

April 3, 2017

Job No. 3-416-0714

Ms. Josie Molina
J&T Management, Inc.
139 Radio Road
Corona, CA 92878-1958

Subject: REVISED BIOLOGICAL SURVEY - BURROWING OWL & NARROW ENDEMIC SPECIES
Parcel Division Project – Vacant Land
A portion of Assessor Parcel Number 432-130-004 (6.28 Acres)
NWC Cottonwood & Sanderson Avenue
San Jacinto, California

Dear Ms. Molina

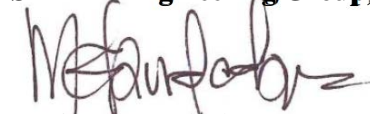
At your request and authorization, a Biological Resources Survey for the above-referenced project (a portion of Riverside County Assessor Parcel Number [APN] 432-130-004) located on the northwest corner of Cottonwood & Sanderson Avenue in San Jacinto, California (subject property) was conducted. The Biological Resources Survey was conducted to address Burrowing Owl and Narrow Endemic Plant Species to include the following: Mun's onion (*Allium munzi*), San Diego ambrosia (*Ambrosia punilla*), Many-stemmed dudleya (*Dudleya multicaulis*), Spreading navaretia (*Navarretia fossalis*), California orcutt grass (*Orcutti californica*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), Smooth tarplant (*Centromadia pungens laevis*), Coulter's goldfields (*Lasthenia glabrata coulteri*), San Jacinto Valley crownscale (*Atriplex coronata notatior*) and Salt Spring checkerbloom (*Sidalcea neomexicana*) located within the subject property. The Biological Survey was prepared in accordance with Riverside County protocol survey guidelines. The revised Biological Survey was prepared addressing comments received from Ms. Diane Jenkins and Ms. Mary Lanier on behalf of the City of San Jacinto, letter dated September 20, 2016 and email dated March 28, 2016

During the course of this assessment, no evidence of burrowing owls were observed. Additionally, suitable habitat for Narrow Endemic Plant Species was not present at the site due to lack of appropriate soils to support these species. Vegetation on-site consists primarily of remnant crop flora and invasive plants.

We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455.

Respectfully submitted,

SALEM Engineering Group, Inc.



Maria G. Ruvalcaba, EP
Project Manager

Burrowing Owl & NEPS Survey

Sanderson Ave. at Cottonwood Ave., City of San Jacinto, CA

APN 432-130-004

Total size 6.28ac

T4S, R1W, Section 29

Lakeview Quadrangle



Executive Summary:

Biological surveys were completed over five days following Riverside County protocol survey guidelines. Surveys focused on the burrowing owl and the following Narrow Endemic Plant Species (NEPS): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia punilla*), Many-stemmed dudleya (*Dudleya multicaulis*), Spreading navaretia (*Navarretia fossalis*), California orcutt grass (*Orcutti californica*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), Smooth tarplant (*Centromadia pungens laevis*), Coulter's goldfields (*Lasthenia glabrata coulteri*), San Jacinto Valley crownscale (*Atriplex coronata notatior*) and Salt Spring checkerbloom (*Sidalcea neomexicana*).

The project site is a 6.28-acre agricultural field with minimal native vegetation. No burrowing owls were observed and suitable habitat for Narrow Endemic Plant Species was not present because the disced site lacked the required soils to support these species. The site is an agricultural parcel which has been worked repeatedly in the past. As a result, the vegetation on-site is comprised primarily remnant crop flora and invasive plants.

Completed For:

Salem Engineering
13355 Noel Road, Suite 1100
Dallas, TX 95240

Completed By:

VHBC, Incorporated
6895 Ironwood Drive
Riverside, CA 92506

Survey Dates: 6-21-16 to 6-25-16

Report Date: 7-7-16

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: 7-7-16
7-7-16

SIGNED: 
Victor M. Horchar

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Executive Summary

Biological surveys were completed over five days following Riverside County protocol survey guidelines. Surveys focused on the burrowing owl and the following Narrow Endemic Plant Species (NEPS): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia punilla*), Many-stemmed dudleya (*Dudleya multicaulis*), Spreading navaretia (*Navarretia fossalis*), California orcutt grass (*Orcutti californica*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), Smooth tarplant (*Centromadia pungens laevis*), Coulter's goldfields (*Lasthenia glabrata coulteri*), San Jacinto Valley crownscale (*Atriplex coronata notatior*) and Salt Spring checkerbloom (*Sidalcea neomexicana*).

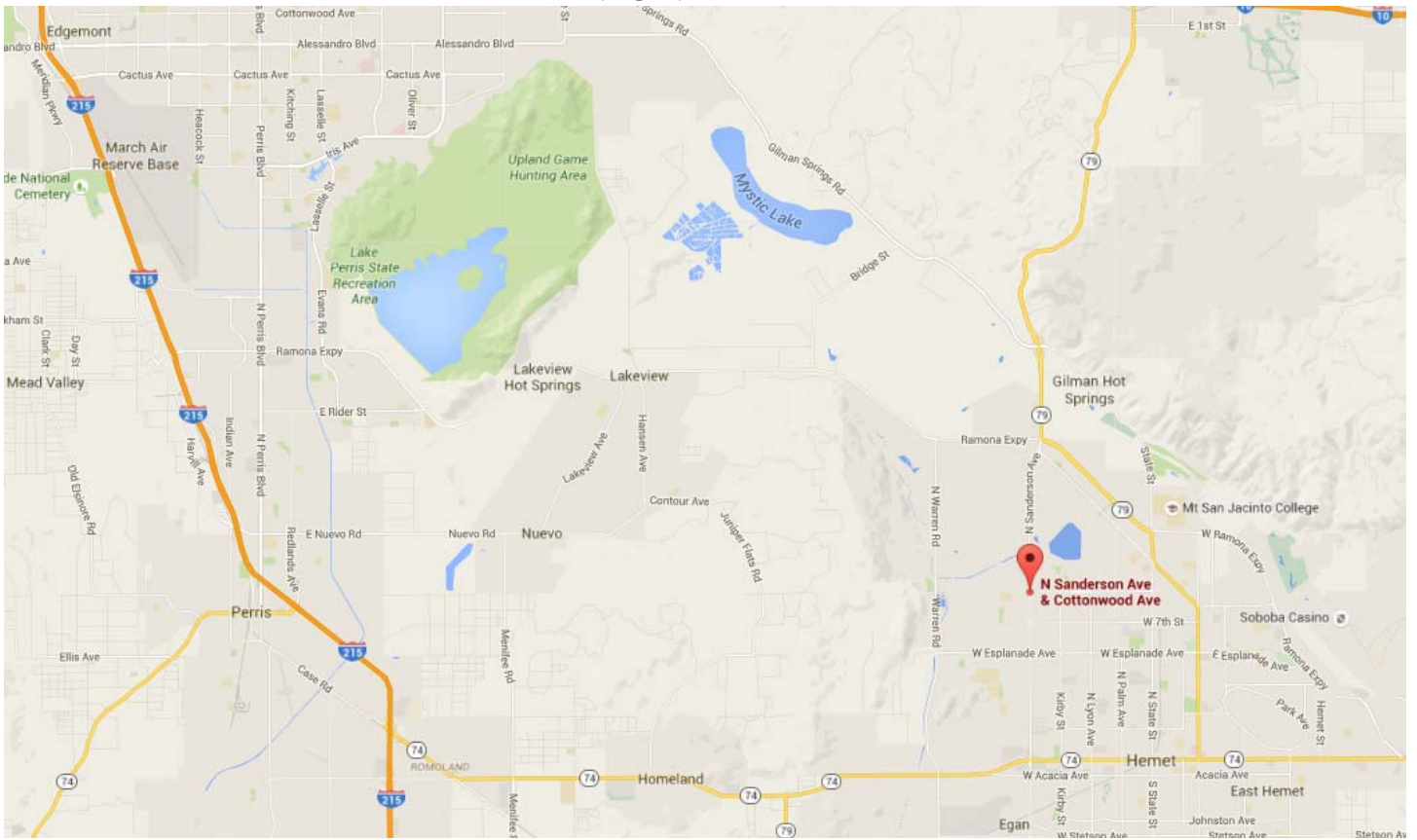
No burrowing owls were observed and suitable habitat for Narrow Endemic Plant Species was not present because the disced site lacked the required soils to support these species. The site is an agricultural parcel which has been worked repeatedly in the past. As a result, the vegetation on-site is comprised primarily remnant crop flora and invasive plants.

Introduction

The project site owner proposes to build a commercial structure on the 6.28-acre parcel located in San Jacinto, CA. The proposed development includes retail, a drive through restaurant, convenience store and a car wash (Figure 1 – Figure 4). The site is comprised of degraded and disced crop land dominated by invasive annual plants and bare disced ground. A few ornamental palm trees are present along the City sidewalk. The soil composition of the site is typical for the region and includes Grangeville sandy loam (96% of the site) with minimal amounts of disced San Emigdio fine sandy loam (1% of the site) and Traver loam fine sand/saline-alkali (3% of the site). The site will be mass-graded where practical to accommodate the proposed development.

Project Vicinity: The site is located in the City of San Jacinto, CA (Figure 1).

**FIGURE 1
VICINITY MAP**



Project Location: The project site is located on the northwestern corner of Sanderson Avenue and Cottonwood Avenue (Figure 2, Figure 3) whereon the proposed development is planned (Figure 4).

**FIGURE 2
LOCATION**

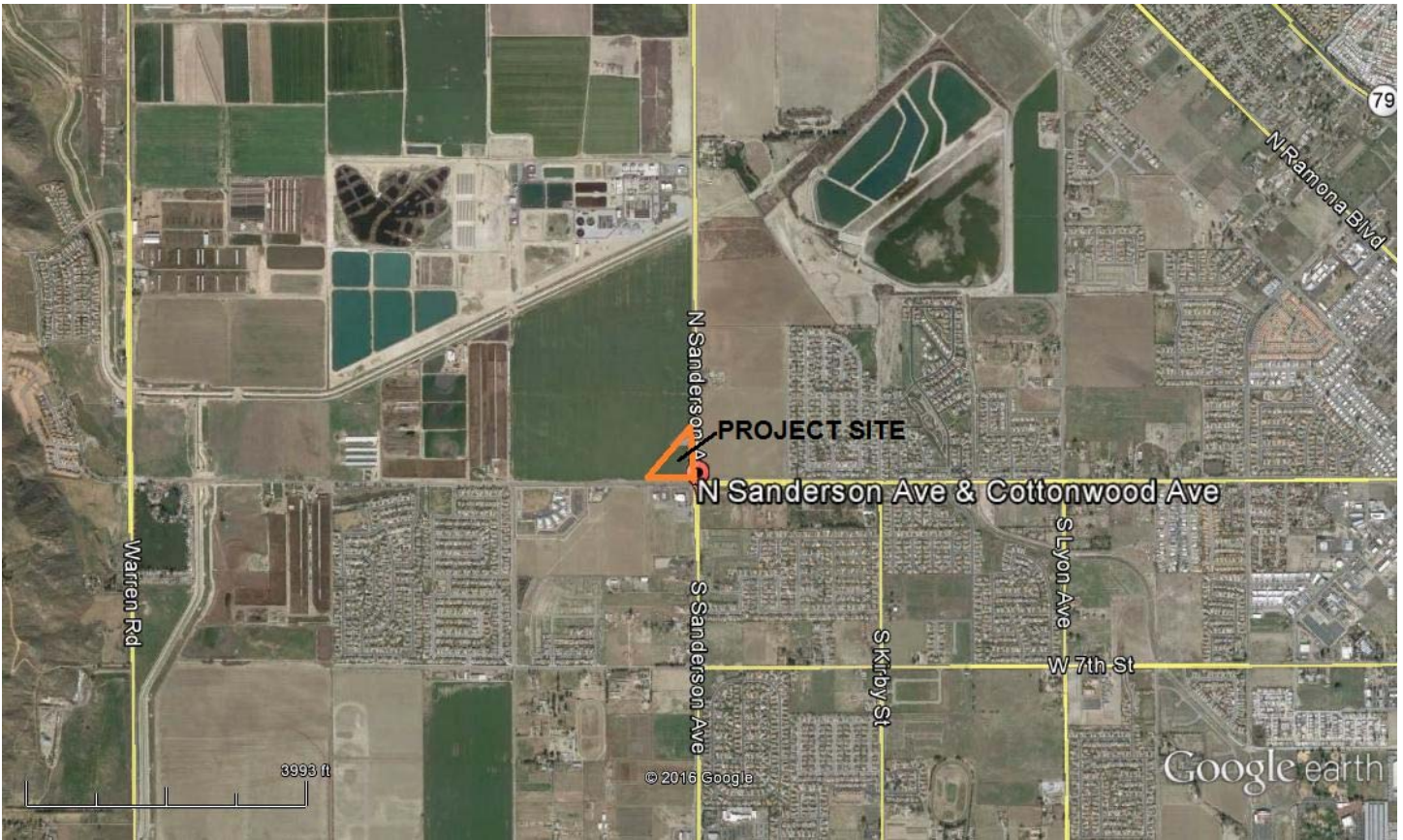
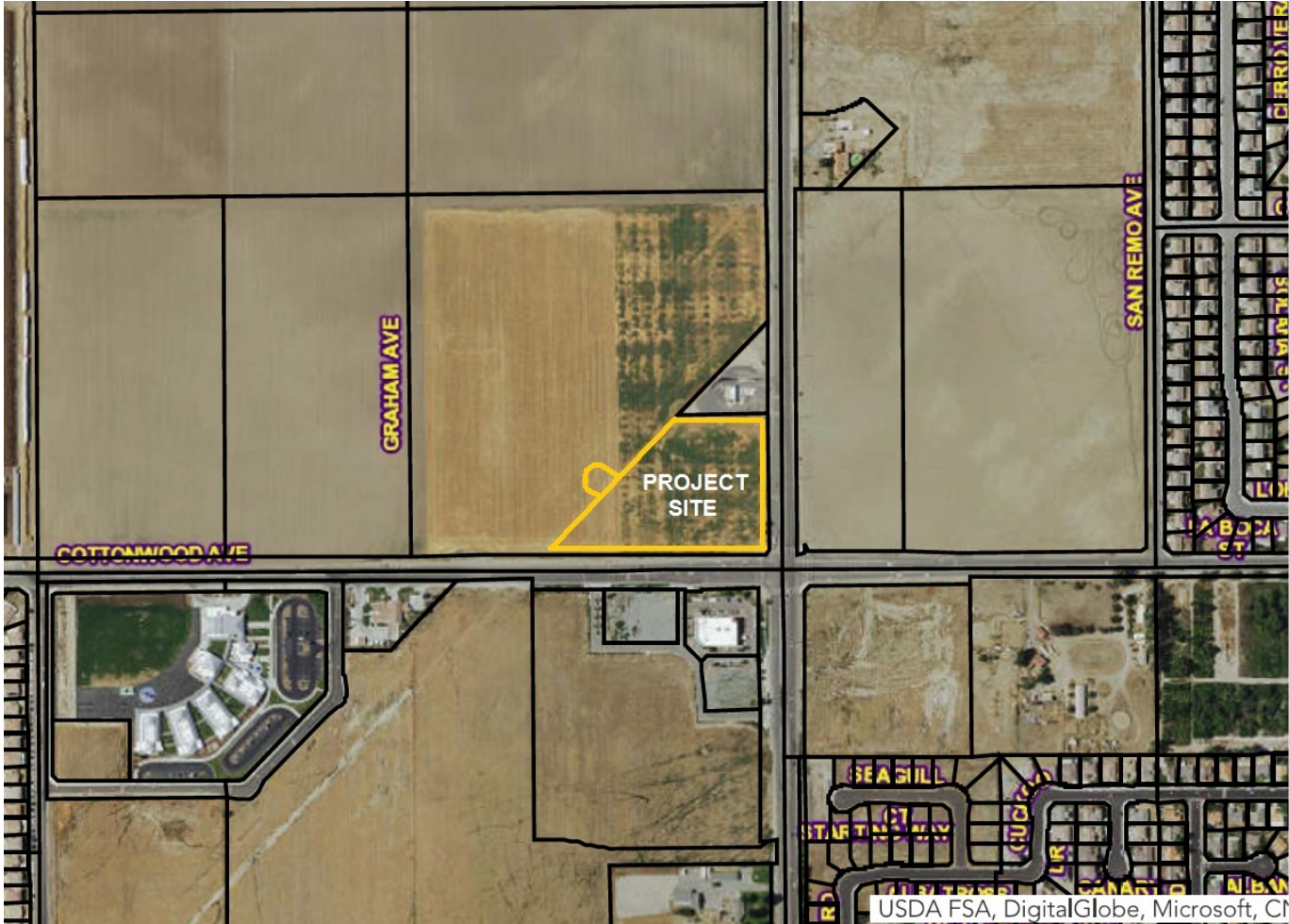


FIGURE 3
APN MAP



Project Topography: The project site is relatively flat with an elevation range between 1,500' asl to 1,517' asl. (Figure 5, Figure 6).

**FIGURE 5
USGS SITE TOPOGRAPHY**

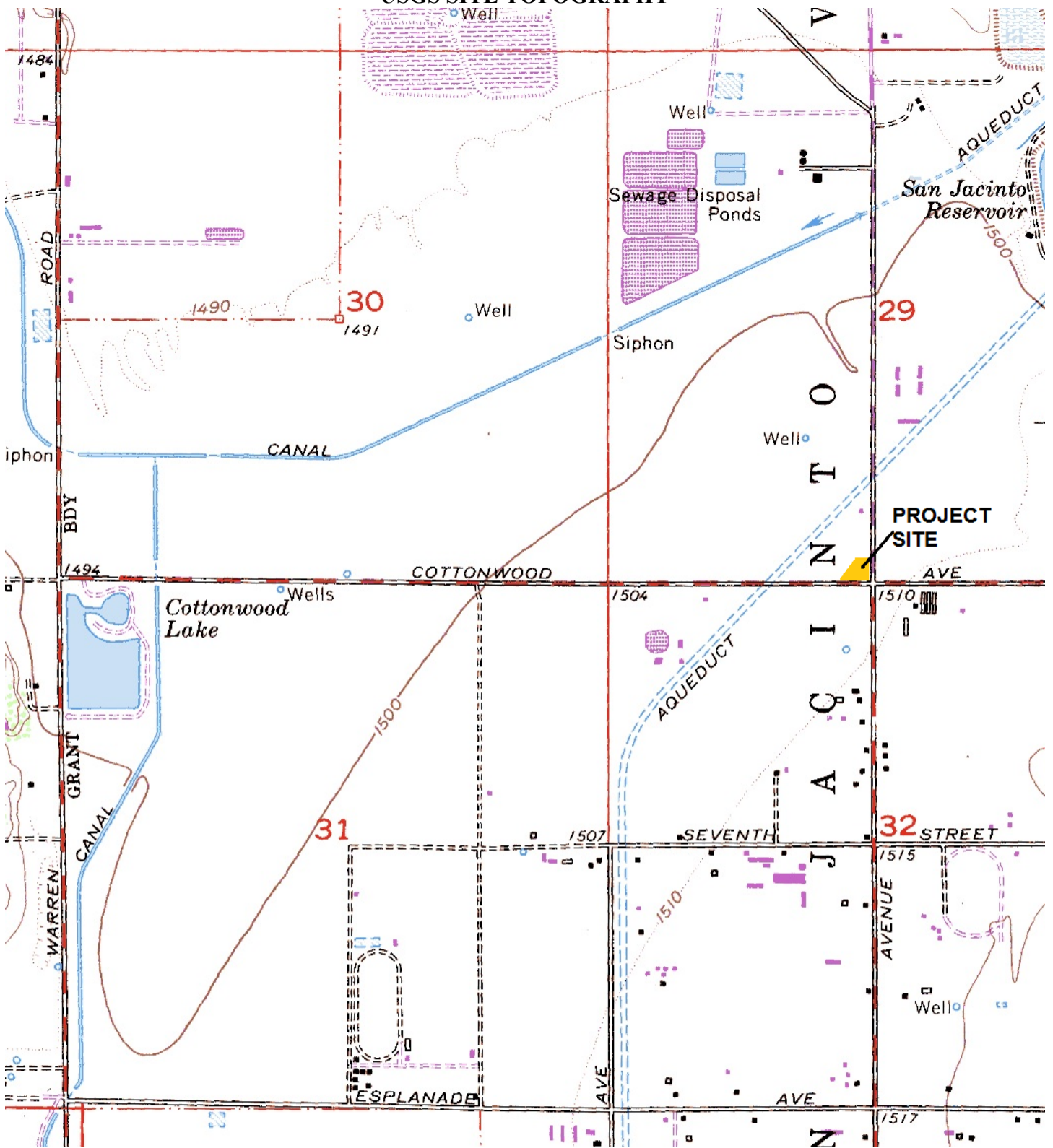
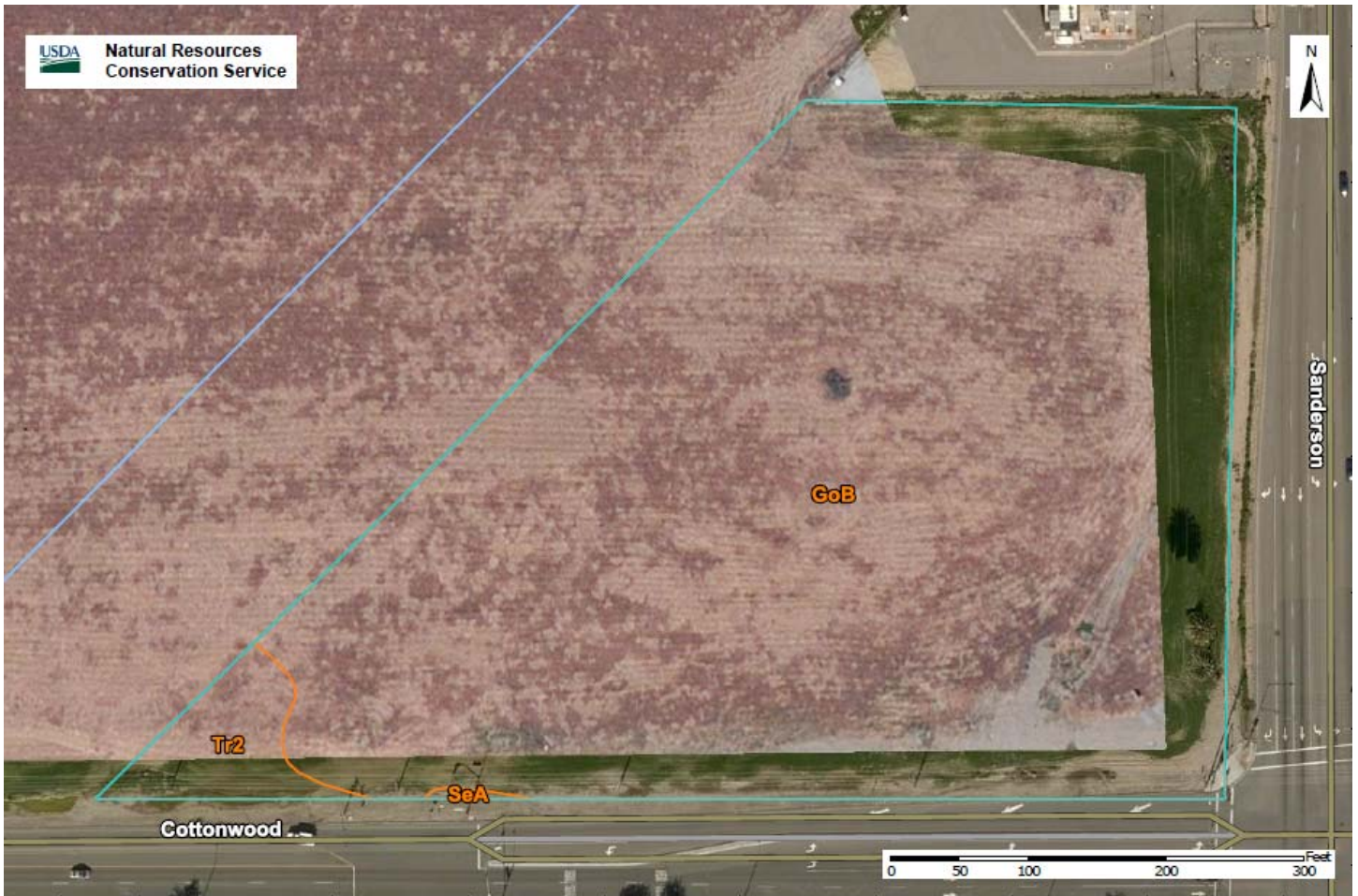


FIGURE 6
AERIAL PHOTOGRAPH SHOWING MINIMAL TOPOGRAPHY



Project Soils: There are three soil types that define the substrate on-site (Figure 7). All of the soils have been mixed together because of past agricultural use of the land. The majority of the site (96%) is comprised of Grangeville sandy loam, with the remaining two soil types comprised of mixed San Emigdio fine sandy loam (1% of the site) and Traver loam fine sand/saline-alkali (3% of the site). None of the soils can be classified as pristine native soils.

**FIGURE 7
SOIL COMPOSITION ON THE PROJECT SITE**



Western Riverside Area, California (CA679)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GoB	Grangeville loamy fine sand, drained, 0 to 5 percent slopes	6.3	96.5%
SeA	San Emigdio fine sandy loam, 0 to 2 percent slopes	0.0	0.1%
Tr2	Traver loamy fine sand, saline-alkali, eroded	0.2	3.4%
Totals for Area of Interest		6.5	100.0%

Project Site Wildlife: The wildlife observed on the project site included only common species: mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), raven (*Corvus corax*), jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beechyi*), pocket gopher (*Thomomys bottae*), domestic dog (*Canis familiaris*) and side-blotched lizard (*Uta stansburiana*).

Project Site Vegetation: The minimal flora on-site is non-native primarily and includes Russian thistle (*Salsola tragus*), red brome (*Bromus rubens*) and ripgut grass (*Bromus diandrus*). Other less common plants which are present but in minimal numbers include pearly everlasting (*Gnaphalium californicum*), croton (*Croton californica*), rattlesnake weed (*Euphorbia albomarginata*), storksbill (*Erodium cicutarium*), mustard (*Brassica*) and doveweed (*Croton setigerus*).

Project Site Surrounding Land Use: The area to the north of the site includes a utility building and cement pad. The southern side of the site is bordered by Cottonwood Avenue. The western side of the site is comprised of agricultural land and the eastern side of the site is bordered by Sanderson Avenue (Figure 8).

**FIGURE 8
SURROUNDING LAND USE**



SURVEY METHODOLOGY

Biological surveys followed the guidelines provided by the Environmental Programs Dept of the County of Riverside. These 2016 surveys were completed between 6-21-16 and 6-25-16. Surveys were completed by searching along linear transects across the site (Figure 9) including the cul-de-sac.

The goal of these surveys was to determine burrowing owl presence, Narrow Endemic Plant Species and site conditions (botanical/wildlife composition, soil types, topography, etc.). The weather during the surveys is detailed in Table 1, and all surveys were completed within acceptable weather parameters. Periods of unacceptable weather were avoided.

**FIGURE 9
SURVEY TRANSECTS**



**TABLE 1
SURVEY WEATHER**

<u>Date</u>	<u>Time</u>	<u>High Temp</u>	<u>Wind</u>	<u>Cloud Cover</u>	<u>Rain*</u>
6-21-16	1500-1900	89 F	6 mph	20% - 30%	-0-
6-22-16	1500-1900	88 F	7 mph	clear	-0-
6-23-16	1500-1900	84 F	4 mph	clear	-0-
6-24-16	1500-1900	83 F	6 mph	clear	-0-
6-25-16	1500-1900	84 F	7 mph	10% - 25%	-0-

2016 Precipitation to date: 4.28"

** No measurable rain within five days of survey start*

BURROWING OWL SPECIES BACKGROUND

The Burrowing Owl (*Athene cunicularia*) is the smallest owl in the United States. Burrowing owls begin nesting in spring within burrows. The female does all of the incubation and brooding. Clutch size ranges from 6 to 11 eggs. Eggs are laid at intervals of 24 to 72 hours. The incubation period is 27 to 30 days and begins when the first egg is laid, resulting in a multi-aged brood. Owlets are born partially covered with down and with eyes closed. Eyes open at 5 days of age. Owlets move among nest burrows when 10 days old. They fly well by 6 weeks of age, and fledge when about 44 days old. An item of interest is a DNA fingerprinting study of burrowing owl study at U.C. Davis which showed that 37 percent of adult owls were raising owlets other than their biological offspring.

Burrowing owls hunt in both day and night. They hunt while flying or while on high spots on the ground including fence posts or other elevated perches. Prey is either run down on foot or caught by hovering and swooping. Arthropods, mainly insects, form the majority of the burrowing owl diet, but they do eat small rodents, reptiles and even small birds. Young ground squirrels, pocket gophers, voles, mice, young cottontails, and young jackrabbits are common mammalian prey. Grasshoppers, Jerusalem crickets, and beetles are the most common arthropod prey.

Distribution: Burrowing owl is a pan-American species. In North America, it is distributed from British Columbia and Manitoba south through the western half of the United States, Louisiana, Florida, the Caribbean islands, and Mexico (Figure 10). Distribution continues through Central America to western South America, from Columbia south to Tierra del Fuego in Argentina. Distribution of North American subspecies: *Athene cunicularia* is distributed from southern interior British Columbia east to south-central Manitoba and south to west-central Mexico. Populations in British Columbia are reintroduced; prior to the 1986 reintroduction, burrowing owl had not been sighted in British Columbia since 1979. The range of this species once extended to Minnesota and Iowa, but burrowing owl is probably extirpated from those states.

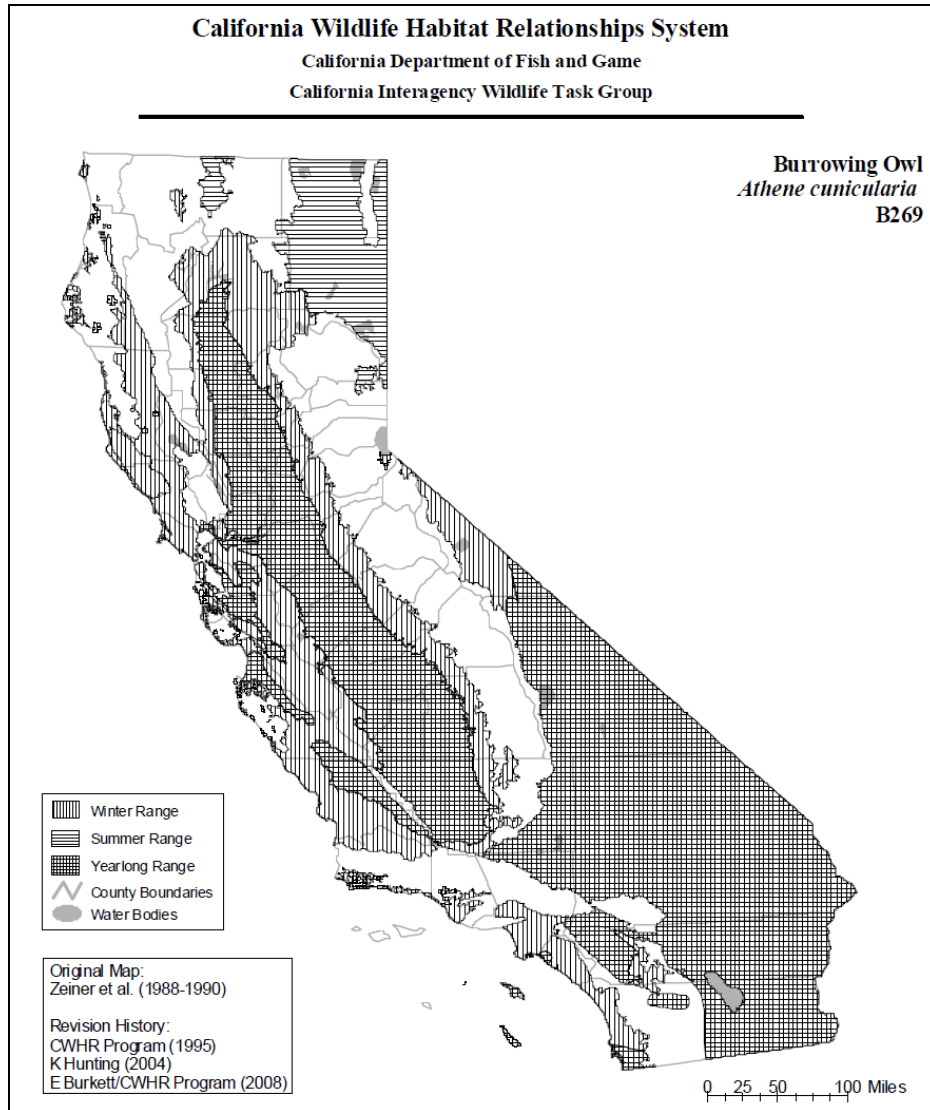
Christmas bird counts show California as the most important state for wintering burrowing owls, followed by New Mexico, Florida, Arizona, and Texas, respectively. Florida, the Southwest, and southern California have year-round burrowing owl residents as well as winter migrants. California Natural Diversity Database records include many observations of this owl in California including observations in Riverside County over the past 25 years.

Habitat: The preferred habitat for the Burrowing owl includes grasslands, shrub land, and savannas. They also occur in other open areas such as agricultural lands, old fields, extensive forest clearings, airports, golf courses, and spacious residential zones.

Burrowing owls typically live in colonies, using burrows excavated by other animal species for cover. Burrows are used for breeding, nesting, and brooding. When selecting a burrow, the owls prefer burrows with low, open cover that provide good horizontal visibility. Burrowing owls are commonly found in plant communities in early stages of succession because cover is low. Long-abandoned burrows are usually not used because the burrow entrance has become overgrown. Burrows adjacent to burrows occupied by other burrowing owls are preferred, although burrowing owl pairs have nested alone if other burrowing owls were not in the area. Burrowing owls often evict other animal species from desirable burrows.

In California, burrowing owls primarily use ground squirrel burrows. The length and depth of the burrow depends upon the requirements of the species that dug it. In friable soil, burrowing owls dig their own burrows when suitable ones are not available. Additionally, burrowing owls use ground cavities other than burrows for cover, including human-constructed cavities such as culverts and pipes.

FIGURE 10
BURROWING OWL RANGE IN CALIFORNIA



Soil Requirements: This species is a generalist and only avoids toxic soils where possible. It has been observed in sand, decomposed granite, clay soils, farmed disturbed soils, etc.

Riverside County Locations: This species has been observed throughout Riverside County including locations in the following cities/regions – Corona, Norco, Riverside, Woodcrest, Lake Elsinore, Perris, Temecula, Winchester, Moreno Valley, Hemet, San Jacinto, Sun City and Murrieta among others.

Status: This species is a State of California Species of Concern.

NARROW-ENDEMIC PLANT SPECIES STATUS KEY

Federal

FE – Federally Endangered

FT – Federally Threatened

State

SE – State Endangered

ST – State Threatened

CNPS

Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.

Rank 2 – Plants rare, threatened, or endangered in California, but more common elsewhere.

Rank 3 – Plants about which more information is needed.

Rank 4 – Plants of limited distribution (a watch list).

CNPS Threat Rank Extensions

.1 – Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2 – Fairly endangered in California (20-80% occurrences threatened)

.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

MUNZ'S ONION BACKGROUND

FE, ST, CNPS 1B.1, MSHCP Covered

Munz's onion (*Allium munzii*) is a perennial herb and grows to six to 14 inches in height. It spends most of the year underground as a bulb. It produces clusters of small red or white flowers depending on the plant's age. Later in the blooming season, the plant bears a three-lobed fruit that houses many small, black seeds. In viable habitat the plant can only be detected when it blooms in April and May because it dies back down to a stem during the rest of the year.

Munz's onion occurs on mesic clay soils at an altitude of 400 to 900 meters. It is usually found in open grasslands, coastal scrub, and juniper woodlands.

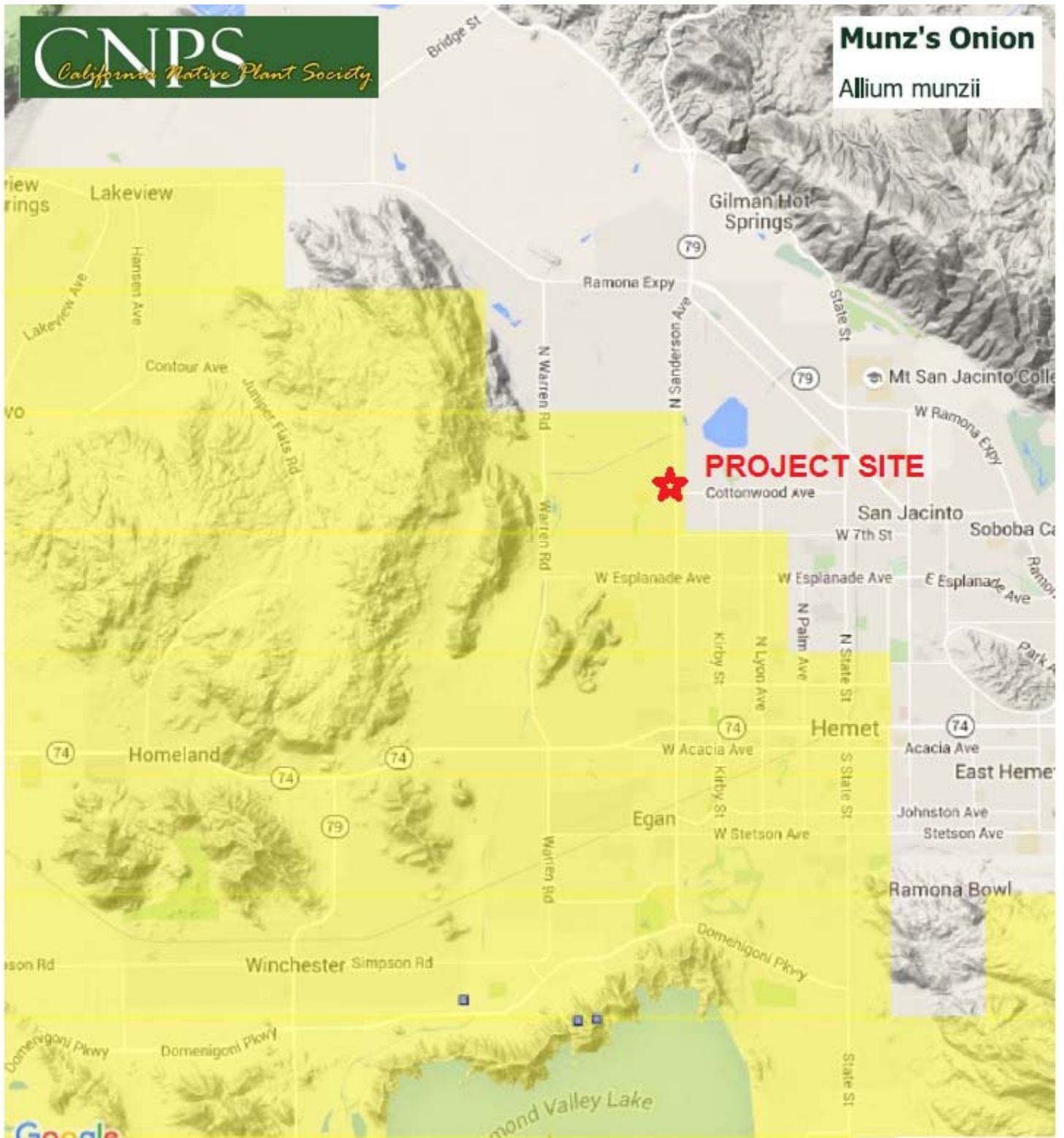
This rare plant grows only in the western part of Riverside County, California.

Munz's onion only germinates from an underground bulb and can take from three to five years to reach maturity.

Munz's onion is most threatened by increased urbanization, agricultural activities (disking), off-road vehicle use, trampling and overgrazing by livestock, weed control measures and displacement by nonnative species.

The U.S. Fish and Wildlife Service listed 19 extant populations of Munz's onion distributed in Harford County Park, Alberhill, Elsinore Peak, Dawson Canyon, Estelle Mountain, and Bachelor Mountain. The remaining populations' numbers are perilously low: while six of the extant populations contain over 2,000 individuals, most contain fewer than 1,000. Many of the current populations are located dangerously near developing areas.

FIGURE 11
RANGE OF MUNZ'S ONION RELATIVE TO THIS PROJECT SITE



SAN DIEGO AMBROSIA BACKGROUND

FE, State – none, CNPS 1B.1, MSHCP Covered

The San Diego ambrosia (*Ambrosia punilla*) is a low, creeping perennial herb that spreads by means of slender, branched, underground rhizome-like roots. The plant stems are usually between 2” & 12” tall and are covered with short hairs. The plant’s small leaves are blue-gray in color, and it has clusters of tiny, yellow flowers summer through fall. The San Diego ambrosia reproduces clonally through branching underground root structures. It can also self-pollinate or be wind pollinated because this species has both male (stamen) and female (pistil) parts on the same stem.

The San Diego ambrosia is restricted to flat or gently sloping grasslands and upper terraces of rivers and drainages. The species may also be found in openings in coastal sage scrub, adjacent to vernal pools, and in disturbed sites such as those near roadways. San Diego ambrosia generally occurs at low elevations: less than 1,600 feet in the case of the Riverside populations and less than 600 feet in San Diego County.

This species occurs in low number throughout its range which includes San Diego and Riverside counties as well as in Baja California, Mexico. Historical records indicate that the San Diego ambrosia was once found within most major drainages in California’s San Diego County. Presently, 15 viable populations of this species remain, down from 49 as recently as 1999. Of these, the long-term viability of seven populations is questionable, and another consists of only a single plant. Three populations persevere in Mexico, all of which are threatened by urban and agricultural development.

The threats to the San Diego ambrosia include land development, agricultural expansion, livestock grazing, off-road vehicle use, pesticide spraying, road construction, and the introduction of exotic species.

MANY-STEMMED DUDLEYA BACKGROUND

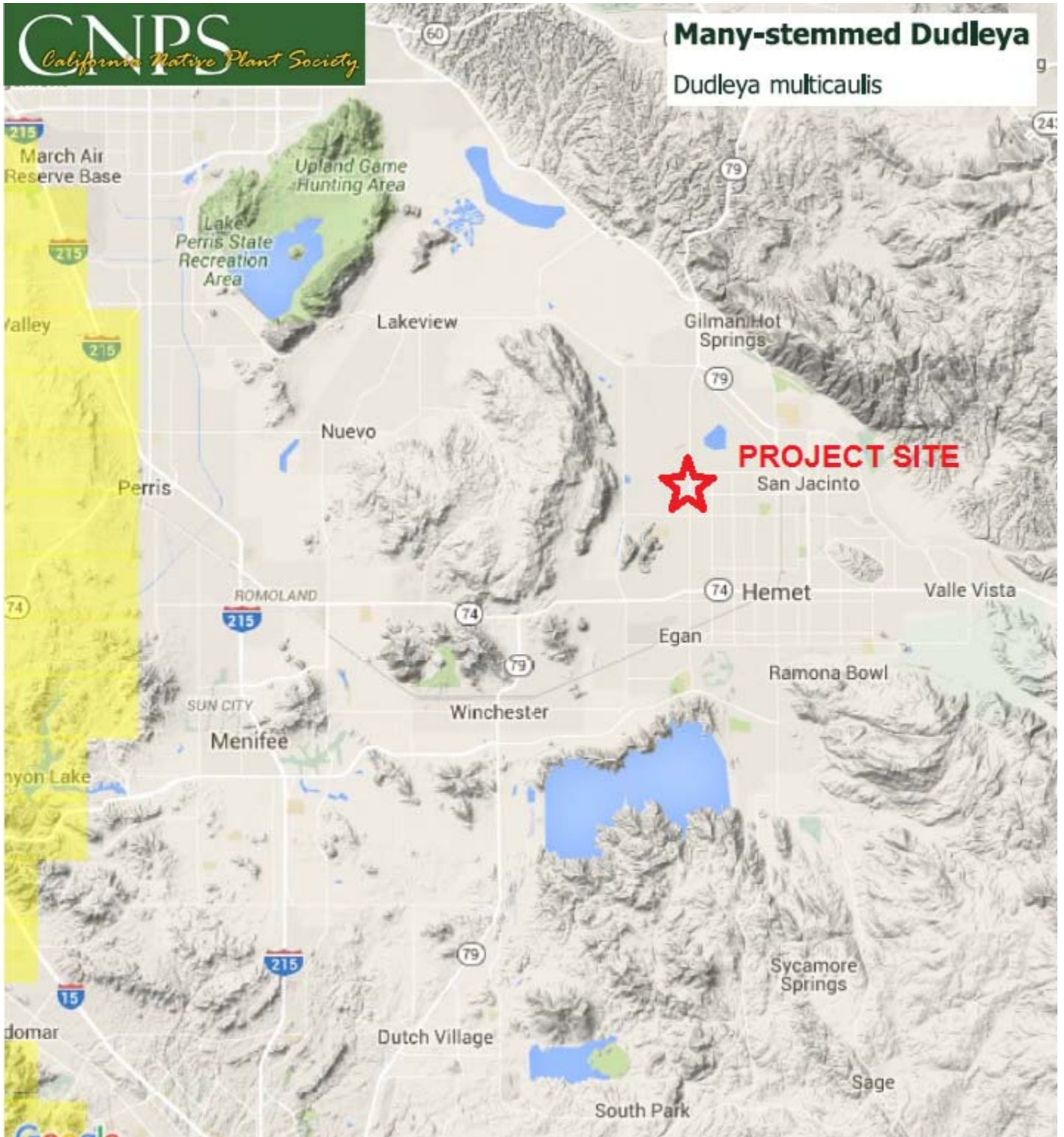
Federal – none, State – none, CNPS 1B.2, MSHCP Covered

The many-stemmed dudleya (*Dudleya multicaulis*) is a perennial herb growing from an oblong corm. The leaves are in a rosette and the flowers occur on short (4-35 cm) stems and are yellow, often flecked with red. This plant generally flowers between May and June.

The many-stemmed Dudley is a perennial plant that is characterized by its rosette leaves linear-lanceolate, not narrowed at base, 4-15 cm long; petals connate for 1-2 mm; flowers yellow, odorless (Munz, 1959). It's seeds are dispersed by wind and water. This plant is associated with heavy clay soils in barrens, dry stony places, or thinly vegetated openings, within coastal sage scrub, chaparral, and valley and foothill grassland.

This dudleya is endemic to the South Coast region of California, in Orange, Los Angeles, Riverside, and San Diego counties. This species is continuing to decline. Over half of known occurrences are on private land. This species is threatened by development, grazing, exotic plants, recreational activities, fire reduction management, and mining (clay, sand, gravel).

FIGURE 13
RANGE OF THE MANY-STEMMED DUDLEYA RELATIVE TO THIS PROJECT SITE



SPREADING NAVARRETIA BACKGROUND

FT, State – none, CNPS 1B.1, MSHCP Covered

Spreading navarretia (*Navarretia fossalis*) is a member of the phlox family (Polemoniaceae). This plant is an annual herb that grows between 4 and 6 inches tall. The flowers vary in color from white to lavender white. The spreading navarretia is primarily found in vernal pools, alkali grasslands, alkali playas and alkali sinks in portions of Los Angeles, Riverside, Orange and San Diego counties between sea level and 4,250 feet.

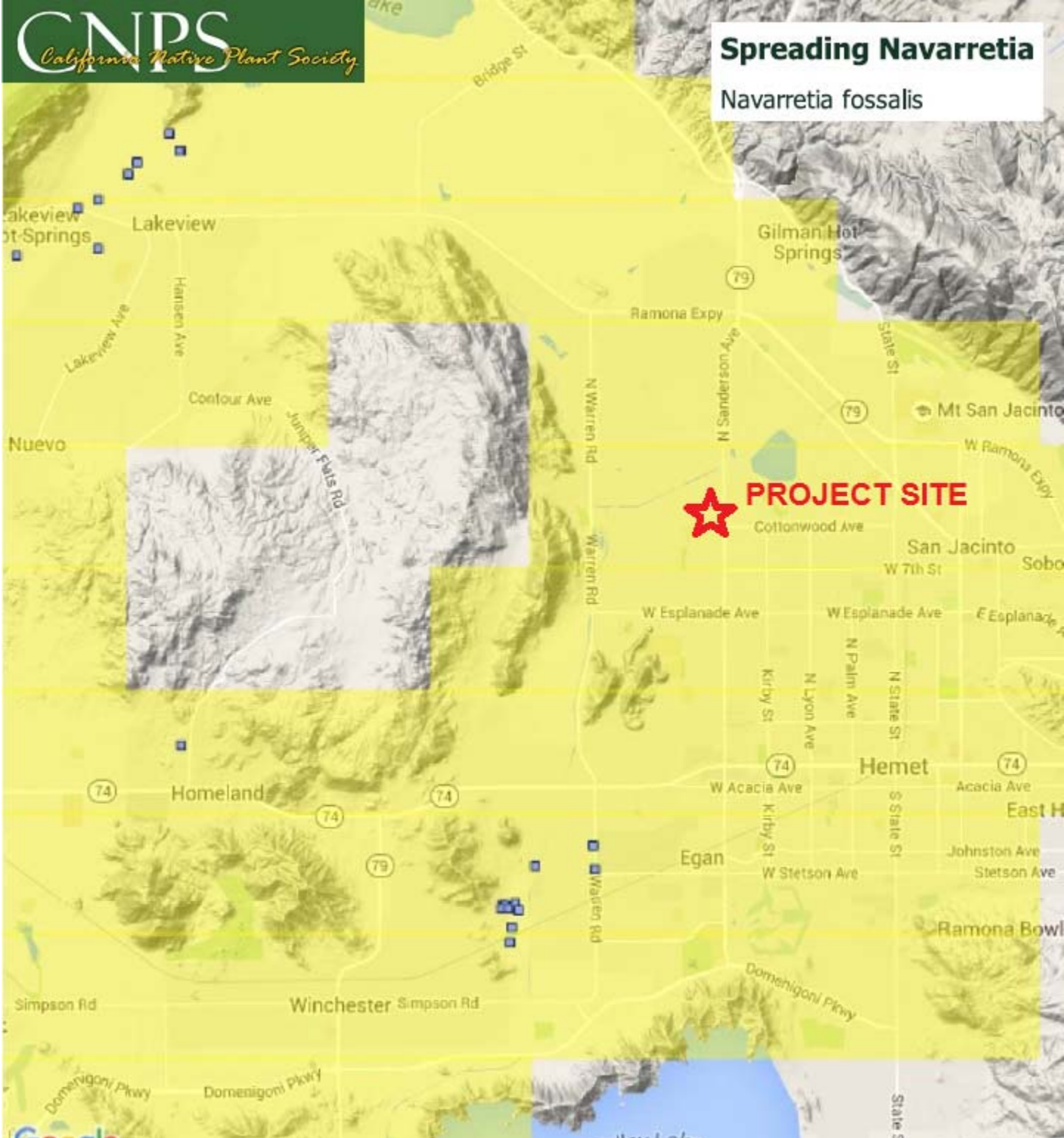
Spreading navarretia was listed as endangered under the Endangered Species Act on October 13, 1998, Currently, fewer than 45 populations of the plant remain in the United States, most of which are concentrated in Otay Mesa in southern San Diego County, and in portions of Riverside County along the San Jacinto River and near the City of Hemet.

In southern California, it is estimated that more than 90 percent of the historic vernal pools have been destroyed or impacted by a variety of activities, including urban development, off-road vehicle use, agriculture, and the introduction of non-native species. Primary threats to spreading navarretia include further loss, fragmentation, and alteration of its vernal pool habitat and the introduction of nonnative, competitive plants.

This plant is also listed by the State of California as a threatened species pursuant to the California Endangered Species Act.

In the case of Spreading navarretia, primary constituent elements include the following: (1) clay soils that retain water for sufficient periods of time to support vernal pool, alkali grassland, alkali playa, or alkali sink habitat; (2) periods of inundation with water during winter and spring that are sufficient to support vernal pool, alkali grassland, alkali playa, or alkali sink habitats; (3) watershed areas surrounding vernal pools, alkali grasslands, alkali playas, or alkali sinks that provide the hydrology to support these habitats; and (4) vernal pools, alkali grasslands, alkali playas, or alkali sinks at elevations between sea level and 4,250 feet on flat to gently sloping terrain.

FIGURE 14
RANGE OF THE SPREADING NAVARETIA RELATIVE TO THIS PROJECT SITE



CALIFORNIA ORCUTT GRASS BACKGROUND

FE, SE, CNPS 1B.1, MSHCP Covered

The California orcutt grass (*Orcuttia californica*) is an obligate vernal pool species. It is a tufted annual grass, 2 to 8 inches tall. Its seeds germinate in the saturated and/or submerged soil of vernal pools and plants are at first nearly prostrate. The plants produce more erect glandular pubescent stems when they are exposed as the pool dries up and subsequently produce flowers and seeds. The species is restricted to vernal pools in southern California and a few occurrences in northern Baja California, Mexico.

The California orcutt grass is an inconspicuous annual grass restricted to southern California and few historical occurrences in northern Baja California, Mexico. This species is closely associated with deep ephemeral vernal pools underlain by clay soils. At the time of listing, *O. californica* was considered depressed in distribution, and ensuing populations because of threats associated with loss and degradation of its vernal pool habitat. Threats include urban and agricultural development, grazing, altered hydrology, off-road vehicle use, trampling, grazing, and nonnative plants. Because of these threats and based on the consideration at the time that the species was considered extant at only four areas in Riverside and San Diego Counties, *O. californica* was federally listed as endangered on August 3, 1993 (USFWS 1993, pp. 41384–41392). The species was listed as endangered by the State in 1979. *Orcuttia californica* is currently extant in Ventura, Los Angeles, Riverside, and San Diego Counties from 28 occurrences. *Orcuttia californica* is variously associated with other federally listed vernal pool taxa including *Eryngium aristulatum* var. *parishii* (San Diego button celery), *Pogogyne abramsii* (San Diego mesa mint), *Pogogyne nudiuscula* (Otay Mesa mint), *Navarretia fossalis* (spreading navarretia), San Diego fairy-shrimp (*Branchinecta sandiegonensis*), and Riverside fairy-shrimp (*Streptocephalus woottoni*).

This species has leaf and root anatomy and physiology adapted to conditions in the wettest, longest lasting portion of vernal pools (Munz 1974, p. 985; Reeder 1993, pp. 1276–1277). It is specifically adapted to survive in vernal wet conditions due to the presence of aerenchyma tissue for submerged gas exchange described by Keeley (1990, pp. 61–87; 1999, pp. 106–118) as Crassulacean Acid Metabolism (CAM) photosynthesis. Pool topography often includes a loamy soil surface and bottom hard/clay pan that restricts or precludes drainage from the pool site. Obligate vernal pool taxa require these ephemerally wet conditions to reproduce. Seeds of *O. californica* germinate while the pool is inundated and plants appear prostrate during this phase of their life history. The plant's stems become more erect as the ephemeral pool dries out by evaporation at which time the plants flower, usually between April and June, and set seed. It is doubtful that any significant amount of germination occurs in the absence of the pool being inundated. This habit relates to the species' more restricted habitat. Like most grasses, its flowers are wind pollinated; however, it relies on fungi to play a role in stimulating germination (Griggs 1976, pp. 57–63; Griggs 1981, p. 16; Keeley 1988, pp. 1086–1089). *Orcuttia californica* is less abundant at the shallow periphery of vernal pools that are subject to more rapid changes in moisture and are generally more abundant in portions of pools that retain water for the longest period of time.

Orcuttia californica was thought to be restricted to four general localities in California, located in Riverside and San Diego Counties. These localities were the Santa Rosa Plateau, Skunk Hollow, and Salt Creek (now identified as the Stowe Pools) in Riverside County, and Otay Mesa in San Diego County. It was thought to be extirpated from Los Angeles County at the time of listing. The species was likely never widespread, compared to other obligate plant species, because deeper pools with longer inundation times (longer seasonal ponding) are less common in southern California. Because of its small stature and lack of showy flowers to catch the eye, few collections were made in areas that probably supported the species. We know that vernal pool habitat was

Orcuttia californica is currently considered to be extant at 28 occurrences: 3 occurrences in Ventura County, 3 occurrences in Los Angeles County, 9 occurrences in Riverside County, and 13 occurrences in San Diego County.

WRIGHT'S TRICHOCORONIS BACKGROUND

Federal – none, State – none, CNPS 2B.1, MSHCP Covered

Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) is found in the alkali vernal plains and associated with alkali playa, alkali annual grassland, and alkali vernal pool habitats (Bramlet 1993, Ferren and Fiedler 1993). This plant is highly dependent on alkaline soils that are saturated for extended periods of time.

Wright's trichocoronis is a low, slightly succulent subaquatic annual, less than 30 cm tall (Powell 1993). This species is associated with seablite (*Suaeda moquinii*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), sand spurry (*Spergularia marina*), California goldfields (*Lasthenia californica*), Mojave silver scale (*Atriplex argentea*), bracted saltbush (*A. serenana*), five-hook bassia (*Bassia hyssopifolia*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), alkali heath (*Frankenia grandifolia*), and toad rush (*Juncus bufonius*) (Bramlet 1993a; Bramlet 1993b; CNDDDB 2000). This species is frequently associated with other rare species, including San Jacinto Valley crownscale (*A. coronata* var. *notatior*), Davidson's saltscale (*A. serenana* var. *davidsonii*), vernal barley (*Hordeum intercedens*), smooth tarplant (*Hemizonia pungens* ssp. *laevis*), and spreading navarretia (*Navarretia fossalis*) (Bramlet 1993b).

The historic range of Wright's trichocoronis includes the Great Valley of central California, western Riverside County, and the Edwards Plateau of central Texas and adjacent Mexico (Munz 1974; Powell 1993). Wright's trichocoronis appears to be extirpated from central California. California plants may represent a distinct species from the plants of Texas and north central Mexico (Sanders, 1999).

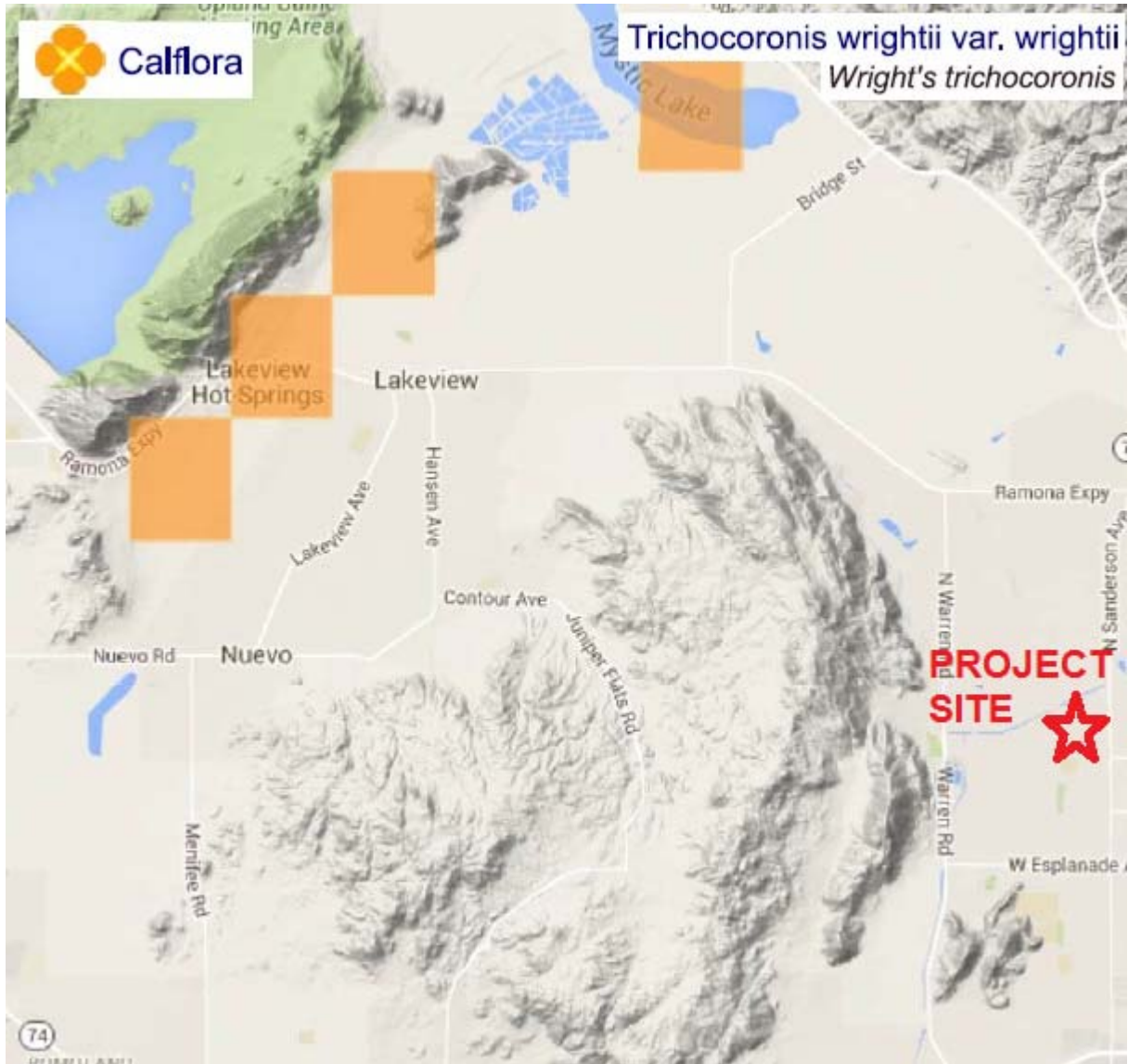
This species is known only from four locations along the San Jacinto River from the vicinity of the Ramona Expressway and San Jacinto Wildlife Area (Bramlet 1993; CNDDDB) and along the northern shore of Mystic Lake. Only two locations on either side of the Ramona Expressway have been seen in recent years. This species may have once occurred at Salt Creek and possibly in the alkali wetlands near Nichols Road in the vicinity of Lake Elsinore. Both of the known locations (middle segment of the San Jacinto River and the San Jacinto Wildlife Area) are core locations.

Wright's trichocoronis, a member of the Asteraceae, is one of two species in the genus *Trichocoronis* in southern California (King and Robinson 1987). *Trichocoronis* is a member of the tribe Eupatorieae, a largely tropical group of asters that is poorly represented in California (Keil 1993). Wright's trichocoronis is treated as an introduced species by Keil (1993), presumably because the species also occurs in western Texas and Chihuahua, Mexico.

Wright's trichocoronis blooms from May to September and produces 75 to 125 flowers per flower head (Powell 1993). The achenes are one millimeter long (Munz 1974). No literature regarding pollination and germination was located or reviewed at this time.

Threats to this species include urbanization, agricultural conversion, and alteration of required hydrology has extirpated this species in other parts of the state. In Riverside County, this species and its habitat are threatened by habitat destruction and fragmentation from urban and agricultural development, pipeline construction, alteration of hydrology and floodplain dynamics, excessive flooding, channelization, off-road vehicle activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including discing and plowing), and competition from alien plant species.

FIGURE 16
RANGE OF WRIGHT'S TRICHOCORONIS RELATIVE TO THIS PROJECT SITE



SMOOTH TARPLANT BACKGROUND

Federal – none, State – none, CNPS 1B.1, MSHCP Covered

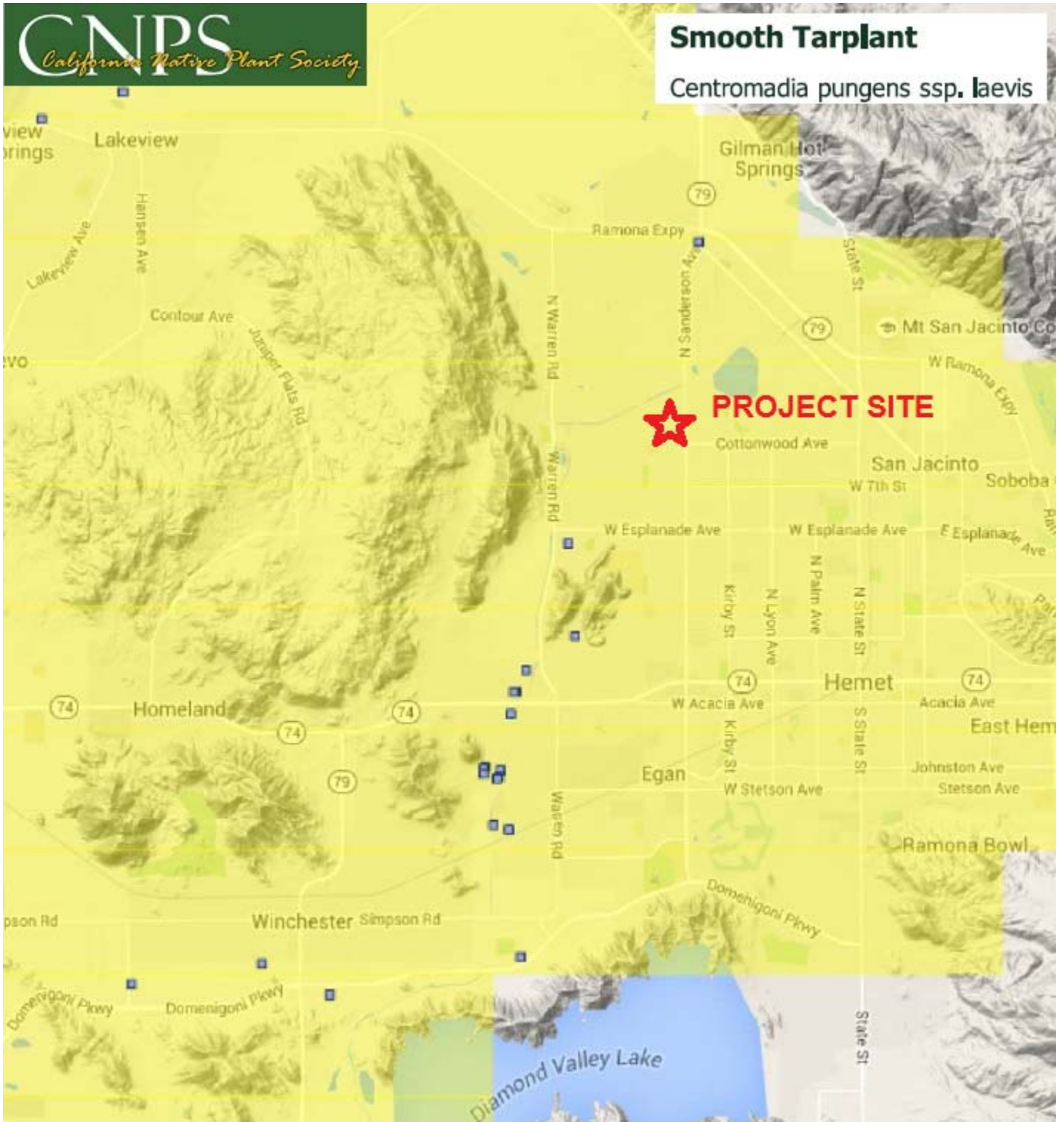
The smooth tarplant (*Centromadia pungens laevis*) occurs in alkali scrub, alkali playas, riparian woodland, watercourses, and grasslands with alkaline affinities (CNPS 2001). The majority of the populations in western Riverside County are associated with alkali vernal plains. In the San Jacinto Wildlife Area, smooth tarplant is associated with seablite (*Suaeda moquinii*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), sand spurry (*Spergularia marina*), California goldfields (*Lasthenia californica*), Mojave silver scale (*Atriplex argentea*), bracted saltbush (*A. serenana*), five-hook bassia (*Bassia hyssopifolia*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), alkali heath (*Frankenia grandifolia*), and toad rush (*Juncus bufonius*) (Bramlet 1993a; Bramlet 1993b; CNDDDB 2016). Smooth tarplant is frequently associated with other rare species, including San Jacinto Valley crownscale, Davidson's saltscale, Parish's brittle scale, vernal barley, Coulter's goldfields, and thread-leaved brodiaea (Bramlet 1993b; Tierra Madre Consultants 1992; Ogden 1996).

Known Populations Within Western Riverside County: Smooth tarplant are located at Salt Creek, along the San Jacinto River, Temecula Creek, and northwest of Hemet (Bramlet 1993b; CNDDDB 2000). Other locations include: Sycamore Canyon Park, south of Lake Elsinore, within the City of San Jacinto, French Valley, Moreno Valley, Lake Skinner, Clinton Keith Road east of Deer Creek Development, and Potrero Creek near Beaumont. Large populations in the Domenigoni Valley have been inundated by a reservoir (CNDDDB 2000). This species is also known to occur at Lake Mathews and along the Santa Ana River (D. Bramlet, pers. com. 2001). This species is known to occur in alkaline swales near Alberhill Creek, Murietta and Goodhope (S. Boyd, pers. com. 2002).

Core locations for this species have only partially been identified. Those that have been identified include the San Jacinto Wildlife Area, the middle segment of the San Jacinto River, Salt Creek, and areas north of the Tres Cerritos Hills. Numerous population reports are available for the Murrieta Creek area but the current status of these populations are unclear. Other Core Areas may exist.

Smooth tarplant and its habitat are threatened by the same activities that threaten San Jacinto Valley crownscale: habitat destruction and fragmentation from urban and agricultural development, pipeline construction, alteration of hydrology and flood plain dynamics, excessive flooding, channelization, off-road vehicle activity, trampling by cattle and sheep, weed abatement, fire-suppression practices (including discing and plowing), and competition from alien plant species (CNDDDB 2016).

FIGURE 17
RANGE OF THE SMOOTH TARPLANT RELATIVE TO THIS PROJECT SITE



COULTER'S GOLDFIELD'S BACKGROUND

Federal – none, State – none, CNPS 1B.1, MSHCP Covered

The WRMSHCP states that “Coulter's goldfields (*Lasthenia glabrata coulteri*) is associated with low-lying alkali habitats along the coast and in inland valleys (Ornduff 1966). The majority of the populations are associated with coastal salt marsh. In Riverside County, Coulter's goldfields occurs primarily in highly alkaline, silty-clay soils in association with the Traver, Domino and Willows soils. Most Riverside County populations are associated with the Willows soil series. Coulter's goldfields occur primarily in the alkali vernal plains community (Ferren and Fiedler 1993; Bramlet 1993b). These are floodplains dominated by alkali scrub, alkali playas, vernal pools, and, alkali grasslands (Bramlet 1993, CNDDDB 2000). These habitats form mosaics that are largely dependent on salinity and micro-elevation differences. Coulter's goldfields occurs in wetter areas. California goldfields (*L. californica*) occurs sympatrically both at Salt Creek and along the San Jacinto River. California goldfields is the dominant of the pair at Salt Creek. The reverse is true at the San Jacinto Wildlife Area and along the San Jacinto River (Dave Bramlet 1993; F. Roberts, botanist, pers. comm., 2000).”

In Riverside County, Coulter's goldfields is associated with seablite (*Suaeda moquinii*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), sand spurry (*Spergularia marina*), California goldfields (*Lasthenia californica*), Mojave silver scale (*Atriplex argentea*), bracted saltbush (*A. serenana*), five-hook bassia (*Bassia hyssopifolia*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), alkali heath (*Frankenia grandifolia*), and toad rush (*Juncus bufonius*) (Bramlet 1993a; Bramlet 1993b; CNDDDB 2000). Coulter's goldfields are frequently associated with other rare species, including San Jacinto Valley crownscale, Davidson's saltscale, vernal barley, smooth tarplant, and thread-leaved brodiaea (Bramlet 1993b).

Coulter's goldfields is distributed from coastal San Luis Obispo County south through coastal Santa Barbara County, Ventura County, Los Angeles to San Diego County and northwestern Baja California from sea level to about 1,000 meters (Ornduff 1966; Munz 1974; Ornduff 1993; Reiser 1996). Interior valley populations have been recorded from the Carrizo Plain of San Luis Obispo County south through Tehachapi (Kern County), Twenty Nine Palms (San Bernardino County), and cismontane western Riverside County, to the Ojos Negros Valley east of Ensenada, Mexico (Munz 1974; Ornduff 1993; Reiser 1996; CNDDDB 2000). Coulter's goldfields has also been reported from Santa Rosa Island. The CNDDDB reports this plant from Tulare and Colusa Counties. However, these reports were made based on specimens annotated by Ornduff as *Lasthenia glabrata ssp. coulteri* predating his 1966 monograph. Ornduff (1966) excluded these counties from the range of this species. While having a relatively broad distribution, Coulter's goldfield is extremely spotty and isolated within that distribution (Ornduff 1966).

Coulter's goldfields is known primarily from four areas in western Riverside County: Mystic Lake and the San Jacinto Wildlife Area; along the San Jacinto River from Lake View, Nuevo, and Perris to Railroad Canyon; Salt Creek; and the alkali wetlands near Nichols Road in the City of Lake Elsinore (Bramlet 1993; CNDDDB 2000). Small, or historic populations, have also been reported from Anza, the vicinity of Murrieta and Temecula, the lake bed of Lake Elsinore, and at Woodcrest near Mockingbird Canyon. The current status of many of these smaller populations is unknown. The San Jacinto River population complex is the largest remaining population representing 70 to 90 percent of all Coulter's goldfields known (CNDDDB 2000; F. Roberts, pers. comm., 1999). A significant proportion of this population is on the San Jacinto Wildlife Area. The alkali wetlands in Warm Springs Valley near Nichols Road support a moderate-sized population reported to be at least 1,500 individuals or larger. Salt Creek supports a small population (Recon 1994; CNDDDB 2000).

There are three Core Areas within the Plan Area. The largest and most significant occurrences are within the San Jacinto Wildlife Area and southern shores of Mystic Lake. This represents the largest remaining concentration of this species throughout its known range. Although currently suppressed by discing and dryland farming, the middle segment of the San Jacinto River represents a Core Area. The third Core Area is located on the alkali flats between Alberhill and Lake Elsinore.

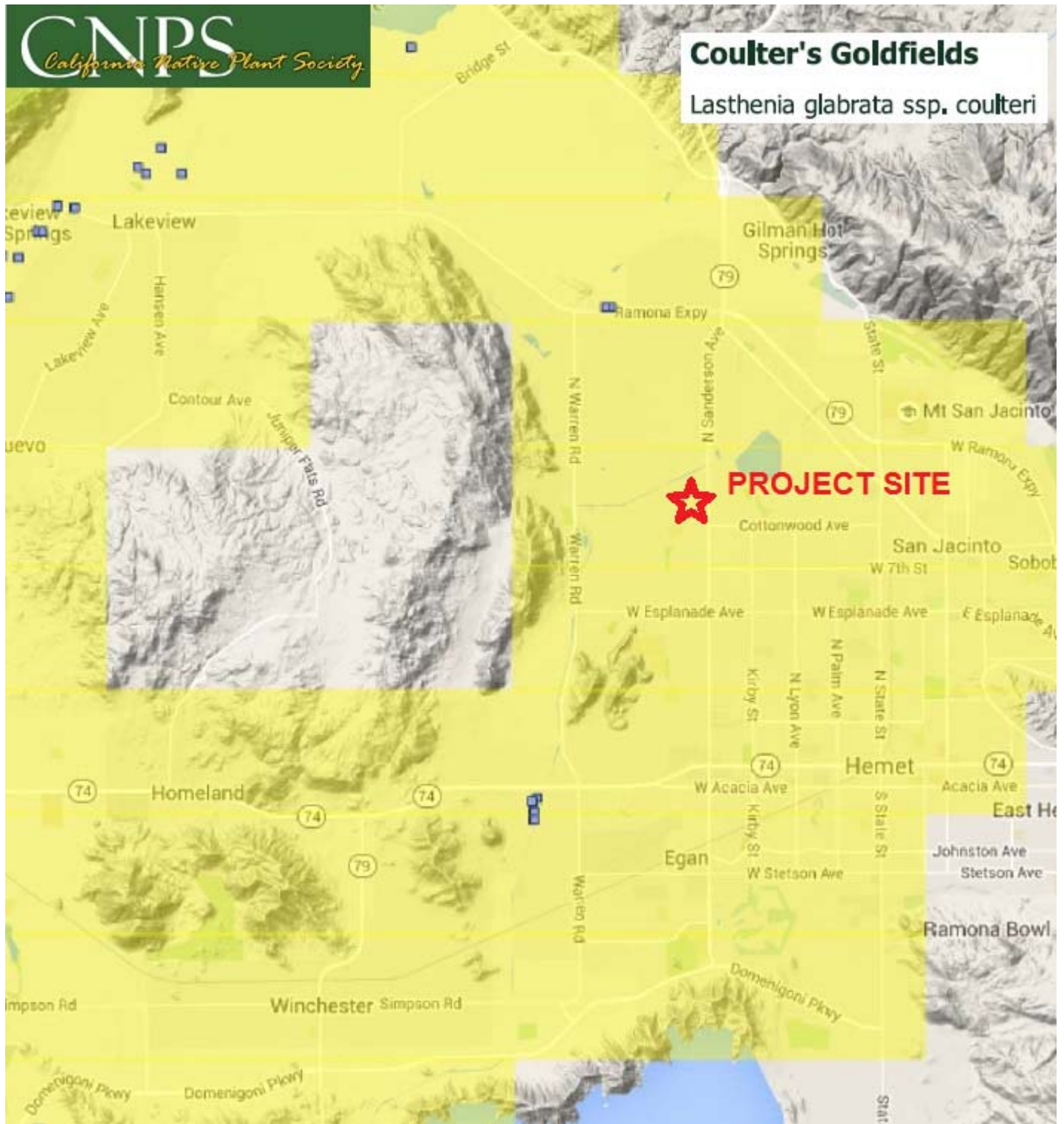
Coulter's goldfields is declining severely over the majority of its historic range. Coulter's goldfields is presumed extirpated from Kern, Los Angeles, and San Bernardino Counties. It is severely declining in Orange and San Diego. In Riverside County, this species and its habitat are threatened by the same activities that threaten San Jacinto Valley crownscale: habitat destruction and fragmentation from urban and agricultural development, pipeline construction, alteration of hydrology and flood plain dynamics, excessive flooding, channelization, off road vehicle activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including discing and plowing), and competition from alien plant species (CNDDDB 2000; U.S. Fish and Wildlife 1998).

Coulter's goldfields has a patchy distribution within this habitat and its spatial distribution shifts over time as conditions and seed banks change. Like other species dependent on alkali wetlands, this species likely requires significantly more habitat than is occupied during any one season to maintain population dynamics within the watershed and microhabitat diversity upon which this taxon depends (Ornduff 1966; Bramlet 1993b; F. Roberts, pers. comm., 1999). Coulter's goldfields requires irregular seasonal inundation or flooding for seed dispersal, germination, and habitat maintenance. This plant is restricted to wetter areas within the alkali habitat, particularly lake margins, playa borders, and vernal pools. Coulter's goldfields usually flowers from February through June (CNPS 2001). Because of its annual habit and reliance on periodic inundation, population size varies considerably from year to year, and can be difficult to recognize in dry years or after recent disturbance such as discing. Habitat that is impacted by discing or dry land farming activities may require several years without disturbance before reforming after flooding events or a wet winter.

While Coulter's goldfields does not hybridize with other goldfields, it relies on wetland mosaics and conversion to upland areas will favor California goldfields where the two species occur sympatrically.

While fairing better than other alkali dependent species, about half of the remaining suitable habitat for this species has been impacted by discing for fuel modification, dry land farming activities. The near absence of Coulter's goldfields from the Salt Creek area maybe a result of drains installed about 1989. Strongly dependent wetland plants such as spike rush (*Eleocharis palustris*) were still relatively common until about 1992 but have retreated as the site has dried out and discing has become more frequent. Ornduff (1966) found that most viable seeds germinated with rains following seed set. Thus, it is likely that there is little long-term seed storage. Coulter's goldfields may have to recolonize disturbed areas rather than rely on seed banks. This would appear true in Riverside County were the species is very common in moist undisturbed sites and rare in disturbed areas. Therefore, defacto conservation of habitat may not be enough to assure long-term conservation and it will also be necessary to restore habitat within these areas to allow Coulter's goldfields to recolonize, or reintroduce the species to these areas.

FIGURE 18
RANGE OF COULTER'S GOLDFIELDS RELATIVE TO THIS PROJECT SITE



SAN JACINTO VALLEY CROWNSCALE BACKGROUND

FE, State – none, CNPS 1B.1, MSHCP Covered

The San Jacinto Valley crownscale (*Atriplex coronata notatior*) occurs primarily in floodplains (seasonal wetlands) dominated by alkali scrub, alkali playas, vernal pools, and, to a lesser extent, alkali grasslands (Bramlet 1993; Roberts 1993). San Jacinto Valley crownscale is restricted to highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association; the majority (approximately 80 percent) of the populations being associated with the Willows soil series (Roberts and McMillan 1997; Bramlet 1993).

San Jacinto Valley crownscale is endemic to western Riverside County and is restricted to the San Jacinto, Perris, Menifee and Elsinore Valleys (Munz 1974; Taylor and Wilken 1993; Roberts and McMillan 1997).

In Western Riverside County, there are 12 known occurrences of San Jacinto Valley crownscale. Eleven of these loosely-defined occurrences are primarily associated with Mystic Lake, the San Jacinto River and Salt Creek tributary drainages (Roberts 1993; Roberts and McMillan 1997; CNDDDB 2000). One small, isolated population has recently been discovered on Willows soils at Alberhill Creek near Lake Elsinore (Roberts and McMillan 1997). The majority of the populations of San Jacinto Valley crownscale are located on privately owned lands. Three populations are on State land (San Jacinto Wildlife Area), one population is partially on County lands (Riverside County Habitat Conservation Agency along the San Jacinto River), and one population is on a private preserve managed by Metropolitan Water District. This plant is not known to occur on federal lands. There are three Core Areas for this species: at Mystic Lake, along the San Jacinto River from the vicinity of Mystic Lake southwest to the vicinity of Perris, and in the upper Salt Creek drainage west of Hemet (Hemet vernal pool area).

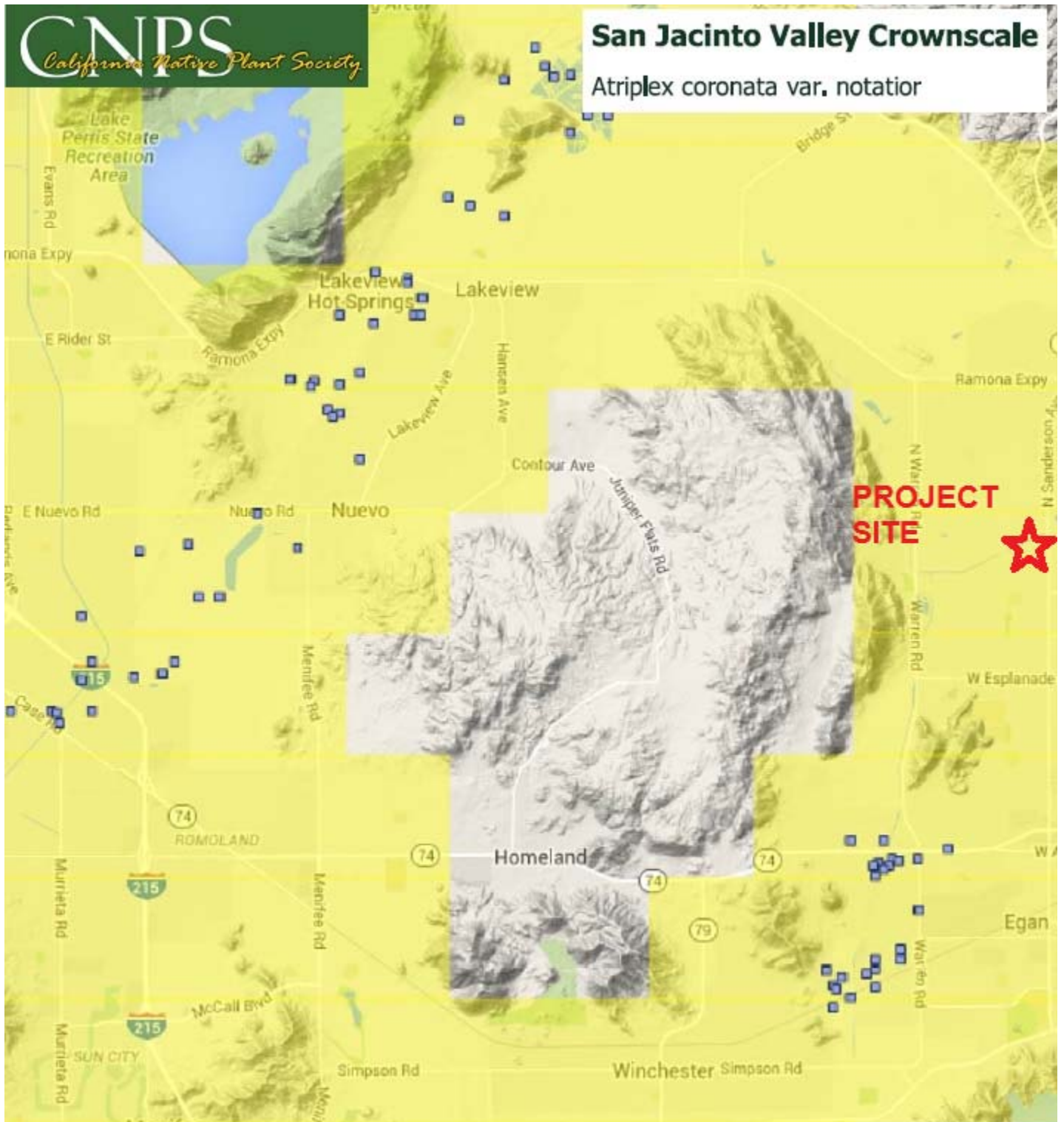
San Jacinto Valley crownscale is declining throughout its range due to habitat destruction and fragmentation from urban and agricultural development, pipeline construction, alteration of hydrology and flood plain dynamics, excessive flooding, channelization, off-road vehicle activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including discing and plowing), and competition from non-native plant species (Bramlet 1993; Roberts and McMillan 1997; U.S. Fish and Wildlife Service 1998).

San Jacinto Valley crownscale has a patchy distribution within suitable habitat and its spatial distribution shifts over time as conditions and seed banks change (U.S. Fish and Wildlife Service 1998). Hence, this species likely requires significantly more habitat than is occupied during any one season to maintain population dynamics within the watershed and the microhabitat diversity upon which this taxon depends.

San Jacinto Valley crownscale depends on specific hydrology: sporadic flooding in combination with slow drainage in alkaline soils characterized by alkali scrub, alkali playa, alkali vernal pool and alkali annual grassland habitat. These habitats form a dynamic matrix that allows the populations of San Jacinto Valley crownscale to expand into favorable sites and retreat from less favorable sites in response to disturbance and climate. Hence, this species requires significantly more habitat than is currently occupied during any one season to maintain population dynamics within the watershed and microhabitat diversity upon which this taxon depends. Flooding at irregular intervals is an important process that maintains crownscale habitat in a successional state, restores disturbed alkali habitats and probably disperses seed.

During the last several years, nearly continuous disturbances (discing, sludge dumping, etc.) have significantly reduced the potential for vernal pools to form along the San Jacinto River and Salt Creek. This has resulted in significant declines of San Jacinto Valley crownscale within critical populations. Therefore, defacto conservation of habitat may not be enough to assure long-term conservation and it will also be necessary to restore habitat within these areas.

FIGURE 19
RANGE OF THE SAN JACINTO VALLEY CROWNSCALE RELATIVE TO THIS PROJECT SITE



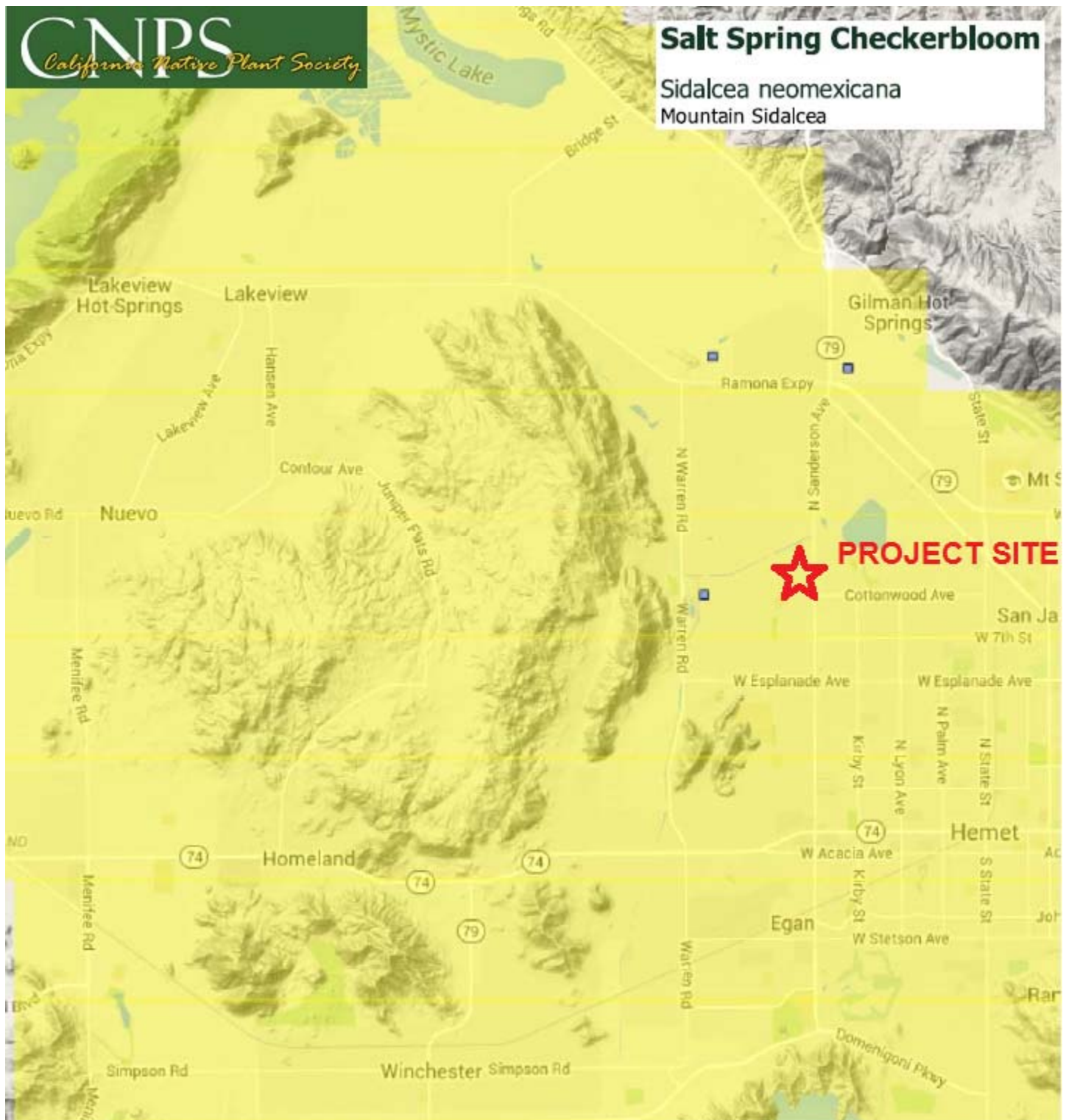
SALT-SPRING CHECKERBLOOM BACKGROUND

Federal – none, State - none, CNPS 2B.2, MSHCP Not Covered

The salt-spring checkerbloom (*Sidalcea neomexicana*) is a perennial plant that grows to 2.5 feet tall. The flowers are hermaphroditic. This species is found often in alkaline sandy soils. This plant is found in wet meadows and along streams in alkaline soils.

FIGURE 20

RANGE OF THE SALT-SPRING CHECKERBLOOM RELATIVE TO THIS PROJECT SITE



PARRY'S SPINEFLOWER BACKGROUND

Federal – none, State – none, CNPS 1B.1, MSHCP Covered

Parry's spineflower (*Chorizanthe parryi parryi*) occurs within the alluvial chaparral and scrub of the San Gabriel, San Bernardino and San Jacinto Mountains, at elevations of 100 to 1,300 m above msl (Reveal and Hardham 1989).

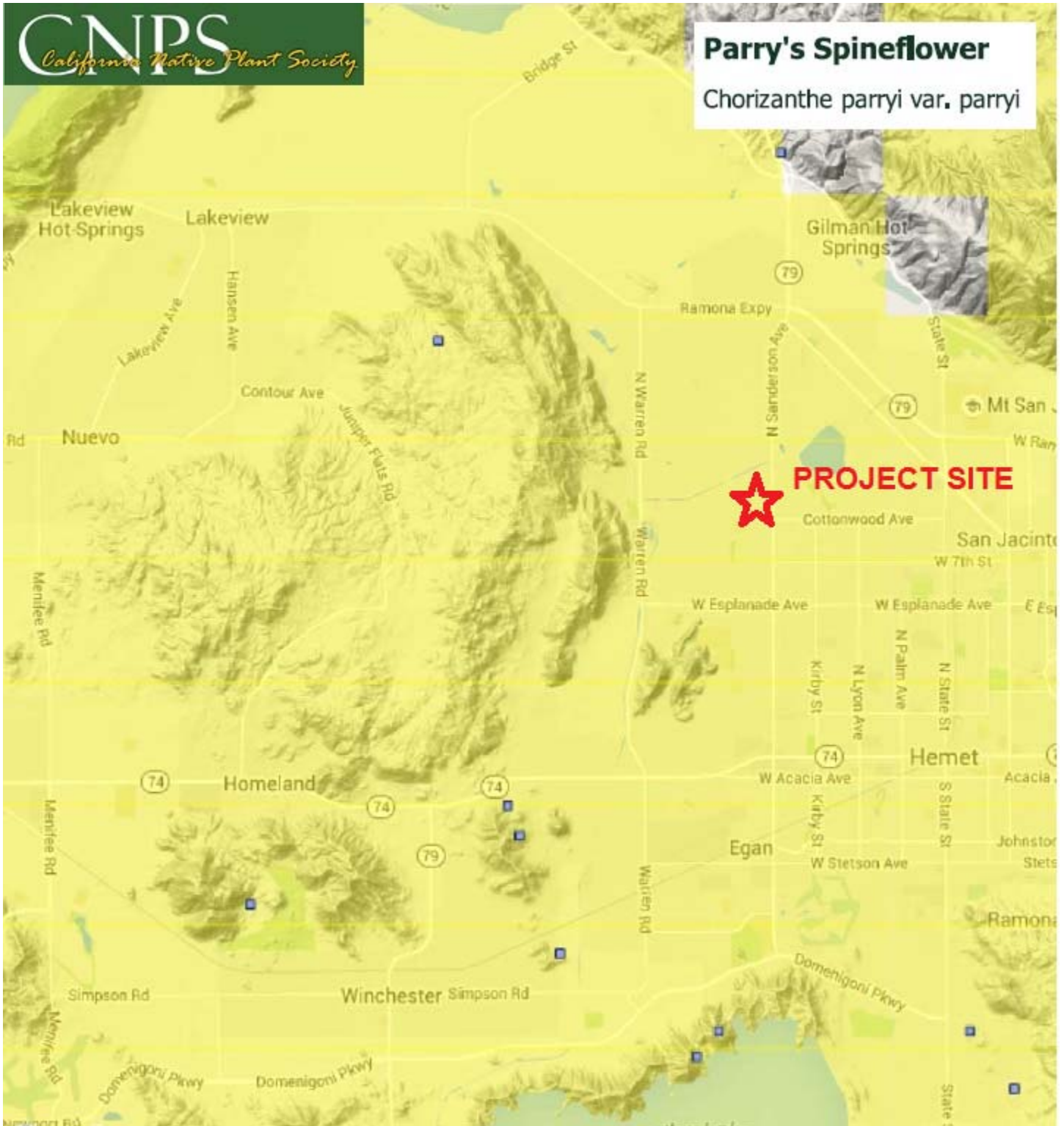
This species is known from the flats and foothills of the San Gabriel, San Bernardino and San Jacinto Mountains within Los Angeles, San Bernardino and Riverside Counties of southern California (Reveal and Hardham 1989). Parry's spine flower is possibly extirpated from Los Angeles County (CNPS 2001). Boyd (1999) notes that this species occurs in the Liebre Mountains, Los Angeles County.

Parry's spineflower is known from about 59 occurrences in Riverside County, including Vail Lake, Gilman Hot Springs, Wilson Valley, Juniper Flats, Rawson Canyon, Reche Canyon, Antelope Valley, the Santa Rosa Hills, Cherry Valley, City of Banning, Moreno Valley, near the intersection of Central Avenue and Indiana Avenue, Gavilan Plateau, Winchester, Highgrove, Banning, Beaumont, Estelle Mountain, Murrieta, Hemet, Diamond Valley Lake, Gavilan Peak, in the vicinity of Lake Elsinore, City of Riverside, and near Highway 91 in the vicinity of Home Gardens. This species is also known from the Agua Tibia (Palomar) Mountains (Boyd and Banks 1995). Core locations of this species have not been identified within the Plan Area.

Parry's spine flower is threatened by habitat loss as a result of urbanization (Reveal and Hardham 1989; CNPS 2016), mining and flood control practices (U.S. Fish and Wildlife Service, unpublished data).

Parry's spine flower may be confused with other species of spine flowers, particularly *Chorizanthe procumbens* (CNPS 2001).

FIGURE 21
RANGE OF PARRY'S SPINEFLOWER RELATIVE TO THIS PROJECT SITE



RESULTS

Burrowing Owl (*Athene cunicularia*): No burrowing owls or burrowing owl burrows were observed on-site. The site does offer forage for over-flying or transient owls.

Munz's onion (*Allium munzii*): Not found on-site. This species requires habitat that is not present on-site.

San Diego ambrosia (*Ambrosia punilla*): Not found on-site. This species requires habitat that is not present on-site.

Many-stemmed dudleya (*Dudleya multicaulis*): Not found on-site. This species requires habitat that is not present on-site.

Spreading Navaretia (*Navarretia fossalis*): Not found on-site. This species requires habitat that is not present on-site.

California orcutt grass (*Orcutti californica*): Not found on-site. This species requires habitat that is not present on-site.

Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*): Not found on-site. This species requires habitat that is not present on-site.

Smooth tarplant (*Centromadia pungens laevis*): Not found on-site. This species requires habitat that is not present on-site.

Coulter's goldfields (*Lasthenia glabrata coulteri*): Not found on-site. This species requires habitat that is not present on-site.

San Jacinto Valley crownscale (*Atriplex coronata notatior*): Not found on-site. This species requires habitat that is not present on-site.

Salt Spring checkerbloom (*Sidalcea neomexicana*): Not found on-site. This species requires habitat that is not present on-site.

Parry's spineflower (*Chorizanthe parryi parryi*): Not found on-site. This species requires habitat that is not present on-site.

CONCLUSION

Site development impacts to the burrowing owl and NEPS are not expected.

MITIGATION

None required

PROJECT SITE PHOTOGRAPHS: Images of the site are shown below.

**FIGURE 22
PHOTOGRAPH KEY**



FIGURE 23
PHOTOGRAPH NUMBER 1



FIGURE 24
PHOTOGRAPH NUMBER 2



FIGURE 25
PHOTOGRAPH NUMBER 3



FIGURE 26
PHOTOGRAPH NUMBER 4



FIGURE 27
PHOTOGRAPH NUMBER 5



FIGURE 28
PHOTOGRAPH NUMBER 6



FIGURE 29
PHOTOGRAPH NUMBER 7



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**APPENDIX A
BOTANICAL COMPENDIUM**

Amaranthaceae	Amaranth Family	Species Condition
<i>Amaranthus palmeri</i>	Palmer's amaranth	scattered
<i>Chenopodium album</i>	Lamb's quarters	sparse
Anacardiaceae	Pepper Tree Family	
<i>Schinus molle</i>	Peruvian pepper tree	few
Asteraceae	Sunflower family	
<i>Ambrosia psilostachya</i>	Western ragweed	desiccated
<i>Ambrosia acanthocarpa</i>	Bursage	desiccated
<i>Centaurea melitensis</i>	Tacalote	desiccated
<i>Encelia farinosa</i>	Brittlebush	sparse
<i>Heterotheca grandiflora</i>	Telegraph weed	desiccated
Boraginaceae	Borage family	
<i>Cryptantha intermedia</i>	Popcorn flower	desiccated
Brassicaceae	Mustard family	
<i>Brassica geniculata</i>	Mustard	desiccated
<i>Hirschfeldia incana</i>	Short-podded mustard	desiccated
<i>Sisymbrium irio</i>	London rocket	sparse
Chenopodiaceae	Goosefoot Family	
<i>Atriplex semibaccata</i>	Australian saltbush	cropped
<i>Salsola tragus</i>	Russian thistle	common
Convolvulaceae	Morning Glory Family	
<i>Convolvulus arvensis</i>	field bindweed	sparse
Euphorbiaceae	Spurge family	
<i>Eremocarpus setigerus</i>	Doveweed	sparse
<i>Euphorbia albomarginata</i>	Rattlesnake weed	sparse
Fabaceae	Legume Family	
<i>Melilotus alba</i>	White sweetclover	scattered
Geraniaceae	Geranium family	
<i>Erodium cicutarium</i>	Red-stemmed filaree	sparse
Lamiaceae	Mint Family	
<i>Marrubium vulgare</i>	Horehound	sparse
Polygonaceae	Buckwheat Family	
<i>Eriogonum fasciculatum</i>	Buckwheat	sparse

Poaceae

Avena barbata
Bromus diandrus
Bromus madritensis
Horedeum vulgare
Piptatherum miliaceum
Polypogon monspeliensis

Solanaceae

Nicotiana glauca

Grass family

Slender wild oats sparse
Ripgut brome common
Foxtail chess common
Barley common
Smilo grass common
Annual beard grass common

Nightshade family

Tree tobacco sparse

**APPENDIX B
WILDLIFE COMPENDIUM**

REPTILES

Iguanidae

Uta stansburiana

Iguanid Lizard Family

Side-blotched lizard

BIRDS

Columbidae

Zenadia macroura

Pigeon & Dove Family

Mourning dove

Corvidae

Corvus corax

Crow & Raven Family

Raven

Fringillidae

Carpodactus mexicanus

Finch Family

House finch

Mimidae

Mimus polyglottos

Mockingbirds

Mockingbird

Passeridae

Passer domesticus

Old World Sparrow Family

House sparrow

Trochilidae

Calypte anna

Hummingbird Family

Anna's hummingbird

MAMMALS

Canidae

Canis familiaris

Dog, Wolf & Fox Family

Domestic dog

Geomyidae

Thomomys bottae

Pocket Gophers

Pocket gopher

Leporidae

Sylvilagus auduboni

Rabbit & Hare Family

Cottontail

Sciuridae

Spermophilus beechyi

Squirrel Family

California ground squirrel

APPENDIX C
CALIFORNIA NATURAL DIVERSITY DATABASE



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Federal Listing Status IS Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate OR All CNDDDB element occurrences OR Delisted AND State Listing Status IS Endangered OR Threatened OR Rare OR All CNDDDB element occurrences OR Delisted OR Candidate Endangered OR Candidate Threatened
 AND CNPS List IS 1A OR 1B OR 1B.1 OR 1B.2 OR 1B.3 OR 2A OR 2B OR 2B.1 OR 2B.2 OR 2B.3 OR 3 OR 3.1 OR 3.2 OR 3.3 OR 4 OR 4.1 OR 4.2 OR 4.3
 AND Quad IS Lakeview (3311771)
 AND Elevation IS greater than OR equal to "1450"
 AND Elevation IS less than OR equal to "1550"

Map Index Number: 28225	EO Index: 3690
Key Quad: Lakeview (3311771)	Element Code: PDAST4R0R4
Occurrence Number: 21	Occurrence Last Updated: 1996-08-16

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 1990-04-10	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-04-10	Occurrence Rank: Fair
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
0.15 MILE NORTH OF SAN JACINTO RIVER AND 1.2 MILES EAST OF BRIDGE STREET, SAN JACINTO VALLEY.

Detailed Location:
SCATTERED CLUMPS IN UNCULTIVATED BASIN NEXT TO STAGING AREA FOR FARM EQUIPMENT.

Ecological:
LARGE INDIVIDUALS INTERSPERSED AMONG DENSE COVER OF PHALARIS, CONYZA, LACTUCA, BRASSICA, AND HELIANTHUS.

Threats:

General:
140 PLANTS OBSERVED IN 1990.

PLSS: T04S, R02W, Sec. 01, SW (S)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-11 N3745510 E495655	Latitude/Longitude: 33.84986 / -117.04696	Elevation (feet): 1,450

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:
WOO90F0072 WOOD, M. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1990-10-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 28224	EO Index: 3664
Key Quad: Lakeview (3311771)	Element Code: PDAST4R0R4
Occurrence Number: 22	Occurrence Last Updated: 1996-09-06

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 1990-04-10	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-04-10	Occurrence Rank: Fair
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
NORTHEAST EDGE OF DUCK POND/AG DRAINAGE DITCH ABOUT 0.7 MI NORTH OF RAMONA EXPRESSWAY AT WARREN RD, SAN JACINTO VALLEY.

Detailed Location:
PLANTS DISTRIBUTED IN SEVERAL PATCHES NEAR THE 'ELBOW' OF A NARROW AGRICULTURAL DRANAGE DITCH (DUCK POND?) ALONG EASTERN AND NORTHERN FOOT OF SMALL HILL.

Ecological:
AGRICULTURAL DRAINAGE DITCH WITH MELILOTUS, HELIANTHUS, LACTUCA, AND BASSIA.

Threats:
AGRICULTURE.

General:
1524 PLANTS OBSERVED IN 1990. SITE/OCCURRENCE COULD BE ENHANCED BY CLEARING THE WEEDY SPECIES.

PLSS: T04S, R01W, Sec. 07, SW (S)	Accuracy: specific area	Area (acres): 7
UTM: Zone-11 N3743621 E497064	Latitude/Longitude: 33.83283 / -117.03172	Elevation (feet): 1,450

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:
WOO90F0074 WOOD, M. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1990-10-04



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number:	28223	EO Index:	3644
Key Quad:	Lakeview (3311771)	Element Code:	PDAST4R0R4
Occurrence Number:	23	Occurrence Last Updated:	2016-05-02

Scientific Name:	<i>Centromadia pungens ssp. laevis</i>	Common Name:	smooth tarplant
Listing Status:	Federal: None State: None	Rare Plant Rank:	1B.1
CNDDB Element Ranks:	Global: G3G4T2 State: S2	Other Lists:	SB_RSABG-Rancho Santa Ana Botanic Garden

General Habitat:	VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat:	ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed:	2015-02-19	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2015-02-19	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
JUST SOUTH OF THE RAMONA EXPRESSWAY, MOSTLY BETWEEN WARREN ROAD AND SANDERSON AVENUE, SAN JACINTO VALLEY.

Detailed Location:
SEVERAL COLONIES MAPPED AS 5 POLYGONS MOSTLY IN THE SOUTH 1/2 OF SECTION 18.

Ecological:
ALKALINE SINK SCRUB WITH SUAEDA TORREYANA, BASSIA HYSSOPIFOLIA, SISYMBRIUM IRIO, HORDEUM LEPORINUM, ATRIPLEX ARGENTEA EXPANSA, A. SERENANA, DISTICHLIS SPICATA, LEPIDIUM DICTYOTUM, MATRICARIA MATRICARIOIDES, AND PLANTAGO BIGELOVII.

Threats:
SITE MAY BE GRAZED BY SHEEP.

General:
ABOUT 31,000 PLANTS OBSERVED IN 11 COLONIES IN 1990-1991. 1000+ PLANTS ESTIMATED NEAR THE CENTER OF OCCURRENCE IN 1999. "LOCALLY COMMON" NEAR CENTER OF OCCURRENCE IN 2015.

PLSS:	T04S, R01W, Sec. 18, S (S)	Accuracy:	specific area	Area (acres):	75
UTM:	Zone-11 N3742224 E497772	Latitude/Longitude:	33.82023 / -117.02408	Elevation (feet):	1,450

County Summary:	Quad Summary:
Riverside	Lakeview (3311771)

Sources:

BRA90S0006	BRAMLET, D. - BRAMLET #2056 UCR #68035 1990-07-20
BRA91F0018	BRAMLET, D. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1991-06-18
BRA91F0019	BRAMLET, D. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1991-06-18
ERC90R0005	ERC ENVIRONMENTAL AND ENERGY SERVICES COMPANY - EASTSIDE RESERVOIR PROJECT, RIVERSIDE COUNTY, CALIFORNIA - SENSITIVE AND ENDANGERED PLANT STUDIES (DRAFT REPORT) 1990-12-XX
SAN15S0001	SANDERS, A. - SANDERS #41248 UCR #260132 2015-02-19
UCR03D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX
UCR99U0003	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS IN SAN JACINTO VALLEY (CITED IN UCR03D0001) 1999-07-30



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 28221	EO Index: 3622
Key Quad: Lakeview (3311771)	Element Code: PDAST4R0R4
Occurrence Number: 24	Occurrence Last Updated: 2016-05-06

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 2009-06-08	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-08	Occurrence Rank: Fair
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
ALONG RAMONA BLVD AND SANDERSON AVE, BETWEEN SAN JACINTO RESERVOIR AND GILMAN HOT SPRINGS, SAN JACINTO VALLEY.

Detailed Location:
MAPPED BY CNDDDB AS MANY POLYGONS ACCORDING TO A 2007 CALTRANS MAP AND 2009 KIRTLAND COORDINATES. SITE EXTENDS FROM THE SW 1/4 OF THE SE 1/4 OF SECTION 8 SOUTH THROUGH SECTION 17 AND THE NORTH 1/2 OF SECTION 20.

Ecological:
DISTURBED ALKALINE MEADOW WITH BASSIA HYSSOPIFOLIA, AVENA FATUA, HORDEUM LEPORINUM, BROMUS DIANDRUS, SISYMBRIUM IRIO, ATRIPLEX ARGENTEA EXPANSA, SUAEDA TORREYANA, SPERGULARIA MARINA, DISTICHLIS SPICATA, LEPIDIUM DICTYOTUM, AND HELIANTHUS.

Threats:
DITCH SUBJECT TO MAINTENANCE ACTIVITIES INCL MOWING. DISKING, POTENTIAL ROAD EXPANSION, DEVELOPMENT, SOD FARMS THREATEN.

General:
PORTIONS OF EO: 7000 PLANTS IN 1991 (LARGEST # IN DITCH ON S SIDE OF RAMONA BLVD), UNKNOWN NUMBER IN 1999, "ABUNDANT" IN 2001, 1000 PLANTS ESTIMATED IN 2003. 55,000+ PLANTS ACROSS SITE IN 2006. TWO SE-MOST POLYGONS: <10 PLANTS IN 2009.

PLSS: T04S, R01W, Sec. 17 (S)	Accuracy: specific area	Area (acres): 113
UTM: Zone-11 N3742211 E499625	Latitude/Longitude: 33.82012 / -117.00405	Elevation (feet): 1,460

County Summary: Riverside	Quad Summary: San Jacinto (3311678), Lakeview (3311771)
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Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Sources:

BRA91F0017	BRAMLET, D. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1991-06-01
BRA91S0045	BRAMLET, D. - BRAMLET #2186 RSA #550496 1991-06-01
CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
HIS06F0007	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2006-08-17
KIR09F0001	KIRTLAND, K. & S. PACHECO - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2009-06-08
KIR09S0001	KIRTLAND, K. & S. PACHECO - KIRTLAND SN UCR #205989 2009-06-08
RIE08S0006	RIEFNER, R. ET AL. - RIEFNER #08-269 UCR #246460 2008-05-03
SAN01S0007	SANDERS, A. - SANDERS #24249 UCR #116653 2001-05-10
UCR03D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX
UCR05D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - SHAPEFILE OF RARE PLANT LOCATIONS IN WESTERN RIVERSIDE COUNTY 2005-XX-XX
UCR99U0005	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS IN SAN JACINTO VALLEY (CITED IN UCR03D0001) 1999-07-29
WAL96S0002	WALL, M. - WALL #146 UCR #177722, RSA #700937 1996-07-06



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number:	28222	EO Index:	3630
Key Quad:	Lakeview (3311771)	Element Code:	PDAST4R0R4
Occurrence Number:	25	Occurrence Last Updated:	2012-01-10

Scientific Name:	<i>Centromadia pungens ssp. laevis</i>	Common Name:	smooth tarplant
Listing Status:	Federal: None State: None	Rare Plant Rank:	1B.1
CNDDB Element Ranks:	Global: G3G4T2 State: S2	Other Lists:	SB_RSABG-Rancho Santa Ana Botanic Garden

General Habitat:	VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat:	ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed:	1992-05-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1999-07-30	Occurrence Rank:	Poor
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
JUST EAST OF WARREN ROAD, ABOUT 0.8 MILE SOUTH OF THE RAMONA EXPRESSWAY, SAN JACINTO VALLEY.

Detailed Location:
SINGLE COLONY MAPPED FOR THIS OCCURRENCE IN THE SW 1/4 OF THE NW 1/4 OF SECTION 19. PLANTS ALSO OCCUR IN SECTIONS 20, 28 AND 29 ACCORDING TO WHITE. CNDDB ONLY HAS MAP DETAIL FOR COLONY IN SECTION 19. MORE INFO NEEDED FOR OTHER COLONIES.

Ecological:
AGRICULTURAL FIELDS, DRAINAGE DITCH, DIRT BERMS AND ROADSIDES.

Threats:
AGRICULTURE AND DEVELOPMENT; SITE IS HEAVILY DISTURBED. DRAINAGE DITCH HAS BEEN CLEARED (1999).

General:
2000 PLANTS OBSERVED IN 1990. SPECIES ABUNDANT IN THE AREA (SECTIONS 19, 20, 28, 29) IN 1992; PROTECTION OF SITE IS DOUBTFUL ACCORDING TO WHITE. NO PLANTS OBSERVED IN 1999; DRAINAGE DITCH HAS BEEN CLEARED; POSSIBLY IN SURROUNDING FIELDS?

PLSS:	T04S, R01W, Sec. 19, NW (S)	Accuracy:	specific area	Area (acres):	9
UTM:	Zone-11 N3741291 E496986	Latitude/Longitude:	33.81181 / -117.03256	Elevation (feet):	1,480

County Summary:	Quad Summary:
Riverside	Lakeview (3311771)

- Sources:**
- ERC90R0005 ERC ENVIRONMENTAL AND ENERGY SERVICES COMPANY - EASTSIDE RESERVOIR PROJECT, RIVERSIDE COUNTY, CALIFORNIA - SENSITIVE AND ENDANGERED PLANT STUDIES (DRAFT REPORT) 1990-12-XX
 - UCR03D0001 UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX
 - UCR99U0004 UCR CENTER FOR CONSERVATION BIOLOGY - NEGATIVE SIGHTING OF CENTROMADIA PUNGENS SSP. LAEVIS NEAR CNDDB OCCURRENCE #25 (CITED IN UCR03D0001) 1999-07-30
 - WHI92F0005 WHITE, S. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 1992-05-XX



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 28220	EO Index: 3615
Key Quad: Lakeview (3311771)	Element Code: PDAST4R0R4
Occurrence Number: 26	Occurrence Last Updated: 2016-05-10

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 2010-05-03	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-05-03	Occurrence Rank: Good
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
WEST OF SAN JACINTO RESERVOIR EXTENDING SOUTH TO TRES CERRITOS.

Detailed Location:
EXTENSIVE OCCURRENCE. MAPPED BY CNDDDB AS MANY POLYGONS OVER A LARGE AREA, MOSTLY ACCORDING TO A 2007 CALTRANS MAP.

Ecological:
WEST-MOST POLYGON MAPPED AROUND ALKALI VERNAL POOLS WHICH HAVE BEEN DISTURBED BY CREATION OF DIRT ACCESS ROADS, THICK OVERBURDEN OF MANURE AND AGRICULTURAL ACTIVITIES.

Threats:
ROADS, MOWING/DISKING, DEVELOPMENT, SOD FARM CONVERSION, SHEEP GRAZING, ORVS, CHANGES IN HYDROLOGY.

General:
POP #S FOR PORTIONS OF EO: 12,000+ PLANTS OBSERVED IN 1990, 8000+ PLANTS IN 1999, 100+ IN 2005, HUNDREDS IN 2008, COMMON IN 2010. A FAIRLY COMPLETE SURVEY FOR THE SITE ESTIMATED ABOUT 177,000 PLANTS IN 2006. INCLUDES FORMER EO #27, 28, 73.

PLSS: T04S, R01W, Sec. 30 (S)	Accuracy: specific area	Area (acres): 325
UTM: Zone-11 N3739129 E498051	Latitude/Longitude: 33.79232 / -117.02106	Elevation (feet): 1,500

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Sources:

CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
CLE98S0001	CLEARY-ROSE, K. - CLEARY-ROSE SN UCR #202232 1998-09-07
DIC08F0001	DICUS, M. (L & L ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2008-06-27
ERC90R0005	ERC ENVIRONMENTAL AND ENERGY SERVICES COMPANY - EASTSIDE RESERVOIR PROJECT, RIVERSIDE COUNTY, CALIFORNIA - SENSITIVE AND ENDANGERED PLANT STUDIES (DRAFT REPORT) 1990-12-XX
GAL10S0003	GALVIN, J. - GALVIN #123 UCR #217639 2010-05-03
HEN01F0005	HENRY, R. (PCR SERVICES CORPORATION) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2001-XX-XX
HIS06F0007	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2006-08-17
HIS06F0008	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2006-09-21
KIR05F0001	KIRTLAND, K. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2005-06-10
LES03F0002	LESLIE, T. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2003-04-25
SAN98S0006	SANDERS, A. - SANDERS #22252 UCR #101369 1998-09-29
UCR03D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX
UCR99U0006	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS NEAR COTTONWOOD LAKE, SAN JACINTO VALLEY (CITED IN UCR03D0001) 1999-07-29
UCR99U0007	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS JUST SW OF SAN JACINTO RESERVOIR (CITED IN UCR03D0001) 1999-07-29
UCR99U0008	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS JUST NORTH OF TRES CERRITOS (CITED IN UCR03D0001) 1999-07-29



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 28212	EO Index: 3913
Key Quad: Winchester (3311761)	Element Code: PDAST4R0R4
Occurrence Number: 34	Occurrence Last Updated: 2016-05-10

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 2015-03-20	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-03-20	Occurrence Rank: Good
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
FROM VICINITY OF TRES CERRITOS EXTENDING SOUTH TO DOMENIGONI PARKWAY, SAN JACINTO VALLEY.

Detailed Location:
EXTENSIVE OCCURRENCE. MAPPED BY CNDDDB AS MANY POLYGONS; MUCH OF THIS SITE IS BASED ON A 2007 CALTRANS MAP.

Ecological:
ANNUAL GRASSLAND / ALKALI GRASSLAND. ASSOCIATES INCLUDE LOLIUM PERENNE, PHALARIS MINOR, HORDEUM MURINUM, CRESSA TRUXILLENSIS, SUAEDA MOQUINII, AND LASTHENIA CALIFORNICA.

Threats:
DEVELOPMENT, DISKING, OHVS, GRAZING, AGRICULTURE, CHANGES IN HYDROLOGY.

General:
POP #S FOR PORTIONS OF SITE: 15,000 PLANTS IN 1990, 9000+ IN 1994, ~10,000 IN 2005, UNCOMMON IN SMALL PORTION OF SITE IN 2013, <10 IN 2015. FAIRLY COMPLETE SURVEY OF SITE FOUND 223,600+ PLANTS IN 2006. INCLUDES FORMER EO #S 35, 79, 93, 94.

PLSS: T05S, R02W, Sec. 13 (S)	Accuracy: specific area	Area (acres): 313
UTM: Zone-11 N3732939 E495882	Latitude/Longitude: 33.73648 / -117.04446	Elevation (feet): 1,500

County Summary: Riverside	Quad Summary: Winchester (3311761), Lakeview (3311771)
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Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Sources:

BRA90F0021	BRAMLET, D. - FIELD SURVEY FORM FOR ATRIPLEX CORONATA VAR. NOTATOR 1990-07-20
BRA90S0005	BRAMLET, D. - BRAMLET #2023 UCR #68063 1990-06-13
BRA90U0005	BRAMLET, D. - LIST OF CENTROMADIA PUNGENS SSP. LAEVIS COLLECTIONS AT RSA 1990-XX-XX
BRA93S0011	BRAMLET, D. - BRAMLET #2356 UCR #90763 1993-05-16
CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
CLE95S0002	CLEARY-ROSE, K. & G. NUHN - CLEARY-ROSE SN UCR #202221 1995-07-20
COO13S0001	COOK, R. & A. HERNANDEZ - COOK #005 UCR #252806 2013-04-12
ERC90R0005	ERC ENVIRONMENTAL AND ENERGY SERVICES COMPANY - EASTSIDE RESERVOIR PROJECT, RIVERSIDE COUNTY, CALIFORNIA - SENSITIVE AND ENDANGERED PLANT STUDIES (DRAFT REPORT) 1990-12-XX
GAL04F0016	GALVIN, P. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2004-04-26
GRE15F0014	GREEN, J. - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2015-03-20
HIS06F0008	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2006-09-21
REC95R0001	RECON - THE DISTRIBUTION, STATUS, AND CONSERVATION OF VERNAL POOL AND ALKALI PLAYA WETLANDS OF THE UPPER SALT CREEK DRAINAGE, HEMET, CALIFORNIA 1995-06-15
ROB05S0003	ROBERTS, F. & D. BRAMLET - ROBERTS #6146 UCR #162935 2005-04-01
ROB06U0005	ROBERTS, F. - LETTER FROM F. ROBERTS TO M. GOGOL-PROKURAT - STATE LISTED PLANT REPORT FOR 2005 2006-01-11
ROB93S0008	ROBERTS, F. - ROBERTS #4883 UCR #162884 1993-05-16
SAN03S0003	SANDERS, A. & T. SALVATO - SANDERS #26584 UCR #126977 2003-05-09
UCR03D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX
UCR99U0009	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS ON DEVONSHIRE ROAD SOUTH OF TRES CERRITOS (CITED IN UCR03D0001) 1999-07-30
UCR99U0010	UCR CENTER FOR CONSERVATION BIOLOGY - OBSERVATION OF CENTROMADIA PUNGENS SSP. LAEVIS ALONG SIMPSON ROAD EAST OF WINCHESTER (CITED IN UCR03D0001) 1999-07-30
WAT05S0001	WATTS, J. - WATTS SN RSA #707583 2005-07-19
WAT05S0002	WATTS, J. - WATTS SN RSA #707577 2005-07-19
WAT05S0003	WATTS, J. - WATTS SN RSA #707578 2005-07-19
WAT05S0004	WATTS, J. - WATTS SN RSA #707579 2005-07-19
WAT05S0005	WATTS, J. - WATTS SN RSA #707580 2005-07-19
WAT05S0006	WATTS, J. - WATTS SN RSA #707581 2005-07-19
WHI03S0032	WHITE, S. & M. HONER - WHITE #8966 RSA #691952 2003-04-09
WHI93S0003	WHITE, S. - WHITE #1311 UCR #85528 1993-04-30



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 61159	EO Index: 61195
Key Quad: Lakeview (3311771)	Element Code: PDAST4R0R4
Occurrence Number: 85	Occurrence Last Updated: 2016-05-03

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 2004-04-02	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-04-02	Occurrence Rank: None
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Possibly Extirpated	

Location:
TRES CERRITOS. 3 AIR MILES WNW OF HEMET. EAST OF THE LAKEVIEW MOUNTAINS.

Detailed Location:
MOUTH OF CANYON ON THE SOUTH SIDE. JUST NORTH OF ROSE ROAD. MAPPED AS BEST GUESS JUST NORTH OF ROSE ROAD NEAR THE MOUTH OF CANYON.

Ecological:
ANNUAL GRASSLAND WITH SMALL VERNAL POOLS ON CLAY-LOAM SOIL. (TRAVERS SERIES).

Threats:
BASED ON 2012 AERIAL IMAGERY, SITE IS IN THE PROCESS OF BEING DEVELOPED.

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2004 COLLECTION BY SANDERS; MENTIONED AS COMMON IN 2004 WITH MOSTLY DEAD SKELETONS FROM LAST YEAR.

PLSS: T05S, R01W, Sec. 7, NW (S)	Accuracy: 1/10 mile	Area (acres): 18
UTM: Zone-11 N3734959 E497308	Latitude/Longitude: 33.75471 / -117.02907	Elevation (feet): 1,520

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:
SAN04S0001 SANDERS, A. - SANDERS #27426 UCR #140450, UC #1792827 2004-04-02



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 99883	EO Index: 101430	
Key Quad: San Jacinto (3311678)	Element Code: PDAST4R0R4	
Occurrence Number: 122	Occurrence Last Updated: 2016-05-10	

Scientific Name: <i>Centromadia pungens ssp. laevis</i>	Common Name: smooth tarplant
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDB Element Ranks:	
Global: G3G4T2	
State: S2	

General Habitat: VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB, MEADOWS AND SEEPS, PLAYAS, RIPARIAN WOODLAND.	Micro Habitat: ALKALI MEADOW, ALKALI SCRUB; ALSO IN DISTURBED PLACES. 5-1170 M.
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Last Date Observed: 2006-08-17	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-08-17	Occurrence Rank: Unknown
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
NORTH END OF SAN JACINTO RESERVOIR NEAR DUCK PONDS, ABOUT 0.7 AIR MILE NW OF DE ANZA DR/N LYON AVE JUNCTION.

Detailed Location:
MAPPED ACCORDING TO A 2007 CALTRANS MAP, IN THE SE 1/4 OF THE NE 1/4 OF SECTION 20.

Ecological:
Threats:

THREATS IN THE AREA INCLUDE DISKING, SOD FARM CONVERSION, AND DEVELOPMENT.

General:
1 PLANT OBSERVED IN 2006.

PLSS: T04S, R01W, Sec. 20, NE (S)	Accuracy: specific area	Area (acres): 1
UTM: Zone-11 N3740963 E499947	Latitude/Longitude: 33.80886 / -117.00057	Elevation (feet): 1,475

County Summary: Riverside	Quad Summary: San Jacinto (3311678), Lakeview (3311771)
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Sources:

CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
HIS06F0007	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR CENTROMADIA PUNGENS SSP. LAEVIS 2006-08-17



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 23765	EO Index: 12375
Key Quad: Lakeview (3311771)	Element Code: PDAST5L0A1
Occurrence Number: 14	Occurrence Last Updated: 2013-02-04

Scientific Name: <i>Lasthenia glabrata ssp. coulteri</i>	Common Name: Coulter's goldfields
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: BLM_S-Sensitive
State: None	SB_RSABG-Rancho Santa Ana Botanic Garden
CNDDDB Element Ranks:	
Global: G4T2	
State: S2	

General Habitat: COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.	Micro Habitat: USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.
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Last Date Observed: 2005-03-03	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-03-03	Occurrence Rank: Good
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
SOUTH OF RAMONA EXPRESSWAY AND 0.4 MILE EAST OF WARREN ROAD, SAN JACINTO VALLEY.

Detailed Location:
2 POLYGONS MAPPED BY CNDDDB IN THE NE 1/4 OF THE SW 1/4 OF SECTION 18. NORTHERN POLYGON IS BASED ON ROBERTS COORDINATES, SOUTHERN POLYGON IS BASED ON A 1991 BRAMLET MAP AND 2003 UCR COORDINATES.

Ecological:
GROWING WITHIN ALKALI PLAYA AND ALKALINE SINK SCRUB COMMUNITIES. ASSOCIATES INCLUDE SUAEDA TORREYANA, BASSIA HYSSOPIFOLIA, ATRIPLEX ARGENTEA, DISTICHLIS SPICATA, SPERGULARIA MARINA, HORDEUM MURINUM, LEPIDIUM SP., AND PLANTAGO BIGELOVII.

Threats:
URBANIZATION AND AGRICULTURAL DEVELOPMENT ARE THREATS TO SAN JACINTO VALLEY POPULATIONS.

General:
S POLYGON: UNKNOWN NUMBER OF PLANTS SEEN IN 1991, APPROXIMATELY 130,000 PLANTS IN 1992, 4,185,009 PLANTS IN 2003 [2003 POP # SEEMS OVERLY LARGE, POSSIBLE TYPO?]. NORTHERN POLYGON: 500,000+ PLANTS OBSERVED IN 2005.

PLSS: T04S, R01W, Sec. 18, SW (S)	Accuracy: specific area	Area (acres): 14
UTM: Zone-11 N3742355 E497555	Latitude/Longitude: 33.82142 / -117.02641	Elevation (feet): 1,460

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:

BRA91F0012	Bramlet, D. - FIELD SURVEY FORM FOR LASTHENIA GLABRATA SSP. COULTERI 1991-06-18
BRA92S0034	Bramlet, D. - BRAMLET #2231 RSA #550489 & #609951 1992-04-15
BRA93U0002	Bramlet, D. - COLLECTION INFORMATION FOR LASTHENIA GLABRATA SSP. COULTERI 1993-06-25
FER92U0001	Ferren, W. - NOTES ON SEVERAL SPECIES FOR CNPS INVENTORY 5. 1992-05-21
ROB05S0002	Roberts, F. - ROBERTS #6134 UCR #162885 2005-03-03
UCR03D0001	UCR CENTER FOR CONSERVATION BIOLOGY (UNIVERSITY OF CALIFORNIA, RIVERSIDE) - TABLES OF OBSERVATION DATA FOR WESTERN RIVERSIDE COUNTY MHSCP 2003-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 97622	EO Index: 98961
Key Quad: Lakeview (3311771)	Element Code: PDAST5L0A1
Occurrence Number: 101	Occurrence Last Updated: 2015-09-25

Scientific Name: <i>Lasthenia glabrata ssp. coulteri</i>	Common Name: Coulter's goldfields
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: BLM_S-Sensitive
State: None	SB_RSABG-Rancho Santa Ana Botanic Garden
CNDDB Element Ranks:	
Global: G4T2	
State: S2	

General Habitat: COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.	Micro Habitat: USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.
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Last Date Observed: 2005-05-18	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-05-18	Occurrence Rank: Fair
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
BETWEEN SANDERSON AVE AND SAN JACINTO RESERVOIR, 1.3 KM NNE OF INTERSECTION OF COTTONWOOD AVE AND SANDERSON AVE.

Detailed Location:
MAPPED ACCORDING TO A 2007 CALTRANS MAP, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 29.

Ecological:
FOUND ON MOIST HEAVY SOILS ALONG MARGINS OF ARTIFICIAL LAKE IN HERBACEOUS WETLAND COMMUNITY. ASSOCIATED WITH HELIOTROPIMUM CURASSAVICUM, POLYGONUM LAPATHIFOLIUM, MELILOTUS INDICUS, HORDEUM MURINUM, AND OENOTHERA SPECIOSA.

Threats:
LAKE SHORE MANAGMENT IS A POSSIBLE THREAT.

General:
IN 2005, NORTHERN POLYGON HAD 2 PLANTS AND SOUTHERN POLYGON HAD 2500 PLANTS.

PLSS: T04S, R01W, Sec. 29, NE (S)	Accuracy: specific area	Area (acres): 5
UTM: Zone-11 N3739899 E499583	Latitude/Longitude: 33.79927 / -117.00450	Elevation (feet): 1,500

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:

CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
HIS05F0007	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR LASTHENIA GLABRATA SSP. COULTERI 2005-05-18



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 97623	EO Index: 98962
Key Quad: Lakeview (3311771)	Element Code: PDAST5L0A1
Occurrence Number: 102	Occurrence Last Updated: 2015-09-25

Scientific Name: <i>Lasthenia glabrata ssp. coulteri</i>	Common Name: Coulter's goldfields
Listing Status:	Rare Plant Rank: 1B.1
Federal: None	Other Lists: BLM_S-Sensitive
State: None	SB_RSABG-Rancho Santa Ana Botanic Garden
CNDDB Element Ranks:	
Global: G4T2	
State: S2	

General Habitat: COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.	Micro Habitat: USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.
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Last Date Observed: 2006-05-31	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-05-31	Occurrence Rank: Fair
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
EAST OF WARREN ROAD AND NE OF EMWD REG WATER RECLAMATION FACILITY, 2.2 KM NNE OF WARREN RD/COTTONWOOD AVE JUNCTION.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO A 2007 CALTRANS MAP.

Ecological:
FOUND ON LEVEL GROUND IN ALKALI AND ANNUAL GRASSLAND WITH SCATTERED SCALDS, SOME OF THIS SHOWING EVIDENCE OF RECENT DISTURBANCE. ASSOCIATED WITH HORDEUM MURINUM, AMSINCKIA MENZIESII, LASTHENIA GRACILIS, BASSIA HYSSOPIFOLIA, SISYMBRIUM, ETC.

Threats:
MANURE AND SOIL DUMPING, NON-NATIVE INVASIVES, DISKING, AND EXPANSION OF EGG FARMING FACILITIES.

General:
UNKNOWN NUMBER OBSERVED IN 2005. 9,948 PLANTS OBSERVED IN 2006.

PLSS: T04S, R01W, Sec. 19 (S)	Accuracy: specific area	Area (acres): 25
UTM: Zone-11 N3740649 E497667	Latitude/Longitude: 33.80602 / -117.02520	Elevation (feet): 1,460

County Summary:	Quad Summary:
Riverside	Lakeview (3311771)

Sources:

CAL07R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - FINAL RARE PLANT SURVEY REPORT FOR SR 79 REALIGNMENT PROJECT, RIVERSIDE COUNTY 2007-12-04
HIS06F0014	HISS, A. (CH2M HILL) - FIELD SURVEY FORM FOR LASTHENIA GLABRATA SSP. COULTERI 2006-05-31



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 90536	EO Index: 91667
Key Quad: Winchester (3311761)	Element Code: PDCHE040C2
Occurrence Number: 22	Occurrence Last Updated: 2013-10-03

Scientific Name: <i>Atriplex coronata</i> var. <i>notatior</i>	Common Name: San Jacinto Valley crownscale
Listing Status:	Rare Plant Rank: 1B.1
Federal: Endangered	Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
State: None	
CNDDB Element Ranks:	
Global: G4T1	
State: S1	

General Habitat: PLAYAS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.	Micro Habitat: ALKALINE AREAS IN THE SAN JACINTO RIVER VALLEY. 140-500 M.
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Last Date Observed: 1994-08-11	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-08-11	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
WEST SIDE OF WARREN RD, JUST SOUTH OF INTERSECTION WITH DEVONSHIRE AVE, WEST OF HEMET.

Detailed Location:
MAPPED IN THE NE 1/4 OF THE SE 1/4 OF SECTION 12 ACCORDING TO 2009 DIGITAL DATA FROM USFWS.

Ecological:

Threats:

General:
3 PLANTS OBSERVED IN 1994.

PLSS: T05S, R02W, Sec. 12, SE (S)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-11 N3734416 E496933	Latitude/Longitude: 33.74981 / -117.03310	Elevation (feet): 1,500

County Summary: Riverside	Quad Summary: Winchester (3311761), Lakeview (3311771)
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Sources:

FWS09D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, SEPTEMBER 2009 VERSION 2009-09-01
REC95R0001	RECON - THE DISTRIBUTION, STATUS, AND CONSERVATION OF VERNAL POOL AND ALKALI PLAYA WETLANDS OF THE UPPER SALT CREEK DRAINAGE, HEMET, CALIFORNIA 1995-06-15



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number:	35238	EO Index:	21172
Key Quad:	Lakeview (3311771)	Element Code:	PDMAL110J0
Occurrence Number:	1	Occurrence Last Updated:	1996-06-28

Scientific Name:	<i>Sidalcea neomexicana</i>	Common Name:	Salt Spring checkerbloom
Listing Status:	Federal: None State: None	Rare Plant Rank:	2B.2
CNDDDB Element Ranks:	Global: G4 State: S2	Other Lists:	USFS_S-Sensitive

General Habitat:	Micro Habitat:
PLAYAS, CHAPARRAL, COASTAL SCRUB, LOWER MONTANE CONIFEROUS FOREST, MOJAVEAN DESERT SCRUB.	ALKALI SPRINGS AND MARSHES. 0-1530 M.

Last Date Observed:	1966-05-19	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1966-05-19	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
3 MILES WEST OF SAN JACINTO, SAN JACINTO VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. SITE MAPPED BY CNDDDB WEST OF SAN JACINTO ALONG COTTONWOOD AVENUE NEAR WARREN ROAD.

Ecological:
SEMI-ALKALINE SWAMP WITH ANEMOPSIS AND SPERGULARIA MACROTHECA.

Threats:
General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1966 COLLECTION BY ROOS.

PLSS: T04S, R01W, Sec. 31 (S)	Accuracy: 1 mile	Area (acres): 0
UTM: Zone-11 N3738468 E498248	Latitude/Longitude: 33.78636 / -117.01892	Elevation (feet): 1,500

County Summary:	Quad Summary:
Riverside	Lakeview (3311771)

Sources:
ROO66S0002 ROOS, J. - ROOS SN UCR #23558 1966-05-19



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 22521	EO Index: 9608
Key Quad: Lakeview (3311771)	Element Code: PDPGN040J2
Occurrence Number: 21	Occurrence Last Updated: 2008-10-22

Scientific Name: <i>Chorizanthe parryi</i> var. <i>parryi</i>	Common Name: Parry's spineflower
Listing Status: Federal: None	Rare Plant Rank: 1B.1
State: None	Other Lists: BLM_S-Sensitive
CNDDDB Element Ranks: Global: G3T3	SB_RSABG-Rancho Santa Ana Botanic Garden
State: S3	USFS_S-Sensitive

General Habitat: COASTAL SCRUB, CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	Micro Habitat: DRY SLOPES AND FLATS; SOMETIMES AT INTERFACE OF 2 VEGETATION TYPES, SUCH AS CHAPARRAL AND OAK WOODLAND; DRY, SANDY SOILS. 225-1220 M.
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Last Date Observed: 1969-05-05	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1969-05-05	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
HIGHWAY 79, 1.5 MILES NW OF GILMAN HOT SPRINGS.

Detailed Location:
200 YARDS N OF THE ROAD JUNCTION. PLANTS LOCATED ON S-FACING SLOPE 100 YARDS FROM THE ROAD IN SHADE. MAPPED BY CNDDDB AS BEST GUESS ABOUT 200 YARDS NW OF ROAD JUNCTION AROUND HWY 79.

Ecological:
OPEN GRASSLAND WITH MANY SHRUBS ESPECIALLY ADENOSTOMA FASCICULATUM AND ENCELIA FARINOSA. FAIRLY HARD-PACKED SANDY DRY SOIL.

Threats:
WEEDS ARE A PROBLEM AT THIS SITE AS WELL AS HABITAT ALTERATION BY ROAD IMPROVEMENTS ACCORDING TO SANDERS (2008).

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1969 HOLLIDAY COLLECTION. SANDERS (2008) MENTIONS THAT HE HAS NOT SEEN THE PLANT AT THIS SITE OR ANYWHERE NEARBY; DATE OF SITE VISIT UNKNOWN. NEEDS FIELDWORK.

PLSS: T04S, R01W, Sec. 05, SE (S)	Accuracy: 1/5 mile	Area (acres): 0
UTM: Zone-11 N3745336 E499559	Latitude/Longitude: 33.84830 / -117.00475	Elevation (feet): 1,520

County Summary: Riverside	Quad Summary: Lakeview (3311771)
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Sources:

HOL69S0003	HOLLIDAY, J. - HOLLIDAY #40 UCR #19724 1969-05-05
SAN08U0001	SANDERS, A. - COMMENTS REGARDING STATUS OF SITES FOR MULTIPLE OCCURRENCES OF CHORIZANTHE PARRYI VAR. PARRYI 2008-08-06