Biological Reconnaissance Assessment the Sunset Reservoir Water Storage Tank Project

City of Redlands

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City of Redlands
Municipal Utilities and Engineering Department

Subject: Biological Reconnaissance Assessment for Report regarding the Sunset Reservoir Water Storage Tank Project, Redlands, California

Chambers Group, Inc. (Chambers Group) was retained by the City of Redlands Municipal Utilities and Engineering Department to conduct a literature review and biological reconnaissance-level survey for the Sunset Reservoir Project (Project). The purpose of this survey was to document existing vegetation communities, identify special status species with a potential for occurrence, map habitats that could support special status wildlife species, and evaluate potential impacts of the Project to these resources.

Project Site Location and Description

The City of Redlands Municipal Utilities and Engineering Department proposes the construction of two new reservoir tanks to improve drought resiliency by increasing storage capacity. Based on the water needs of the City, the Project proposes to install two new above ground factory-coated bolt carbon steel tank with an approximately 14 million gallon (MG) total capacity

The 21.91-acre Project site is located south of Helen Drive, in Redlands, San Bernardino County, California within Assessor's Parcel Numbers (APN) 0300-451-13, 14, 24, and 25. The existing reservoir is located west of Helen Court. The site is located within the United States Geological Survey (USGS) *Redlands,* California 7.5-minute topographic quadrangle. The proposed temporary reservoir will be located east of the existing reservoir. Both the existing reservoir and the proposed Project site are within City property. The reservoirs will be located within APN 0300-451-25 and 0300-451-14, consisting of approximately 10.28 acres. The elevational range of the Project site is between 2,100 to 2,300 feet above mean sea level (amsl). A map of the Project location and Project vicinity is provided in Attachment 1: Figure 1.

Literature Review

Prior to performing the biological reconnaissance survey, a literature review was conducted for soils, jurisdictional water features that contribute to hydrology, and special status species known to occur within the Project's vicinity (approximately 5 miles).

Soils

Prior to performing the biological reconnaissance survey, soil maps for the Project site were referenced in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and the USDA Natural Resources Conservation Service (NRCS 2023) Web Soil Survey (USDA 2023).

Hydrology

Prior to performing the field survey, a database review of the U.S. Fish and Wildlife Service's (USFWS 2023) National Wetlands Inventory (NWI) and National Hydrography Database (NHD) blueline drainages was referenced (NHD 2023). A general assessment of waters potentially regulated by the U.S. Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) was conducted for the Project siteProject site. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality

Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife. A desktop assessment was conducted of available data prior to the biological reconnaissance survey in the field.

Special Status Habitats and Species

The most recent records of the California Natural Diversity Database (CNDDB) managed by CDFW (2023) and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023) were reviewed for the following USGS 7.5-minute quadrangles containing and surrounding the Project: *Yucaipa, San Bernardino South, Redlands, Harrison Mtn., San Bernardino North, Keller Peak, Sunnymead, El Casco,* and *Riverside East*. These databases contain records of reported occurrences of federally or State-listed endangered or threatened species, California Species of Special Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site (Attachment 1: Figure 2 – CNDDB Occurrences Map).

Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on foot within the Project site. During the survey, the biologists identified and mapped all vegetation communities found within the site onto aerial photographs (Attachment 1: Figure 3 – Vegetation Communities Map). Plant communities were determined in accordance with the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Vascular Plants of California, Second Edition* (Baldwin et al. 2012). Plant and wildlife species observed or detected within the Project site were recorded (Attachments 2 and 3). Site photographs were taken depicting current site conditions (Attachment 4).

Results

Chambers Group biologists Heather Franklin and Jessica Calvillo conducted the biological reconnaissance survey within the Project site to identify vegetation communities, the potential for occurrence of special status species, and/or habitats that could support special status wildlife species. The survey was conducted on foot between 0830 and 1530 hours on July 31, 2023. Weather conditions during the survey included temperatures ranging from 80 to 92 degrees Fahrenheit, wind speeds between 1 and 3 miles per hour, with 60 percent cloud cover and 0 percent precipitation.

Biological Site Conditions

Soils

According to the results from the USDA NRCS Web Soil Survey (USDA 2023), the Project site is in the San Bernardino County Southwestern Part CA677 of the soil map. Two soil types are known to occur within and/or adjacent to the site. The soil types are described below (Attachment 1: Figure 4 – Soils Map).

Ramona sandy loam, 15 to 30 percent slopes, eroded occurs within a small northern section of the Project site. The parent material is alluvium derived from granite. The soil profile is sandy loam at the H1 layer (0 to 23 inches), loam at the H2 layer (23 to 32 inches), clay loam at the H3 layer (32 to 54 inches), and sandy loam at the H4 layer (54 to 60 inches). The available water storage is classified as moderate (approximately 7.9 inches) with a depth to the water table of more than 80 inches (USDA 2023).

Saugus sandy loam, 30 to 50 percent slopes occurs within the majority of the Project site. The parent material is Residuum weathered from sedimentary rock. The soil profile is sandy loam at the H1 layer (0 to 8 inches), loam at the H2 layer (8 to 40 inches), and weathered bedrock at the H3 layer (40 to 44 inches). The available water storage is classified as moderate (approximately 6.0 inches) with a depth to the water table of more than 80 inches (USDA 2023).

Hydrology

The Project is located within the Upper Santa Ana River Watershed (Hydrologic Unit Code [HUC 10] 1807020304) (USDA 2023) in San Bernardino County, California. The Upper Santa Ana River Watershed is bound to the north and east by mountains and southwest by the Pacific Ocean. The Santa Ana River is the major water source for the Upper Santa Ana River Watershed. The headwaters of the Santa Ana River are located in the San Bernardino Mountains. These waters ultimately end in the Pacific Ocean, a Traditional Navigable Water. Mill Creek, City Creek, San Timoteo Creek are all tributaries to the Santa Ana River Watershed. Lytle Creek is the largest tributary that feeds in from the San Gabriel Mountains to the north down through Riverside County.

No jurisdictional features such as drainages or swales were observed within the Project site (Attachment 1: Figure 5 – Jurisdictional Waters Map) during the survey. Three large NWI blue-line features and several additional NHD tributaries are shown to occur directly east, south, and west of the site outside of the Project boundary. These features are historically mapped by the NWI/NHD as riverine systems flowing away from the Project site. One NHD ephemeral feature is shown to flow west to east through the Project site and appears to connect to the mapped NWI blue-line feature just east of the Project boundary. However, during the survey, no defined channelization or bank to bank was observed in the area of the NHD feature. No bed and bank features were identified within the Project site. Work is anticipated to occur on the top of the slope near the existing water tank and no impacts are anticipated to occur outside of the Project boundary or to the NWI drainage features; therefore, with the implementation of Best Management Practices (BMPs) such as installation of silt fencing and/or weed free straw waddles to prevent sediment from traveling downhill, no impacts to waters of the United States or waters of the State are anticipated to occur as a result of this Project.

Vegetation Communities and Other Areas

Four native vegetation communities, California Buckwheat Scrub, Disturbed California Buckwheat Scrub, Hoary Leaf Ceanothus Chaparral, and Disturbed Hoary Leaf Ceanothus Chaparral, and three other areas, Bare Ground, Developed, and Ruderal were found within the Project site during the biological reconnaissance survey. The majority of the Project site is comprised of Disturbed Hoary Leaf Ceanothus Chaparral. The communities are described in the following subsections.

California Buckwheat Scrub

California Buckwheat Scrub is found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline (Sawyer et al. 2009). Stands do well on rocky sites and in shallow soils, and they establish after disturbance by fire or flood or after heavy grazing. In southern coastal California, this alliance is usually one of the first of the coastal scrubs to establish in mechanically disturbed areas such as road cuts or slope failures, and it persists in areas with light to moderate grazing (Sawyer et al. 2009). In this vegetation community, California buckwheat (*Eriogonum fasciculatum*) or yucca (*Hesperoyucca whipplei*) is dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), sticky monkeyflower (*Diplacus aurantiacus*), brittlebush sunflower (*Encelia californica*), brittlebush (*Encelia farinosa*), coast goldenbush (*Isocoma menziesii*), deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), or black sage (*Salvia mellifera*). The herbaceous layer is variable and may be grassy (Sawyer et al. 2009).

Areas with California Buckwheat Scrub vegetation are present within 0.61 acre of the Project site within several small pockets on site. Native plant species found on the Project site typical of this vegetation community included: California buckwheat, California sagebrush, deerweed, black sage, twiggy wreathplant (*Stephanomeria virgata*), sand-aster (*Corethrogyne filaginifolia*), and slender sunflower (*Helianthus gracilentus*) with occasional scattered chamise (*Adenostoma fasciculatum*) and hoary leaf ceanothus (*Ceanothus crassifolius*) also present. Non-native species

included: shortpod mustard (*Hirschfeldia incana*), tocalote (*Centaurea melitensis*), wild oat (*Avena fatua*), foxtail chess (*Bromus madritensis* subsp. *madritensis*), and Russian thistle (*Salsola tragus*).

Disturbed California Buckwheat Scrub

A disturbed form of California Buckwheat Scrub is present within 1.04 acres of the Project site within several small pockets adjacent to undisturbed California Buckwheat Scrub. Disturbed areas have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). Native plant species found on the Project site typical of this vegetation community included: California buckwheat, California sagebrush, deerweed, black sage, twiggy wreathplant, sand-aster, and slender sunflower with a 25 percent cover of non-native species including shortpod mustard, tocalote, wild oat, foxtail chess, and Russian thistle.

Hoary Leaf Ceanothus Chaparral

Hoary Leaf Ceanothus Chaparral can be found on slopes, often south-facing with soils that are typically shallow and rocky (Sawyer et al. 2009). Hoary leaf ceanothus is dominant or co-dominant in the shrub canopy with chamise, big berry manzanita (*Arctostaphylos glauca*), chaparral whitethorn (*Ceanothus leucodermis*), mountain mahogany (*Cercocarpus betuloides*), sticky monkeyflower, California buckwheat, chaparral yucca, toyon (*Heteromeles arbutifolia*), chaparral beard tongue (*Keckiella antirrhinoides*), laurel sumac (*Malosma laurina*), scrub oak (*Quercus berberidifolia*), sugarbush (*Rhus ovata*) and black sage. Membership rules state that both hoary leaf ceanothus and chamise have a 30 to 60 percent relative cover in the shrub canopy (Sawyer et al. 2009). Emergent trees may be present at low cover, including coast live oak (*Quercus agrifolia*). The shrub canopy is typically less than 11 feet and is intermittent to continuous with an herbaceous layer that is open (Sawyer et al. 2009).

Areas with Hoary Leaf Ceanothus Chaparral vegetation are present within 3.79 acres of the Project site along the slopes. Native plant species found on the Project site typical of this vegetation community included: hoary leaf ceanothus, chaparral whitethorn, chamise, California buckwheat, black sage, scrub oak, skunk bush (*Rhus aromatica*), sacapellote (*Acourtia microcephala*), southern honeysuckle (*Lonicera subspicata*), and spiny redberry (*Rhamnus crocea*). Non-native species included: shortpod mustard, tocalote, wild oat, foxtail chess, and Russian thistle.

Disturbed Hoary Leaf Ceanothus Chaparral

A disturbed form of Hoary Leaf Ceanothus Chaparral is present within 7.94 acres of sloping areas of the Project site. Disturbed areas are those areas that have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). Native plant species found on the Project site typical of this vegetation community included: hoary leaf ceanothus, chaparral whitethorn, chamise, California buckwheat, black sage, scrub oak, skunk bush, sacapellote, southern honeysuckle, and spiny redberry with approximately 25 percent cover of non-native species including shortpod mustard, tocalote, wild oat, foxtail chess, and Russian thistle.

Other Areas

Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, paved roads, buildings, parks, and other maintained areas.

Developed areas are present within the Project site along an eroding asphalt path that cuts through the center of the Project site. There are 0.23 acre of Developed areas on the Project Site. These areas were devoid of vegetation.

Bare Ground

Bare Ground areas are generally devoid of vegetation, but do not contain any form of pavement or other developed structures. Bare Ground has higher water permeability. Areas with Bare Ground are found within 1.46 acres of the Project site bordering the southern portions of the site and adjacent to the existing water tower outside of the Project Site.

Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in ruderal areas are typically characterized as heavily-compacted or frequently-disturbed. The vegetation in these areas is adapted to living in compact soils where water does not readily penetrate the soil. Often, Ruderal areas are dominated by species of the *Centaurea, Brassica, Malva, Salsola, Eremocarpus, Amaranthus*, and *Atriplex* genera.

Areas with Ruderal vegetation were present within the Project site along the slopes and bordering Bare Ground areas. Ruderal plant species found on the Project site included: shortpod mustard, tocalote, wild oat, foxtail chess, and Russian thistle. Scattered native species present in low abundance included twiggy wreathplant, sand-aster, and slender sunflower. There are 6.84 acres of Ruderal vegetation on the Project site.

General Plants

A total of 23 plant species were observed within the Project site during the biological reconnaissance survey (Attachment 2: Plant Species Observed). Plant species observed during the survey were representative of the existing Project site conditions. No special status plant species were observed during the survey.

General Wildlife

A total of 16 wildlife species were observed within the Project site during the biological reconnaissance survey. Wildlife species observed or detected during the survey were characteristic of the existing Project site conditions. A complete list of wildlife species observed or detected is provided in Attachment 3 – Wildlife Species Observed/Detected List.

Special Status Species

The following information is a list of abbreviations used to help determine special status biological resources potentially occurring in the Project site.

CNPS California Rare Plant Rank (CRPR)

1A	=	Plants presumed extinct in California.
1B	=	Plants rare and endangered in California and throughout their range.
2	=	Plants rare, threatened or endangered in California but more common elsewhere in their range.
3	=	Plants about which we need more information, a review list.
4	=	Plants of limited distribution; a watch list.

CRPR Extensions

0.1	=	Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2	=	Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3	=	Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened

State

ST	=	State listed; Threatened
SE	=	State listed; Endangered

RARE	=	State listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC	=	State Species of Special Concern
WL	=	CDFW Watch List
FP	=	CDFW Fully Protected

The following information was used to determine biological resources potentially occurring within the Project site. The criteria used to evaluate the potential for special status species to occur within the Project site are outlined in Table 1.

Table 1: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the proposed Project site.
Low:	Either historical records for this species do not exist within the vicinity (approximately 5 miles) of the proposed Project site, and/or habitats or environmental conditions needed to support the species are of poor quality, or historical records for this species do exist within the vicinity (approximately 5 miles) of the proposed Project site, and habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the vicinity of the proposed Project site (approximately 5 miles) and habitat exists on the proposed Project site, or the habitat requirements or environmental conditions associated with the species occur within the proposed Project site, but no historical records exist within 5 miles of the proposed Project site.
High:	Both a historical record exists of the species within the proposed Project site or its immediate vicinity (approximately 1 mile), and the habitat requirements and environmental conditions associated with the species occur within the proposed Project site.
Present:	Species was detected within the proposed Project site at the time of the survey.

*PFO: Potential for Occurrence

Special Status Plant Species

Database searches (CDFW 2023; CNPS 2023) resulted in a list of 52 federally and/or State-listed threatened, endangered, or otherwise special status plant species documented to historically occur within the vicinity of Project site. Of the 52 plant species, it was determined that 43 plant species are considered **Absent**, one considered to have **Low** potential to occur, and 8 are considered to have a **Moderate** potential to occur within the Project site. No special status plant species were found during the biological reconnaissance survey.

The following 4 plant species are considered **Absent** from the Project site because the species are presumed extinct (CRPR 1A) in California, have not been observed within 5 miles of the Project site, and all records of historical occurrence are over 43 years old:

- Los Angeles sunflower (*Helianthus nuttallii* subsp. *parishii*) – CRPR 1A
- Parish's bush-mallow (*Malacothamnus parishii*) – CRPR 1A
- Pringle's monardella (*Monardella pringlei*) – CRPR 1A
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*) – CRPR 1A

The following 37 plant species are considered **Absent** from the Project site due to lack of suitable habitat:

- Mt. Pinos onion (*Allium howellii* var. *clokeyi*) – CRPR 1B.3
- Yucaipa onion (*Allium marvinii*) – CRPR 1B.2
- marsh sandwort (*Arenaria paludicola*) – **FE, SE**, CRPR 1B.1
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*) – CRPR 1B.1
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) – **FE**, CRPR 1B.1
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) – CRPR 1B.2
- thread-leaved brodiaea (*Brodiaea filifolia*) – **FT, SE**, CRPR 1B.1
- Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*) – CRPR 1B.2
- bristly sedge (*Carex comosa*) – CRPR 2B.1
- ash-gray paintbrush (*Castilleja cinerea*) – **FT**, CRPR 1B.2
- San Bernardino Mountains owl's-clover (*Castilleja lasiorhyncha*) – CRPR 1B.2
- smooth tarplant (*Centromadia pungens* subsp. *laevis*) – CRPR 1B.1
- salt marsh bird's-beak (*Chloropyron maritimum* subsp. *maritimum*) - **FE, SE**, CRPR 1B.2
- white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) – CRPR 1B.2
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*) – CRPR 2B.2
- San Bernardino Mountains monkeyflower (*Erythranthe exigua*) – CRPR 1B.2
- hot springs fimbristylis (*Fimbristylis thermalis*) – CRPR 2B.2
- Alvin Meadow bedstraw (*Galium californicum* subsp. *primum*) – CRPR 1B.2
- Parish's alumroot (*Heuchera parishii*) – CRPR 1B.3
- California satintail (*Imperata brevifolia*) – CRPR 2B.1
- silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*) – CRPR 1B.2
- Coulter's goldfields (*Lasthenia glabrata* subsp. *coulteri*) – CRPR 1B.1
- lemon lily (*Lilium parryi*) – CRPR 1B.2
- mud nama (*Nama stenocarpa*) – CRPR 2B.2
- Gambel's water cress (*Nasturtium gambelii*) – **FE, ST**, CRPR 1B.1
- San Bernardino ragwort (*Packera bernardina*) – CRPR 1B.2
- Sonoran maiden fern (*Pelazoneuron puberulum* var. *sonorense*) – CRPR 2B.2
- Parish's yampah (*Perideridia parishii* subsp. *parishi*i) – CRPR 2B.2
- black bog-rush (*Schoenus nigricans*) – CRPR 2B.2
- Parish's checkerbloom (*Sidalcea hickmanii* subsp. *parishii*) – CR, CRPR 1B.2
- Bear Valley checkerbloom (*Sidalcea malviflora* subsp. *dolosa*) – CRPR 1B.2
- salt spring checkerbloom (*Sidalcea neomexicana*) – CRPR 2B.2
- bird-foot checkerbloom (*Sidalcea pedata*) – **FE, SE**, CRPR 1B.1
- prairie wedge grass (*Sphenopholis obtusata*) – CRPR 2B.2
- southern jewelflower (*Streptanthus campestris*) – CRPR 1B.3
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR 1B.2
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) – CRPR 2B.1

The following two plant species are considered **Absent** because their size and stature would have made them conspicuous during the reconnaissance-level survey and they were not observed within the Project site.

- Parish's desert-thorn (*Lycium parishii*) – CRPR 2B.3

- Nevin's barberry (*Berberis nevinii*) – **FE, SE**, CRPR 1B.1

The following plant species is considered to have a **Low** potential for occurrence within the Project site as historical records of this species known to occur within the vicinity of the proposed Project site (approximately 5 miles) are more than 20 years old, but habitats or environmental conditions needed to support the species are present.

- slender-horned spineflower (*Dodecahema leptoceras*) – **FE, SE**, CRPR 1B.1

The following 6 plant species are considered to have a **Moderate** potential for occurrence within the proposed Project site because the habitat requirements or environmental conditions associated with the species occur within the Project site, but no historical records exist within 5 miles of the Project site.

chaparral sand-verbena (*Abronia villosa* var. *aurita*) – CRPR 1B.1

Chaparral sand-verbena is a CRPR 1B.1 species. This perennial herb is in the Nyctaginaceae family and blooms from March to September and sometimes blooms as early as January. It is typically found in sandy soils within chaparral, coastal scrub, and desert dune habitats at elevations between 245 and 5,250 feet amsl. The known range includes Imperial, Orange, Riverside, San Bernardino, and San Diego counties. Chaparral sand-verbena is potentially threatened by non-native plants, alteration of fire regimes, road maintenance, flood control activities, vehicles, and development. The survey was conducted within the flowering period of this species when it would have been identifiable; however, due to the species' small stature and the Project's size and topography it was not observed within the scope of the reconnaissance-level survey. No historical records of this species have been found within 5 miles of this site, but appropriate chaparral and coastal scrub habitat with sandy soil is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*) – CRPR 1B.1

Jaeger's milk-vetch is a CRPR 1B.1 species. This perennial shrub is in the Fabaceae family and blooms from December to June. It is typically found in soils that are sometimes rocky or sandy within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats at elevations between 1,200 and 3,200 feet amsl. The known range includes Riverside and San Diego counties. Jaeger's milk-vetch is potentially threatened by urbanization, vehicles, road maintenance, and agriculture. The survey was conducted outside the flowering period of this species. No historical records of this species have been found within 5 miles of this site but appropriate chaparral and coastal scrub habitat with sandy soil is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR 1B.1

Mesa horkelia is a CRPR 1B.2 species. This perennial herb is in the Rosaceae family and blooms from February to September. It is typically found in sandy or gravelly soils, within maritime chaparral, cismontane woodland, and coastal scrub habitats at elevations between 230 and 2,657 feet amsl. The known range includes Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura counties. Further study is required to confirm status of occurrences and for true species representation. Mesa horkelia is potentially threatened by habitat conversion. The survey was conducted within the flowering period of this species when it would have been identifiable; however, due to the species' small stature and the Project's size and topography it was not observed within the scope of the reconnaissance-level survey. No historical records of this species have been found within 5 miles of this site but appropriate chaparral and coastal scrub habitat with sandy soil is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

Hall's monardella (*Monardella macrantha* subsp. *hallii*) – CRPR 1B.3

Hall's monardella is a CRPR 1B.3 species. This perennial rhizomatous herb is in the Lamiaceae family and blooms from June to October. It is typically found in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats at elevations between 2,395 and 7,200 feet amsl. The known range includes Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Hall's monardella is threatened by road maintenance and recreational activities. The survey was conducted within the flowering period of this species when it would have been identifiable; however, due to the species' small stature and the Project's size and topography it was not observed within the scope of the reconnaissance-level survey. No historical records of this species have been found within 5 miles of this site, but appropriate chaparral habitat is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

Brand's star phacelia (*Phacelia stellaris*) – CRPR 1B.1

Brand's star phacelia is a CRPR 1B.1 species. This annual herb is in the Hydrophyllaceae family and blooms from March and June. It is typically found on coastal dunes and coastal scrub habitat at elevations between 5 and 1,310 feet amsl. The known range includes Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Brand's star phacelia is potentially threatened by development, foot traffic/trampling, and non-native plant impacts (CNPS 2023). The survey was conducted outside the flowering period of this species. No historical records of this species have been found within 5 miles of this site, but appropriate coastal scrub habitat is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

chaparral ragwort (*Senecio aphanactis*) – CRPR 2B.2

Chaparral ragwort is a CRPR 2.2 species. It is an annual herb in the Asteraceae family that blooms between January and April. This species occurs in chaparral, cismontane woodland, and coastal scrub in soils that are sometimes alkaline at elevations between 50 and 2,600 feet amsl. The known range of this species exists in Alameda, Contra Costa, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, Santa Barbara, Santa Clara, San Diego, San Luis Obispo, Solano, and Ventura counties; and on Santa Catalina Island; Santa Cruz Island; Santa Rosa Island; and Baja California. The survey was conducted outside the flowering period of this species. No historical records of this species have been found within 5 miles of this site, but appropriate chaparral and coastal scrub habitat is present on the Project site. Therefore, there is a **Moderate** potential for this species to occur within the Project site.

The following 2 plant species are considered to have a **Moderate** potential for occurrence within the Project site because historical records (within the past 20 years) exist for the species within the vicinity (approximately 5 miles) of the proposed Project site and habitat exists on the Project site.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – CRPR 1B.1

Parry's spineflower is a CRPR 1B.1 species. This annual herb is in the Polygonaceae family and blooms from April to June in sandy to gravelly open areas of chaparral and coastal scrub at elevations between 130 to 6,000 feet amsl. Known ranges include Los Angeles, Riverside, and San Bernardino counties. Habitat for Parry's spineflower is rapidly declining due to urbanization and may already be extirpated in Los Angeles County. This species has been previously confused with prostrate spineflower (*Chorizanthe procumbens*) and is often misidentified as this plant. The survey was conducted outside the flowering period of this species. Most recent historical records indicate an extant population has been observed 5 years ago within 4.78 miles of the Project site "approximately 0.75 air mile [northeast] of the junction of Opal Ave with San

Bernardino Ave., Redlands" (CDFW 2023). Therefore, there is a **Moderate** potential for this species to occur within the Project site.

Santa Ana River woollystar (*Eriastrum densifolium* subsp. *sanctorum*) – FE, SE, CRPR 1B.1
Santa Ana River woollystar is a CRPR 1B.1 species. This annual herb is in the Polemoniaceae family and blooms from April to September in sometimes sandy to sometimes gravelly chaparral and alluvial fans within coastal scrub at elevations between 300 to 2,000 feet amsl. Known ranges include Orange, Riverside, and San Bernardino counties. This species is threatened by development, vehicles, foot traffic, sand and gravel mining, hydrological alterations, illegal dumping, road construction, flood control projects, and non-native plants. The survey was conducted within the flowering period of this species when it would have been identifiable; however due to the species' small stature and the Project's size and topography it was not observed within the scope of the reconnaissance-level survey. However, appropriate sandy chaparral habitat occurs within the Project site. Most recent historical records indicate an extant population has been observed 9 years ago within 4.75 miles of the Project site and that "2 plants [were] observed in 2014; 1 flowering and one dormant/dead" (CDFW 2023). Therefore, there is a **Moderate** potential for this species to occur within the Project site.

Special Status Wildlife Species

Database searches (CDFW 2023; USFWS 2023) resulted in a list of 47 federally and/or State listed endangered or threatened, State SSC, or otherwise special status wildlife species documented to occur within the Project site. After a literature review and the assessment of the various habitat types within the Project site, it was determined that **43** special status wildlife species are considered absent and four species have a low potential to occur within the site.

The following 43 wildlife species are considered **Absent** from the Project site due to lack of suitable habitat present within the site, lack of riparian habitat within the vicinity of the site, or no known occurrences within the last 25 years:

- American badger (*Taxidea taxus*) – SSC
- arroyo chub (*Gila orcuttii*) – SSC
- bald eagle (*Haliaeetus leucocephalus*)—**SE**
- burrowing owl (*Athene cunicularia*) – SSC
- California black rail (*Laterallus jamaicensis coturniculus*)—**ST**
- California red-legged frog (*Rana draytonii*) – **FT**, SSC
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- coastal California gnatcatcher (*Polioptila californica californica*)—**FT**, SSC
- Delhi sands flower-loving fly (*Rhaphiomidas terminates abdominalis*)—**FE**
- least Bell's vireo (*Vireo bellii pusillus*) – **FE, SE**
- lesser long-nosed bat (*Leptonycteris yerbabuenae*) – SSC
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) – SSC
- loggerhead shrike (*Lanius ludovicianus*) – SSC
- northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- pocketed free-tailed bat (*Nyctinomops femorosaccus*) – SSC
- quino checkerspot butterfly (*Euphydryas Editha quino*)—**FE**
- red diamond rattlesnake (*Crotalus ruber*) – SSC
- Riverside fairy shrimp (*Streptocephalus woottoni*) – **FE**
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*) – SSC

- San Bernardino kangaroo rat (*Dipodomys merriami parvus*)—**FE,** SSC
- Santa Ana speckled dace *(Rhinichthys osculus* ssp. 8) – SSC
- Santa Ana sucker (*Catostomus santaanae*)—**FT**
- San Diego banded gecko (*Coleonyx variegatus abbotti*) – SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) – SSC
- California glossy snake (*Arizona elegans occidentalis*) – SSC
- southern grasshopper mouse (*Onychomys torridus ramona*) – SSC
- southern mountain yellow-legged frog (*Rana muscosa*) – **FE, SE**
- southern rubber boa (*Charina umbratica*) – ST
- southwestern willow flycatcher (*Empidonax traillii extimus*) – **FE, SE**
- steelhead-Southern California DPS (*Oncorhynchus mykiss irideus* pop.10)—**FE**
- Stephens' kangaroo rat (*Dipodomys stephensi*)—**FT, ST**
- Swainson's hawk (*Buteo swainsoni*)—**ST**
- tricolored blackbird (*Agelaius tricolor*)—**ST**
- two-striped garter snake (*Thamnophis hammondii*) – SSC
- western mastiff bat (*Eumops perotis californicus*) – SSC
- western pond turtle (*Emys marmorata*) – SSC
- western spadefoot (*Spea hammondii*) – SSC
- western yellow bat (*Lasiurus xanthinus*) – SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentails*)**—FT, SE**
- white-eared pocket mouse (*Perognathus alticola alticola*) – SSC
- yellow-breasted chat (*Icteria virens*) – SSC
- yellow warbler (*Setophaga petechia*) – SSC

The analysis of the CNDDB search and field survey resulted in four species with a **low** potential to occur directly adjacent to the Project site.

- coast patch-nosed snake (*Salvadora hexalepis virgultea*) – SSC
- coastal whiptail (*Aspidoscelis tigris stejnegeri*) – SSC orange-throated whiptail (*Aspidoscelis hyperythra*) SSC
- southern California legless lizard (*Anniella stebbinsi*) – SSC

United States Fish Wildlife Service Critical Habitat

Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated Critical Habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Designated Critical Habitat delineates all suitable habitat, occupied or not, that is essential to the survival and recovery of the species. According to the USFWS Critical Habitat WebGIS map, the Project site does not fall within Designated Critical Habitat (USFWS 2023). Critical habitat for southwestern willow flycatcher occurs approximately 1.85 miles west of the Project site; however, the Project site lacks any riparian habitat or water sources required by this species and therefore, this species is not anticipated to occur with the site.

Special Status Communities

Five special status communities, Riversidian Alluvial Fan Sage Scrub, Southern Coast Live Oak Riparian Forest, Southern Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub were found within 5 miles of the proposed Project site but were not present on or adjacent the proposed Project site.

Conclusions and Recommendations

Hydrology

No USFWS NWI features are present within the Project site. One NHD ephemeral feature is shown to historically flow through the Project site; however, based on the results of the field survey, no defined channelization or bank to bank was observed in the area of the NHD feature and it appears this area just facilitates nuisance flow during rain events and becomes sheet flow at the bottom of the hill and does not appear to connect to any other features downstream. In addition, Project impacts are proposed to occur on the top of the hill near the existing water tower and no work is anticipated to occur along the hillsides. Therefore, no impacts to jurisdictional waters are anticipated to occur as a result of Project activities. In order to minimize temporary impacts along the surrounding hillsides, BMP's including silt fencing and straw waddle are recommended throughout construction activities.

Special Status Plant Species

Following the literature review and after the reconnaissance level field assessment of the various habitat types in the Project site, it was determined that of the 52 special status plant species that have been observed within one of the surrounding quadrangles of the site, 43 are considered **Absent**, one is considered to have a **Low** potential for occurrence, and eight are considered to have a **Moderate** potential to occur within the Project site. No special status plant species were found during the biological reconnaissance survey. Focused protocol-level plant surveys are recommended in order to determine if the one **Low** or eight **Moderate** species with a potential to occur are present on the Project site. Surveys should be conducted during June in order to ensure all species are surveyed during the blooming period.

Special Status Communities

Five special status communities, Riversidian Alluvial Fan Sage Scrub, Southern Coast Live Oak Riparian Forest, Southern Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub were found within 5 miles of the proposed Project site but were not present on the proposed Project site.

Special Status Wildlife Species

Following the literature review and the assessment of the various habitat types within the Project site, it was determined that 43 of 47 special status wildlife species known to occur within the Project site are considered absent due to a lack of suitable habitat for these species. Four species, coastal patch-nosed snake, coastal whiptail, orange-throated whiptail, and southern California legless lizard have been observed within two miles of the site; however, the Project site lacks contains only marginal quality habitat and is not adjacent to any riparian areas, which is often associated with these species. Therefore, these species have a low potential to occur within the Project site and no impacts are anticipated to occur to these species as a result of Project activities. Coastal California gnatcatcher and yellow-billed cuckoo have been recorded within two miles of the site; however, the Project site is composed of low to moderate quality habitat for California gnatcatcher and lacks any riparian habitat required by yellow-billed cuckoo. Therefore, these species are not anticipated to occur within the site. No sensitive wildlife species were observed during the field survey.

To minimize potential impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA), construction activities should take place outside nesting season (February 1 to August 31) to the greatest extent practicable.

If construction activities occur during nesting season, a preconstruction nesting bird survey should be conducted prior to initiation of ground-disturbing activities. To the maximum extent practicable, a minimum buffer zone around occupied nests should be determined by a qualified biologist to avoid impacts to the active nest. The buffer should be maintained during physical ground-disturbing activities. Once nesting has ceased and the nestlings has fledged, the buffer may be removed.

Please contact me at (949) 261-5414 or hfranklin@chambersgroupinc.com if you have any questions or concerns regarding this report.

Sincerely,

CHAMBERS GROUP, INC.

Heather Franklin
Senior Biologist
hfranklin@chambersgroupinc.com

Attachments

Attachment 1: Figure 1 – Project Location and Vicinity Map
Figure 2 – CNDDB Occurrences Map
Figure 3 – Vegetation Communities Map
Figure 4 – Soils Map
Figure 5 – Jurisdictional Waters Map
Attachment 2: Plant Species Observed
Attachment 3: Wildlife Species Observed
Attachment 4: Site Photographs

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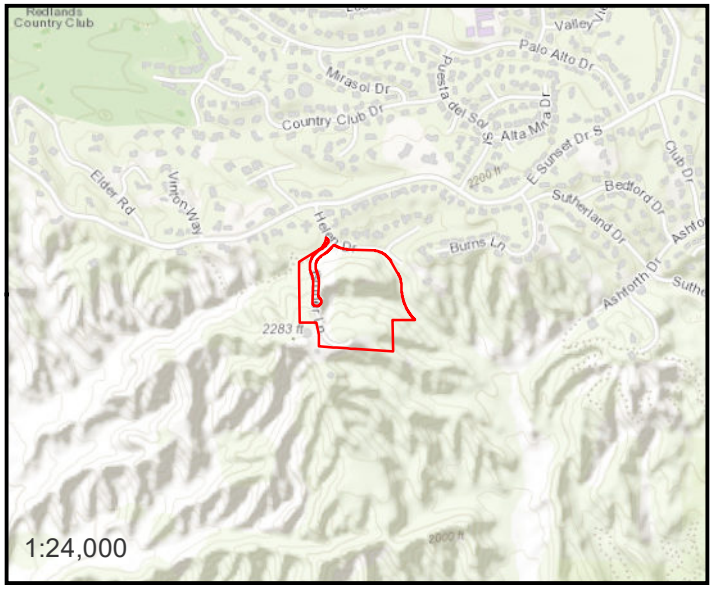
ATTACHMENT 1 – FIGURES



Project Location

Figure 1
Sunset Reservoir Expansion Project
Project Location and Vicinity

N

0 75 150 300
Feet

Name: 21413 BIO Fig 1 Project Location and Vicinity.Mxd
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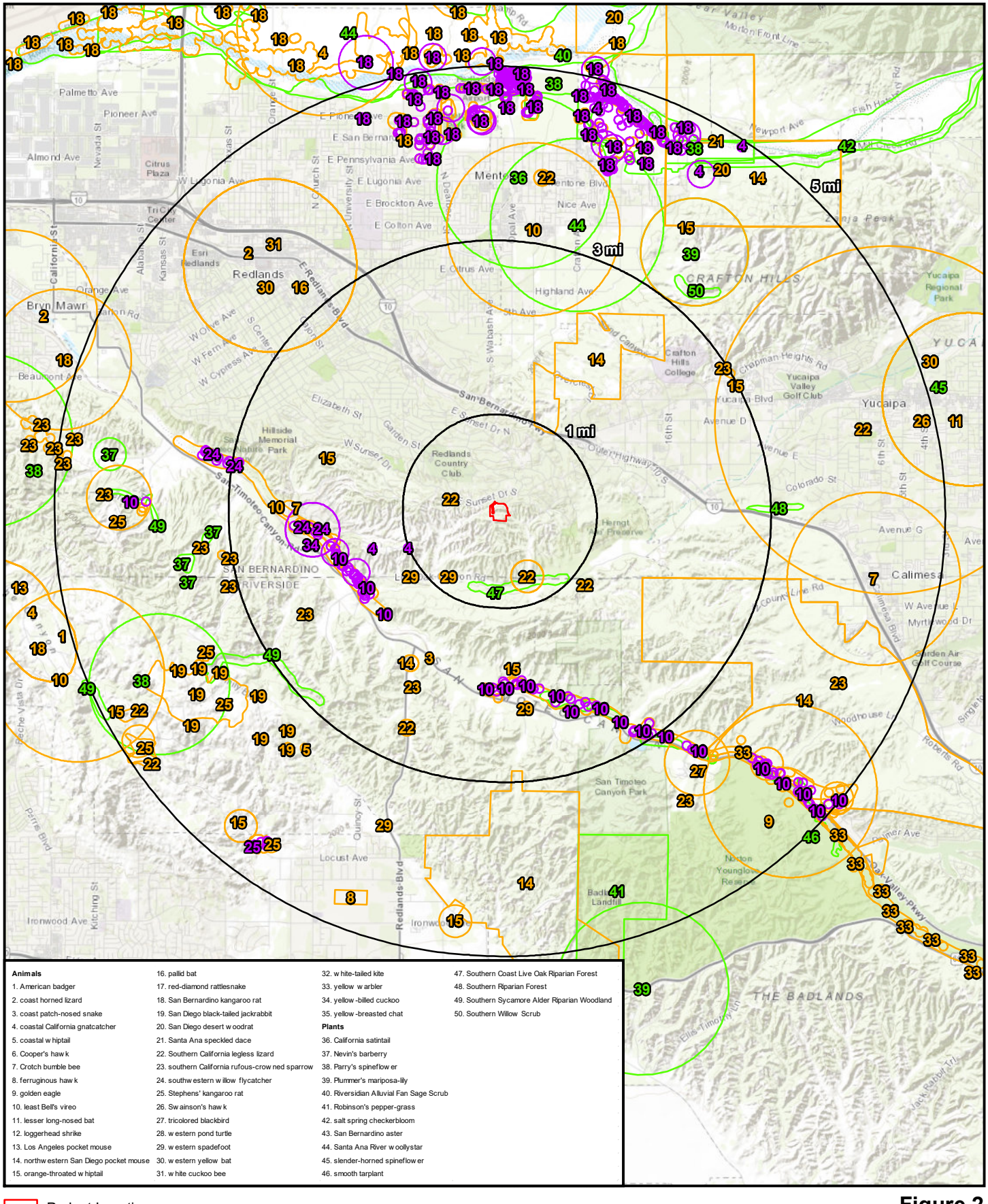

Animals

1. American badger
2. coast horned lizard
3. coast patch-nosed snake
4. coastal California gnatcatcher
5. coastal w hiptail
6. Cooper's haw k
7. Crotch bumble bee
8. ferruginous haw k
9. golden eagle
10. least Bell's vireo
11. lesser long-nosed bat
12. loggerhead shrike
13. Los Angeles pocket mouse
14. northw estern San Diego pocket mouse
15. orange-throated w hiptail
16. pallid bat
17. red-diamond rattlesnake
18. San Bernardino kangaroo rat
19. San Diego black-tailed jackrabbit
20. San Diego desert w oodrat
21. Santa Ana speckled dace
22. Southern California legless lizard
23. southern California rufous-crow ned sparrow
24. southw estern w illow flycatcher
25. Stephens' kangaroo rat
26. Sw ainson's haw k
27. tricolored blackbird
28. w estern pond turtle
29. w estern spadefoot
30. w estern yellow bat
31. w hite cuckoo bee
32. w hite-tailed kite
33. yellow w arbler
34. yellow -billed cuckoo
35. yellow -breasted chat

Plants

36. California satintail
37. Nevin's barberry
38. Parry's spineflow er
39. Plummer's mariposa-lily
40. Riversidian Alluvial Fan Sage Scrub
41. Robinson's pepper-grass
42. salt spring checkerbloom
43. San Bernardino aster
44. Santa Ana River w oollystar
45. slender-horned spineflow er
46. smooth tarplant
47. Southern Coast Live Oak Riparian Forest
48. Southern Riparian Forest
49. Southern Sycamore Alder Riparian Woodland
50. Southern Willow Scrub

Project Location

USFWS Occurrences

CNDDB Occurrences

Animals

Plants

N

0 0.5 1 2

Miles

Figure 2

Sunset Reservoir Expansion Project
CNDDB Occurrences

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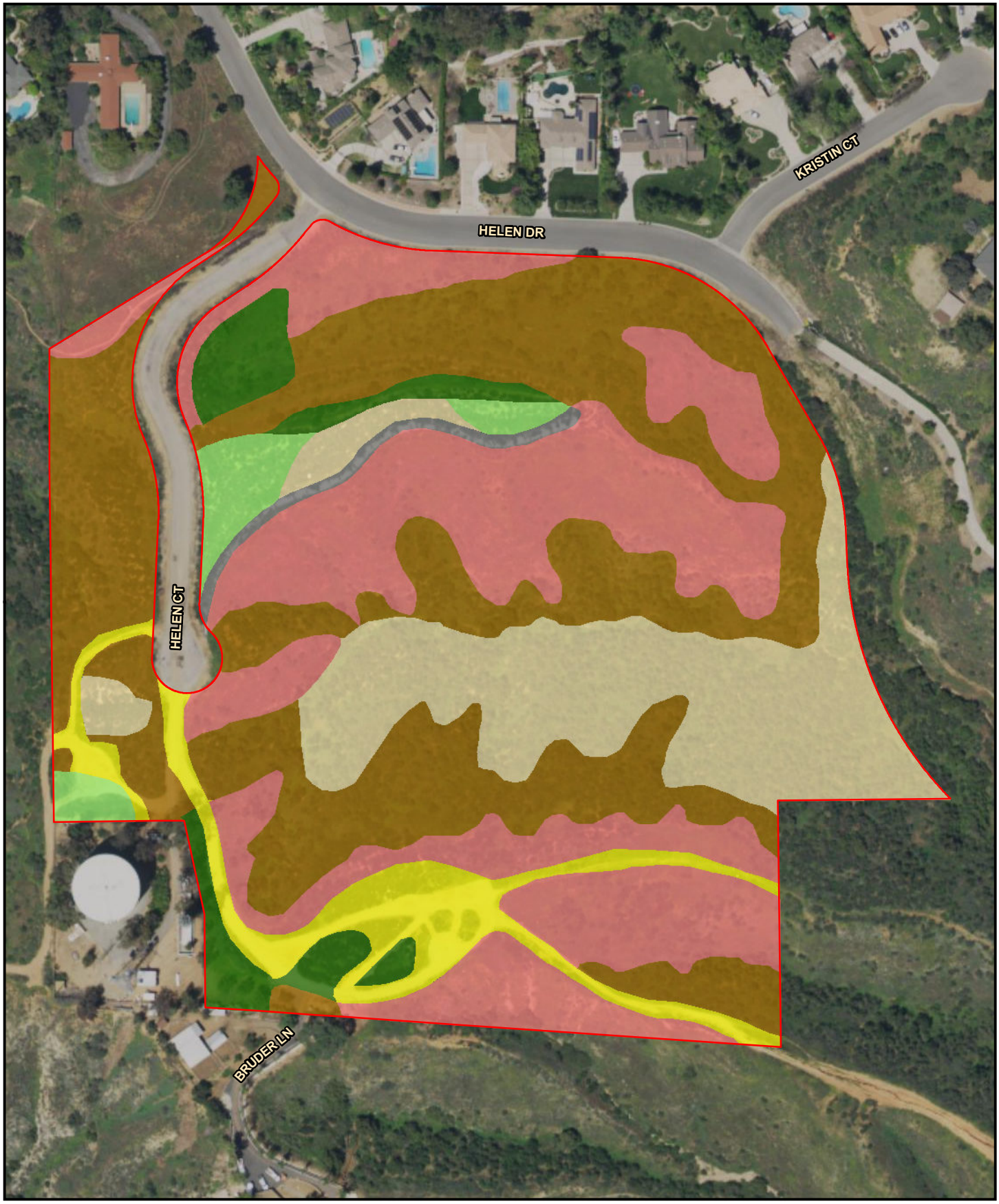

Project Location

Vegetation Communities

- Hoary Leaf Ceanothus Chaparral
- Disturbed Hoary Leaf Ceanothus Chaparral
- California Buckwheat Scrub
- Developed
- Disturbed California Buckwheat Scrub
- Ruderal
- Bare Ground

N

0 60 120 240

Feet

Figure 3
Sunset Reservoir Expansion Project
Vegetation Communities

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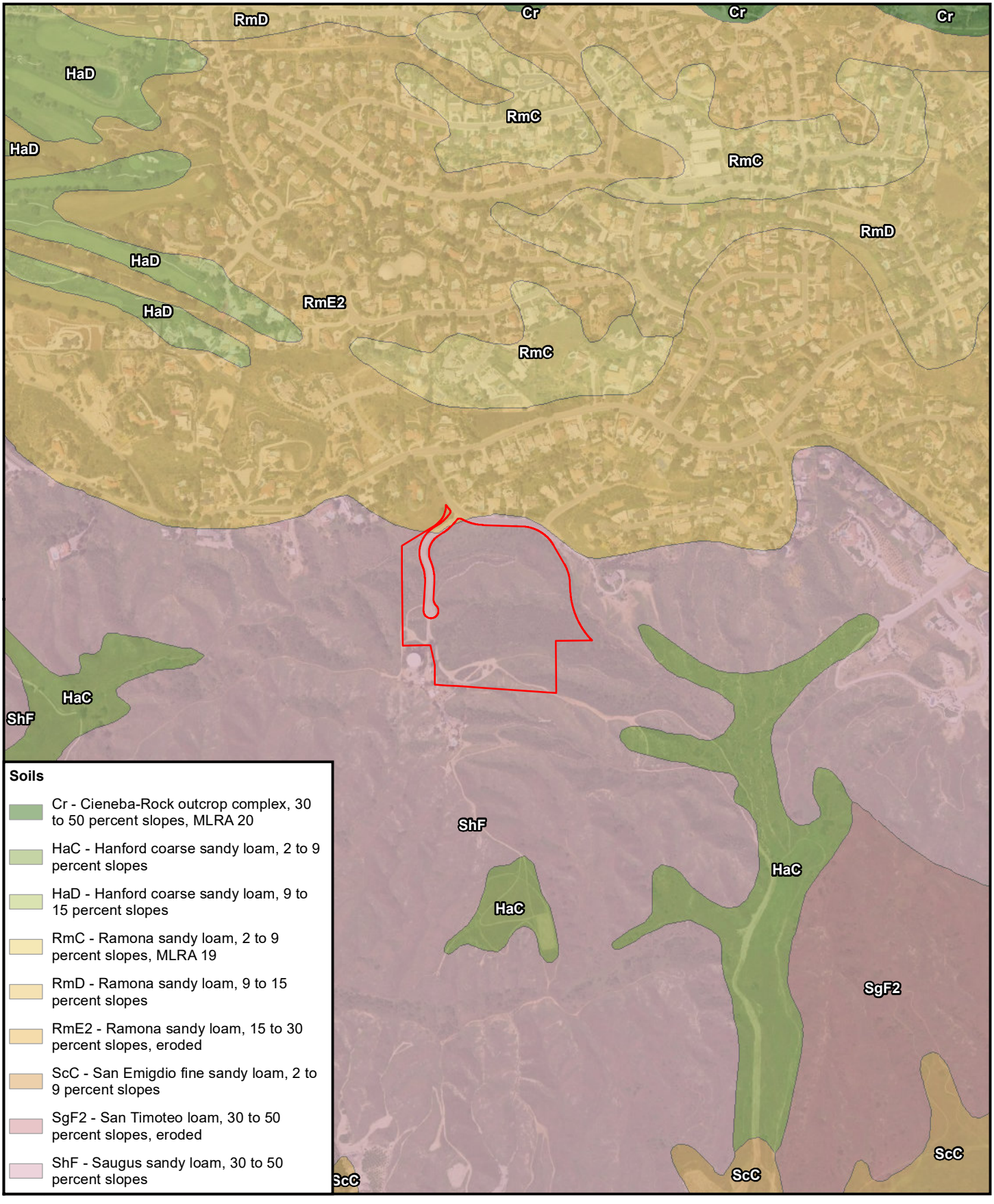

Figure 4
Sunset Reservoir Expansion Project
Soils

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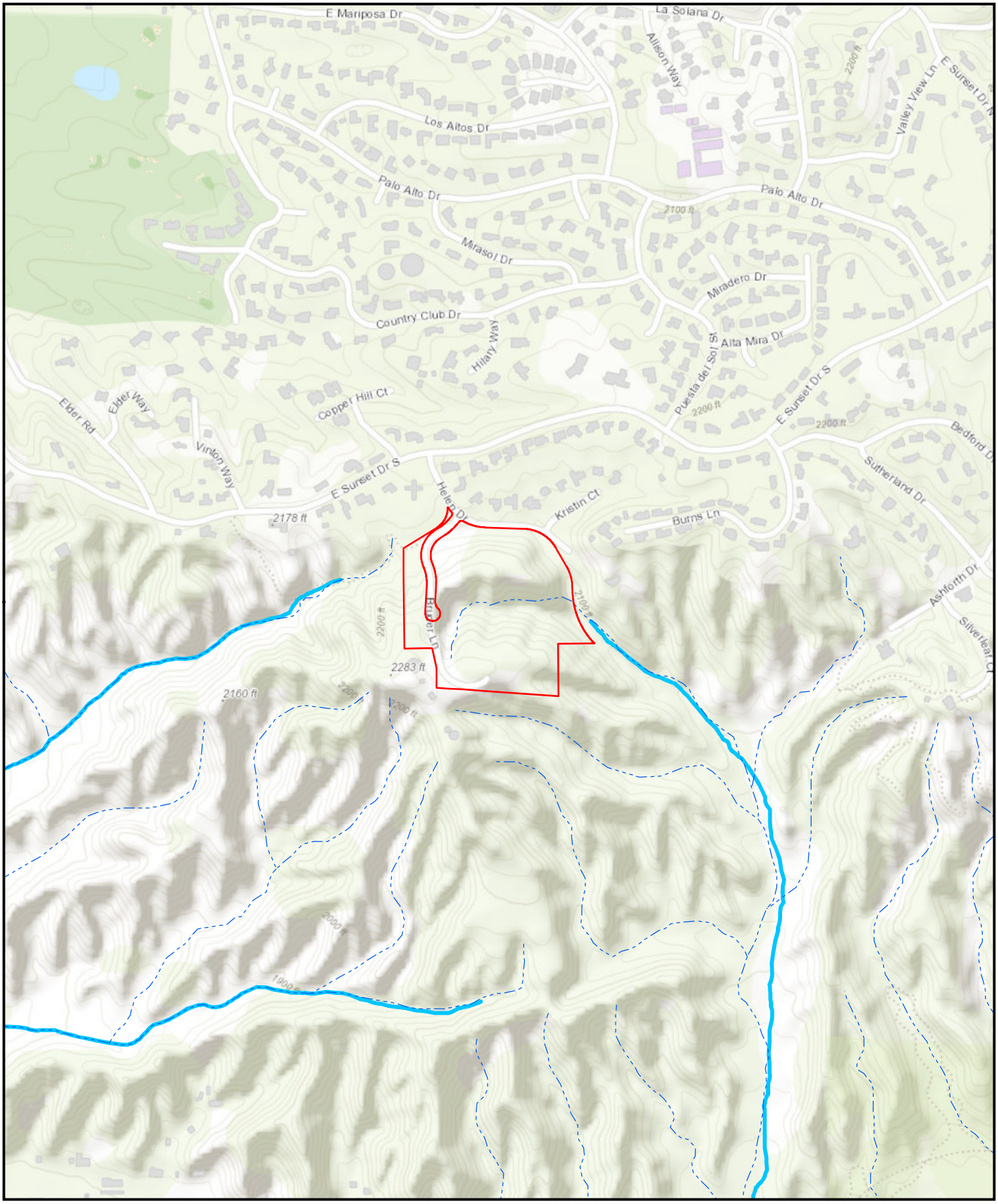

Project Location

NHD

Stream/River

NWI

Riverine

N

0 300 600 1,200

Feet

Figure 5

Sunset Reservoir Expansion Project

Jurisdictional Waters

Name: 21413 BIO Fig 5 Jurisdictional Waters.Mxd
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ATTACHMENT 2 – PLANT SPECIES OBSERVED

ATTACHMENT 2– PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
ADOXACEAE	**MUSKROOT FAMILY**
Sambucus mexicana	blue elderberry
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
Rhus aromatica	skunkbrush
Rhus ovata	sugar bush
ASTERACEAE	**SUNFLOWER FAMILY**
Acourtia microcephala	sacapellote
Artemisia californica	California sagebrush
*Centaurea melitensis**	tocalote
Corethrogyne filaginifolia	sand-aster
Helianthus gracilentus	slender sunflower
Stephanomeria virgata	twiggy wreathplant
BORAGINACEAE	**BORAGE FAMILY**
BRASSICACEAE	**MUSTARD FAMILY**
*Hirschfeldia incana**	shortpod mustard
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**
Lonicera subspicata	southern honeysuckle
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
*Salsola tragus**	Russian thistle
FABACEAE	**LEGUME FAMILY**
Acmispon glaber	deerweed
FAGACEAE	**OAK FAMILY**
Quercus berberidifolia	scrub oak
LAMIACEAE	**MINT FAMILY**
Salvia mellifera	black sage
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Eulobus californicus	California evening primrose
POLYGONACEAE	**BUCKWHEAT FAMILY**
Eriogonum fasciculatum	California buckwheat
RHAMNACEAE	**BUCKTHORN FAMILY**
Ceanothus crassifolius	hoary leaf ceanothus
Ceanothus foliosus var. *foliosus*	wavy-leaf-lilac
Rhamnus crocea	spiny redberry
ROSACEAE	**ROSE FAMILY**
Adenostoma fasciculatum	chamise
ANGIOSPERMS (MONOCOTS)	
POACEAE	**GRASS FAMILY**

*Avena fatua**	wild oat
Bromus madritensis subsp. *madritensis**	foxtail chess

*Non-Native Species, +Ornamental, Unlikely to be Invasive

ATTACHMENT 3 – WILDLIFE SPECIES OBSERVED/DETECTED

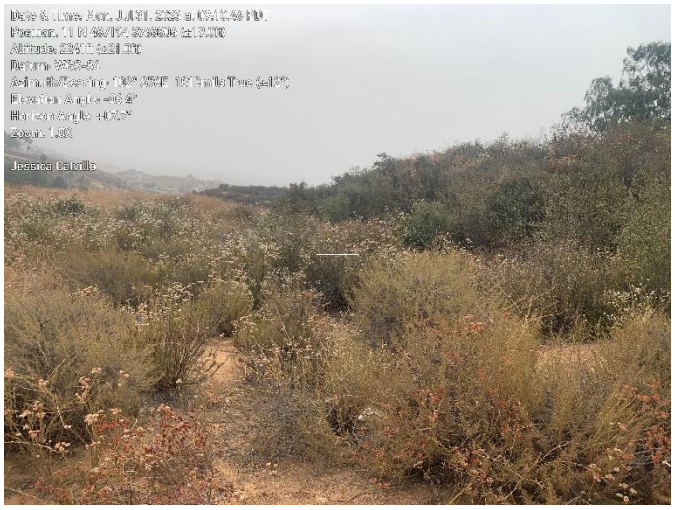
Attachment 3 – Wildlife Species Observed

Scientific Name	Common Name
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS**
Sceloporus occidentalis	western fence lizard
Uta stansburiana	side-blotched lizard
CLASS AVES	**BIRDS**
CATHARTIDAE	**NEW WORLD VULTURES**
Cathartes aura	turkey vulture
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Buteo jamaicensis	red-tailed hawk
ODONTOPHORIDAE	**NEW WORLD QUAIL**
Callipepla californica	California quail
COLUMBIDAE	**PIGEONS & DOVES**
Zenaida macroura	mourning dove
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna's hummingbird
CORVIDAE	**JAYS & CROWS**
Aphelocoma californica	California scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
AEGITHALIDAE	**BUSHTITS**
Psaltriparus minimus	Bushtit
TROGLODYTIDAE	**WRENS**
Thryomanes bewickii	bewick's wren
SYLVIIDAE	**OLD WORLD WARBLERS**
Chamaea fasciata	wrentit
POLIOPTILIDAE	**GNATCATCHERS**
Polioptila caerulea	blue-gray gnatcatcher
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Toxostoma redivivum	California thrasher
EMBERIZIDAE	**EMBERIZIDS**
Melospiza melodia	song sparrow
Melozone crissalis	California towhee
Pipilo maculatus	spotted towhee
CARDINALIDAE	**CARDINALS**
Pheucticus melanocephalus	black-headed grosbeak
FRINGILLIDAE	**FINCHES**
Spinus psaltria	lesser goldfinch

Scientific Name	Common Name
Carpodacus mexicanus	house finch

ATTACHMENT 4 – SITE PHOTOGRAPHS

ATTACHMENT 4 – SITE PHOTOGRAPHS

	**Photo 1** Photo depicting California Buckwheat Scrub.
	**Photo 2** Photo depicting California Buckwheat Scrub and Bare Ground by the existing water tower just outside the Project site.
	**Photo 3** Photo depicting Disturbed California Buckwheat Scrub.

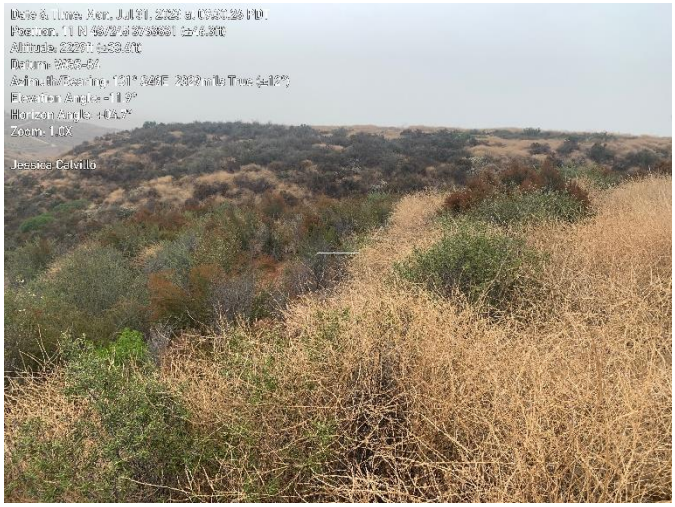
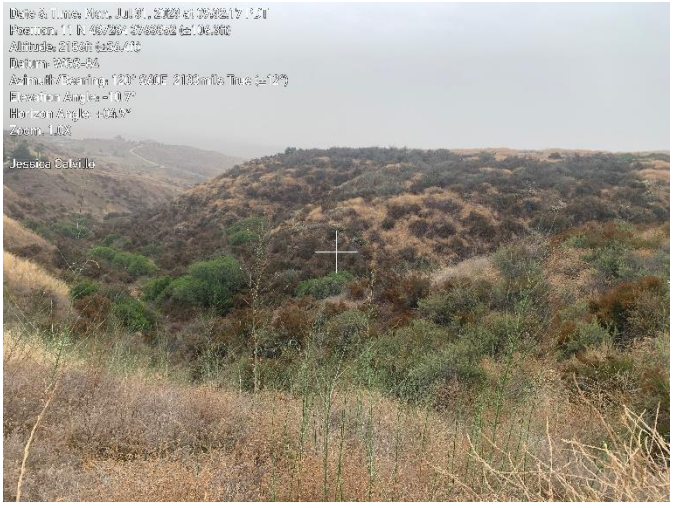
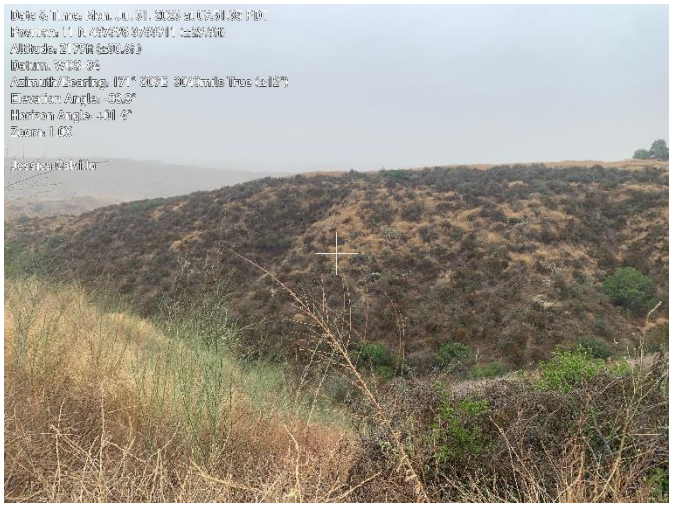
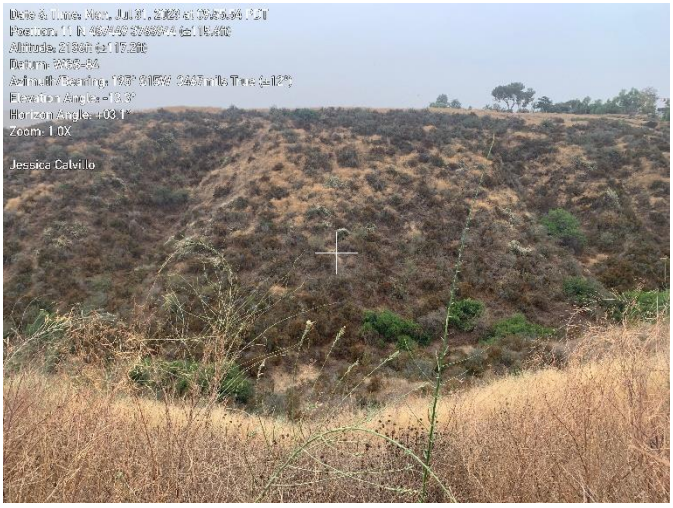
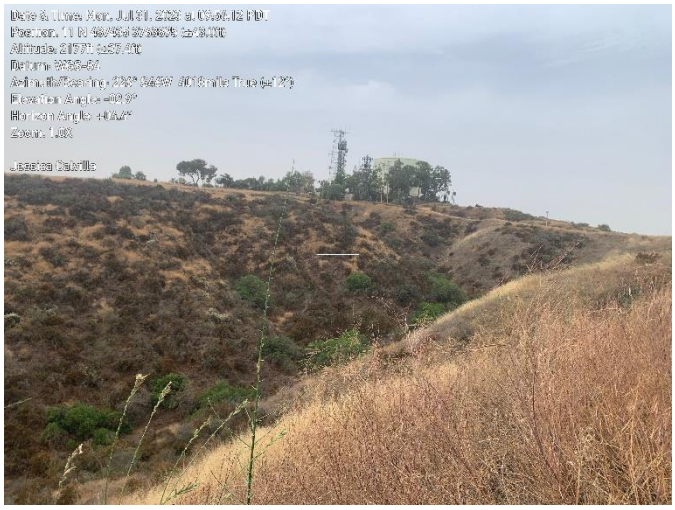
	**Photo 4** Photo depicting Ruderal vegetation with Hoary Leaf Ceanothus Chaparral along the slopes.
	**Photo 5** Photo depicting Ruderal vegetation with Hoary Leaf Ceanothus Chaparral along the slopes.
	**Photo 6** Photo depicting Ruderal vegetation with Hoary Leaf Ceanothus Chaparral along the slopes.

	**Photo 7** Photo depicting California Buckwheat Scrub with Ruderal vegetation along the paved road.
	**Photo 8** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.
	**Photo 9** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.

	**Photo 10** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.
	**Photo 11** Photo depicting Ruderal vegetation and large Bare Ground area at Southern end of the Project site.
	**Photo 12** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.

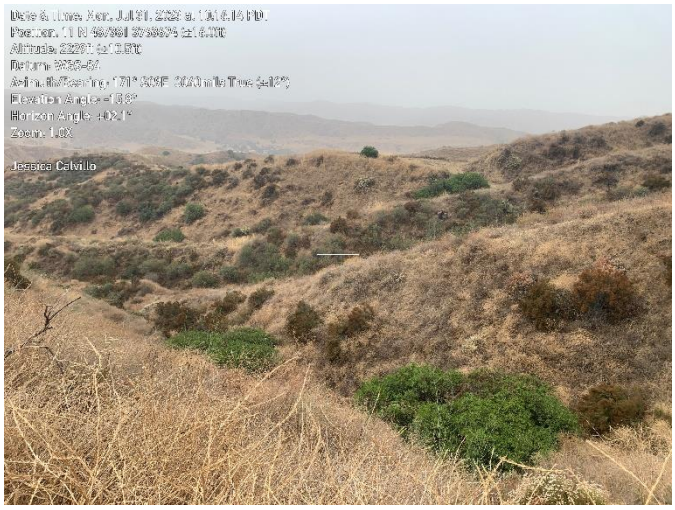
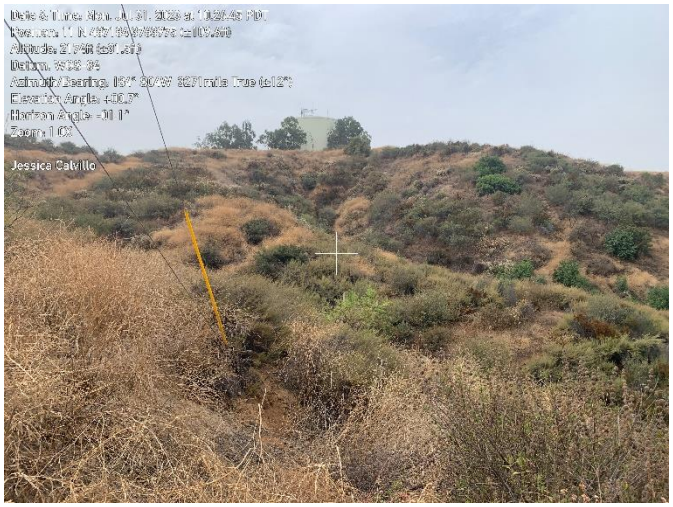
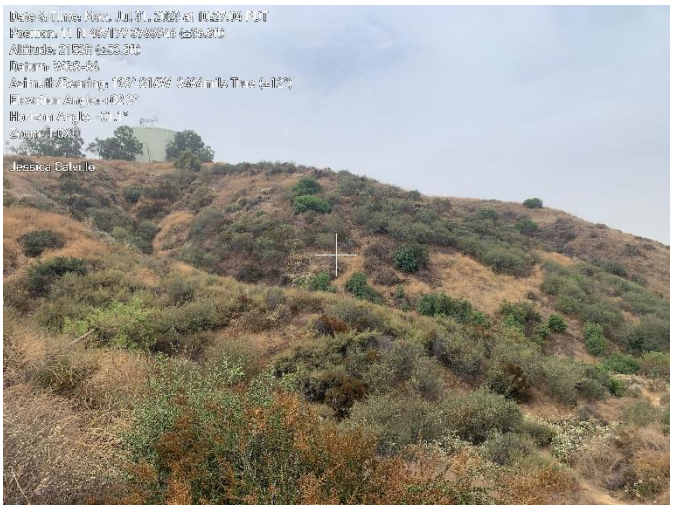
	**Photo 13** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.
	**Photo 14** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.
	**Photo 15** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral and Ruderal vegetation.

	**Photo 16** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral, Hoary Leaf Ceanothus Chaparral, Ruderal vegetation, with Disturbed California Buckwheat Scrub in the foreground.
	**Photo 17** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral and Ruderal vegetation along Helen Dr..
	**Photo 18** Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral and Ruderal vegetation along Helen Dr..

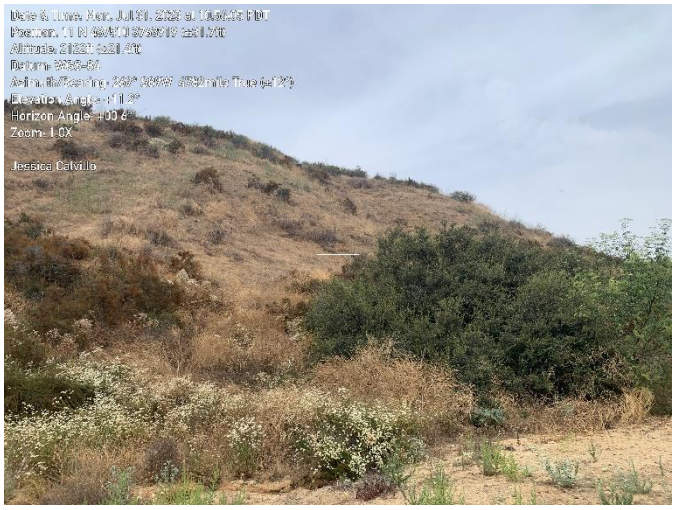


Photo 19

Photo depicting Disturbed Hoary Leaf Ceanothus Chaparral and Ruderal vegetation along Helen Dr..