

APPENDIX D
BOTANICAL RESOURCES ASSESSMENT REPORT
(Report for 2012 and 2013)

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**BOTANICAL RESOURCES OF THE
WEST OF DEVERS UPGRADE
PROJECT,
RIVERSIDE AND SAN BERNARDINO
COUNTIES, CALIFORNIA**

Prepared for:
LSA Associates, Inc.

September 2013

Botanical Resources of the West of Devers Upgrade Project, Riverside and San Bernardino Counties, California

Prepared for:

LSA Associates, Inc.
20 Executive Park, Suite 200 Irvine, CA 92614
Contact: Ingri Quon, Associate Biologist
Phone: 949-553-0666

Prepared by:

BioResource Consultants, Inc.
P.O. Box 1359, Ojai, California 93024
Contact: Peter Cantle, Vice President
Phone: 805-646-9006

Prepared on Behalf of:

Southern California Edison Company

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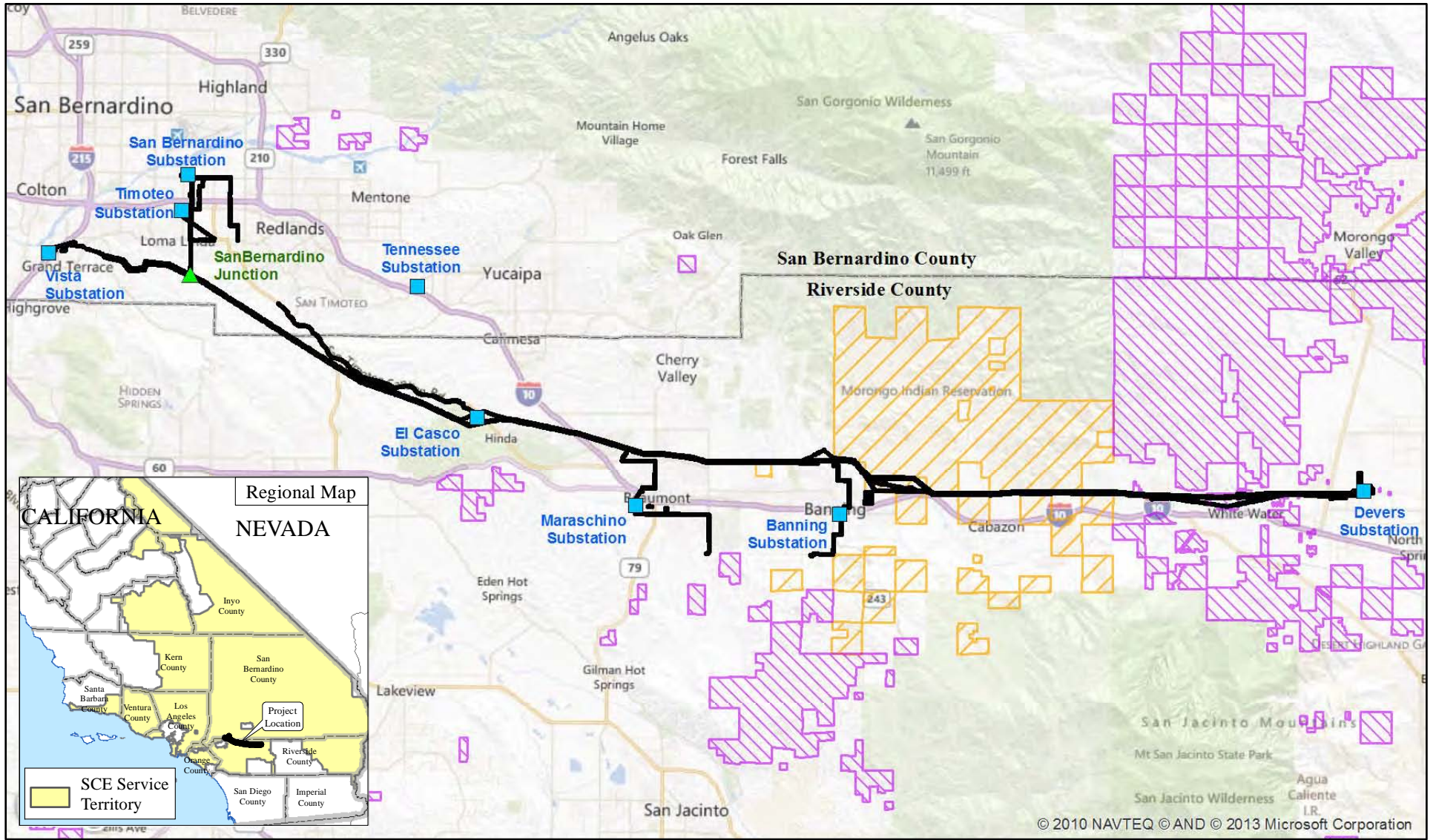
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SECTION 1. INTRODUCTION

This report presents the results of the spring and summer 2012 and 2013 plant surveys conducted by BioResource Consultants, Inc. (BRC) botanists David Magney, Steve Jones, Cedrick Villaseñor, James Peet, Sarah Termondt and Therin Rhaintre, along the West of Devers (WOD) Upgrade Project (Project) alignment in northwestern Riverside County and southwestern San Bernardino County, California. The WOD Project is being proposed for implementation by Southern California Edison (SCE). The WOD Project would upgrade the existing WOD system by replacing existing 220 kilovolt (kV) transmission lines and associated structures with new, higher-capacity 220 kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66 kV) lines; removing and relocating existing distribution (12 kV) lines; and making various telecommunication improvements.

The 2012 WOD Project survey area contains grassland, shrubland (desert scrub, coastal scrub, and chaparral), woodland, and riparian habitats within the existing SCE right-of-way (ROW) and a 500 foot (ft) buffer. The 2013 WOD Project survey area included telecommunications lines, proposed and existing access road, and potential disturbance areas outside of the 500 ft buffer line from the SCE ROW edge. The additional survey areas included potential project activities identified through the planning process where these occur beyond the limit of the 2012 survey area. Elevation ranges onsite from approximately 1,060 ft above mean sea level (amsl) to approximately 3,168 ft amsl north of the City of Banning. Figure 1, Project Survey Area, illustrates the general location of the WOD Project survey area.

BRC conducted botanical surveys within the WOD Project survey area to find and document the presence of special-status vascular plant species. The surveys were conducted from March through June of 2012 and from April through May of 2013.



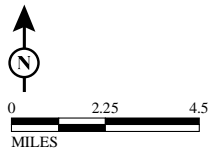
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FIGURE 1



LEGEND

- West of Devers Study Area
- Substations
- Junctions
- U.S. Bureau of Land Management
- Morongo Reservation



Source: Bing Maps Hybrid (c) 2012 Microsoft Corporation and its data suppliers; SCE

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SECTION 2. METHODS

LITERATURE SURVEY

BRC conducted a search of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB) (CDFW 2012 and 2013) for the WOD Project survey area to identify special-status species previously reported from the survey area. BRC also conducted a literature/database search of the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California* (CNPS 2001, 2012), and *The Vascular Plants of Western Riverside County, California, An Annotated Checklist* (Roberts et al. 2004). The Consortium of California Herbaria (CCH)¹ and Calflora² online databases were also consulted to determine which species have been reported from within or adjacent to the WOD Project survey area.

The *Flora of North America North of Mexico* (Flora of North America Editorial Committee 1993+), *The Jepson Manual: Higher Plants of California* (Baldwin et al. 2012), *A California Flora and Supplement* (Munz & Keck 1973), and *A Flora of Southern California* (Munz 1974), *Illustrated Flora of the Pacific States* (Abrams and Ferris 1960), and more recent taxonomic treatments were used to identify various taxa found during the field surveys.

FIELD SURVEY METHODS

BRC botanists David Magney, Cedrick Villaseñor, James Peet, and Therin Rhaintre performed floristic surveys during March, April, May, and June of 2012 to identify special-status plant species within the WOD Project survey area. The WOD Project survey and vegetation mapping area encompasses the existing SCE right of way and a 500 ft buffer. The survey dates were: 12-16 and 19-23 March, 16-20 April, 1-5 May, and 12-15 June 2012, and included a total of 88 person-field days. Additionally, BRC botanists Steve Jones, Cedrick Villaseñor, Therin Rhaintre, and Sarah Termondt performed floristic surveys during April and May of 2013. The survey dates were: 1-5 April and 28-30 May, and included a total of 25 person-field days for focused surveys and vegetation mapping of the 2013 survey areas.

Global Positioning System (GPS) units (Garmin eTrex models) were carried to track footpaths and to mark waypoints of findings of interest. Representative photographs were taken of habitat conditions within each survey section and of selected plants. The survey paths include areas traversed by foot and accessed by vehicle. All undeveloped portions of the WOD Project survey area were walked to search for special-status plant species, using existing roads to provide primary access to as much of the study area as possible.

¹ Consortium of California Herbaria, an online voucher specimen database, facilitated through the Jepson Herbarium, University of California, Berkeley. <http://ucjeps.berkeley.edu/consortium/>

² Calflora, Inc. Online plant observation database. 1700 Shattuck Av #198, Berkeley, CA 94709. 510 883-3148. <http://www.calflora.org/>

Locations dominated by invasive exotic species, particularly those classified as Invasive and/or Noxious by the California Invasive Plant Council (as described in detail in the Invasive Exotics section), were noted in the field with GPS waypoints and photographs.

The 2012 survey area was divided into 54 sections, numbered 1 through 42 from East to West and South to North (sections 41 and 42). In addition to numbers, all sections are designated with “N” for north or “S” for south, or “a” for an alternative path, resulting in the 54 discrete sections. Overall, the survey section width included the ROW and a 100 ft buffer from the edge of the ROW. Figure 2, Project Area Survey Sections and Locations, illustrates the location of each survey section.

The 2013 survey area coincides with the 54 sections, numbered 1 through 42, East to West and South to North (sections 41 and 42). Some sections are labeled as the same number, but separated into North and South sections. The 2013 survey area focused on areas outside of the SCE ROW and included telecommunications lines, proposed and existing access roads, and other potential disturbance areas outside of the 500 ft buffer line from the SCE ROW edge (Figure 2). However, the 10 staging yards were surveyed by LSA Associates, Inc. (LSA). Specifically, these portions include 200 ft buffers along each side of approximately 30 linear miles of existing roads, 250 ft buffers along approximately 2 linear miles of new roads, a 250 ft radius around approximately 32 turning sites (800 acres), and 10 acres to accommodate road grading on steep slopes. Additionally, the proposed alignment and approximately 2.3 linear miles of an alternative realignment section on the Morongo Indian Reservation (Reservation) between Malki Road and the Robertson’s Ready Mix (rock and sand mine; Banning Rock Plant 66) were surveyed. In all cases, survey paths were traversed by foot and accessed by vehicle using existing roads.

Waypoints were established for each site where floristic data was gathered and correspond to checklists in each BRC botanist’s field notes. All vascular plants observed at each survey point were recorded and representative voucher specimens for native species were collected for identification and verification. Voucher specimens were identified by using standard reference manuals (e.g. Baldwin et al. 2012, Roberts et al. 2004). The specimens will be deposited into the herbarium at the University of California, Santa Barbara (UCSB).

Digital photographs were taken at most survey waypoints. Photographs of general habitat conditions were also taken at all waypoints.

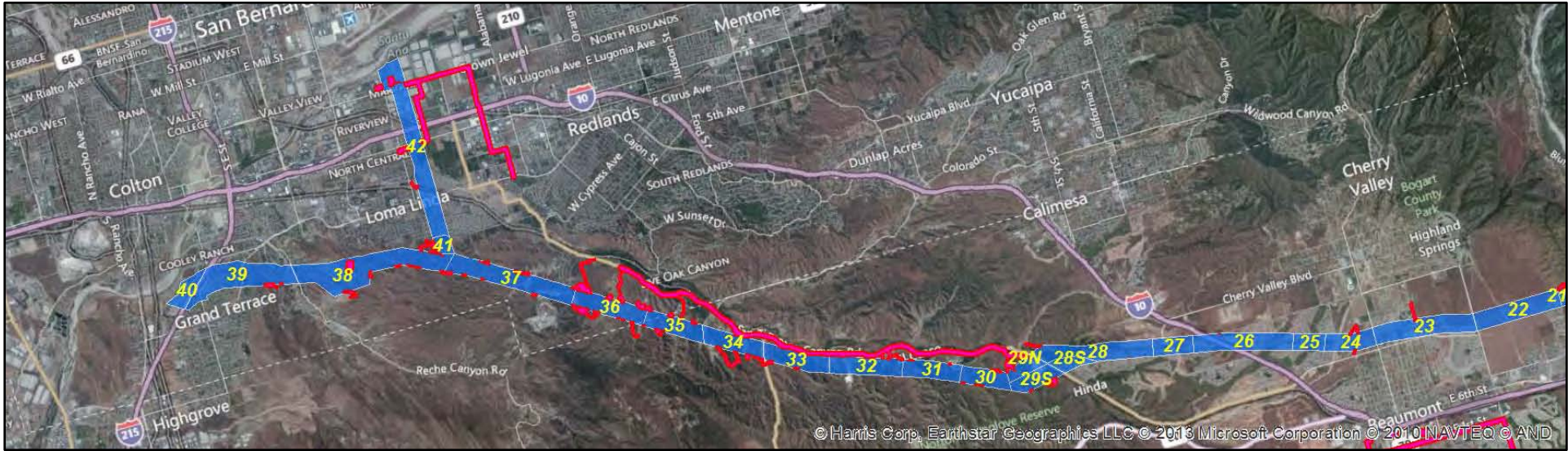
LABORATORY ANALYSIS

Numerous plant species were not identifiable in the field and required additional investigation to determine their identity. Collected voucher specimens and photographs, as well as field notes, were used to attempt complete identification.

Most undetermined plants were identified by using dichotomous identification keys in one or more reference manuals (e.g. Baldwin et al. 2012, Flora of North America Editorial Committee 1993+), recently published scientific papers describing taxonomic work on selected taxonomic groups (e.g. Tulig & Nesom 2012), and online resources (e.g. Calflora, eflora edition of The Jepson Manual, CalPhotos). Not all plants were identifiable for a variety of reasons, primarily for lack of a key character. However, all species were identified to at least the genus level. If a

special-status plant species genus was identified, the location was noted and, if possible, a second survey was conducted later in the season.

Field data were used to create a master checklist matrix indicating all vascular plants observed within each field survey section, with indications as to what species occurred as dominants in all or a portion of the survey sections. These data were used to serve as ground-truthing points for verifying and updating the WOD vegetation map previously prepared by (GANDA 2011) and to identify where invasive exotic species were especially abundant.



LEGEND
■ West of Devers 2012 Project Survey Area Sections
■ West of Devers 2013 Project Survey Area Locations

NOT TO SCALE

FIGURE 2

*Southern California Edison
 West of Devers Upgrade Project
 Project Area Survey Sections and Locations*

Source: Bing Maps Hybrid (c) 2012 Microsoft Corporation and its data suppliers; SCE, BRC

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SECTION 3. BOTANICAL RESOURCES

The botanical resources of the Project site include the flora and plant communities occurring within the WOD Project survey area, including special-status species and sensitive habitats. The results of the botanical survey are described below.

FLORA

The flora of the WOD Project survey area consists primarily of annual and perennial herbaceous, graminoid, shrub, and tree species. The flora consists of common and rare species, as is typical for all natural terrestrial and wetland habitats in southern California.

Appendix A, Plant Species Observed in 2012-2013 within the WOD Project survey area, lists all native and naturalized vascular plant taxa observed during the botanical survey. BRC botanists found approximately 393 vascular plant taxa from observation and collections made at the 122 waypoints, plus additional observations within each survey section. The flora is made up of 84 families, 73 genera, and 393 species, including subspecies or varieties. Of the 393 taxa, 280 (71.2%) are native and 113 (28.8%) are naturalized nonnative or cultivated taxa. This ratio of native to nonnative is lower than for California as a whole (21.9%³), indicating the relatively disturbed nature of the WOD Project survey area, containing a higher percentage of nonnative taxa than California as a whole. Most of the different areas surveyed over the length of the project study area generally exhibited a moderate to severe level of disturbance and non-native species were frequently common to dominant.

The flora of the WOD Project survey area addressed in this report is dominated or characterized by herbaceous annual and perennial herbs and graminoids, shrubs and trees, as follows:

- 17 annual graminoids
- 150 annual herbs
- 4 annual vines
- 5 biennial herbs
- 4 perennial ferns
- 34 perennial graminoids
- 65 perennial herbs
- 9 perennial vines
- 129 shrubs
- 31 trees

³ California floristic analysis calculated by David L. Magney on 21 June 2011 associated with research on the flora of Ventura County (<http://venturaflora.com/files/vcfloristics.htm>). California supports 7,125 native taxa and 1,561 naturalized taxa.

SPECIAL-STATUS PLANT SPECIES

Special-status plant species are plants that are considered rare, including taxa listed as Threatened or Endangered by the United States Fish and Wildlife Service (USFWS), Rare, Threatened, or Endangered by CDFW, and/or designated under one or more of the CNPS rare plant ranks. CNPS has five statewide rare plant rankings: California Rare Plant Ranking 1A, 1B, 2, 3, and 4. CNPS has developed lists of rare plants native to California that are rare statewide and included in its *Inventory of Rare and Endangered Plants of California* (CNPS 2001) and the electronic (online) version (CNPS 2001). To date, CNPS has not developed a list of locally rare plants for any part of Riverside or San Bernardino Counties (CNPS 2012⁴).

The WOD Project area extends through part of two important regional conservation plan areas; the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) and Western Riverside MSHCP. Narrow Endemic Plant Species, Covered Species, and any other sensitive plant species identified under those plans are also included in Table 1.

Table 1, Special-Status Plant Species Considered in the WOD Project survey area, lists the 63 special-status vascular plant species known or expected to occur within the WOD Project survey area and the geographic area immediately surrounding it. Table 1 includes each plant's scientific name, common name, growth habit, family, blooming/identification period, rarity status, habitat preferences, and likelihood of occurrence within the WOD Project survey area.

⁴ California Native Plant Society (CNPS). 2012. Locally Rare Plants Program webpage. October 2012.
http://cnps.org/cnps/rareplants/locally_rare.php

Table 1. Special-Status Plant Species Observed and Potentially Present in the WOD Project Survey Area

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/HCP ⁶		
<i>Abronia villosa</i> var. <i>aurita</i>	Chaparral or Desert or Yellow Hair Sand-verbena	G5T3T4	S2	-	-	1B.1	Chaparral, Coastal Scrub on sandy substrates. Elev. 262-5,248 ft (80-1,600 m). Historic collection from Whitewater Canyon (M.E. Jones sn 11-May-1903 POM; R.M. Perkins & H. deFrost 40 RSA). Found (and collected) on E edge of Whitewater Canyon in Section 5. Figure 3, Sheet 10.	Observed
<i>Acmispon haydonii</i>	Pygmy Lotus	G3	S2			1B.3	Found in rocky sites in Pinyon-Juniper Woodland and Sonoran Desert Scrub; 1,700 to 4,000 ft elevation. Outside known range of species and not observed during focused surveys. Nearest documented occurrences were in 1930 (CNDDDB #15) in "Palm Springs" and in 1995 (CNDDDB #95) west of Palm Desert, about 25 miles southeast of the Study Area.	Not Expected
<i>Allium marvinii</i>	Yucaipa Onion	G1	S1.1	-	-	1B.1/WR-NE8	Chaparral in openings on clay soils. Elev. 2,493-3,493 ft (760-1,065 m). Found in Section 19N west of cemetery N of City of Banning. Figure 3, Sheet 7.	Observed
<i>Allium munzii</i>	Munz's Onion	G1	S1	E	T	1B.1/WR	Chaparral, Coastal Scrub, Cismontane Woodland, Pinyon-Juniper Woodland, Valley And Foothill Grassland on heavy clay soils; grows in grasslands & openings within shrublands or woodlands. Elev. 974-3,510 ft (297-1,070 m). Not observed during focused surveys. Outside known range of species. The nearest documented occurrence was in 1991 (CNDDDB #10) in the Domenigoni Hills, about 14 miles south of the Study Area.	Not Expected
<i>Ambrosia monogyra</i>	Singlewhorl Burrobrush	G5	S2.2	-	-	2.1	Chaparral, Sonoran Desert Scrub on sandy soils. Elev. 33-1,640 ft (10-500 m). Not observed during focused surveys. Perennial shrub would have been conspicuous. Likely extirpated from the project vicinity. Nearest documented occurrences were in 1919 (CNDDDB #16) at "Palm Springs" and in 1926 in a now concrete-lined channel in Rialto, about 7 miles northwest of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Ambrosia pumila</i>	San Diego Ambrosia	G1	S1	E	-	1B.1/WR	Chaparral, Coastal Scrub, Valley And Foothill Grassland on sandy loam or clay soil and in valleys; persists where disturbance has been superficial. Elev. 66-1,361 ft (20-415 m). Not observed during focused surveys. Perennial herb would have been conspicuous. Outside known range of species. Nearest documented occurrence was in 1940 (CNDDDB occurrence #50) in "Riverside," mapped about 10 miles southwest of the Study Area.	Not Expected
<i>Arenaria plaudicola</i>	Marsh Sandwort	G1	S1	E	E	1B.1	Marshes, Swamps on mesic, sandy substrates. Elev. 10-558 ft (3-170 m). Not observed during focused surveys. Believed extirpated from Riverside and San Bernardino Counties.	Not Expected
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's Milkvetch	G4G5T2 T3	S1	-	-	1B.1	Can be found on salty flats and lake margins in playa, meadow, and seep habitats at elevations between 60 & 850 m. Not observed during focused surveys. Believed extirpated from project vicinity.	Not Expected
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley Milkvetch	G5T2	S2	E	-	1B.2/CV	Sonoran Desert Scrub on sandy flats, washes, outwash fans, and sometimes on dunes. Elev. 131-2,148 ft (40-655 m). Not observed during focused surveys. Nearest documented occurrences were in 1904 (CNDDDB #54) at "Banning" and in recent years (CNDDDB occurrences #15, #49, and #50) along Highway 111 and the adjacent foothills about 1 mile south of the Study Area. Not known from portions of the Whitewater River or other washes within or upstream of the Study Area.	Not Expected
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's Milkvetch	G4T1	S1	-	-	1B.1/WR	Coastal Scrub, Chaparral, Valley and Foothill Grassland, Cismontane Woodland on dry ridges and valleys and open sandy slopes; often in grassland and oak chaparral. Elev. 1,197-3,001 ft (365-915 m). Not observed during focused surveys. Nearest documented occurrences were in 1897 (CNDDDB #15) at "Beaumont," in 1904 (CNDDDB #15) at "Banning," and in 1989 (CNDDDB #3) in a canyon west of Portrero Creek about 1.6 mile south of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Astragalus tricarinatus</i>	Triple-ribbed Milkvetch	G1	S1	E	-	1B.2/CV	Joshua Tree Woodland, Sonoran Desert Scrub on hot, rocky slopes in canyons and along edge of boulder-strewn desert washes. Elev. 1,476-3,903 ft (450-1,190 m). CNDDDB mapped as occurring in Whitewater Canyon in Section 5. Not observed during focused surveys. Nearest documented occurrences were in 2009 (CNDDDB #18) on a ridge east of the Whitewater River, about 1 mile north of the Study Area, and in the Whitewater River wash, possibly within the Study Area, the most recent being a single immature plant observed in 1995 (CNDDDB #3). Plants observed in the wash were likely waifs washed down from more typical habitat in the foothills of the San Bernardino Mountains.	Not Expected
<i>Atriplex coronata</i> <i>var. notatior</i>	San Jacinto Valley Crownscale	G4T1	S1	E	-	1B.1	Can be found growing in alkaline soils of Valley and Foothill Grassland, Playa, and Vernal Pool habitats at elevations between 400 and 500 m. Not observed during focused surveys. Project is outside known range of the species, which reaches its northern limit in the San Jacinto Valley. The nearest documented occurrence was in 1992 (CNDDDB #13) along the northeast edge of the San Jacinto Valley, about 4 miles south of the Study Area.	Not Expected
<i>Ayenia compacta</i>	California Ayenia	G4	S3?	-	-	2.3	Mojavean Desert Scrub, Sonoran Desert Scrub on sandy and gravelly washes in the desert and dry desert canyons. Elev. 492-3,592 ft (150-1,095 m). Not observed during focused surveys. Project is outside known range of species. Nearest documented occurrence was in 1922 (CNDDDB #40) in the San Jacinto Mountains about 9 miles south of the Study Area	Not Expected
<i>Berberis nevinii</i>	Nevin's Barberry	G1	S1	E	E	1B.1/WR-CA6	Chaparral, Cismontane Woodland, Coastal Scrub, Riparian Scrub on steep, N-facing slopes or in low grade sandy washes. Elev. 899-2,706 ft (274-825 m). Not observed during focused surveys. Historic occurrences from 1982-1987 appear to be located within the Project ROW and 500 ft buffer within Sections 36 and 37r. It was not observed during BRC 2012 and 2013 surveys including access roads. This perennial evergreen shrub would have been conspicuous and readily identifiable. Formerly known to occur in the Study Area but appears to have been extirpated (BRC 2013).	Not Expected ⁷

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Brodiaea filifolia</i>	Thread-leaved Brodiaea	G1	S1	T	E	1B.1/WR	Cismontane Woodland, Coastal Scrub, Playas, Valley and Foothill Grassland, Vernal Pools usually associated with annual grassland and vernal pools on clay soils. Elev. 82-3,998 ft (25-1,219 m). Not observed during focused surveys. Habitat poor (no vernal pools or mapped clay soils) in Study Area. Not known from project vicinity. Nearest recorded occurrence was in 2004 (CNDDDB #43) in the San Jacinto Valley near Lakeview, about 7 miles south of the Study Area.	Not Expected
<i>California macrophylla</i>	Round-leaved Filaree	G2	S2	-	-	1B.1/WR	Cismontane woodland, Valley and Foothill Grassland on clay. Elev. 49-3,936 ft (15-1,200 m). Not observed during focused surveys. Habitat poor (no mapped clay soils). Project is outside range of species, which reaches its northeast limit around Lake Perris. Nearest recorded occurrence was in 1976 (CNDDDB #150) near Lake Perris, about 7 miles south of the Study Area.	Not Expected
<i>Calochortus plummerae</i>	Plummer's Mariposa Lily	G4	S4	-	-	4.2	Coastal Scrub, Chaparral, Valley and Foothill Grassland, Cismontane Woodland, Lower Montane Coniferous Forest on rocky and sandy sites, usually of granitic or alluvial material and can be very common after fire. Elev. 328-5,576 ft (100-1,700 m). Observed in Sections 19N & 19S. Figure 3, Sheet 7.	Observed
<i>Carex comosa</i>	Bristly Sedge	G5	S2	-	-	2.1	Marshes, Swamps in lake margins and wet places. Elev. <2,050 ft (<625 m). Not observed during focused surveys. Not known from Riverside County and believed extirpated from San Bernardino County (last seen in 1882).	Not Expected
<i>Caulanthus simulans</i>	Payson's Jewelflower	G3	S3.2	-	-	4.2	Can be found in rocky or sandy, granitic soils of chaparral, coastal scrub, and Pinyon-Juniper Woodland habitats at elevations between 400 and 2,200 m. Not observed during focused surveys. Project is just outside known range of the species, which reaches its northern limit in the San Jacinto Mountains. Nearest recorded occurrence was in 1968 (CNDDDB #35) near Highway 243, about 0.4 to 1.2 miles southeast of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Centromadia pungens</i> <i>ssp. laevis</i>	Smooth Tarplant	G3G4T2	S2.1	-	-	1B.1/WR	Valley and Foothill Grassland, Chenopod Scrub, Meadows, Playas, Riparian Woodland in alkali meadows and scrub; also in disturbed places. Elev. <2,099 ft (<640 m). Suitable habitat is present, CNDDDB historical records in vicinity of Study Area, and observed in recent years. Found along San Timoteo Creek near El Casco Substation within the Study Area (Aspen 2007). Due to the high probability of occurrence, pre-construction surveys for this species may be appropriate within suitable habitat, observed locations and known historical locations during the species' blooming period.	High
<i>Chamaesyce arizonica</i>	Arizona Spurge	G5	S2	-	-	2.3	Sonoran Desert Scrub on sandy soils. Elev. 164-984 ft (50-300 m). Not observed during focused surveys. Project is outside range of the species, which reaches its northern limit in the San Jacinto Mountains. Nearest recorded occurrence was in 1922 (CNDDDB #4) in Andreas Canyon, about 11 miles south of the Study Area near Palm Springs.	Not Expected
<i>Chamaesyce platysperma</i>	Flat-seeded Spurge	G3	S1	-	-	1B.2	Sonoran Desert Scrub, Desert Dunes in sandy places or shifting dunes. Possibly a waif in California; more common in Arizona and Mexico. Elev. 213-328 ft (70-100 m). Not observed during focused surveys. Project is outside known range of the species. Nearest recorded occurrence was in 1926 (CNDDDB #2) near Edom, about 13 miles southeast of the Study Area near Thousand Palms.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's Spineflower	G2T2	S2	-	-	1B.1/WR	Coastal Scrub, Chaparral on dry slopes and flats; sometimes at interface of 2 vegetation types, and prefers dry, sandy soils. Elev. 902-4,002 ft (275-1,220 m). CNDDDB occurrence mapped within WOD Project survey area on the Morongo Indian Reservation in survey section 14 (see Figure 3, Sheet 9). This species was not observed during the 2012 or 2013 surveys, but was found within the Reservation (BRC 2003; LSA 2010) and other desert portions of the Study Area (GANDA 2011). Due to the high probability of occurrence, pre-construction surveys for this species may be appropriate within suitable habitat, observed locations and known historical locations during the species' blooming period.	High
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined Spineflower	G5T3	S3	-	-	1B.2/WR	Chaparral, Coastal Scrub, Meadows, Valley and Foothill Grassland on gabbroic clay. Elev. 98-5,018 ft (30-1,529 m). Not observed during focused surveys. Project is outside known range of the species. Nearest recorded occurrence was in 1980 (CNDDDB #18) near Perris, about 13 miles south of the Study Area.	Not Expected
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	White-bracted Spineflower	G4T2	S2	-	-	1B.2	Mojavean Desert Scrub, Pinyon-Juniper Woodland on sandy or gravelly substrates. Elev. 984-3,936 ft (300-1,200 m). CNDDDB occurrences mapped on Figure 3, Sheets 7, 9, and 10. Observed extensively on Morongo Indian Reservation in Figure 3, Sheets 7 and 9.	Observed
<i>Cladium californicum</i>	California Sawgrass	G4	S2.2	-	-	2.2	Freshwater and Alkali Marshes, Seeps in freshwater or alkaline moist habitats. Elev. 197-1,968 ft (60-600 m). Not observed during focused surveys and there are no known historical records in the area. In addition, minimal habitat in the form of seeps in freshwater are present.	Not Expected
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian Dodder	G5T4T5	SH	-	-	1B.1	It was known from freshwater marshes and swamps, growing on herbaceous species such as <i>Xanthium</i> and <i>Polygonum</i> at elevations <280 m. Not observed during focused surveys. Occurs sporadically in California. Nearest recorded occurrence was in 1890 (CNDDDB #1) near Warm Creek, about 3 miles northwest of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/HCP ⁶		
<i>Deinandra mohavensis</i>	Mojave Tarplant	G2G3	S2S3	-	E	1B.3/WR	Chaparral, Coastal Scrub, Riparian Scrub on mesic sites. Elev. 2,099-5,248 ft (640-1,600 m). Not observed during focused surveys. In southern California this species is mostly limited to the San Jacinto Mountains and northern San Diego County. Nearest recorded occurrence was in 1924 (CNDDDB #2) along Highway 243, about 0.7 mile south of the Study Area	Not Expected
<i>Dodecahema leptoceras</i>	Slender-horned Spineflower	G1	S1	E	E	1B.1/WR	Chaparral, Coastal Scrub (Alluvial Fan Sage Scrub) on flood deposited terraces and washes. Elev. 656-2,493 ft (200-760 m). Not observed during focused surveys. Typical habitat (late seral stage alluvial fan sage scrub) not present on site. Nearest documented occurrences (CNDDDB #2, #4, #22) are along the Santa Ana River north and west of the Study Area.	Not Expected
<i>Dudleya multicaulis</i>	Many-stemmed Dudleya	G2	S2	-	-	1B.2/WR	Chaparral, Coastal scrub, Valley and Foothill Grassland often on clay. Elev. 49-2,591 ft (15-790 m). Not observed during focused surveys. No known CNDDDB records in the Study Area.	Not Expected
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River Woollystar	G4T1	S1	E	E	1B.1	Can be found in sandy or gravelly soils of chaparral and coastal scrub (alluvial fan) habitats <600 m elevation. Not observed during focused surveys. Habitat (Santa Ana River and larger tributaries) not found within the Study Area. Nearest documented occurrences (CNDDDB #23, #25, #29, and #30) are along the Santa Ana River north and west of the Study Area.	Not Expected
<i>Eriastrum harwoodii</i>	Harwood's Eriastrum	G3	S3	-	-	1B.2	Mojavean Desert Scrub on sand dunes. Elev. 656-3,001 ft (200-915 m). Not observed during focused surveys, and no known records in Study Area vicinity.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Eriogonum evanidum</i>	Vanishing Wild Buckwheat	G1	S1	-	-	1B.1	Chaparral, Cismontane Woodland, Lower Montane Coniferous Forest, Pinyon and Juniper Woodland on sandy substrates. Elev. 3,608-7,298 ft (1,100-2,416 m). Not observed during focused surveys. Project is outside elevational range of the species.	Not Expected
<i>Euphorbia misera</i>	Cliff Spurge	G5	S1	-	-	2.2	Coastal Bluff Scrub, Coastal Scrub on rocky sites. Elev. 33-1,640 ft (10-500 m). Not observed during focused surveys. Most records of this species are coastal, but 20 plants were observed in 1982 (CNDDDB #16) east of the Whitewater River wash within ½ mile of the project. The population was reduced to a single plant in 1993. The only other recorded occurrence in Riverside or San Bernardino Counties was in 1921 (CNDDDB #26) "near Palm Springs."	Not Expected
<i>Galium californicum</i> <i>ssp. primum</i>	California Bedstraw	G5T1Q	S1	-	-	1B.2	Can be found in granitic or sandy soils in shaded areas of lower elevation Yellow Pine Forest between 1,350 & 1,700 m. Not observed during focused surveys. Likely extirpated from project vicinity. Nearest documented occurrence was in 1891 (CNDDDB #2) in Reche Canyon, near the west end of the Study Area. The only other known locations are around Alvin Meadows (CNDDDB #1, #3, and #4) in the San Jacinto Mountains about 12 miles south of the Study Area.	Not Expected
<i>Helianthus nuttalli</i> <i>ssp. parishii</i>	Los Angeles Sunflower	G5TH	SH	-	-	1A	Occurs in marsh habitats up to 810 m elevation. Not observed during focused surveys. Likely extirpated from project vicinity, presumed extinct. Nearest documented occurrence was in 1917 (CNDDDB #5) in the Santa Ana River west of the Study Area	Not Expected
<i>Horkelia cuneata</i> <i>ssp. puberula</i>	Mesa Horkelia	G4T2	S2.1	-	-	1B.1	Chaparral, Cismontane Woodland, Coastal Scrub on sandy or gravelly sites. Elev. 230-2,657 ft (70-241m). Not observed during focused surveys. Likely extirpated from project vicinity. Nearest documented occurrence was in 1921 (CNDDDB #1) "near Banning."	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/HCP ⁶		
<i>Imperata brevifolia</i>	California Satintail	G2	S2.1	-	-	2.1	Coastal Scrub, Chaparral, Riparian Scrub, Mojavean Scrub, Meadows And Seeps (Alkali) on mesic sites, alkali seeps and riparian areas. Elev. <1,640 ft (<500 m). Not observed during focused surveys. Potentially suitable habitat is sparse in Study Area. Nearest documented occurrence was in 1949 (CNDDDB #4) near "Whitewater Station."	Not Expected
<i>Juglans californica</i> <i>var. californica</i>	Southern California Black Walnut	G3	S3.2			4.2	Found in alluvial soils, in chaparral, cismontane woodland, and coastal scrub from 160 to 3,000 ft elevation. Threatened by urbanization and grazing, non-native plants, and possibly by lack of natural reproduction. Species is fairly common in project vicinity.	Moderate
<i>Lepidium virginicum</i> <i>var. robinsonii</i>	Robinson's Pepper-grass	G5T3	S3	-	-	1B.2	Chaparral, Coastal Scrub on dry soils. Elev. 3-2,903 ft (1-885 m). Not observed during focused surveys. Study area is near the edge of range of the species. Nearest documented occurrence was in 1952 (CNDDDB #52) in Reche Canyon, about a mile or more south of the Study Area.	Not Expected
<i>Linanthus maculatus</i>	Little San Bernardino Mountains Linanthus	G2	S2	-	-	1B.2/CV	Desert Dunes, Joshua Tree Woodland, Mojavean Desert Scrub, Sonoran Desert Scrub on sandy substrates. Elev. 640-6,806 ft (195-2,074 m). CNDDDB mapped immediately N of WOD Project survey area in Whitewater Canyon (Section 5N). Although not observed during focused surveys, about 200 individuals of this small plant were observed in 1998 (CNDDDB #3) at the east edge of the Whitewater River just north of I-10, which may be within the Study Area. Even if individuals are not present, a seed bank likely persists in or near the Study Area.	Moderate
<i>Linanthus orcuttii</i>	Orcutt's Linanthus	G4	S2	-	-	1B.3	Chaparral, Lower Montane Coniferous Forest, Desert Scrub, sometimes in disturbed areas; often in gravelly clearings. Elev. 2,400-7,036 ft (730-2,145 m). Not observed during focused surveys. Study area is near the limits of this species' elevational range and is not likely to provide suitable habitat. Nearest documented occurrence was in 2006 (CNDDDB #32) in the Little San Bernardino Mountains, about 6 miles north of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Lycium parishii</i>	Parish's Desert-thorn	G3?	S2S3	-	-	2.3	Coastal Scrub, Sonoran Desert Scrub on sandy to rocky slopes, canyons Elev. 1,000-3,280 ft (305-1,000 m). Not observed during focused surveys. Not known from Riverside County. Last seen in San Bernardino County in 1885 (CNDDDB #4, about 9 miles north of the Study Area, north of San Bernardino) and is likely extirpated.	Not Expected
<i>Mentzelia tricuspis</i>	Spiny-hair Blazingstar	G4	S2	-	-	2.1	Mojavean Desert Scrub on sandy or gravelly slopes & washes. Elev. 492-4198 ft/150-1280 m. <i>Mentzelia tricuspis</i> was observed during the 2013 surveys in three locations in section 7N. Figure 3, Sheet 10.	Observed
<i>Monardella macrantha</i> <i>ssp. hallii</i>	Hall's Monardella	G5T3	S3	-	-	1B.3/WR	Broadleaved Upland Forest, Chaparral, Lower Montane Coniferous Forest, Cismontane Woodland, Valley and Foothill Grassland on dry slopes and ridges in openings within the above communities. Elev. 2,394-7,200 ft (730-2,195 m). Not observed during focused surveys. Study Area is below typical elevational range for this species in the region. Nearest documented occurrence (CNDDDB #51, undated) was near San Jacinto Peak, about 7 miles south of the Study Area	Not Expected
<i>Monardella pringlei</i>	Pringle's Monardella	GX	SX	-	-	1A	Known from sandy soils, interior sand dunes, of the eastern South Coast, near Colton, in San Bernardino and Riverside Counties at elevations between 365 and 1,200 m. Not observed during focused surveys. Presumed extinct. Nearest documented occurrence was in 1941 (CNDDDB #2) west of Colton, about 3 miles west of the Study Area.	Not Expected
<i>Nama stenocarpum</i>	Mud Nama	G4G5	S1S2	-	-	2.2/WR	Marshes and Swamps on lake shores, river banks, intermittently wet areas. Elev. 16-1,640 ft (5-500 m). Not observed during focused surveys. Suitable habitat sparse or absent in Study Area, which is outside the known range of the species. Nearest documented occurrence was in 2010 (CNDDDB #11) at Mystic Lake, about 6 miles south of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Nasturtium gambelii</i>	Gambel's Water Cress	G1	S1	E	T	1B.1	Marshes and Swamps in freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. Elev. 16-1,082 ft (5-330 m). Not observed during focused surveys. Believed extirpated from project vicinity. Suitable habitat sparse or absent in Study Area. Nearest documented occurrence was in 1935 (CNDDDB #4) from a marsh that previously existed in San Bernardino, about 3 miles north of the Study Area.	Not Expected
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	Slender Cottonheads	G3	S3.3	-	-	2.2	Coastal Dunes, Desert Dunes, Sonoran Desert Scrub in dunes or sand. Elev. -164-1,312 ft (-50-400 m). Not observed during focused surveys. Study Area is near the western limit of species' range. Suitable habitat sparse or absent. Nearest documented occurrence was in 1948 (CNDDDB #9) from "east of Whitewater wash."	Not Expected
<i>Penstemon pseudospectabilis</i> ssp. <i>pseudospectabilis</i>	Desert Beardtongue	G4	S3			2B.2	Sandy washes or less commonly on rocky slopes in Mojavean and Sonoran desert scrub at 260 to 6,350 ft elevation. In California, known only from Imperial, Riverside, and San Bernardino Counties. Also occurs in Arizona. Not observed during focused surveys. Species is sparsely distributed through desert with little suitable habitat in project area. The nearest documented occurrence was in 2006 (CNDDDB #8) from the foothills of the San Jacinto Mountains about 2.4 miles south of the Study Area.	Not Expected
<i>Quercus engelmannii</i>	Engelmann Oak	G3	S3.2	-	-	4.2	Chaparral, Valley Grassland, Foothill Woodland in riparian areas. Elev. 2,300-4,100ft (1,700-1,250 m). Observed in Sections 19N & 27. Figure 3, Sheets 5 and 7.	Observed
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's Gooseberry	G4TH	SH	-	-	1A	Riparian Woodland in <i>Salix</i> swales in riparian habitats. Elev. 213-984 ft (65-300 m). Not observed during focused surveys. Presumed extinct. Suitable habitat sparse or absent in Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/ HCP ⁶		
<i>Saltugilia latimeri</i>	Latimer's Woodland-Gilia	G2	S2.2	-	-	1B.2	Chaparral, Mojavean Desert Scrub on rocky or sandy substrate. Elev. 1,312-6,232 ft (400-1,900 m). Not observed during focused surveys. Study Area is near edge of species' range and contains little or no suitable habitat. The nearest documented occurrence was in 1920 (CNDDDB #14) from an area of Palm Springs about 6 miles southeast of the Study Area.	Not Expected
<i>Selaginella eremophila</i>	Desert Spike-moss	G4	S2.2?	-	-	2.2	Sonoran Desert Scrub on shaded sites, gravelly soils; crevices or among rocks. Elev. 656-2,952 ft (200-900 m). Figure 3, Sheet 10.	Observed
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's Checkerbloom	G3T1	S1.2	-	R	1B.2	Chaparral, Lower Montane Coniferous Forest on disturbed, burned or cleared areas on dry, rocky slopes, in fuel breaks & fire roads along the mountain summits. Elev. 3,280-8,197 ft (1,000-2,498 m). Not observed during focused surveys. Study Area is outside the elevational range of the species. The nearest documented occurrence was in 1909 (CNDDDB #11) from Yucaipa Ridge, about 9 miles north of the Study Area	Not Expected
<i>Sidalcea neomexicana</i>	Salt Spring Checkerbloom	G4?	S2S3	-	-	2.2	Can be found in alkaline mesic soils of chaparral, coastal scrub, playa, Mojave Desert Scrub, and lower montane coniferous forest habitats at elevations below 1,530 m. Not observed during focused surveys. No suitable habitat in the Study Area.	Not Expected
<i>Sphenopholis obtusata</i>	Prairie Wedge Grass	G5	S2.2	-	-	2.2	Cismontane Woodland, Meadows, Seeps on open moist sites, along rivers and springs, alkaline desert seeps. Elev. 984-6,560 ft (300-1,999 m). Not observed during focused surveys. Study Area is near edge of species' range and contains little or no suitable habitat. The nearest documented occurrence was in 1917 (CNDDDB #11) from the Santa Ana River west of the Study Area.	Not Expected
<i>Stemodia durantifolia</i>	Purple Stemodia	G5	S2.1?	-	-	2.1	Sonoran Desert Scrub on sandy soils; mesic sites. Elev. 590-984 ft (180-300 m). . Not observed during focused surveys. Study Area is outside species' range and contains little or no suitable habitat. The nearest documented occurrence was in 1948 (CNDDDB #14) from Eagle Canyon, about 11 miles southeast of the Study Area.	Not Expected

Scientific Name	Common Name	Species Status					Habitat Requirements and Basis for Occurrence Determination	Likelihood of Occurrence ¹
		G-Rank ²	S-Rank ³	Federal Listing ⁴	State Listing ⁵	CNPS Rank/HCP ⁶		
<i>Streptanthus campestris</i>	Southern Jewel-flower	G2	S2.3	-	-	1B.3	Chaparral, Lower Montane Coniferous Forest, Pinyon-Juniper Woodland in open, rocky areas. Elev. 2,952-7,544 ft (900-2,299 m). Not observed during focused surveys. Study Area contains little or no suitable habitat. The nearest documented occurrence was in 1929 (CNDDDB #13) in the San Jacinto Mountains, mapped about 8 miles south of the Study Area.	Not Expected
<i>Symphotrichum defoliatum</i>	San Bernardino Aster	G2	S2	-	-	1B.2	Meadows, Seeps, Marshes, Swamps, Coastal Scrub, Cismontane Woodland, Lower Montane Coniferous Forest, Grassland in vernal mesic grassland or near ditches, streams and springs; disturbed areas. Elev. 7-6,691 ft (2-2,039 m). Not observed during focused surveys, but documented from "El Casco, San Timoteo Canyon" in 1951 (CNDDDB #24).	Low
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Sonoran Maiden Fern	G5T3	S2.2?	-	-	2.2	Meadows, Seeps along streams and seepage areas. Elev. 164-2,001 ft (50-610 m). Not observed during focused surveys. The nearest documented occurrence was in 2009 (CNDDDB #13) in Little Sand Canyon in the San Bernardino Mountains, about 6 miles north of the Study Area	Not Expected
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's Trichocoronis	G4T3	S1.1	-	-	2.1/WR	Marshes And Swamps, Riparian Forest, Meadows, Seeps, Vernal Pools on mud flats of vernal lakes, drying riverbeds, alkali meadows. Elev. 16-1,427 ft (5-435 m). Not observed during focused surveys. Not known from project vicinity. Nearest documented occurrence was in 1937 (CNDDDB #4) north of Lakeview, about 5 miles south of the Study Area.	Not Expected
<i>Xylorhiza cognata</i>	Mecca-aster	G2	S2	-	-	1B.2/CV	Sonoran Desert Scrub on steep canyon slopes, in sandstone and clay. Elev. 66-1,312 ft (20-400 m). Not observed during focused surveys. Study Area is outside known species' range and contains little or no suitable habitat. The nearest documented occurrence was in 1927 (CNDDDB #34) from "Palm Springs," mapped about 6 miles southeast of the Study Area.	Not Expected

¹ Likelihood of occurrence based on species' habitat requirements and the presence of required habitat in the project site.

Observed = Species documented during biological surveys either conducted previously for SCE within the immediate vicinity of the Project Study Area or from surveys conducted for the Proposed Project in late 2011 through mid-2013;

High Potential = Species identified in the literature search or known to occur in the region and suitable habitat is present within the Project Study Area. These species are generally common and/or widespread in the Project Study Area and vicinity;

Moderate Potential = Species identified in the literature search or known to occur in the region, suitable habitat is present within the Project Study Area. These species are generally less common and/or widespread than those considered with a High Potential in the Project Study Area and vicinity;

Low Potential = Species identified in the literature search or known to occur in the region, but the Project Study Area is outside of the species' known range or elevation or habitat is generally unsuitable.

Not Expected = Species identified in the literature search or known to occur in the region, but which are absent from the Project Study Area because the Project Study Area is outside of their known range or elevation, suitable habitat is lacking in the Project Study Area, or the species was not observed during focused surveys and would have been conspicuous (e.g., perennial plant species).

² Ranking in parentheses are suggested ranking when NatureServe has not yet established a ranking.

G1 or S1 = Critically Imperiled Globally or Subnationally (state).

G2 or S2 = Imperiled Globally or Subnationally (state).

G3 or S3 = Vulnerable to extirpation or extinction Globally or Subnationally (state).

G4 or S4 = Apparently secure; factors exist to cause some concern. Not a threat rank.

G5 or S5 = Demonstrably secure to ineradicable due to being commonly found Globally or Subnationally (state). Not a threat rank.

³SNR= California (State) Not Ranked

⁴E = Endangered; T = Threatened; R = Rare; C = Candidate.

⁵ E = Endangered; T = Threatened; R = Rare; C = Candidate

⁶ Habitat Conservation Plans (HCPs) designations:

CV = Covered Species. Species for which Take Authorization is provided through the Permits issued in conjunction with the Implementing Agreement of the Coachella Valley Multiple Species Habitat Conservation Plan.

WR = Species is covered under the Western Riverside Multiple Species Habitat Conservation Plan.

WR-CA6 = Listed under Critical Area survey area 6 under the Western Riverside Multiple Species Habitat Conservation Plan.

WR-NE8 = Listed under Narrow Endemic survey area 8 under the Western Riverside Multiple Species Habitat Conservation Plan.

⁷ Mapped by CNDDDB 2012.

Table 2. Special-Status Plant Species Observed in the WOD Project Survey Area in 2012 and 2013

Scientific Name	Common Name	Status
<i>Abronia villosa</i> var. <i>aurita</i>	Chaparral (or Desert or Yellow Hair) Sand-verbena	CNPS 2.3
<i>Allium marvinii</i>	Yucaipa Onion	CNPS 1B.1 /WR
<i>Calochortus plummerae</i>	Plummer's Mariposa Lily	CNPS 4.2
<i>Calochortus</i> sp.	Mariposa Lily	Unknown
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	White-bracted Spineflower	CNPS 1B.2
<i>Mentzelia tricuspidis</i>	Spiny-hair Blazingstar	CNPS 2.1
<i>Quercus engelmannii</i>	Engelmann Oak	CNPS 4.2
<i>Selaginella eremophila</i>	Desert Spike-moss	CNPS 2.2

Status Definitions:

CNPS status ranks:

1B.1 = Rare and endangered in California and elsewhere, very threatened

1B.2 = Rare and endangered in California and elsewhere, threatened

2.2 = Rare and endangered in California but more common elsewhere, threatened

2.3 = Rare and endangered in California but more common elsewhere, no current threats known

4.2 = Plants of limited distribution, watch listed, moderately threatened in California

WR = Western Riverside County MSHCP Sensitive species

BRC botanists found these special-status plants at several locations, some within close proximity, and recorded each location with a GPS unit.

Below are brief descriptions of each special-status plant species found during the survey and relevant information about each is included. The locations for each occurrence for each taxon are included in Table 3, Locations of Special-status Plant Species Observed or Reported in the WOD Project Survey Area.

Table 3. Locations of Special-Status Plant Species Observed in the WOD Project Survey Area

Taxon	Section	Waypoint (Date)	Latitude	Longitude	Elevation
<i>Abronia villosa</i> var. <i>aurita</i>	5N	WP016-20120313	33.93276°N	116.63590°W	1,425 ft
<i>Abronia villosa</i> var. <i>aurita</i>	5S	WP018-20120314	33.93113°N	116.63515°W	1,410 ft
<i>Abronia villosa</i> var. <i>aurita</i>	5S	WPO124-20130401	33.55161°N	116.33210°W	1,349
<i>Allium marvinii</i>	19N	WP045-20120321	34.95159°N	116.88492°W	2,910 ft
<i>Allium marvinii</i>	19N	WP047-20120321	33.94987°N	116.89062°W	2,975 ft
<i>Allium marvinii</i>	19N	WP049-20120321	33.95113°N	116.88513°W	2,940 ft
<i>Allium marvinii</i>	19N	WPO134- WPO13620130402	33.95136°N	116.88934°W	3,000 ft
<i>Allium marvinii</i>	19N	WPO137-WPO138- 20130402	33.95125°N	116.88916° W	3,000 ft
<i>Calochortus plummerae</i>	19S	WP037-20120320	33.94777°N	116.88605°W	2,870 ft
<i>Calochortus plummerae</i>	19S	WP038-20120320	33.94729°N	116.88874°W	2,635 ft

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Taxon	Section	Waypoint (Date)	Latitude	Longitude	Elevation
<i>Calochortus plummerae</i>	19S	WP042-20120320	33.94727°N	116.88978°W	2,800 ft
<i>Calochortus plummerae</i>	19S	WP043-20120320	33.94814°N	116.89088°W	2,928 ft
<i>Calochortus plummerae</i>	19N	WP047-20120321	33.94987°N	116.89062°W	2,975 ft
<i>Calochortus plummerae</i>	19N	WP048-20120321	33.95006°N	116.89201°W	2,978 ft
<i>Calochortus plummerae</i>	19N	WP049-20120321	33.95113°N	116.88513°W	2,940 ft
<i>Calochortus sp.</i>	19	WPO120-20130402	33.94431°N	116.88863°W	2,730 ft
<i>Calochortus sp.</i>	19	WPO121-20130402	33.94440°N	116.88863°W	2,730 ft
<i>Calochortus sp.</i>	19	WPO122-20130402	33.94356°N	116.89244°W	2,975 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	13	WP009-20120613	33.93353°N	116.77557°W	1,576 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	14	WP011-20120613	33.93245°N	116.79071°W	2,130 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	16	WP013-20120614	33.93895°N	116.83156°W	2,200 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	16aN	WP13a-20120614	33.94045°N	116.84329°W	2,241 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	16aS	WP014-20120615	33.93797°N	116.83237°W	2,165 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	17N	WP016-20120615	33.94518°N	116.85553°W	2,450 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	17S	WP015a-20120615	33.93895°N	116.85318°W	2,450 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	18N	WP016b-20120615	33.94793°N	116.87333°W	2,642 ft
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	18S	WP016a-20120615	33.94649°N	116.86904°W	2,566 ft
<i>Mentzellia tricuspis</i>	5S	WPO130 20130403	33.931655°N	116.65389°W	1,950 ft
<i>Mentzellia tricuspis</i>	5S	WPO131 20130403	33.933526°N	116.65537°W	1,980 ft
<i>Mentzellia tricuspis</i>	5S	WPO132 20130403	33.932909°N	116.657284°W	1,940 ft
<i>Quercus engelmannii</i>	19N	WP045a-20120321	33.95198°N	116.88329°W	2,792 ft
<i>Quercus engelmannii</i>	27	WP062-20120416	33.96152°N	117.03196°W	2,400 ft
<i>Selaginella eremophila</i>	6N	WP021-20120314	33.93110°N	116.64787°W	1,900 ft
<i>Selaginella eremophila</i>	6N	WP022-20120314	33.93147°N	116.64851°W	1,960 ft
<i>Selaginella eremophila</i>	7N	WP24a-20120315	33.93078°N	116.66077°W	1,836 ft

The locations of each occurrence are shown on Figure 3, Sheet 1 through Figure 3, Sheet 11, Special-Status Plant Species. Each aerial map shows a portion of the WOD Project survey area where special-status species were either observed (point location mapped) or mapped by the CNDDDB. The CNDDDB map data may be inaccurate or outdated. Note: specific CNDDDB locations are not shown; only general occurrence polygons are mapped within the survey area boundaries. Figures 3, Sheets 1 through 11 depict the plant records from west to east. Descriptions of each of the observed special-status plant species in the WOD Project survey area are described below, listed alphabetically by scientific name.

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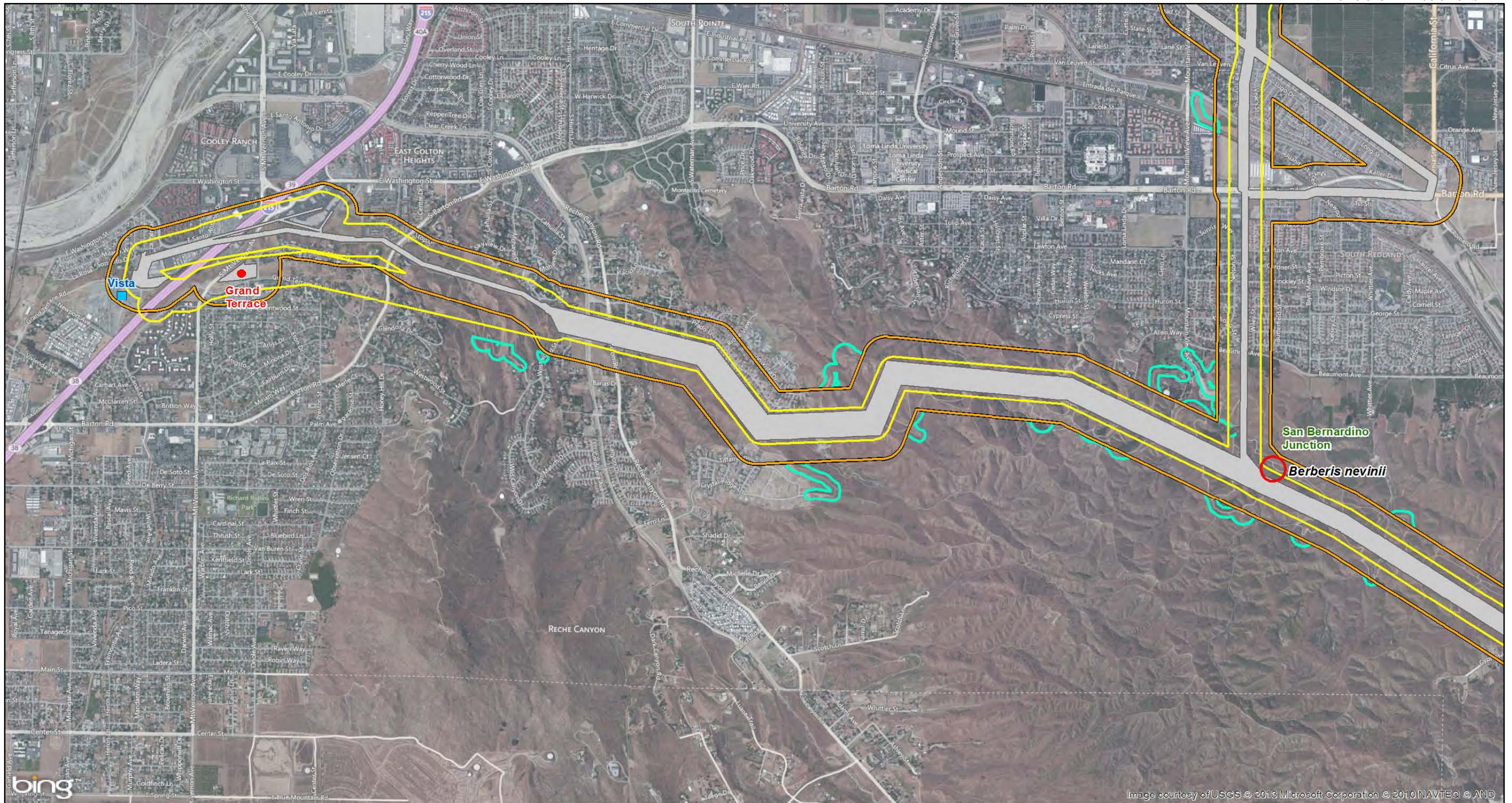


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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae

2013 Plant Survey

- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila
- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis

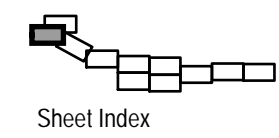
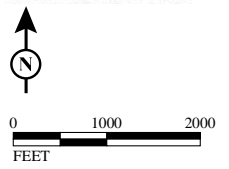


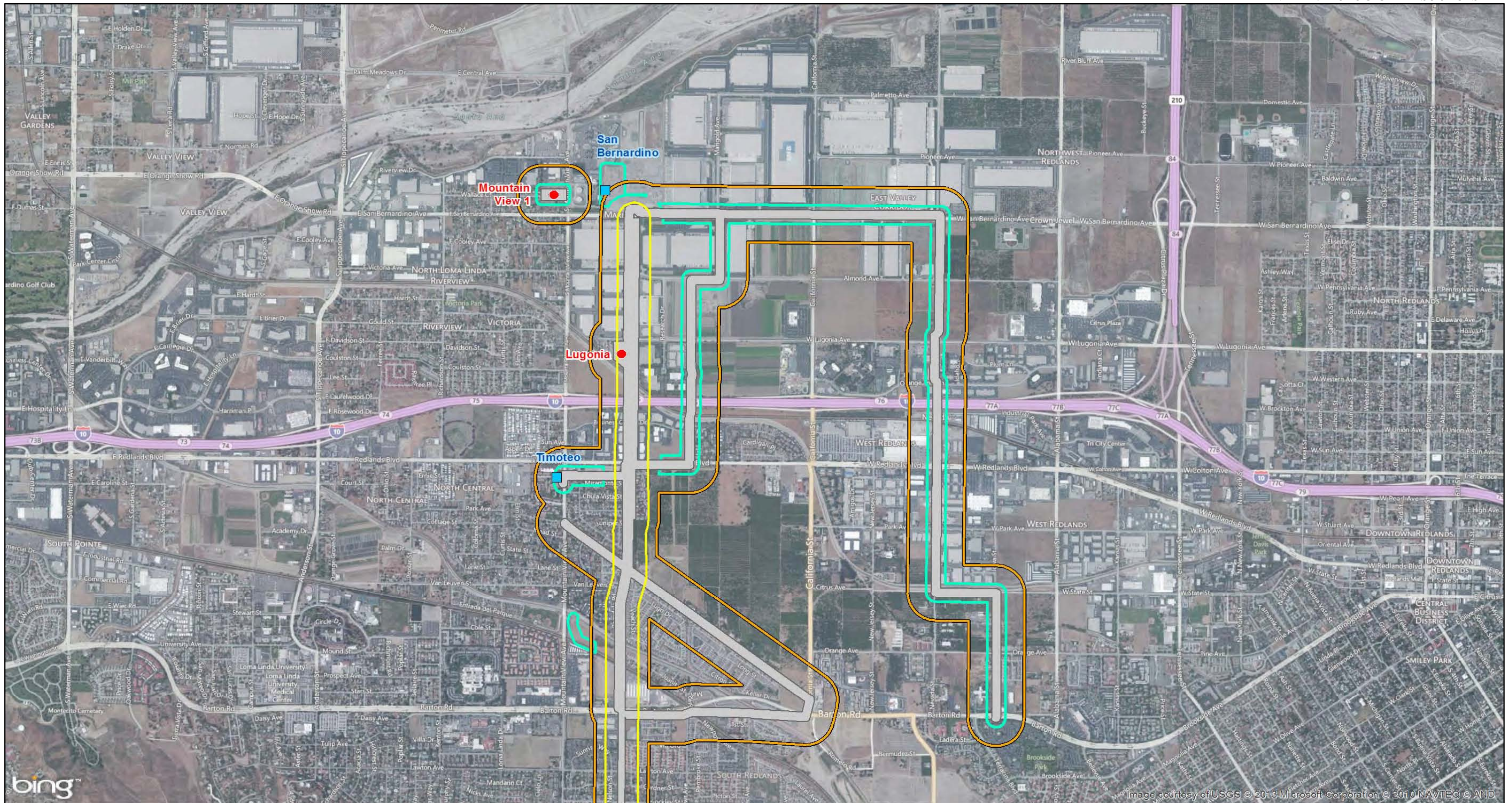
FIGURE 3
Sheet 1 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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LEGEND

 West of Devers Project 2012 Botanical Survey Area	 Substations	● 2012 Plant Survey	● 2013 Plant Survey
 West of Devers Project 2013 Botanical Survey Area	● Staging Yards	● Allium marvinii	● Abronia villosa var aurita
 West of Devers Study Area	 Approximate Location of Summit Fire	● Calochortus plummerae	● Allium marvinii
 500-foot Buffer of West of Devers Study Area	 CNDDDB Plant Occurrences	● Calochortus plummerae	● Calochortus sp.
		● Abronia villosa var. aurita	● Chorizanthe xanti var. leucotheca
		● Allium marvinii	● Quercus engelmannii
		● Calochortus plummerae	● Selaginella eremophila
			● Mentzelia tricuspis

FIGURE 3
Sheet 2 of 11

Sheet Index

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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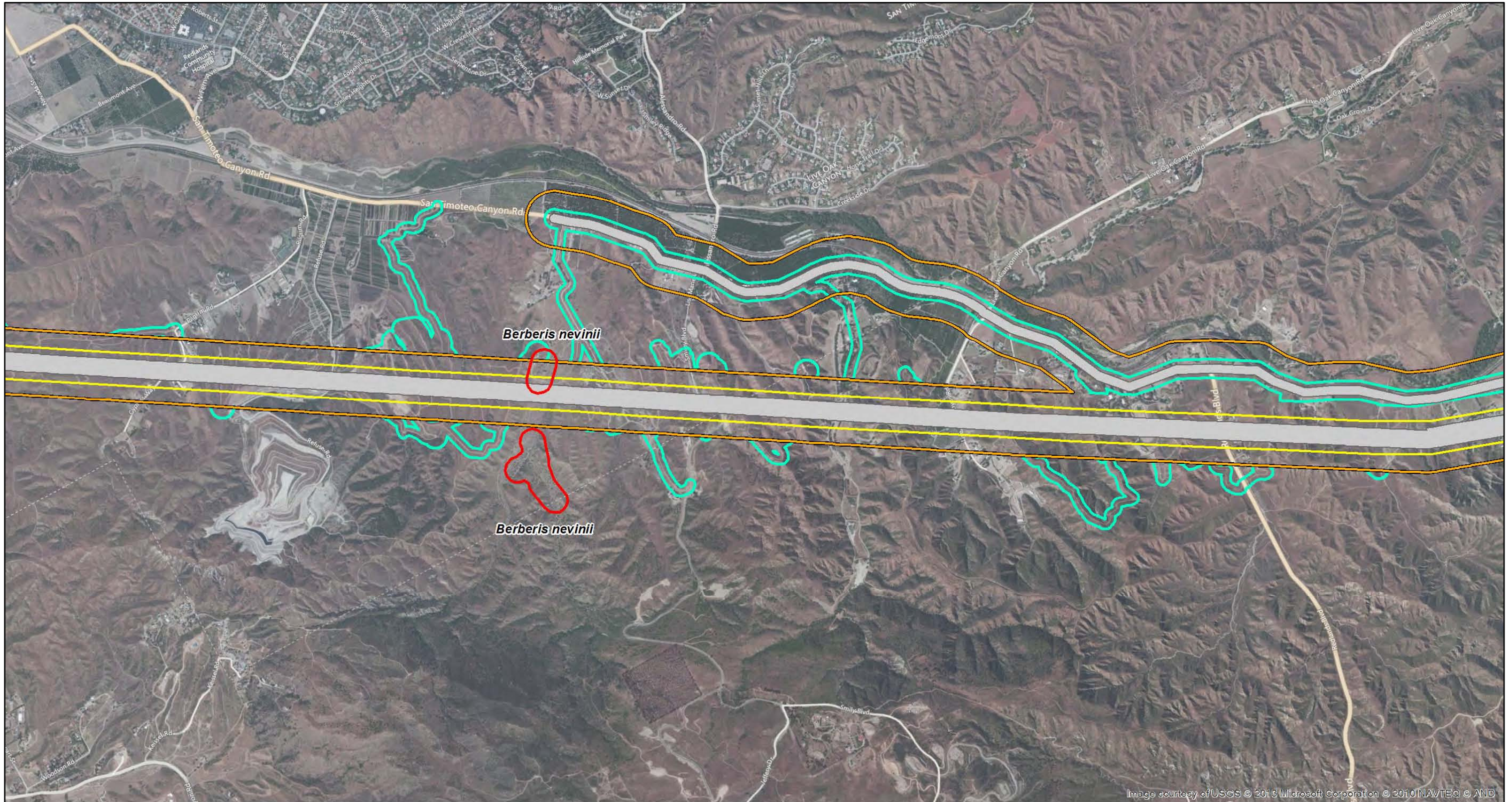
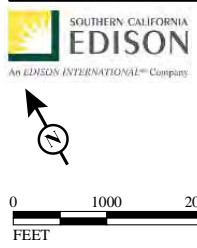


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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae

2013 Plant Survey

- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila

2013 Plant Survey

- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis

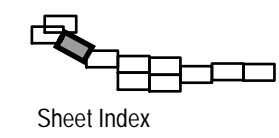


FIGURE 3
Sheet 3 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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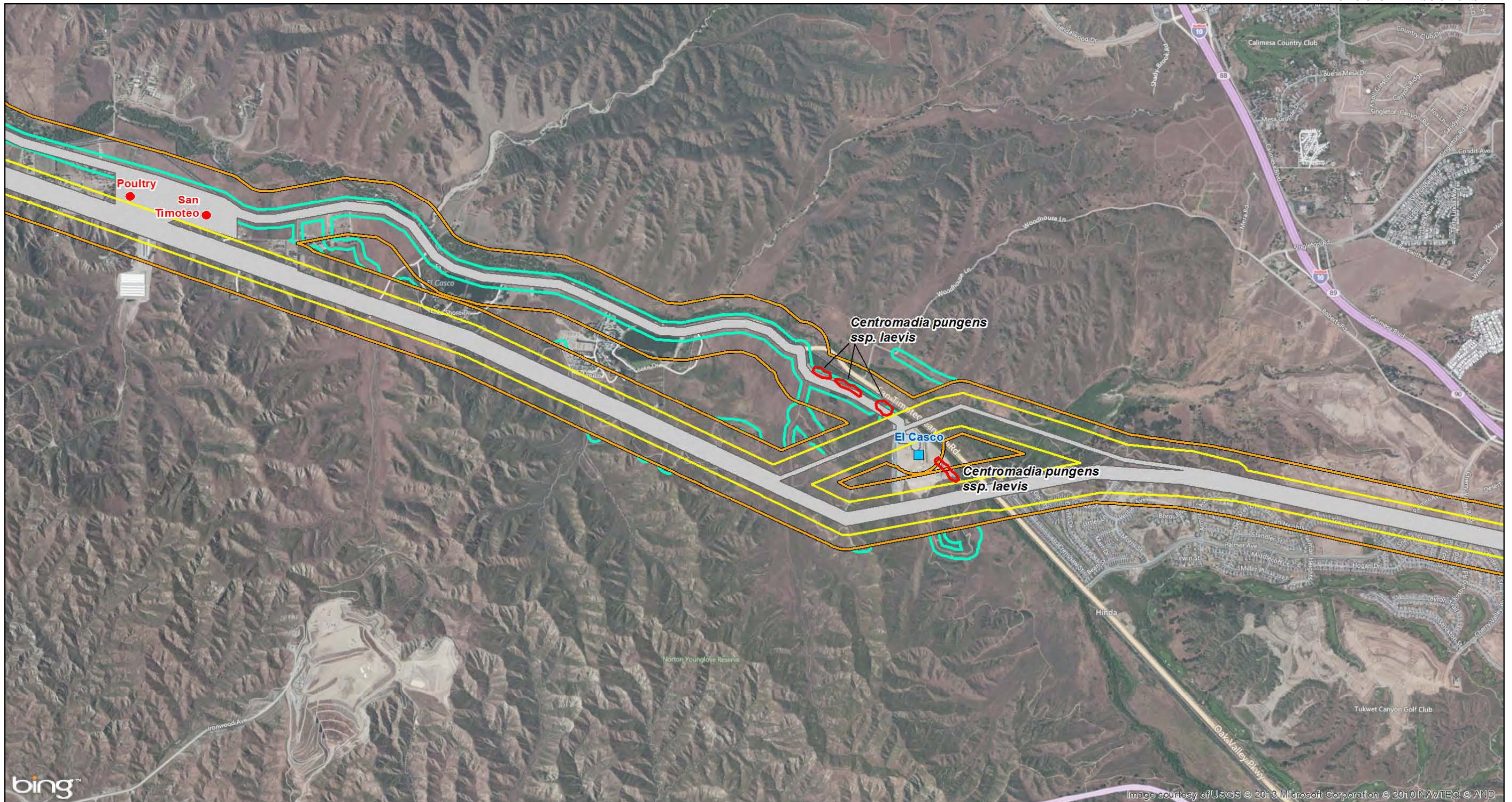


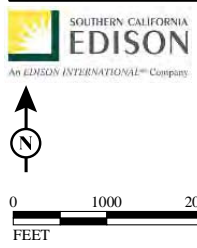
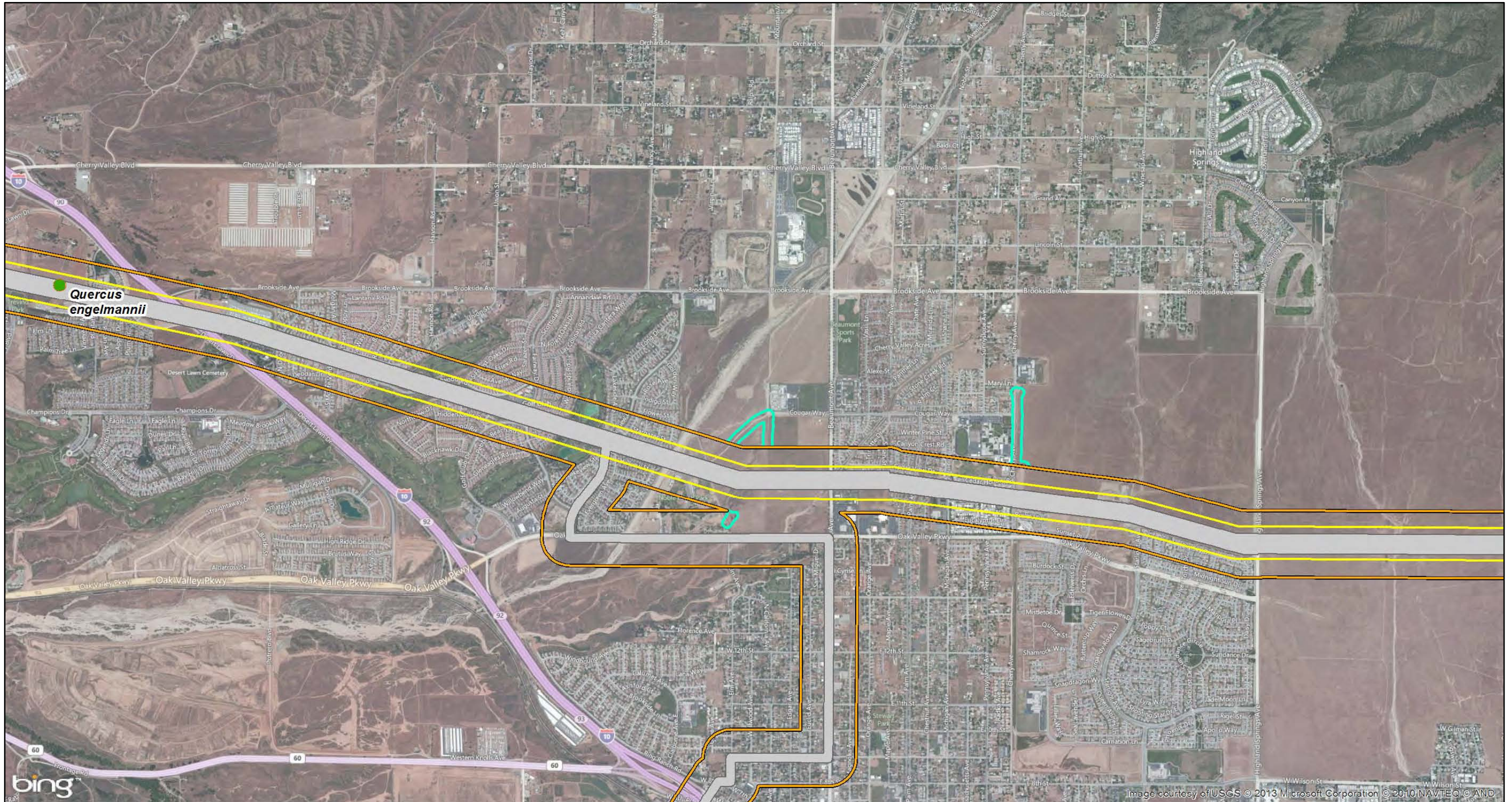
FIGURE 3
Sheet 4 of 11

	LEGEND		2012 Plant Survey		2013 Plant Survey	
	West of Devers Project 2012 Botanical Survey Area West of Devers Project 2013 Botanical Survey Area West of Devers Study Area 500-foot Buffer of West of Devers Study Area	Substations Staging Yards Approximate Location of Summit Fire CNDDDB Plant Occurrences	<i>Abronia villosa</i> var. <i>aurita</i> <i>Allium marvinii</i> <i>Calochortus plummerae</i>	<i>Chorizanthe xanti</i> var. <i>leucotheca</i> <i>Quercus engelmannii</i> <i>Selaginella eremophila</i>	<i>Abronia villosa</i> var. <i>aurita</i> <i>Allium marvinii</i> <i>Calochortus</i> sp. <i>Mentzelia tricuspis</i>	<p>Sheet Index</p>

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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae

- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila

2013 Plant Survey

- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis

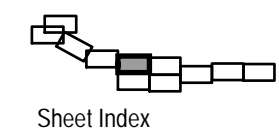


FIGURE 3
Sheet 5 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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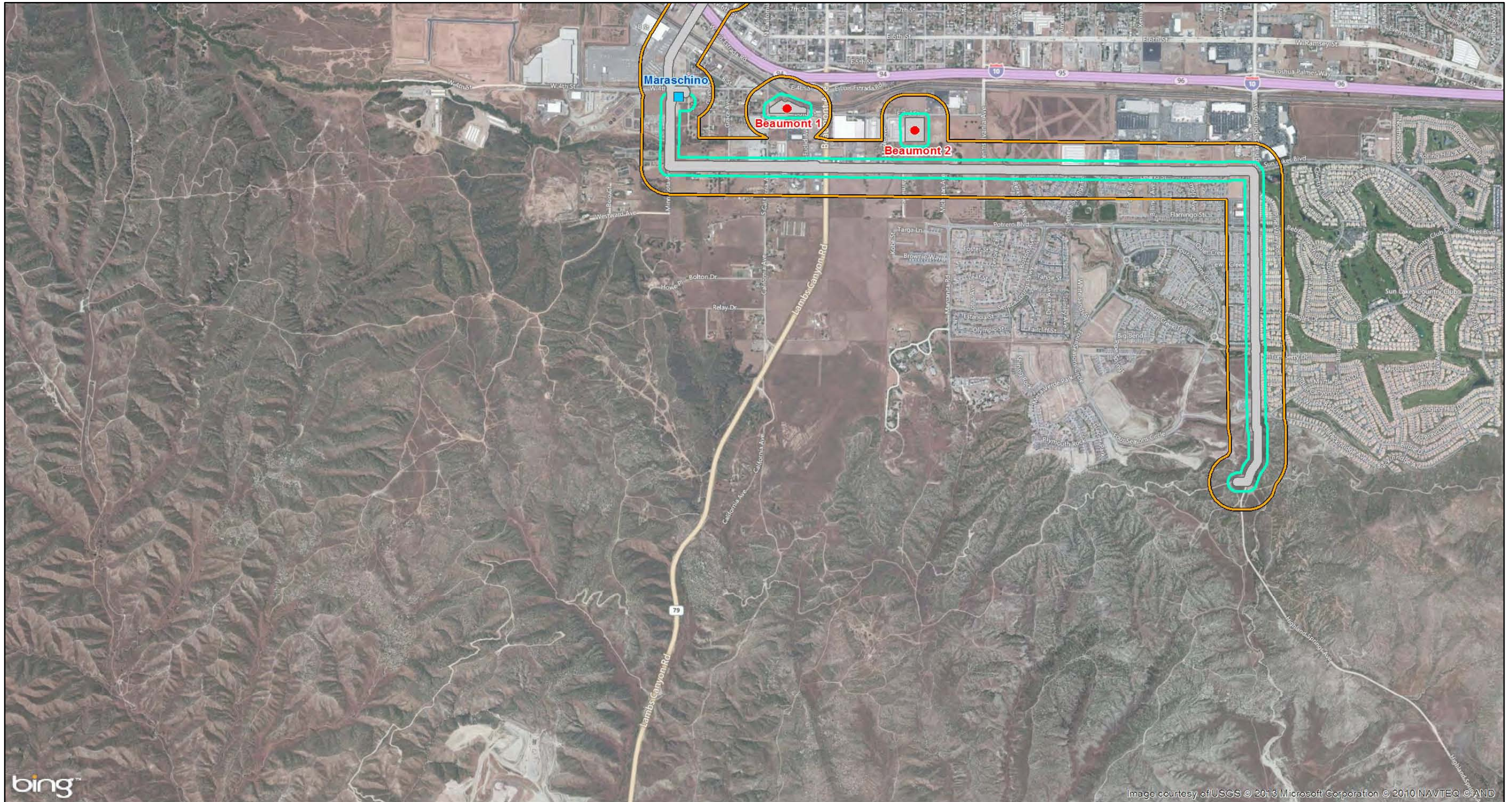
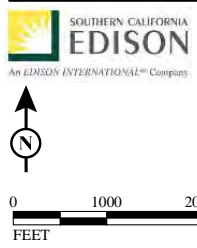


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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- *Abronia villosa* var. *aurita*
- *Allium marvinii*
- *Calochortus plummerae*

- *Chorizanthe xanti* var. *leucotheca*
- *Quercus engelmannii*
- *Selaginella eremophila*

2013 Plant Survey

- *Abronia villosa* var. *aurita*
- *Allium marvinii*
- *Calochortus* sp.
- *Mentzelia tricuspis*

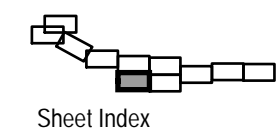


FIGURE 3
Sheet 6 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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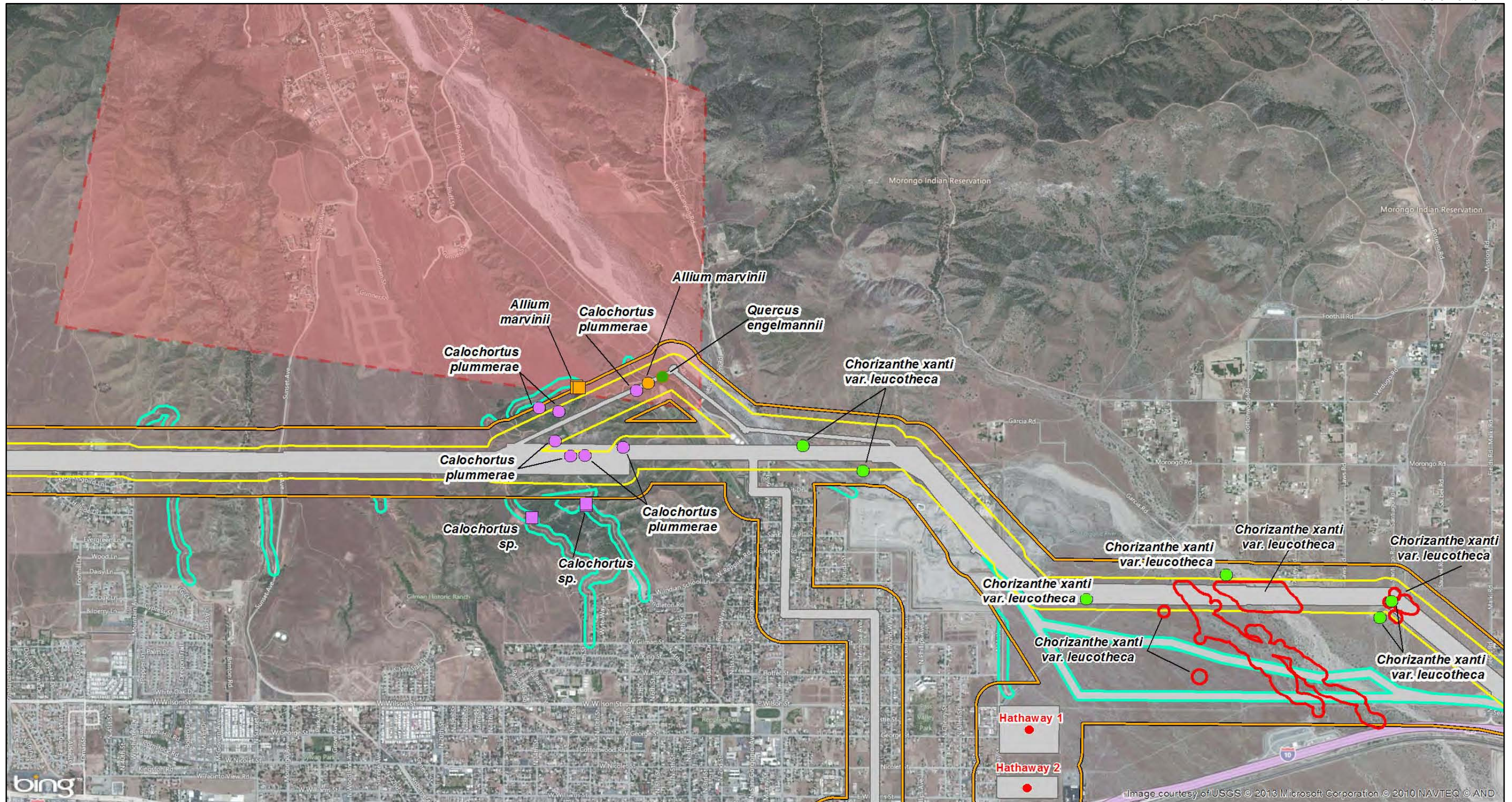


FIGURE 3
Sheet 7 of 11



LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

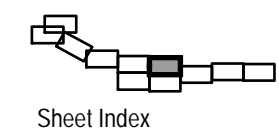
- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae

2013 Plant Survey

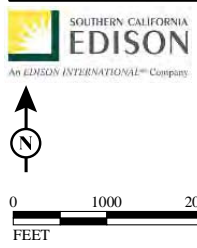
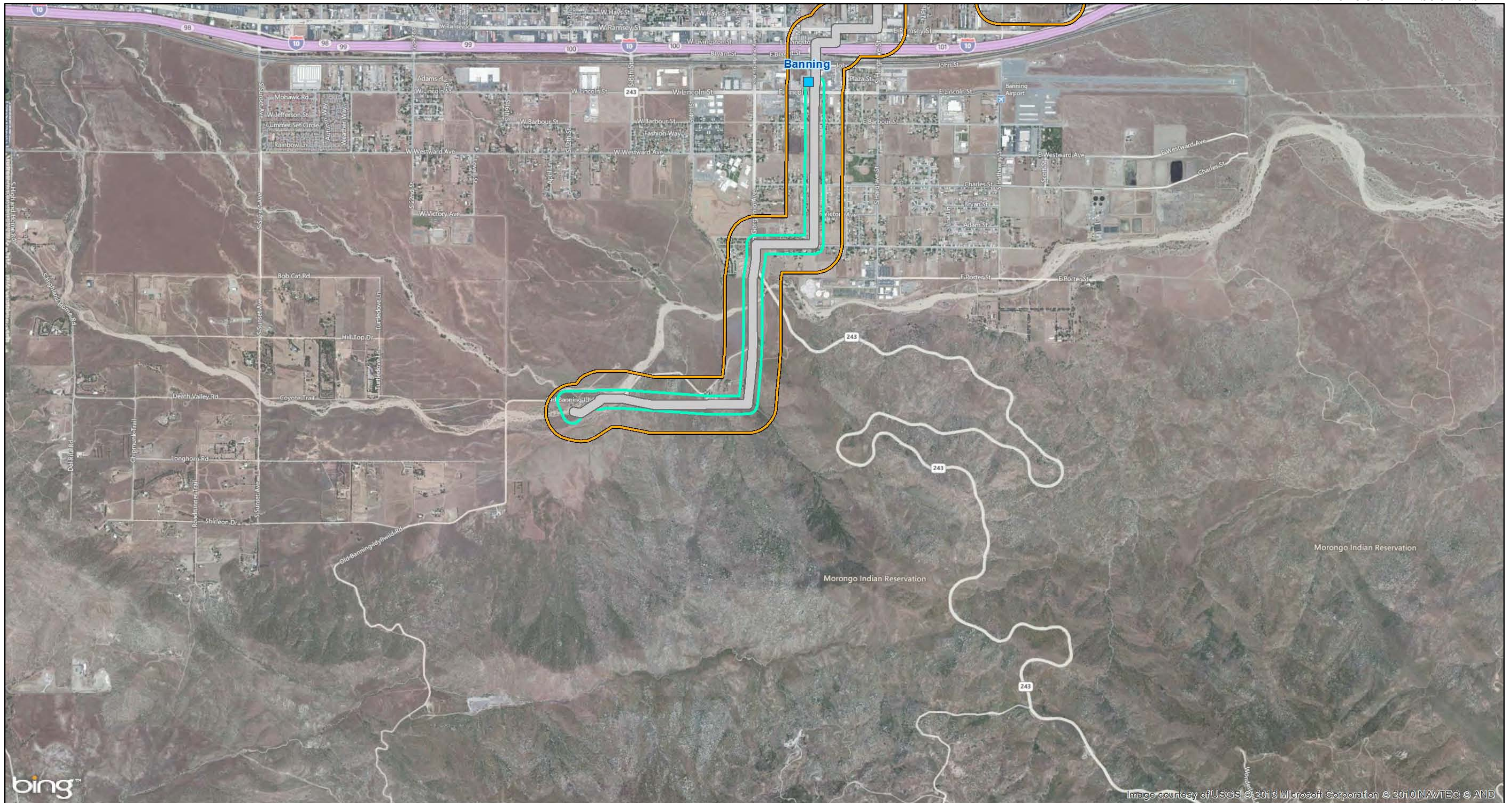
- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila
- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis



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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- *Abronia villosa* var. *aurita*
- *Allium marvinii*
- *Calochortus plummerae*

2013 Plant Survey

- *Chorizanthe xanti* var. *leucotheca*
- *Quercus engelmannii*
- *Selaginella eremophila*

2013 Plant Survey

- *Abronia villosa* var. *aurita*
- *Allium marvinii*
- *Calochortus* sp.
- *Mentzelia tricuspis*

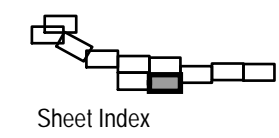


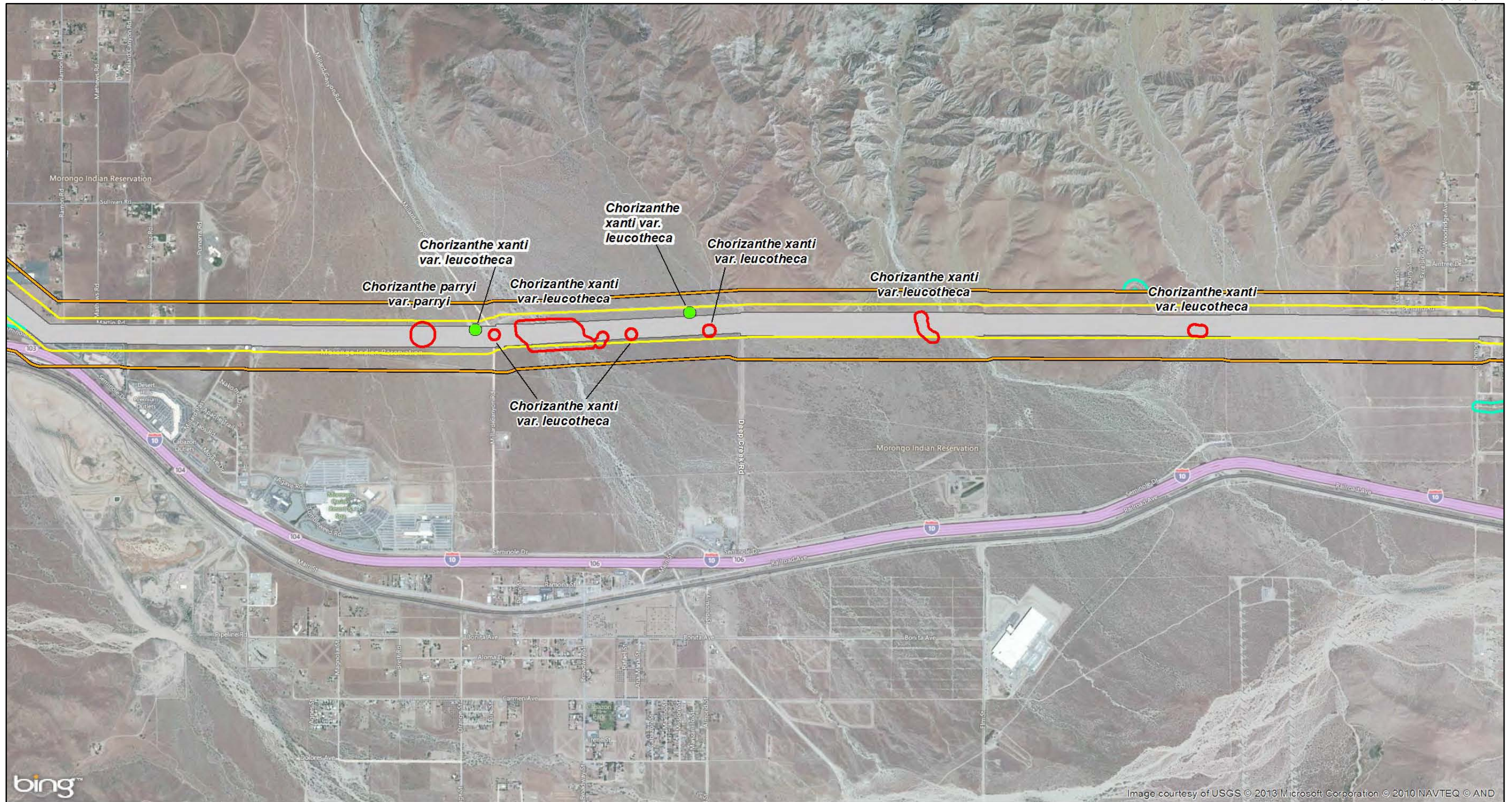
FIGURE 3
Sheet 8 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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LEGEND

West of Devers Project 2012 Botanical Survey Area	Substations	2012 Plant Survey	<i>Chorizanthe xanti var. leucotheca</i>	2013 Plant Survey	<i>Abronia villosa var aurita</i>
West of Devers Project 2013 Botanical Survey Area	Staging Yards	<i>Allium marvinii</i>	<i>Quercus engelmannii</i>	<i>Allium marvinii</i>	<i>Calochortus sp.</i>
West of Devers Study Area	Approximate Location of Summit Fire	<i>Calochortus plummerae</i>	<i>Selaginella eremophila</i>	<i>Calochortus sp.</i>	<i>Mentzelia tricuspis</i>
500-foot Buffer of West of Devers Study Area	CNDDDB Plant Occurrences				

SOUTHERN CALIFORNIA EDISON
AN EDISON INTERNATIONAL Corporation

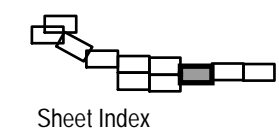


FIGURE 3
Sheet 9 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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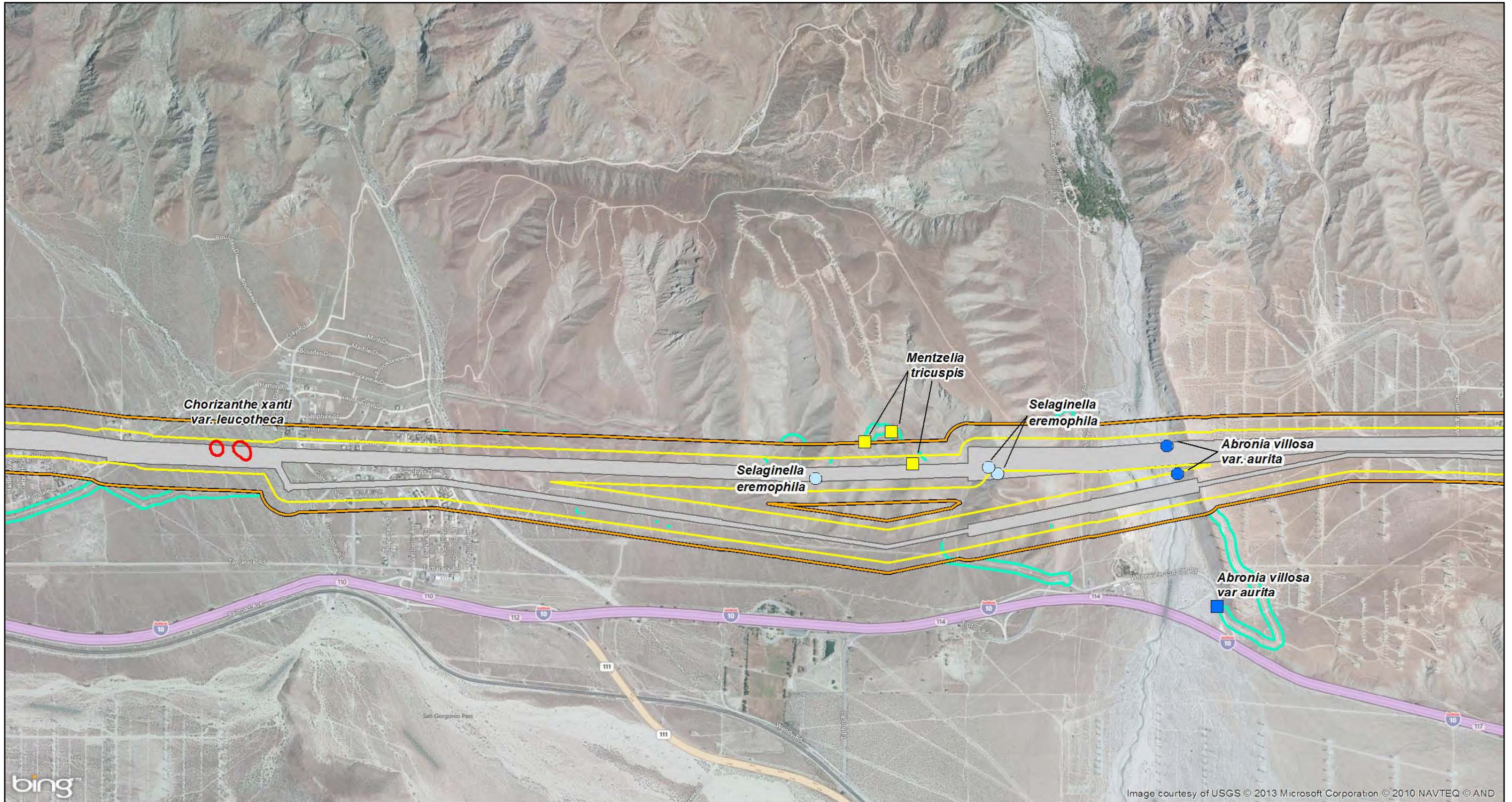
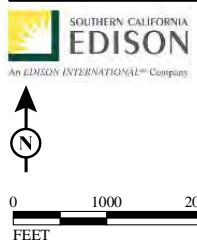


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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae
- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila

2013 Plant Survey

- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis

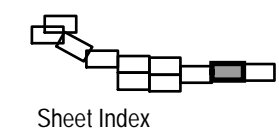


FIGURE 3
Sheet 10 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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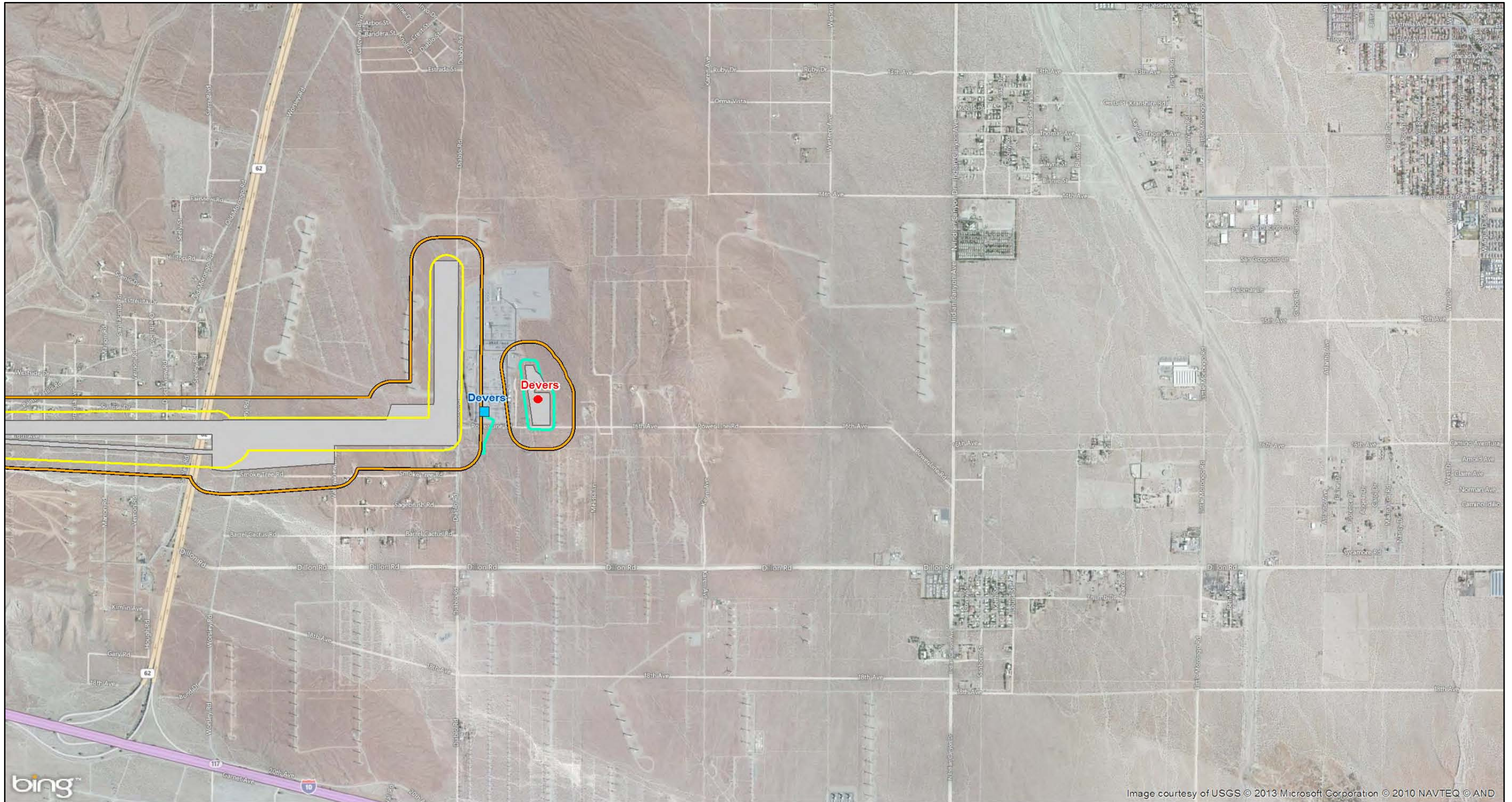


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LEGEND

- West of Devers Project 2012 Botanical Survey Area
- West of Devers Project 2013 Botanical Survey Area
- West of Devers Study Area
- 500-foot Buffer of West of Devers Study Area

- Substations
- Staging Yards
- Approximate Location of Summit Fire
- CNDDDB Plant Occurrences

2012 Plant Survey

- Abronia villosa var. aurita
- Allium marvinii
- Calochortus plummerae

2013 Plant Survey

- Chorizanthe xanti var. leucotheca
- Quercus engelmannii
- Selaginella eremophila
- Abronia villosa var aurita
- Allium marvinii
- Calochortus sp.
- Mentzelia tricuspis

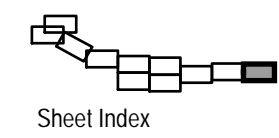
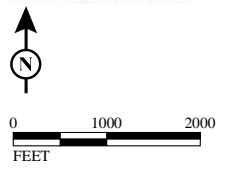


FIGURE 3
Sheet 11 of 11

Southern California Edison
West of Devers Upgrade Project
Special Status Plant Species

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Abronia villosa var. *aurita*

Abronia villosa var. *aurita* (Chaparral or Desert or Yellow Hair Sand-verbena) is a member of the Four O'Clock Family (Nyctaginaceae). It has triangular-ovate to round leaves. *A. villosa* var. *aurita* produces umbel flowers (perianth 2 to 3.5 millimeter (mm) long, which is larger than var. *villosa*) that are pale pink to bright magenta with white center, blooming January through September. *A. villosa* var. *aurita* has a rarity ranking of 1B.1 by CNPS and G5T3T4/S2 by CNDDDB. *A. villosa* var. *aurita* can be found in sandy places of chaparral, coastal scrub, and desert dune habitats up to 1,600 m in elevation (Murdock 2012).

Abronia villosa var. *aurita* ranges from Los Angeles County, south and east to the Sonoran Desert, and south to Mexico. This plant is endemic to California, and is found primarily in Riverside County (CNPS 2012). It has been collected previously generally along the WOD Project survey area, with two collections made from Whitewater Canyon (*M.E. Jones sn 11-May-1903 POM; R.M. Perkins & H. deFrost 40 RSA*). *A. villosa* var. *aurita* was found on the eastern edge of Whitewater Canyon in sand within survey sections 5N and 5S (see Figure 3, Sheet 10 for specific and general locations). A total of 5 plants were observed.



Allium marvinii

Allium marvinii (Yucaipa Onion) is a member of the Onion Family (Alliaceae). It is an erect, ephemeral perennial graminoid bulb on short rhizomes, with white flowers. Its stems are 10-40 centimeter (cm) tall with flat leaves that are shorter than the stems. *Allium marvinii* produces umbel flowers (each 6-8 mm), blooming March through May, which are white with rose midveins. This species shows ovaries with 6 crests, as opposed to similar species in the genus having ovaries with 3 crests or none. *Allium marvinii* can be found in clay soil openings on dry slopes and ridges in chaparral habitat at elevations between 300 and 1,250 m (McNeal 2012).

Allium marvinii ranges from San Bernardino County, in the San Bernardino Mountains, south through the Peninsular Ranges in San Diego County to Mexico. This plant is rare in Riverside County, with only two known CNDDDB occurrences. *Allium marvinii* has a rarity ranking of 1B.1 by CNPS and G1/S1.1 by CNDDDB. *Allium marvinii* was found on the hills and plateau immediately

north of Banning in clayey soils within survey section 19N (see Figure 3, Sheet 7 and Table 3 for specific locations). Approximately 850 plants total were observed in three locations. This species was observed both in 2012 and 2013. It should be noted that the Summit Fire in Banning burned the observed populations and they were not observed during the May 2013 surveys.



Calochortus plummerae

Calochortus plummerae (Plummer's Mariposa Lily) is a member of the Lily Family (Liliaceae). It is an erect (30 to 60 cm high), slender, generally branched, ephemeral perennial graminoid, emerging from bulbs. The basal leaves are 20 to 40 cm, linear, withering. The inflorescence has 2 to 6 flowers

that are erect, with leaf-like bracts. The flowers have hairy glands, multi-colored (white and pink to magenta), speckled flowers with yellow gland hairs and stamens, blooming between May and July. The fruit is erect, 4 to 8 cm long, linear, and angled. The bulb coat is fibrous.

Calochortus plummerae occurs in dry, rocky chaparral, Yellow Pine Forest below 1,700 m in the South Coast and Peninsular Ranges Bioregions. *Calochortus plummerae* has a rarity ranking of 4.2 by CNPS. *Calochortus plummerae* was identified with a high level of certainty during the 2012 surveys. This determination was made based on species range, observed occurrences during 2007 surveys (Aspen 2007), and bloom period since flowering plants were not present to accurately key to species. The unidentified *Calochortus* plants observed in 2013 were within survey sections 19, 19N and 19S and the *Calochortus plummerae* species has been reported within section 27 (see Figure 3, Sheet 7 and Table 3 for specific locations). Twelve *Calochortus sp.* plants were observed in April 2013; however, the May 2013 Summit Fire in Banning burned these *Calochortus sp.* locations; therefore, no flowering plants were observed during the May 2013 surveys to definitively determine the *Calochortus* species.



Chorizanthe xanti var. *leucotheca*

Chorizanthe xanti var. *leucotheca* (White-bracted Spineflower) is a member of the Knotweed Family (Polygonaceae). It is a prostrate-spreading to erect (less than 3 dm) annual herb with hairy reddish stems and small white flowers. The leaves are alternate, basal or cauline, linear to narrow, and abaxially tomentose. *Chorizanthe xanti* var. *leucotheca* produces terminal, head-like inflorescences, blooming April through June (CNPS 2012, Costea & Reveal 2012). Note involucre densely hairy, stamens 9. *Chorizanthe xanti* var. *leucotheca* has a rarity ranking of 1B.2 by CNPS, with a G4T2/S2 ranking by CNDDDB.

Chorizanthe xanti var. *leucotheca* can be found in sandy or gravelly soil of coastal scrub alluvial fans, Mojavean desert scrub, or Pinyon-Juniper Woodland habitats at elevations from 400 to 1,300 m (Costea & Reveal 2012). The range is limited to the eastern San Bernardino Mountains and northern San Jacinto Mountains of Riverside and San Bernardino Counties. This plant is a CNPS List 1B.2 species with 42 known extant populations (CNPS 2012). *Chorizanthe xanti* var. *leucotheca* was found in desert washes and terraces in sandy soils within survey sections 13, 14, 16, 16aN, 16aS, 17N, 17S, 18N and 18S, and has been reported within survey sections 2 and 3 (see Figures 3, Sheets

7 and 9, and Table 3 for specific locations). Thousands of individual plants were observed. The species was not observed during the 2013 surveys within areas outside the 500 ft buffer.



Mentzelia tricuspis

Mentzelia tricuspis (spiny-hair blazingstar) is a member of the Loasa Family (Loasaceae). It is an erect annual from 5 to 27 cm, stems are erect and hairy. It blooms from March through May and is found at an elevation of 150 to 1,280 m within Mojavean desert scrub on sandy, gravelly slopes and washes. *Mentzelia tricuspis* was observed during the 2013 surveys in three locations in section 7N (see Figure 3, Sheet 10 and Table 3 for specific locations). Approximately 30 individuals were observed.



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Quercus engelmannii

Quercus engelmannii (Engelmann Oak) is a member of the Beech Family (Fagaceae). It is an evergreen tree obtaining a height of 5 to 18 m, with its bark gray and scaly, narrowly furrowing with age. The young twigs are finely tomentose, in age glabrous. The oblong to obovate leaves are 2 to 6

cm long, dull blue-green on top and soft-hairy (glabrous with age) beneath. It blooms between April and May.

Quercus engelmannii is found on slopes, foothills, and woodland habitats below 1,300 m from the South Coast, southern Channel Islands, San Gabriel Mountains, and Peninsular Ranges, to Baja California, Mexico. It is known to hybridize with *Quercus berberidifolia* and *Quercus cornelius-mulleri*. *Quercus engelmannii* has a rarity ranking of 4.2 by CNPS. *Quercus engelmannii* was found in three survey sections: 19N and 27 (see Figures 3, Sheets 5 and 7 and Table 3 for specific locations). Two trees were observed in 2012.



Selaginella eremophila

Selaginella eremophila (Desert Spike-moss) is a member of the Spike-moss Family (Selaginellaceae). It is a prostrate perennial fern ally, mat-forming, loosely spreading at margins where branching sub-pinnate. The leaves are green, aging orange-brown, 0.4 to 0.6 mm wide. Leaf of main stem with tip pointed up, acute.

Selaginella eremophila occupies shaded sites, sandy or gravelly soils, at base of rocks, and in cracks less than 1,100 m, in the eastern Peninsular Ranges and Sonoran Desert, to Arizona and northern Mexico. *Selaginella eremophila* has a rarity ranking of 2.2 by CNPS. *Selaginella eremophila* was found in and around alluvial boulders within survey sections 6N and 7N (see Figure 3, Sheet 10 and Table 3 for specific locations). Three plants were observed at three separate locations in 2012. The species was not observed during the 2013 surveys.

