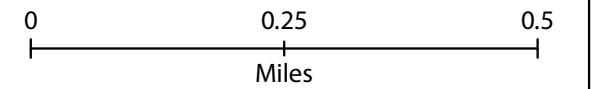


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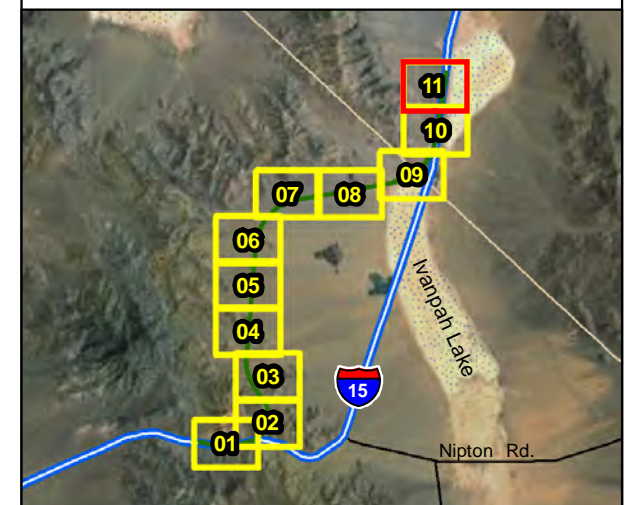


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Sheet 11







Appendix C  
**Plant Species Observed**

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**Pteridophytes****Pteridaceae - Fern Family***Pellaea mucronata*

Common bird's foot fern

**Gymnosperms****Cupressaceae - Cypress Family***Juniperus osteosperma*

Utah juniper

**Ephedraceae - Ephedra Family***Ephedra funerea*

Death Valley ephedra

*Ephedra nevadensis*

Mormon tea

*Ephedra viridis*

Green ephedra

**Dicots****Anacardiaceae - Sumac Family***Rhus trilobata*

Skunkbrush

**Apiaceae - Parsley Family***Lomatium nevadense* var. *parishii*

Nevada lomatium

**Apocynaceae - Dogbane Family***Amsonia tomentosa*

Woolly amsonia

**Asclepiadaceae - Milkweed Family***Asclepias nyctaginifolia*

Mojave milkweed

*Cynanchum utahense*

Utah vine milkweed

**Asteraceae - Aster Family***Acamptopappus sphaerocephalus* var. *sphaerocephalus*

Rayless goldenhead

*Adenophyllum cooperi*

Cooper's dogweed

*Ambrosia dumosa*

Burro-weed

*Ambrosia eriocentra*

Woolly bur-sage

*Baccharis sarothroides*

Broom baccharis

*Baccharis sergiloides*

Desert baccharis

*Baileya multiradiata*

Desert marigold

*Bebbia juncea* var. *aspera*

Sweetbush

*Brickellia arguta* v *arguta*

Pungent brickellbush

*Brickellia incana*

Woolly brickellia

*Calycoseris parryi*

Yellow tackstem

*Calycoseris wrightii*

Tackstem

*Chaenactis carphoclinia* var. *carphoclinia*

Pebble pincushion

*Chaenactis fremontii*

Fremont pincushion

*Chrysothamnus paniculatus*

Blackstem

*Cirsium neomexicanum*

New Mexico thistle

*Encelia virginensis*

Virgin River brittlebush

*Encelia farinosa*

Brittlebush

*Ericameria cuneata*

Wedgeleaf goldenbush

*Ericameria cuneata* var. *spathulata*

Spatulate-leaved goldenbush

*Ericameria cooperi*

Cooper goldenbush

*Ericameria linearifolia*

Linear-leaved goldenbush

*Erigeron concinnus* var. *concinnus*

Navajo fleabane

*Eriophyllum wallacei*

Woolly Easterbonnets

*Filago californica*

California cottonrose

*Gutierrezia sarothrae*

Broom snakeweed

*Hymenoclea salsola*

Cheesebush

<i>Layia glandulosa</i>	White tidytips
<i>Malacothrix glabrata</i>	Desert dandelion
<i>Malacothrix sonchoides</i>	Sow-thistle malacothrix
<i>Monoptilon bellioides</i>	Mojave desert star
<i>Pectis papposa</i>	Common chinchweed
<i>Peucephyllum schottii</i>	Pygmy cedar
<i>Pluchea sericea</i>	Arrow-weed
<i>Porophyllum gracile</i>	Odora
<i>Prenanthes exiguus</i>	Desert prenanthes
<i>Psathyrotes ramosissima</i>	Turtleback
<i>Psilostrophe cooperi</i>	Paper daisy
<i>Rafinesquia neomexicana</i>	Desert chicory
<i>Senecio flaccidus</i>	Shrubby ragwort
<i>Stephanomeria pauciflora</i>	Wire lettuce
<i>Stylocline micropoides</i>	Desert nest straw
<i>Tetradymia argyrea</i>	Striped horsebush
<i>Tetradymia stenolepis</i>	Mojave cottonthorn
<i>Thymophylla pentachaeta</i> var. <i>belenidium</i>	Scale glandweed
<i>Viguiera parishii</i>	Parish's goldeneye
<i>Xylorhiza tortifolia</i> var. <i>tortifolia</i>	Mojave aster
<b>Boraginaceae - Borage Family</b>	
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Common fiddleneck
<i>Amsinckia tessellata</i>	Devil's lettuce
<i>Cryptantha angustifolia</i>	Narrow-leaved cryptantha
<i>Cryptantha barbiger</i>	Bearded cryptantha
<i>Cryptantha micrantha</i>	Redroot cryptantha
<i>Cryptantha nevadensis</i>	Nevada cryptantha
<i>Cryptantha pterocarya</i>	Wingnut cryptantha
<i>Pectocarya platycarpa</i>	Broadfruit combseed
<i>Pectocarya recurvata</i>	Curvenut combseed
<i>Pectocarya setosa</i>	Bristly combseed
<i>Plagiobothrys arizonicus</i>	Arizona popcornflower
<i>Tiquilia canescens</i>	Crinkle mat
<b>Brassicaceae - Mustard Family</b>	
<i>Descurainia pinnata</i>	Pinnate tansy mustard
<i>Guillenia lasiophylla</i>	California mustard
<i>Lepidium fremontii</i>	Desert pepperweed
<i>Lepidium lasiocarpum</i> var. <i>lasiocarpum</i>	Hairy pepperweed
<i>Sisymbrium irio</i>	London rocket
<i>Streptanthella longirostris</i>	Long-beaked streptanthella
<i>Thysanocarpus laciniatus</i>	Crenate fringe pod
<b>Cactaceae - Cactus Family</b>	
<i>Coryphantha chlorotica</i>	Pancake pricklypear
<i>Echinocactus polycephalus</i> var. <i>polycephalus</i>	Cottontop
<i>Echinocereus engelmannii</i>	Hedgehog cactus
<i>Ferocactus cylindraceus</i>	Barrel cactus
<i>Grusonia parishii</i>	Club/mat cholla
<i>Opuntia acanthocarpa</i> var. <i>coloradensis</i>	Buckhorn cholla
<i>Opuntia basilaris</i>	Beavertail cactus
<i>Opuntia chlorotica</i>	Pancake pricklypear

<i>Opuntia echinocarpa</i>	Silver/golden cholla
<i>Opuntia erinacea</i>	Old man cactus
<i>Opuntia phaeacantha</i>	Brown-spined pricklypear
<i>Opuntia ramosissima</i>	Pencil cactus
<i>Sclerocactus johnsonii</i>	Johnson pineapple cactus,
<b>Campanulaceae - Bellflower Family</b>	
<i>Nemacladus glanduliferus</i> var. <i>orientalis</i>	Glandular threadplant
<b>Caryophyllaceae - Pink Family</b>	
<i>Arenaria macradenia</i> var. <i>macradenia</i>	Desert sandwort
<b>Celastraceae - Bittersweet Family</b>	
<i>Mortonia utahensis</i>	Mortonia
<b>Chenopodiaceae - Goosefoot Family</b>	
<i>Atriplex canescens</i>	Four-wing saltbush
<i>Grayia spinosa</i>	Spiny hop-sage
<i>Salsola tragus</i>	Russian thistle
<b>Cucurbitaceae - Gourd Family</b>	
<i>Cucurbita palmata</i>	Coyote melon
<b>Euphorbiaceae - Spurge Family</b>	
<i>Chamaesyce albomarginata</i>	Rattlesnake weed
<b>Fabaceae - Legume Family</b>	
<i>Acacia greggii</i>	Catclaw
<i>Astragalus nuttallianus</i> var. <i>imperfectus</i>	Turkey peas
<i>Astragalus lentiginosus</i>	Freckled astragalus
<i>Astragalus tidentromii</i>	Tidentrom's milkvetch
<i>Lotus rigidus</i>	Shrubby deervetch
<i>Lotus strigosus</i>	Strigose trefoil
<i>Lupinus concinnus</i>	Bajada lupine
<i>Lupinus brevicaulis</i>	Short-stemmed lupine
<i>Lupinus flavoculatus</i>	Yellow-eyed lupine
<i>Lupinus sparsiflorus</i>	Coulter's lupine
<i>Prosopis glandulosa</i>	Mesquite
<i>Psoralethamnus fremontii</i> var. <i>fremontii</i>	Fremont's indigobush
<b>Geraniaceae - Geranium Family</b>	
<i>Erodium cicutarium</i>	Red-stem filaree
<b>Hydrophyllaceae - Waterleaf Family</b>	
<i>Eucrypta micrantha</i>	Desert hideseed
<i>Nama demissum</i> var. <i>demissum</i>	Desert purplemat
<i>Phacelia crenulata</i>	Purplestem phacelia
<i>Phacelia cryptantha</i>	Hiddenflower phacelia
<i>Phacelia distans</i>	Distant phacelia
<i>Phacelia fremontii</i>	Fremont phacelia
<i>Phacelia rotundifolia</i>	Roundleaf phacelia
<b>Krameriaceae -Rhatany Family</b>	
<i>Krameria erecta</i>	Pima rhatany
<i>Krameria grayi</i>	White rhatany
<b>Lamiaceae - Mint Family</b>	
<i>Salazaria neomexicana</i>	Bladder-sage
<i>Salvia columbariae</i>	Chia sage
<i>Salvia dorrii</i> var. <i>dorrii</i>	Purple sage
<i>Salvia dorrii</i> var. <i>pilosa</i>	Hairy sage

<i>Salvia mohavensis</i>	Mohave sage
<b>Loasaceae - Loasa Family</b>	
<i>Mentzelia albicaulis</i>	White-stem blazing star
<i>Mentzelia obscura</i>	Pacific blazing star
<b>Malvaceae - Mallow Family</b>	
<i>Sphaeralcea ambigua</i>	Desert globemallow
<i>Sphaeralcea rusbyi</i> var. <i>eremicola</i>	Rusby's globemallow
<b>Nyctaginaceae - Four o'clock Family</b>	
<i>Allionia incarnata</i>	Windmills
<i>Mirabilis bigelovii</i> var. <i>bigelovii</i>	Desert wishbone bush
<i>Mirabilis multiflora</i>	Desert four-o'clock
<i>Mirabilis pumila</i>	White four-o'clock
<b>Oleaceae - Olive Family</b>	
<i>Menodora scoparia</i>	Broom menodora
<i>Menodora spinescens</i>	Spiny menodora
<b>Onagraceae - Evening Primrose Family</b>	
<i>Camissonia boothii</i>	Booth's evening suncup
<i>Camissonia boothii</i> subsp. <i>condensata</i>	Clustered Booth's desert primrose
<i>Camissonia brevipes</i>	Golden suncup
<i>Camissonia chamaenerioides</i>	Willowherb suncup
<b>Papaveraceae - Poppy Family</b>	
<i>Eschscholzia glyptosperma</i>	Desert goldenpoppy
<b>Plantaginaceae - Plantain Family</b>	
<i>Plantago ovata</i>	Desert plantain
<i>Plantago patagonica</i>	Patagonian plantain
<b>Polemoniaceae - Polemonium Family</b>	
<i>Eriastrum diffusum</i>	Diffuse woollystar
<i>Eriastrum eremicum</i> ssp. <i>eremicum</i>	Desert woollystar
<i>Gilia</i> sp	Gilia
<i>Ipomopsis polyclada</i>	Many-branched ipomopsis
<i>Langloisia setosissima</i> subsp. <i>punctata</i>	Spotted langloisia
<i>Langloisia setosissima</i> subsp. <i>setosissima</i>	Great Basin langloisia
<i>Linanthus aureus</i> ssp. <i>aureus</i>	White desert trumpets
<i>Linanthus demissus</i>	Desert snow
<i>Loeseliastrum schottii</i>	Schott's calico
<b>Polygonaceae - Knotweed Family</b>	
<i>Centrostegia thurberi</i>	Red triangles
<i>Chorizanthe brevicornu</i>	Brittle spineflower
<i>Chorizanthe rigida</i>	Spiny-herb
<i>Eriogonum angulosum</i>	Anglestem buckwheat
<i>Eriogonum brachypodum</i>	Parry's buckwheat
<i>Eriogonum deflexum</i> var. <i>deflexum</i>	Flat-topped buckwheat
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	California buckwheat
<i>Eriogonum inflatum</i>	Desert trumpet
<i>Eriogonum maculatum</i>	Spotted buckwheat
<i>Eriogonum nidularium</i>	Birdnest buckwheat
<i>Eriogonum pusillum</i>	Yellow turbans
<i>Eriogonum thomasii</i>	Thomas' buckwheat
<i>Eriogonum trichopes</i>	Little desert trumpet
<b>Ranunculaceae - Crowfoot Family</b>	

<i>Delphinium parishii</i>	Desert larkspur
<b>Resedaceae - Reseda Family</b>	
<i>Oligomeris linifolia</i>	Linear-leaved oligomeris
<b>Rosaceae - Rose Family</b>	
<i>Coleogyne ramosissima</i>	Blackbrush
<i>Fallugia paradoxa</i>	Apache plume
<i>Prunus fasciculata</i> var. <i>fasciculata</i>	Desert almond
<b>Rubiaceae - Coffee Family</b>	
<i>Galium</i> sp.	Bedstraw
<b>Rutaceae - Citrus Family</b>	
<i>Thamnosma montana</i>	Turpentine bush
<b>Scrophulariaceae - Snapdragon Family</b>	
<i>Castilleja angustifolia</i>	Northwest paintbrush
<i>Mimulus bigelovii</i>	Bigelow's monkeyflower
<i>Mimulus guttatus</i>	Yellow monkeyflower
<i>Penstemon palmeri</i>	Palmer's penstemon
<b>Solanaceae - Nightshade Family</b>	
<i>Datura wrightii</i>	Jimson weed
<i>Lycium andersonii</i>	Anderson's lycium
<i>Lycium cooperi</i>	Cooper's lycium
<i>Nicotiana obtusifolia</i>	Indian tobacco
<i>Physalis crassifolia</i>	Yellow nightshade groundcherry
<b>Viscaceae - Mistletoe Family</b>	
<i>Phoradendron californicum</i>	Desert mistletoe
<b>Zygophyllaceae - Caltrop Family</b>	
<i>Larrea tridentata</i>	Creosote bush
<b>Monocots</b>	
<b>Cyperaceae - Sedge Family</b>	
<i>Carex</i> sp.	Sedge
<i>Carex dudleyi</i>	Dudley's sedge
<b>Liliaceae - Lily Family</b>	
<i>Androstephium breviflorum</i>	Small-flowered androstephium
<i>Calochortus kennedyi</i> var. <i>kennedyi</i>	Desert mariposa
<i>Dichelostemma capitatum</i>	Blue dicks
<i>Yucca baccata</i>	Banana yucca
<i>Yucca brevifolia</i>	Joshua tree
<i>Yucca schidigera</i>	Mohave yucca
<b>Poaceae - Grass Family</b>	
<i>Achnatherum aridum</i>	Mormon needlegrass
<i>Achnatherum hymenoides</i>	Indian rice-grass
<i>Achnatherum speciosum</i>	Desert needlegrass
<i>Aristida purpurea</i>	Threeawn
<i>Bromus madritensis</i> ssp. <i>rubens</i>	Red brome
<i>Bromus tectorum</i>	Cheatgrass
<i>Bouteloua eriopoda</i>	Black grama
<i>Erioneuron pulchellum</i>	Fluffgrass
<i>Pleuraphis jamesii</i>	Little galleta
<i>Pleuraphis rigida</i>	Big galleta
<i>Poa fendleriana</i> subsp. <i>longiligula</i>	Muttongrass
<i>Polypogon monspeliensis</i>	Annual rabbit's-foot grass

*Schismus barbata*

Mediterranean grass



Appendix D  
**Site Photos**

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**Photo 1.** View of Creosote Bush Shrubland facing West.



**Photo 2.** View of Mojave Mixed Woody Scrub facing North.





**Photo 3.** View of Desert Holly Shrubland facing South.



**Photo 4.** View of Blackbrush Shrubland in foreground with Creosote Bush Shrubland in the background, facing North.

Graphics ..0633406 (09/10) AB

## Appendix D Representative Site Photos





**Photo 5.** View of Desert Wash Scrub facing West.



**Photo 6.** View of Mojave Milkweed (*Asclepias nyctaginifolia*).





**Photo 7.** View of Desert Pincushion (*Coryphantha chlorantha*).



**Photo 8.** View of Rusby's Desert Mallow (*Spharalcea rusbyi* var. *eremicola*).