

Appendix

Appendix B Biological Resources Assessment

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**GENERAL BIOLOGICAL ASSESSMENT
AND
WESTERN RIVERSIDE COUNTY MSHCP
CONSISTENCY ANALYSIS
FOR
ASSESSOR'S PARCEL NUMBER
472-210-002**

WINCHESTER, COUNTY OF RIVERSIDE, CALIFORNIA

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1.0 Introduction

HES was contracted to prepare a General Biological Assessment (GBA) and Western Riverside County MSHCP Consistency Analysis for Assessor's Parcel Number (APN) 472-210-002. The project site consists of approximately 11.95 acres located at 35780 Washington Street in the unincorporated community of Winchester, County of Riverside, California.

1.1 Project Site Location

The project site consists of Riverside County Assessor's Parcel Numbers (APNs) 472-210-002. The 11.95-acre property is located at 35780 Washington Street in Winchester, County of Riverside, California. Specifically, the project site is located within the *Bachelor Mountain* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude for the project site are 33° 36' 03.6404" North, 117° 04' 55.8587" West (Figures 1 and 2, *Location Map* and *Vicinity Map*).

1.2 Project Description

The proposed project consists of the construction of a new campus for Temecula Valley Charter School. The proposed campus will consist of a 17,292 square foot (SF) main building, library, classroom buildings, parking spaces, playgrounds, and recreational areas. Outside of the project boundary, roadside improvements and a proposed sidewalk along the northern and western boundaries will be developed, impacting Washington Street and Yates Road (Figure 3, *Project Plans*). Approximately 12.47 total acres are expected to be impacted by development.

2.0 Methodology

2.1 Literature Review

HES conducted a literature review and reviewed aerial photographs and topographic maps of the project site and surrounding areas. The *Bachelor Mountain* USGS 7.5' topographic quadrangle and eight surrounding quads were used to identify sensitive species with the California Natural Diversity Data Base (CNDDDB), the U.S. Fish and Wildlife Service (USFWS) Endangered Species Lists, and the California Native Plant Society (CNPS) rare plant lists to obtain species information for the project area. The CNDDDB and USFWS critical habitat databases were utilized, together with Geographic Information System (GIS) software, to locate the previously recorded locations of sensitive plant and wildlife occurrences and designated critical habitat and determine the distance from the project site. Additionally, the Western Riverside County MSHCP was reviewed for information on known occurrences of sensitive species within Riverside County.

2.1.1 Western Riverside County MSHCP

The Western Riverside County MSHCP (Dudek and Associates 2003) is a comprehensive, multijurisdictional habitat conservation planning program for western Riverside County, California. The purpose of the Western Riverside County MSHCP is to preserve native habitats, and to this end, the plan focuses upon the habitat needs of multiple species rather than one species at a time. The Western Riverside County MSHCP provides coverage/take authorization for some species listed under the federal or state Endangered Species Act (ESA) as well as non-listed special-status plant and wildlife species. It also provides mitigation for impacts to special-status species and their associated habitats.

Through agreements with the USFWS and California Department of Fish and Wildlife (CDFWG), 146 listed and special-status plant and animal species receive some level of coverage under the Western Riverside County MSHCP. Of the 146 covered species, the majority have no additional survey needs or conservation requirements. Furthermore, the Western Riverside County MSHCP provides mitigation for project-specific impacts to these species, thereby reducing the degree of impact to below a level of significance, pursuant to the California Environmental Quality Act (CEQA).

Several of the species covered under the Western Riverside County MSHCP have additional survey requirements. These include the riparian communities and associated species addressed in Section 6.1.2 of the Western Riverside County MSHCP document (“Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools”), plants identified in Section 6.1.3 (“Narrow Endemic Plant Species”); and plants and animal species addressed in Section 6.3.2 (“Additional Survey Needs and Procedures”).

2.1.2 Project Relationship to the Western Riverside County MSHCP

The project area is located within the Western Riverside County MSHCP boundaries. The County of Riverside, acting as the lead agency for the proposed project, is a permittee under the Western Riverside County MSHCP and, therefore, is afforded coverage under the state or federal ESAs for impacts to listed species covered by the plan. The County is required to document consistency with the Western Riverside County MSHCP in conjunction with any discretionary approvals for the project. As such, this report was prepared to provide all necessary information required to determine project consistency with the Western Riverside County MSHCP.

The project site is not located within plan-defined areas requiring surveys for invertebrate species, criteria area species, amphibian species, or mammalian species. However, the site is located within plan-defined areas requiring surveys for narrow endemic plant species survey area (NEPSSA), criteria area species survey area (CASSA) for plant species, and burrowing owl (*Athene cunicularia*).

The project site is located in a NEPSSA for the following plant species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), California Orcutt grass (*Orcuttia californica*), Spreading navarretia (*Navarretia fossalis*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The project site is also in a CASSA for the following plant species: Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), Thread-leaved brodiaea (*Brodiaea filifolia*), Round-leaved filaree (*Erodium macrophyllum*), Smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Little mousetail (*Myosurus minimus* ssp. *apus*), and Mud nama (*Nama stenocarpa*). No narrow endemic or criteria area plants were found during the focused rare plant surveys conducted on site in spring of 2023.

A habitat assessment was conducted for burrowing owl following Step 1 of the Burrowing Owl Survey Instructions for the Western Riverside MSHCP. The habitat assessment determined that the site does provide suitable habitat for the species due to the presence of small mammal burrows that could be utilized as burrows. Therefore, Step 2 of the Western Riverside MSHCP Burrowing Owl Survey protocol was performed. No burrowing owl or burrowing owl sign was found on site during the focused burrowing owl surveys. It was determined that burrowing owl do not currently occupy the site (Appendix E, *Focused Burrowing Owl Survey Report*). The table below shows the surveys dates of the 2023 focused burrowing owl surveys.

Table 1.
Focused Burrowing Owl Survey Information

Survey	Date	Survey Start Time	Survey End Time	Sunrise/Sunset	Weather
1	June 20, 2023	O630 hours	O725 hours	O538 hours 2002 hours	57 degrees Fahrenheit, cloudy, winds 0-1 miles per hour to the northwest.
2	June 28, 2023	O630 hours	O730 hours	O541 hours 2002 hours	53-56 degrees Fahrenheit, 60% cloud cover, winds 0- 2 miles per hour to the north.
3	July 5, 2023	O650 hours	O740 hours	O544 hours 2002 hours	58 degrees Fahrenheit, 10% cloud cover, winds 0 - 2 miles per hour to the south.
4	July 12, 2023	O550 hours	O630 hours	O548 hours 2000 hours	67 degrees Fahrenheit, clear skies, winds 0-2 mile per hour to the west.

2.1.3 Reserve Assembly Analysis

The project area is located within the Southwest Area Plan, in the Cactus Valley/Southwestern Riverside County Multi-Species Reserve/ Johnson Ranch Subunit (SU4), and within Criteria Cell 5567. The 11.95-acre project site is located within Cell Group T. The target conservation acreage range for the Southwest Area Plan is between 58,295 and 72,155 acres. The target conservation range for the Cactus Valley/Southwestern Riverside County Multi-Species Reserve/ Johnson Ranch Subunit is between 4,395 and 7,970 acres. Conservation within Criteria Cell 5567 is described below:

- Conservation within Criteria Cell 5567 will contribute to Cell Group T and the assembly of Proposed Extension of Existing Core 7. Conservation within this Cell Group will focus on coastal sage scrub and grassland habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub and grassland habitat proposed for conservation in Cell Group S to the north. Conservation within this Cell will range from 35 to 45 percent of the Cell focusing on the northern portion of the Cell Group.

According to current Riverside County GIS data, approximately 106.8 acres of Regional Conservation Authority (RCA) Western Riverside County Conserved Lands and 71.37 acres of Public/Quasi-Public (PQP) are within the approximately 321.45 acres of Cell Group T. In order to meet the conservation requirements for Cell Group T, 35 percent (112.5 acres) to 45 percent (144.65 acres) of coastal sage scrub and grassland habitat must remain conserved. Approximately a total of 55.43 percent (178.17 acres) of conserved lands including RCA and PQP land meet above the conservation goals of Cell Group T (Figure 5, *Reserve Assembly Analysis Map*).

The site resides in the western portion of Criteria Cell 5567, which does not contribute to the area reserved for conservation to the north of Cell Group T and does not connect to the area of proposed conservation to the north in Cell Group S. The site is blocked by residential development to the north and the San Diego Canal to the east, which does not allow contribution of land to Cell Group S to the north nor additional land to RCA conserved land to the east. Furthermore, the coastal sage scrub habitat on the project site is too disturbed to contribute to land that would fulfill the conservation requirements for Cell Group T.

2.2 Field Survey

On June 20, 2023, HES conducted a field survey of the site. The ambient temperature at 7:00 A.M. was 5 degrees Fahrenheit, clear skies, sunny, with winds ranging from 0 to 1 mile per hour to the northwest. The purpose of the field survey was to document the existing habitat conditions, obtain plant and animal species information, view the surrounding land uses, assess the potential for state and federal waters, assess the potential for wildlife movement corridors, and assess the presence of constituent elements for critical habitat if present.

Linear transects were walked across the project site for 100 percent coverage. All species observed were recorded. Global Positioning System (GPS) waypoints were taken to delineate specific habitat types, species locations, state or federal waters, and any other information that would be useful for the assessment of the project site. A comprehensive list of all plant and wildlife species that were detected during the field survey within the project site is included in Appendix A, *Species List*. Sensitive plant and wildlife species with the potential to occur within the project area are listed in Appendix B, *Species Probability List*. Representative site photographs were taken and are included within Appendix C, *Site Photographs*.

3.0 Existing Conditions and Results

3.1 Environmental Setting

The 11.95-acre project site is surrounded by residential developments and vacant land. To the west of the site is Washington Street followed by vacant land, north and south of the site are residential developments, and to the east of the site is vacant land followed by the San Diego Canal. The site consists of vacant land and the northeastern portion of the site is primarily occupied by ornamental trees. The property is relatively flat with elevations ranging from 1,423 feet to 1,493 feet above mean sea level (AMSL).

3.2 Soils

Four soil classes are identified to occur on the project site by the USDA Web Soil Survey (Appendix D, *Soils Map*). Soils at the project site are classified as follows:

- Buchenau silt loam (BkC2), 2 to 8 percent slopes, eroded;
- Escondido fine sandy loam (EcC2), 2 to 8 percent slopes, eroded;
- Friant fine sandy loam (FwE2), 5 to 25 percent slopes, eroded; and
- Lodo rocky loam (LpE2), 8 to 25 percent slopes, eroded.

The soils above are not classified as hydric soils.

3.3 Plant and Habitat Communities

The 11.95-acre project site consists of two habitat types: ruderal habitat and disturbed coastal sage scrub (Figure 4, *Habitat Map*). Following is a description of the habitat types:

Ruderal

The project site contains approximately 11.13 acres of ruderal habitat. Dominant species observed are paniculate tarweed (*Deinandra paniculata*) and non-native vegetation such as shortpod mustard (*Hirschfeldia incana*). Other species observed in this area are common wild oat

(*Avena fatua*), doveweed (*Croton setiger*), stinknet (*Oncosiphon piluliferum*), and cheeseweed (*Malva* sp.).

Disturbed Coastal Sage Scrub

The project site contains approximately 0.82 acre of disturbed coastal sage scrub habitat. Dominant species observed are California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*). Other species observed in this area are rattlesnake weed (*Euphorbia albomarginata*), shortpod mustard, California aster (*Symphyotrichum chilense*), and perennial pepperweed (*Lepidium latifolium*).

3.4 Wildlife

General wildlife species documented on the project site or within the vicinity of the site includes the red-tailed hawk (*Buteo jamaicensis*), hooded oriole (*Icterus cucullatus*), American bushtit (*Psaltirparus minimus*), and lesser goldfinch (*Spinus psaltria*).

3.5 Regional Connectivity/Wildlife Movement

Wildlife movement corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbances. The project area was evaluated for its function as a wildlife corridor that species use to move between wildlife habitat zones. Usually, mountain canyons or riparian corridors are used by wildlife as corridors. The project site consists of flat ruderal or disturbed land surrounded by residential development, the San Diego canal, commercial development, and busy roads. No wildlife movement corridors were found to be present on the project site.

3.6 Sensitive Biological Resources

According to the CNDDB, a total of 68 sensitive species of plants and 57 sensitive species of animals has the potential to occur on or within the vicinity of the project area. These include those species listed or candidates for listing by the U. S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS). All habitats with the potential to be used by sensitive species were evaluated during the site visit and a determination has been made for the presence or probability of presence within this report. This section will address those species listed as Candidate, Rare, Threatened, or Endangered under the state and federal endangered species laws or directed to be evaluated under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). Sensitive species which have a potential to occur will also be discussed in this section. Other special status species are addressed within Appendix B, *Species Probability List*.

3.6.1 Sensitive Plant Resources

A total of twenty-three plant species are listed as state and/or federal Threatened, Endangered, or Candidate species; are 1B.1 listed plants on the CNPS Rare Plant Inventory; or have been found to have a potential to exist on the project site. Below are descriptions of these species:

Chaparral sand-verbena

Chaparral sand-verbena (*Abronia villosa* var. *aurita*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is found in sandy areas of chaparral, coastal scrub, and desert dunes habitats. No habitat for this species is present on the project site. **This species is not present.**

Munz's onion

Munz's onion (*Allium munzii*) is a federally Endangered, state Threatened, and CNPS 1B.1 listed plant species. It is found in chaparral, coastal scrub, valley and foothill grasslands, cismontane woodland, and pinyon and juniper woodland. The project site does not have suitable habitat for this species. **This species is not present.**

San Diego ambrosia

San Diego ambrosia (*Ambrosia pumila*) is listed as federally Endangered and ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitat includes wetlands in chaparral, coastal sage scrub, valley and foothill grassland. It is commonly found in sandy loam or clay soil and sometimes in alkaline soils. This species persists where disturbance has been superficial. It is also sometimes found on margins or near vernal pools. No habitat for this species is present on the project site. **This species is not present.**

Rainbow Manzanita

Rainbow Manzanita (*Arctostaphylos rainbowensis*) is ranked 1B.1 in the CNPS Rare Plant inventory. It is usually found in gabbro chaparral habitat. No habitat for this species is present on the project site. **This species is not present.**

Jaeger's milk-vetch

Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is often found in dry ridges and valleys and open sandy slopes. Its habitat includes coastal scrub, chaparral, valley and foothill grassland, and cismontane woodland. No habitat for this species is present on the project site. **This species is not present.**

San Jacinto Valley crownscale

San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) is a federally listed Endangered Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitat includes playas, valley and foothill grassland, and vernal pools. It is commonly found in the alkaline areas in the San

Jacinto River Valley. No habitat for this species is present on the project site. **This species is not present.**

Parish's brittlescale

Parish's brittlescale (*Atriplex parishii*) is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitat includes shadescale scrub, alkali sink, riparian, playas, vernal pools, and wetland. It is usually found on drying alkali flats with fine soils. No habitat for this species is present on the project site. **This species is not present.**

Nevin's barberry

Nevin's barberry (*Berberis nevinii*) is a federally and state listed Endangered species and is ranked 1B.1 in the CNPS Rare Plant Inventory. It is typically found on steep, north facing slopes or in low grade sandy washes. Its habitat includes chaparral, cismontane woodland, coastal scrub, and riparian scrub. No habitat for this species is present on the project site. **This species is not present.**

Thread-leaved brodiaea

The thread-leaved brodiaea (*Brodiaea filifolia*) is a federally Threatened and state Endangered Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. It is found in chaparral, cismontane woodlands, coastal sage scrub, valley and foothill grasslands, vernal pools and wetland. No habitat for this species is present on the project site. **This species is not present.**

Orcutt's brodiaea

Orcutt's brodiaea (*Brodiaea orcuttii*) is ranked 1B.1 in the CNPS Rare Plant Inventory. The species occurs in mesic, clay habitats, usually in vernal pools and small drainages. Its habitats include vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows, and seeps. No habitat for this species is present on the project site. **This species is not present.**

Vail Lake ceanothus

Vail Lake ceanothus (*Ceanothus ophiophilus*) is a federally Threatened, state Endangered species and is ranked 1B.1 in the CNPS Rare Plant Inventory. The species typically occurs in gabbro seams on north-facing ridges on the eastern sides of mountains in chaparral habitat. No habitat for this species is present on the project site. **This species is not present.**

Smooth tarplant

Smooth tarplant (*Centromadia pungens ssp. laevis*) is ranked 1B.1 in the CNPS Rare Plant Inventory. The species occurs in habitats that include alkali playa, chenopod scrub, meadows and seeps, riparian woodlands, wetlands, and valley and foothill grasslands. No habitat for this species is present on the project site. **This species is not present.**

Orcutt's pincushion

Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*) is ranked 1B.1 in the CNPS Rare Plant Inventory. The species occurs in sandy sites of coastal bluff scrub, and coastal dunes habitat. No habitat for this species is present on the project site. **This species is not present.**

Parry's spineflower

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) is ranked 1B.1 in the CNPS Rare Plant Inventory. The species occurs in dry, sandy soils on dry slopes and flats, sometimes at the interface of two vegetations types, such as chaparral and oak woodland. Its habitat includes coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. No habitat for this species is present on the project site. **This species is not present.**

Mojave tarplant

Mojave tarplant (*Deinandra mohavensis*) is a state listed Endangered Species and is ranked 1B.3 in the CNPS Rare Plant Inventory. This species is typically found in low sand bars in river beds and most commonly in riparian or ephemeral grassy areas. Its habitat includes chaparral, coastal scrub, and riparian scrub. No habitat for this species is present on the project site. **This species is not present.**

Slender-horned spineflower

Slender-horned spineflower (*Dodecahema leptoceras*) is a federally and state listed Endangered Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitats include chaparral, cismontane woodland, and alluvial fan sage scrub. It is typically found on sandy soils in flood deposited terraces and washes. No habitat for this species is present on the project site. **This species is not present.**

San Diego button-celery

San Diego button-celery (*Eryngium aristulatum* var. *parishii*) is a federally and state listed Endangered Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitats include Vernal pools, coastal scrub, valley and foothill grassland. It is typically found on San Diego mesa hardpan and claypan vernal pools and southern interior basalt flow vernal pools; usually surrounded by scrub. No habitat for this species is present on the project site. **This species is not present.**

Mesa horkelia

Mesa horkelia (*Horkelia cuneata* var. *puberula*) is ranked 1B.1 in the CNPS Rare Plant Inventory. This species habitats includes chaparral, cismontane woodland, and coastal sage scrub. It is found on sandy or gravelly sites. No habitat for this species is present on the project site. **This species is not present.**

Coulter's goldfields

Coulter's goldfields (*Lasthenia glabrata ssp.coulteri*) is ranked 1B.1 in the CNPS Rare Plant Inventory. This species is usually found on alkaline soils in playas, sinks, and grasslands and flowers during April through May. Its habitat includes alkali playas, marsh, swamp, salt marsh, vernal pool, and wetland. No habitat for this species is present on the project site. **This species is not present.**

Spreading navarretia

Spreading navarretia (*Navarretia fossalis*) is a federally listed Threatened Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitat includes alkali playa, chenopod scrub, marsh and swamp, vernal pools, and wetlands. This species is typically found in swales and vernal pools, often surrounded by other habitat types. No habitat for this species is present on the project site. **This species is not present.**

California Orcutt grass

California Orcutt grass (*Orcuttia californica*) is a federally and state listed Endangered Species and is ranked 1B.1 in the CNPS Rare Plant Inventory. It is found in vernal pools. No habitat for this species is present on the project site. **This species is not present.**

Gander's ragwort

Gander's ragwort (*Packera ganderi*) is a state listed Rare Species and is ranked 1B.2 in the CNPS Rare Plant Inventory. Its habitat includes chaparral. It is found in recently burned sites and gabbro outcrops. No habitat for this species is present on the project site. **This species is not present.**

Bottle liverwort

Bottle liverwort (*Sphaerocarpos drewei*) is ranked 1B.1 in the CNPS Rare Plant Inventory. Its habitats include chaparral and coastal scrub. No habitat for the species is present on the project site. **This species is not present.**

3.6.2 Sensitive Animal Resources

A total of fourteen animal species listed as state and/or federal Threatened, Endangered, Candidate will be reviewed in this section. Sensitive species which have a potential to occur will also be discussed in this section. Below are descriptions of these species:

Tricolored blackbird

Tricolored blackbird (*Agelaius tricolor*) is a state listed Threatened Species and listed by the CDFW as a Species of Special Concern. The species occupies freshwater marshes with canopies

of willows and other riparian trees. This species requires open accessible water and suitable foraging space. There is no habitat for this species on the project site. **This species is not present.**

Arroyo toad

Arroyo toad (*Anaxyrus californicus*) is a federally listed Endangered Species. This species habitats include desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing water. It is found in rivers with sandy banks, willows, cottonwoods, and sycamores or gravelly areas of streams in drier parts of range. No suitable habitat occurs on site. **This species is not present.**

Burrowing owl

Burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern. This species is found in coastal prairie, coastal scrub, great basin grassland, great basin scrub, Mojave Desert scrub, Sonoran Desert scrub, and valley and foothill grassland. This species is typically found in open and dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. It is a subterranean nester and is dependent upon burrowing mammals, most notably the California ground squirrel. A habitat assessment conducted on the site determined that suitable habitat is present due to the presence of small mammal burrows. No burrowing owl or burrowing owl sign were found on or in the vicinity of the site during the focused surveys in 2023. It was determined that no burrowing owl currently occupy the site. **This species is not present.**

Crotch bumble bee

Crotch bumble bee (*Bombus crotchii*) is a state Candidate Endangered Species. It's located in coastal California east to the Sierra-Cascade crest and south into Mexico. Its food plan genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*. There is no habitat for this species on the project site. **This species is not present.**

Vernal pool fairy shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally listed Threatened Species. This species is found in seasonal pools of water in valley and foothill grasslands. This species typically inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. The project site does not contain suitable habitat for this species. **This species is not present.**

San Diego fairy shrimp

San Diego fairy shrimp (*Branchinecta sandiegonensis*) is a federally listed Endangered species. This species is found in chaparral, coastal scrub, vernal pool, and wetland habitats. It is endemic

to San Diego and Orange County mesas. There is no habitat for this species on the project site. **This species is not present.**

Swainson's hawk

Swainson's hawk (*Buteo swainsoni*) is a state listed Threatened species. This species favors open grasslands for foraging but also occurs in agricultural settings. It relies on scattered stands of trees near agricultural fields and grasslands for nesting sites. Its habitats include great basin grassland, riparian forest, riparian woodland, and valley and foothill grassland. The project site does not contain suitable habitat for this species. **This species is not present.**

Western yellow-billed cuckoo

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a federally listed Threatened and state listed Endangered species. This species typically nests in riparian jungles of willows, often mixed with cottonwoods, with a lower story of blackberry, nettles, or wild grape. It is found in riparian forest habitat. The project site does not contain suitable habitat for this species. **This species is not present.**

San Bernardino kangaroo rat

San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is a federally listed Endangered Species, state listed Candidate Endangered Species, and a CDFW Species of Special Concern. It is found in coastal scrub habitat. This species is found in alluvial scrub vegetation on sandy loam substrates, characteristic of alluvial fans and flood plains. It needs early to intermediate seral stages. The project site does not contain suitable habitat for this species. **This species is not present.**

Stephen's kangaroo rat

Stephens' kangaroo rat (*Dipodomys stephensi*) is a federally and state listed Threatened Species. This species is found in coastal sage scrub with sparse vegetation cover, and in valley and foothill grasslands. This species prefers buckwheat, chamise, brome grass, and filaree and will burrow into firm soil. The project site does not have suitable habitat for this species. **This species is not present.**

Quino checkerspot butterfly

Quino checkerspot butterfly (*Euphydryas editha quino*) is a federally listed Endangered Species. It is found in chaparral and coastal sage scrub. This species requires high densities of food plants, including *Plantago erecta*, *P. insularis*, and *Orthocarpus purpureus*. The project site does not have suitable habitat for this species. **This species is not present.**

Bald eagle

Bald eagle (*Haliaeetus leucocephalus*) is a state listed Endangered and CDFW fully protected species. This species is found in lower montane coniferous forest and old-growth. They nest in large old-growth or tress with open branches, especially ponderosa pine. The project site does not contain suitable habitat for this species. **This species is not present.**

Coastal California gnatcatcher

Coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed Threatened Species and CDFW Species of Special Concern. This species is found in coastal bluff scrub and coastal scrub habitat. This species is typically found in low, coastal sage scrub in arid washes, on mesas and slopes. The project site does not have suitable habitat for this species. **This species is not present.**

Riverside fairy shrimp

Riverside fairy shrimp (*Streptocephalus woottoni*) is a federally listed Endangered Species. This species is found in coastal scrub, valley and foothill grassland, vernal pool, and wetland habitat. This species typically inhabits seasonally astatic pools filled by winter/spring rains. The project site does not contain suitable habitat for this species. **This species is not present.**

Least Bell's vireo

Least Bell's vireo (*Vireo bellii pusillus*) is a federal and state listed Endangered Species. This species is found in riparian forest, riparian scrub, and riparian woodland. Nesting habitat of this species is restricted to willow and/or mulefat dominated riparian scrub along permanent or nearly permanent streams. The project site does not contain suitable habitat for this species. **This species is not present.**

3.6.3 Nesting Birds

Migratory non-game native bird species are protected under the federal Migratory Bird Treaty Act. Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests. The project site contains shrubs that can support nesting songbirds during the nesting bird season of February 1 through September 15.

3.7 Jurisdictional Waters

No streams, drainages, or riparian habitat occur on site. No CDFW, United States Army Corps of Engineers (USACE), or Regional Water Quality Control Board (RWQCB) jurisdictional waters occur on site. Further, no wetlands or vernal pools were found on site.

4.0 Project Impacts

4.1 Impacts to Habitats

The proposed project is expected to impact the entire 11.95-acre project site consisting of ruderal habitat and disturbed coastal sage scrub. The proposed project will also impact approximately 0.52 acre of offsite disturbed/developed habitat along Washington Street and Yates Avenue (Figure 6, *Total Impacts Map*).

4.2 Impacts to Sensitive Species

The project site is heavily disturbed, and no sensitive animal species have the potential to occur on site. Therefore, no sensitive wildlife species are expected to be impacted by future development of the site.

Two CNPS ranked 4.2 species, San Diego tarplant (*Deinandra paniculate*) and small-flower bindweed (*Convolvulus simulans*) were found onsite during the focused rare plant surveys (Appendix F, Focused Rare Plant Survey Report). Neither the San Diego tarplant or small-flower bindweed are federal or state listed species and therefore are not regulated under the federal or state Endangered Species Acts. Furthermore, impacts to species with a Rare Plant Rank of 4 do not rise to the level of a species of concern under CEQA. Project impacts to this species are considered less than significant and no mitigation would be required.

4.3 Impacts to Nesting Birds

The project site contains shrubs that can support nesting songbirds during the nesting bird season of February 1 through September 15. Implementation of the measures identified in the Recommendations section of this report (Section 6) will ensure that potential impacts to nesting birds are less than significant.

4.4 Impacts to Critical Habitat

The project is not located within designated federal critical habitat. No impact to critical habitat is expected to occur.

4.5 Impacts to Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbances. The project site was evaluated for its function as a wildlife corridor that species would use to move between wildlife habitat zones. Typically, mountain canyons or riparian corridors are used by wildlife as corridors; the project site does not contain these features. The project site consists of flat ruderal or disturbed land surrounded by urban development, and busy roads. No wildlife movement corridors were found to be present on the project site. No impacts to wildlife movement corridors are expected.

4.6 Conflict with Local Policies or Ordinances Protecting Biological Resources

Should the proposed project result in the removal of trees, it will be required to comply with County of Riverside Ordinance No. 559.

4.7 Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan

The project is within the Western Riverside MSHCP. If Western Riverside MSHCP guidelines and requirements are followed, no conflicts are expected.

4.8 State and Federal Drainages

No jurisdictional waters or associated habitat occur on site. Therefore, no impacts to state or federal jurisdictional drainages will result from project implementation.

5.0 Western Riverside County MSHCP Consistency Analysis

5.1 MSHCP Requirements

The project area is located within the San Jacinto Valley Area Plan of the Western Riverside County MSHCP. The project site is not located within a MSHCP Criteria Cell or Cell Group. A discussion of the applicable Western Riverside County MSHCP requirements follows:

Section 6.1.2 Species Associated with Riparian/Riverine Habitat and Vernal Pools

The project site does not contain streams or habitat that may be considered riparian/riverine areas as defined in Section 6.1.2 of the Western Riverside County MSHCP. Due to the lack of suitable riparian habitat on the project site, focused surveys for riparian/riverine bird species listed in Section 6.1.2 of the MSHCP are not warranted.

Vernal pools are seasonal depressional wetlands that occur under Mediterranean climate conditions of the west coast and in glaciated conditions of northeastern and midwestern states. They are covered by shallow water for variable periods from winter to spring but may be completely dry most of the summer and fall. Vernal pools are usually associated with hard clay layers or bedrock, which helps keep water in the pools. Vernal pools and seasonal depressions usually are dominated by hydrophytic plants, hydric soils, and evidence of hydrology.

The entire site was evaluated for the presence of habitat capable of supporting branchiopods. The site was evaluated as described in the USFWS Survey Guidelines for the Listed Large Branchiopods (May 31, 2016). The project area is primarily comprised of sandy loam. The onsite soils do not allow for water pooling on the site for any significant length of time after rain events. No vernal pools, swales, or vernal pool mimics such as ditches, borrow pits, cattle troughs, or cement culverts with signs of pooling water were found on the site. In addition, the

site does not contain areas that showed signs of ponding water, hydrophytic vegetation, or soils typical of vernal pools that would be suitable for large branchiopods.

Section 6.1.3 Sensitive Plant Species

The site is within a NEPSSA-designated area for six plant species: Munz's onion, San Diego ambrosia, many-stemmed dudleya, California Orcutt grass, Spreading navarretia, Wright's trichocoronis. No narrow endemic plant species were found during the focused rare plant surveys conducted on site during the spring of 2023. The majority of the project site contains ruderal vegetation. No habitat suitable for supporting these species occurs on site. A more thorough habitat analysis is provided in the table below.

Table 1.
Narrow Endemic Species

Scientific Name	Common Name	Habitat	Blooming Period	Project Site Habitat Assessment
<i>Allium munzii</i>	Munz's onion	This species occurs in heavy clay soils; grows in grasslands and openings within shrublands or woodlands.	March-May	No clay soils occur onsite. No suitable habitat communities occur onsite. This species is not present onsite.
<i>Ambrosia pumila</i>	San Diego ambrosia	This species occurs in sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools.	May-October	No clay soils occur onsite. No suitable habitat communities occur onsite. This species is not present onsite.

Scientific Name	Common Name	Habitat	Blooming Period	Project Site Habitat Assessment
<i>Dudleya multicaulis</i>	many-stemmed dudleya	This species is often found on clay in chaparral, coastal scrub, and valley and foothill grassland	April-June	No clay soils occur onsite. No suitable habitat communities occur onsite. This species is not present onsite.
<i>Navarretia fossalis</i>	spreading navarretia	This species occurs in wetlands. It is found in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools	April-June	No wetlands, vernal pools, or suitable habitat communities occur onsite. This species is not present onsite.
<i>Orcuttia californica</i>	California Orcutt grass	This species occurs in wetlands. Habitats include vernal pools in the following communities: freshwater wetlands, valley grassland, and wetland-riparian	April-August	No wetlands or suitable habitat communities occur onsite. This species is not present onsite.
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis	This species usually occurs in wetlands, occasionally in non wetlands. it is found on alkaline soils in meadows and seeps, marshes and swamps, riparian forest, and vernal pools	May-September	No wetlands, vernal pools, or suitable habitat communities occur onsite. No alkaline soils occur onsite. This species is not present onsite.

Section 6.1.4 Urban/Wildlands Interface Guidelines

The project site is not located within or adjacent to a Western Riverside County MSHCP Conservation Area; therefore, the project site is not required to address Section 6.1.4 of the Western Riverside County MSHCP.

Section 6.3.2 Additional Surveys and Procedures

The site is located within the Western Riverside County MSHCP Criteria Area Plant Species Survey Area (CAPSSA) eight plant species: Parish's brittlescale, Davidson's saltscale, Thread-leaved brodiaea, Round-leaved filaree, Smooth tarplant, Coulter's goldfields, Little mousetail, and Mud nama. No criteria area species were found during the focused rare plant surveys conducted on site in spring of 2023. No suitable habitat for the plant species listed above is present on site. A more thorough habitat analysis is provided in the table below.

Table 2.

Criteria Area Plants

Scientific Name	Common Name	Habitat	Blooming Period	Project Site Habitat Assessment
<i>Atriplex parishii</i>	Parish's brittlescale	This species is equally likely to occur in wetlands and non-wetlands. it is found in alkaline soils in chenopod scrub, playas, and vernal pools	June-October	No alkaline soils occur onsite. No wetlands, vernal pools, or suitable habitat communities occur onsite. This species is not present onsite
<i>Atriplex serenana</i> <i>var. davidsonii</i>	Davidson's saltscale	This species is equally likely to occur in wetlands and non-wetlands. it is found on alkaline soils in coastal bluff scrub and coastal scrub	April-October	No alkaline soils occur on site. No wetlands or suitable habitat communities occur onsite. This species is not on site.
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	This species occurs within annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs	May-June	No playas, vernal pools, or suitable habitat communities occur onsite. This species is not present

Scientific Name	Common Name	Habitat	Blooming Period	Project Site Habitat Assessment
		in openings on clay soils.		onsite.
<i>Erodium macrophyllum</i>	round-leaved filaree	This species is found in foothill woodland and valley grassland.	March-May	No suitable habitat communities occur on site. This species is not present onsite.
<i>Centromadia pungens ssp. laevis</i>	Smooth tarplant	This species is found in valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland.	April-September	No suitable habitat communities occur on site. This species is not present onsite.
<i>Lasthenia glabrata ssp. coulteri</i>	Coulter's goldfields	This species occurs usually in wetlands, occasionally in non-wetlands. It is found in marshes and swamps (coastal salt), playas, and vernal pools	February-June	No wetlands or suitable habitat communities occur onsite. This species is not present onsite.
<i>Myosurus minimus ssp. apus</i>	Little mousetail	This species is found in vernal pools, valley and foothill grassland.	March-June	No wetlands, vernal pools, or suitable habitat communities occur onsite. This species is not present onsite

Scientific Name	Common Name	Habitat	Blooming Period	Project Site Habitat Assessment
<i>Nama stenocarpa</i>	Mud nama	This species occurs in marshes, swamps, along lake margins and riverbanks.	May-July	No marshes, swamps, or suitable habitat communities occur onsite. This species is not present onsite.

The project site is located within the Western Riverside County MSHCP Additional survey area for burrowing owl. A habitat assessment conducted on the site determined that suitable habitat is present due to the presence of small mammal burrows. No burrowing owl or burrowing owl sign were found during the focused surveys performed in 2023. Therefore, it has been determined that burrowing owl are not currently present on the project site.

However, due to the fact that the project site is located within the Western Riverside County MSHCP burrowing owl survey area, a 30-day preconstruction survey is required prior to the commencement of project activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no owls have colonized the site in the days or weeks preceding project activities. If BUOW are found to have colonized the project site prior to the initiation of construction, the project proponent will immediately inform RCA and the Wildlife Agencies and will need to prepare a Burrowing Owl Protection and Relocation Plan for approval by RCA and the Wildlife Agencies prior to initiating ground disturbance. If ground-disturbing activities occur but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the site since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

6.0 Recommendations

Implementation of the following measures will mitigate any potential impacts resulting from project activities.

Burrowing Owl

- Due to the fact that the project site is located within the Western Riverside County MSHCP burrowing owl survey area, a 30-day preconstruction survey is required prior to the commencement of project activities (e.g. vegetation clearing, clearing and grubbing,

tree removal, site watering) to ensure that no owls have colonized the site in the days or weeks preceding project activities.

- If burrowing owl are found to have colonized the project site prior to the initiation of construction, the project proponent will immediately inform RCA and the Wildlife Agencies and will need to prepare a Burrowing Owl Protection and Relocation Plan for approval by RCA and the Wildlife Agencies prior to initiating ground disturbance.
- If ground-disturbing activities occur but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the site since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

Nesting Birds

- It is recommended that vegetation removal be conducted during the non-nesting season for migratory birds to avoid direct impacts. The non-nesting season is between February 1 and September 15.
- If vegetation removal will occur during the migratory bird nesting season, between February 1 and September 15, it is recommended that pre-construction nesting bird surveys be performed within three days prior to vegetation removal.
- If active nests are found during nesting bird surveys, they shall be flagged, and a 200-foot buffer shall be fenced around the nests.

7.0 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 09-28-2023

Signed _____

PROJECT MANAGER

Fieldwork Performed By:

Elizabeth Gonzalez

SENIOR BIOLOGIST

Sarah Vasquez

ASSOCIATE BIOLOGIST

8.0 References

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Western Riverside County Multiple Species Habitat Conservation Plan. *Burrowing Owl Instructions for Western Riverside Multiple Species Habitat Conservation Plan*.

Western Riverside County Multiple Species Habitat Conservation Plan. Section 6.0 *MSHCP Implementing Structure*.

FIGURE 1

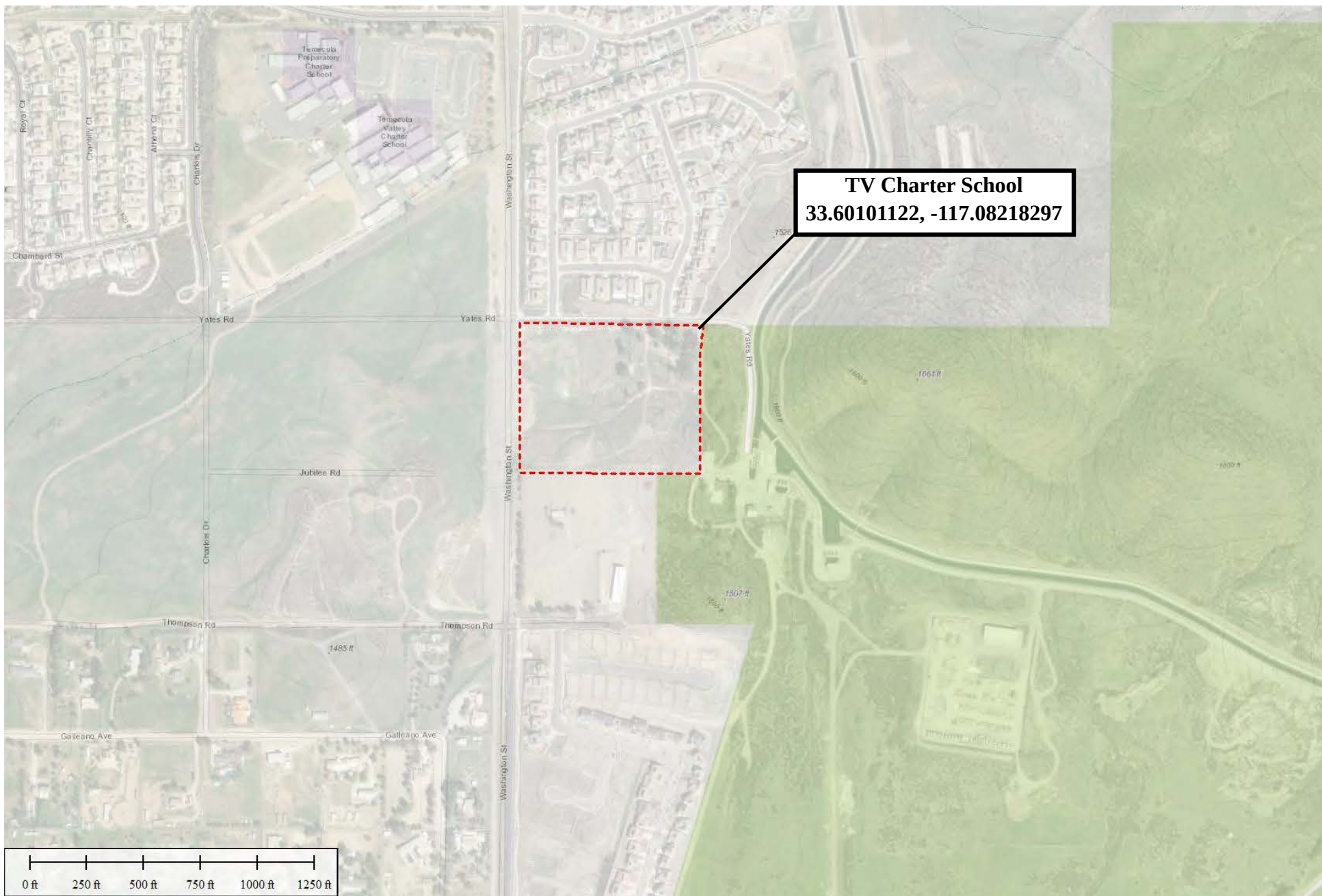


Figure 1
Location Map
TV Charter School
Riverside County, California



FIGURE 2

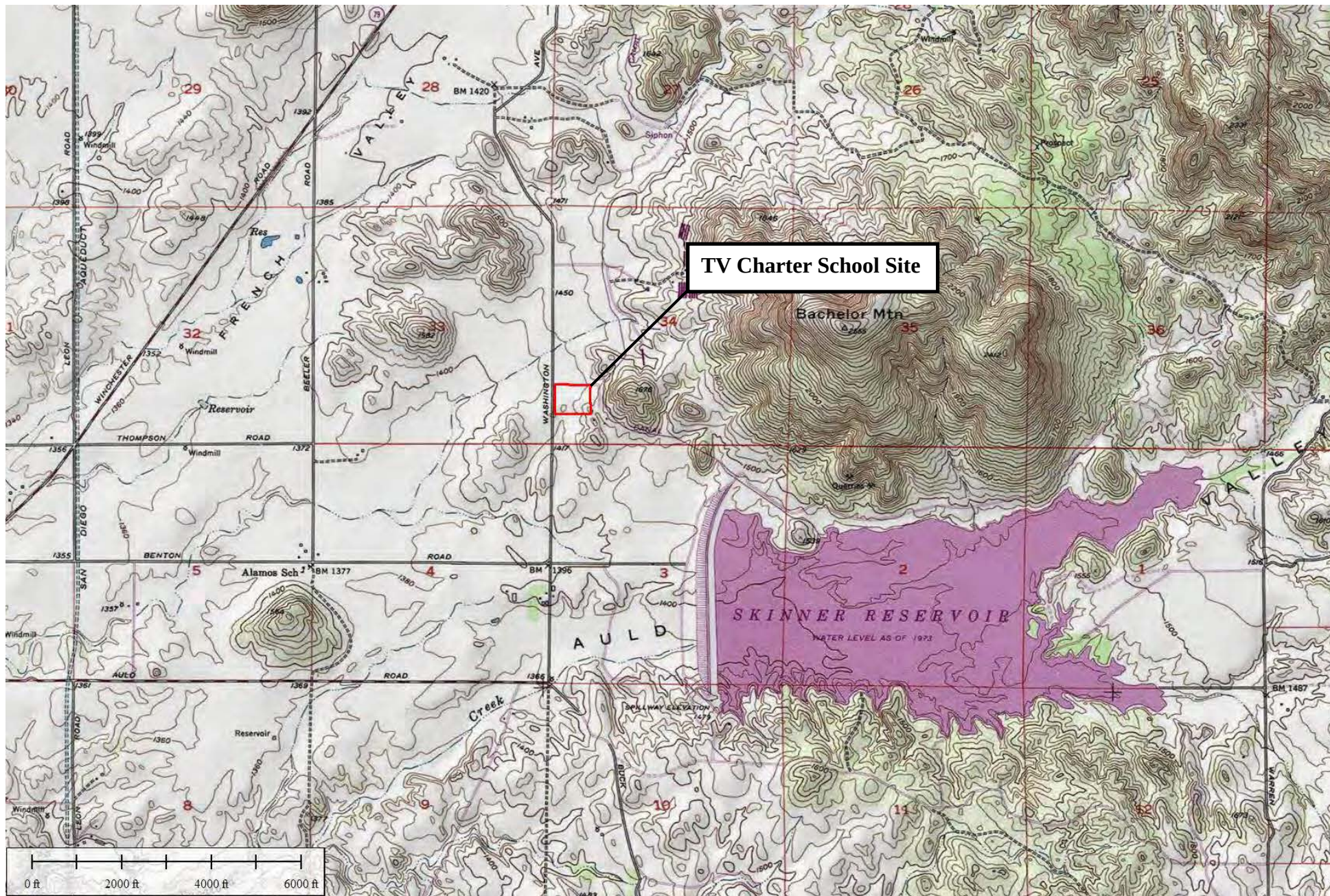


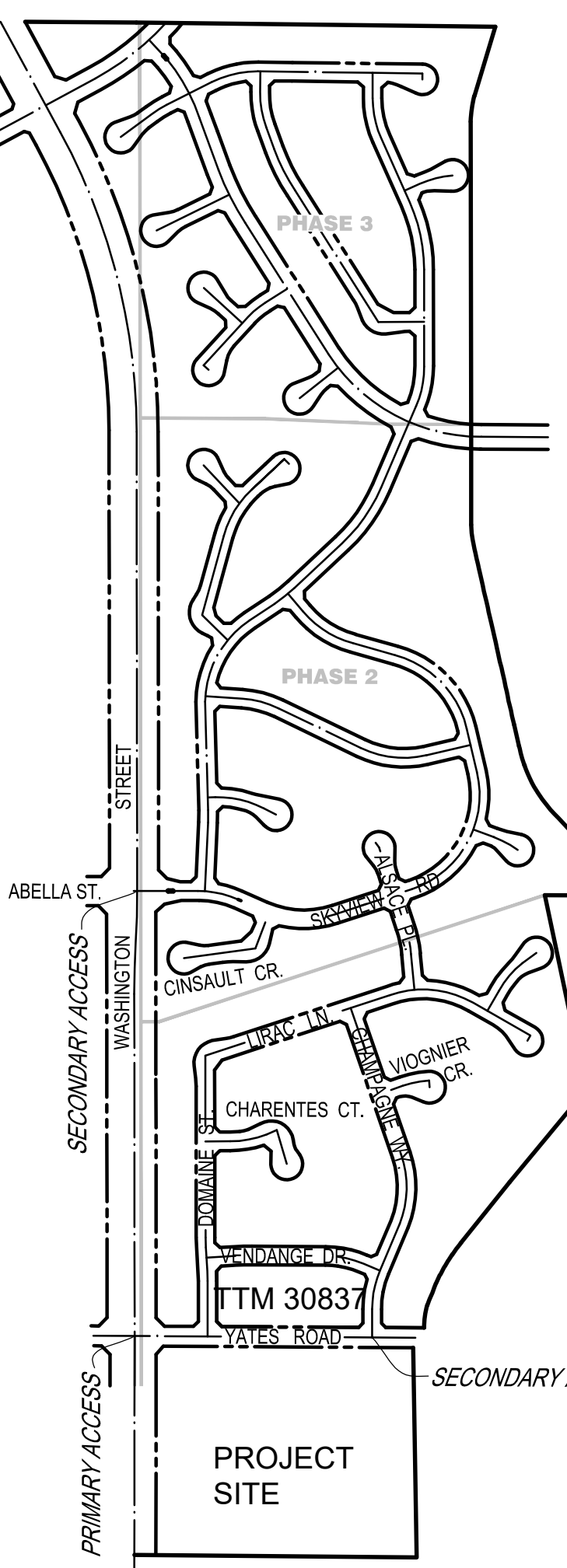
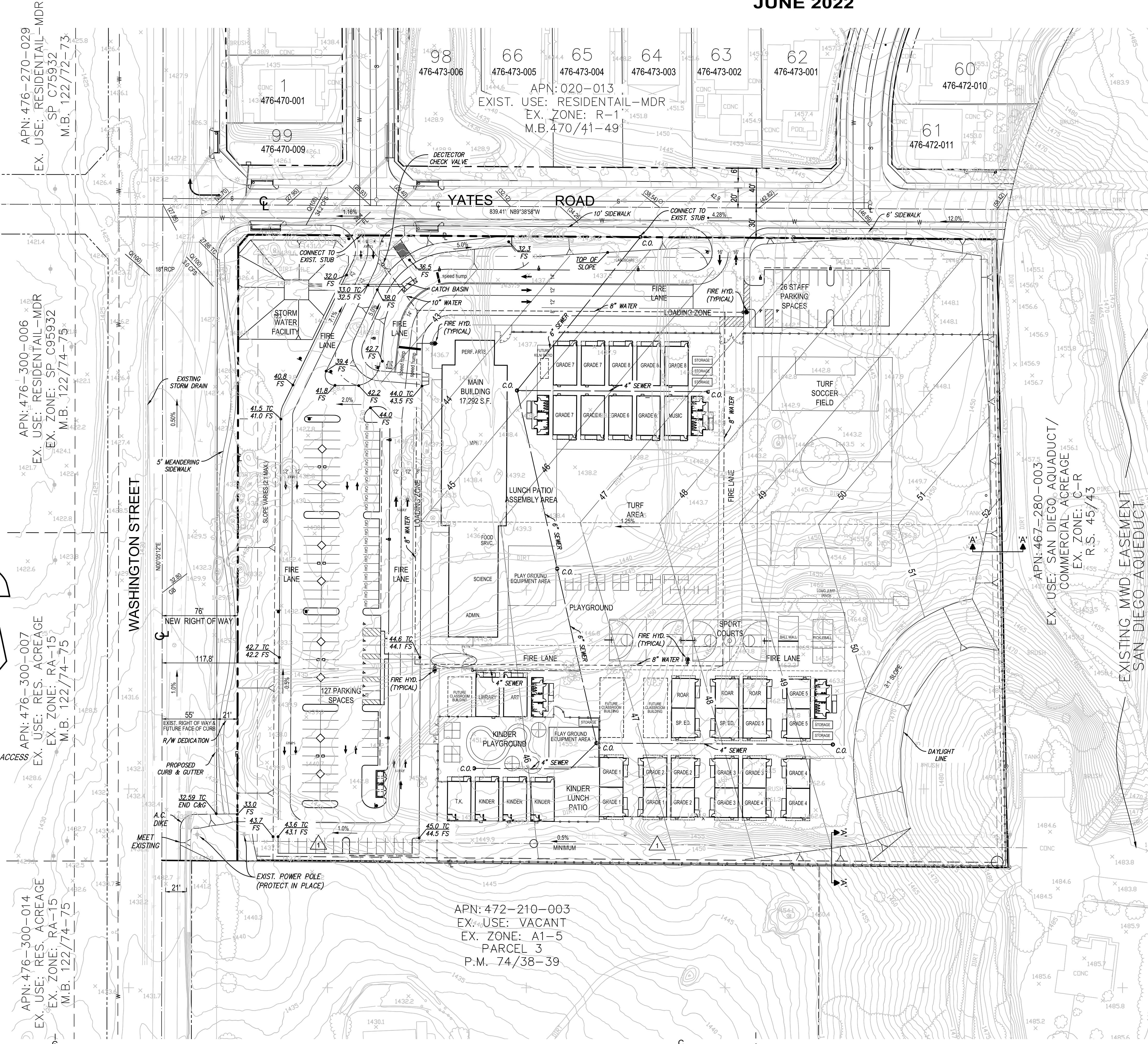
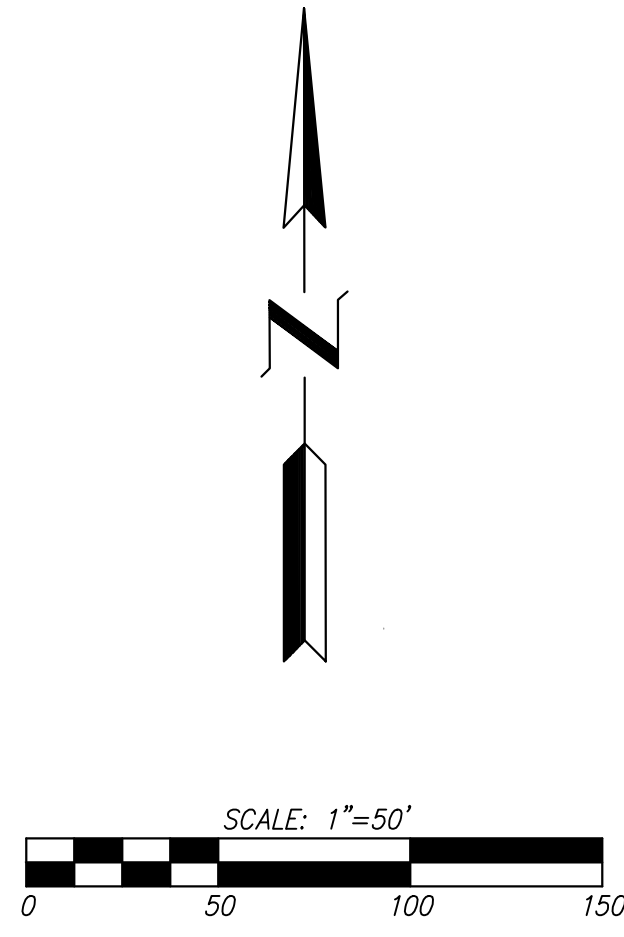
Figure 2
 Vicinity Map
 TV Charter School
 Riverside County, California



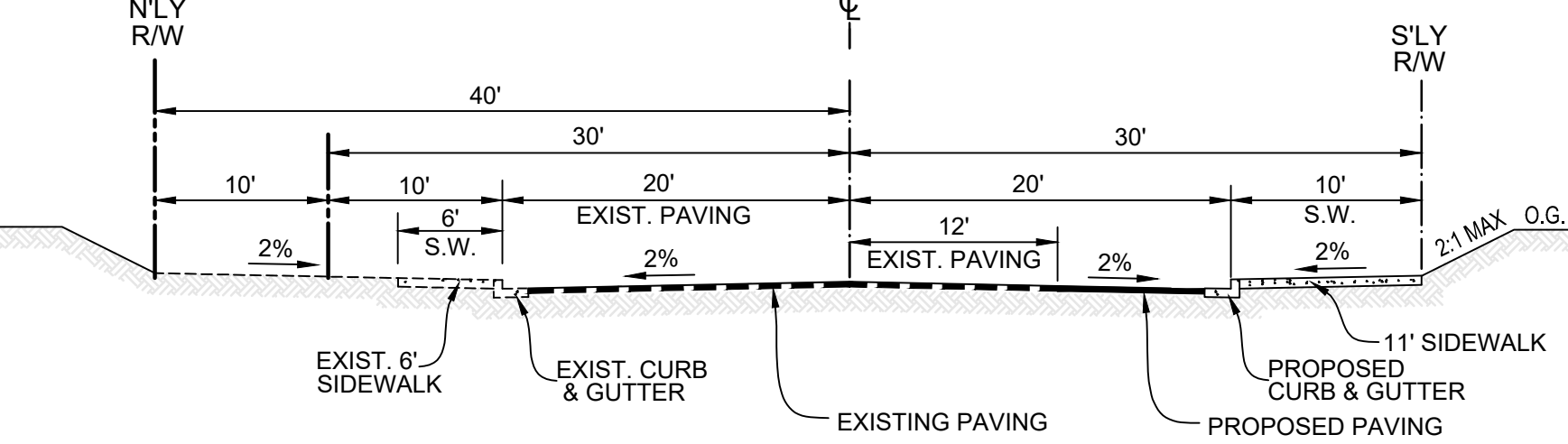
FIGURE 3

IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
PUBLIC USE PERMIT XXX

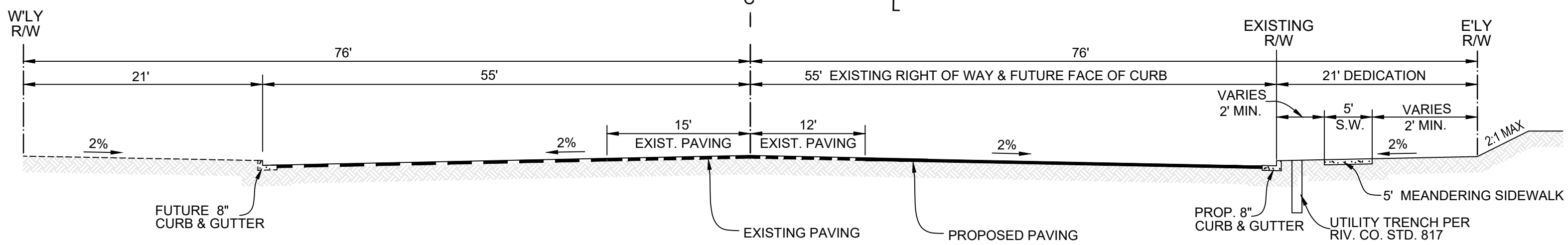
JUNE 2022



SECONDARY ACCESS



YATES ROAD TYPICAL SECTION



WASHINGTON STREET TYPICAL SECTION

LEGEND

— — — — —	CENTERLINE	— x — x —	EXISTING CHAIN LINK FENCE	— o —	EXISTING POWER POLE
— — — — —	PROPERTY LINE	— — — — —	EXISTING PIPE-RAIL FENCE	— o —	EXISTING GUY WIRE
— — — — —	RIGHT-OF-WAY	— o —	EXISTING WIRE FENCE	— o —	EXISTING OVERHEAD LINE
— — — — —	EDGE OF PAVEMENT	— o —	EXISTING WOOD RAIL FENCE	— o —	EXISTING DEPRESSION
— — — — —	EXISTING DIRT ROAD	— — — — —	PROP. RETAINING WALL		

Engineer			Revisions:			County		
Mark:	By:	Date:	Description:			Appr.	Date:	
Designed By: GB			Drawn By: BB			Checked By:		



Prepared Under The Supervision Of:
GRANT BECKLUND CIVIL ENGINEERING
30811 GARBANI ROAD WINCHESTER, CA 92596 (951) 288-0601
Date: GRANT BECKLUND R.C.E. No. 23737 Exp. 12/31/2023
Reviewed By: _____
Date: _____ COUNTY OF RIVERSIDE

Scale: AS NOTED
Bench Mark: TOPO DATA AS NOTED ABOVE

COUNTY OF RIVERSIDE
PUBLIC USE PERMIT XXXX
FOR
TEMECULA VALLEY CHARTER SCHOOL
Plot date: 8/1/2022 File name: _____

Sheet No. 1
OF 1 SHEET
File No. _____

OWNER / APPLICANT:

TEMECULA VALLEY CHARTER SCHOOL
35755 ABELLA STREET
WINCHESTER, CA 92596
PHONE: (951) 288-0601
EMAIL: GRANTBECKLUND@GMAIL.COM

ENGINEER & REPRESENTATIVE:

GRANT BECKLUND CIVIL ENGINEERING
30811 GARBANI ROAD
WINCHESTER, CA 92596
PHONE: (951) 288-0601
EMAIL: GRANTBECKLUND@GMAIL.COM

LEGAL DESCRIPTION

PARCEL 4 OF PARCEL MAP 14030 COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 74, PAGES 38 AND 39 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID RIVERSIDE COUNTY.

ASSESSOR'S PARCEL NO.

APN: 472-210-002

SITE ADDRESS:

35780 WASHINGTON STREET
WINCHESTER, CA 92596

OPINION OF EARTHWORK QUANTITIES

CUBIC YARDS OF CUT: 50,000 CY (RAW), CUBIC YARDS OF FILL: 5,000 CY (RAW), THE OPINION OF EARTHWORK QUANTITIES SHOWN ABOVE ARE UNADJUSTED GROSS VOLUMES, AND DO NOT INCLUDE THE EFFECTS OF SCARPING, OVER ESCAVATION, RECOMPACTION, SHRINKAGE, SUBSIDENCE OR OTHER FACTORS AND ARE SUBJECT TO FIELD CONDITIONS THAT MAY BE SPECIFIED IN THE PRELIMINARY SOILS REPORT AND ARE FOR REFERENCE AND FEE PURPOSES ONLY.

DEVELOPER SHALL BE REQUIRED TO SPECIFY THE PRECISE LOCATION OF EXPORT OR IMPORT IN EITHER CASE, PRIOR TO THE ISSUANCE OF A GRADING PERMIT. PROJECT WILL RESULT IN A "BALANCED" CONDITION.

NOTES:

- ALL IMPROVEMENTS SHALL BE PER RIVERSIDE COUNTY STANDARDS
- PUP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER
- ALL SLOPES ARE 2:1 RATIO EXCEPT IN DETENTION BASIN AREA WHERE THEY ARE 4:1, UNLESS OTHERWISE NOTED
- SETBACKS OF SLOPES TO PROPERTY LINES SHALL CONFORM TO ORDINANCE 457 REQUIREMENTS
- ALL ON-SITE, OVERHEAD, EDISON POWER LINES WILL REMAIN IN PLACE
- LANDSCAPING WILL BE PER DESIGN AND LANDSCAPING GUIDELINES IN WINCHESTER 1800 SPECIFIC PLAN NO. 286
- THIS PROPERTY DOES NOT LIE WITHIN A "COMMUNITY SERVICES DISTRICT."
- WASHINGTON STREET AND YATES ROAD ARE TO BE DEDICATED PUBLIC RIGHT-OF-WAY TO THE COUNTY OF RIVERSIDE FOR TRANSPORTATION AND UTILITY PURPOSES
- THIS PROPERTY LIES WITHIN A NON-PRINTED SPECIFIED FLOOD ZONE (FIRM NO. 0602452755A) AND IS NOT SUBJECT TO OVERFLOW, INUNDATION, OR FLOOD HAZARDS
- THIS PROPERTY DOES NOT LIE WITHIN A SPECIAL STUDY ZONE, A C.S.D., AND IS NOT SUBJECT TO LIQUIDATION OR OTHER GEOLOGIC HAZARDS
- NO SUBSURFACE SEPTIC SEWAGE DISPOSAL IS INTENDED
- THE PROJECT IS ADJACENT TO SPECIFIC PLAN 286
- THIS PROPERTY CONTAINS KNOWN WELLS
- THIS PROPERTY CONTAINS EXISTING STRUCTURES AS SHOWN
- THIS PROJECT IS WITHIN ZONE 'D' OF THE 'SWAP R&B80'
- THIS PROJECT IS PROPOSED IN ONE PHASE
- MAINTENANCE OF ON-SITE SLOPES AND DETENTION BASIN SHALL BE BY OWNER

SEWER & WATER NOTES:

8" SEWER EXISTS IN YATES ROAD

12" WATER EXISTS IN YATES ROAD

FENCING:

ENTIRE SCHOOL WILL BE FENCED WITH 6 FT DECORATIVE AND/OR CHAIN LINK FENCING

MANUAL GATES WILL BE INSTALLED AT DRIVEWAYS ON YATES ROAD AND ACCESS POINTS TO SCHOOL AREAS

HAZARD MATERIALS:

NO FLAMMABLE/ COMBUSTIBLE LIQUIDS OR WASTE OIL WILL BE STORED ON SITE

FIRE DEPARTMENT NOTES:

PRIOR TO ISSUANCE OF A BUILDING PERMIT THE FOLLOWING SHALL PROVIDED:

FIRE HYDRANTS AND FIRE FLOW: PROVIDE OR SHOW WHERE EXIST FIRE HYDRANT(S) CAPABLE OF DELIVERING FIRE FLOW AS REQUIRED BY CALIFORNIA FIRE CODE AND RIVERSIDE COUNTY FIRE DEPARTMENT STANDARDS WITHIN 400 FEET OF ALL PORTIONS OF ALL STRUCTURES.

TOPOGRAPHY SOURCE

TOPO BY AERIAL SURVEY BY: WALTERS MAPS & ASSOCIATES
7225 ALABAMA AVENUE
CANOGA PARK, CALIFORNIA 91303
COMPLETED 4/13/2022

BENCH MARK

NGS BENCHMARK DX5501, LOCATED AT BOREL ROAD AND AULD ROAD AT UTILITY POLE NUMBER 2328445E.
ELEV = 1397.43 FEET (NAVD88)

AREA CALCULATIONS

TOTAL NET AREA: 11.44 AC.
TOTAL GROSS AREA: 11.99 AC.

ZONING AND LAND USE

EXIST. ZONING: R-1 (SINGLE FAMILY RESIDENTIAL)
EXIST. LAND USE: VACANT
PROP. LAND USE: CHARTER SCHOOL
GENERAL PLAN DESIGNATION: MEDIUM DENSITY RESIDENTIAL (2-5 DU/AC)
FLOOD ZONE: NONE

UTILITIES

WATER/SEWER: EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD.
PERRIS, CA 92572-8300
(909) 928-3777

GAS: SOUTHERN CALIFORNIA GAS COMPANY
CENTRALIZED CORRESPONDENCE
P.O. BOX 3150
SAN DIMAS, CA 91773
(800) 427-2000

TELEPHONE: VERIZON
CUSTOMER SALES & SOLUTIONS CENTER
P.O. BOX 11328
ST. PETERSBURG, FL 33733
(800) 483-4000

ELECTRICAL: SOUTHERN CALIFORNIA EDISON COMPANY
28100 MENEFEE RD.
ROMOLAND, CA 92585
(909) 928-8207

CABLE: ADELPHIA CABLE
4077 W. STETSON AVE.
HEMET, CA 92345
(888) 683-1000

SCHOOL DISTRICT: TEMECULA UNIFIED SCHOOL DISTRICT
31350 RANCHO VISTA RD.
TEMECULA, CA 92592
(909) 676-2861

FIRE PROTECTION: RIVERSIDE COUNTY HEADQUARTERS
210 W. SAN JACINTO AVE.
PERRIS, CA 92570
(909) 940-6900

EASEMENT NOTE(S):

AN EASEMENT FOR UTILITIES IN FAVOR OF S.O. CALIF. EDISON CO. & GENERAL TELEPHONE CO., REC. JAN. 6, 1961 PER INST. # 1422.

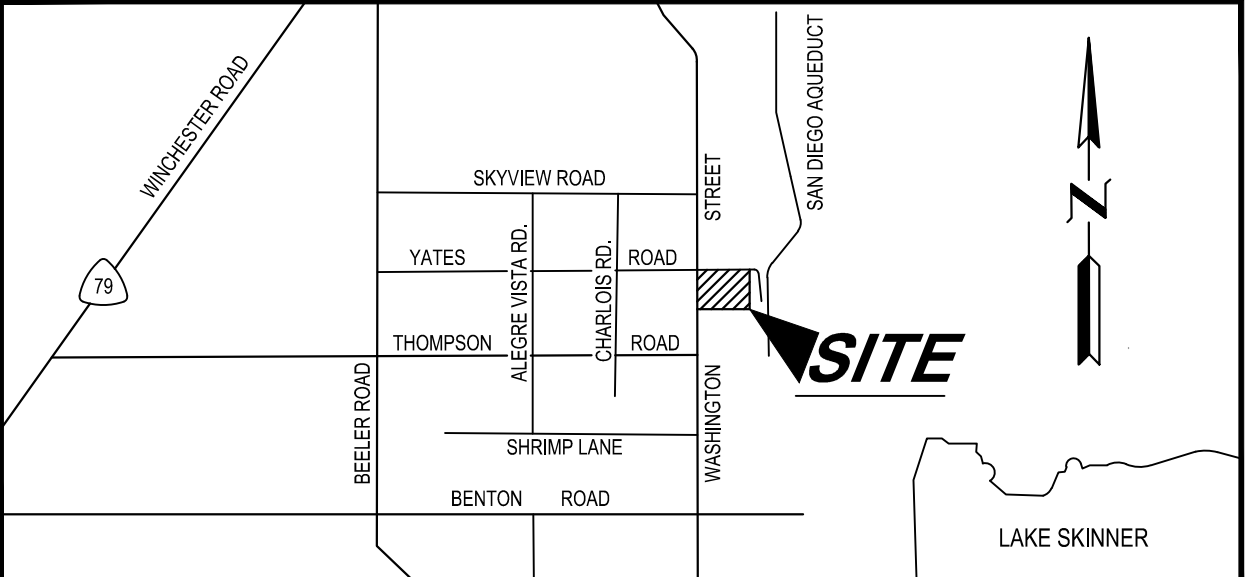
GENERAL CONSTRUCTION NOTES:

- ALL 2:1 SLOPES 10' OR HIGHER AND RETAINING WALLS 5' OR HIGHER SHALL HAVE V-DITCHES PLACED AT THE TOP OF WALL OR SLOPE RIDGE.
- ALL STRUCTURES ON SITE, EXCLUDING THOSE BELONGING TO ANY RELEVANT UTILITY COMPANIES, ARE TO BE REMOVED. THOSE BELONGING TO THE UTILITY COMPANIES SHALL BE EITHER PROTECTED IN PLACE OR RELOCATED.
- ALL EXISTING ON-SITE POWER POLES WILL REMAIN.

ABBREVIATIONS

C.L.	IRRIGATION FACILITIES	IRR
C.L.	FINISHED SURFACE	FS
FL	FINISH GRADE	FG
PP	POWER POLE	P.P.
H.P.	PAVED ELEVATION	EP
TC	EDGE OF PAVEMENT	P.L.
AC	PROPERTY LINE	R.W.
F.H.	RIGHT-OF-WAY	GB
	GRADE BREAK	

T.6S., R.2W., SEC.34, S.B.M.



VICINITY MAP

NOT TO SCALE
THOMAS BROS. (RIVERSIDE & SAN BERNARDINO COUNTIES)
PAGE 899, COORD G-6, 2022 EDITION

FIGURE 4



Figure 4
Habitat Map
TV Charter School
Riverside County, California

Legend

-  Limits of Impact
-  Ruderal (11.13 Acres)
-  Disturbed CSS (0.82 Acre)



FIGURE 5

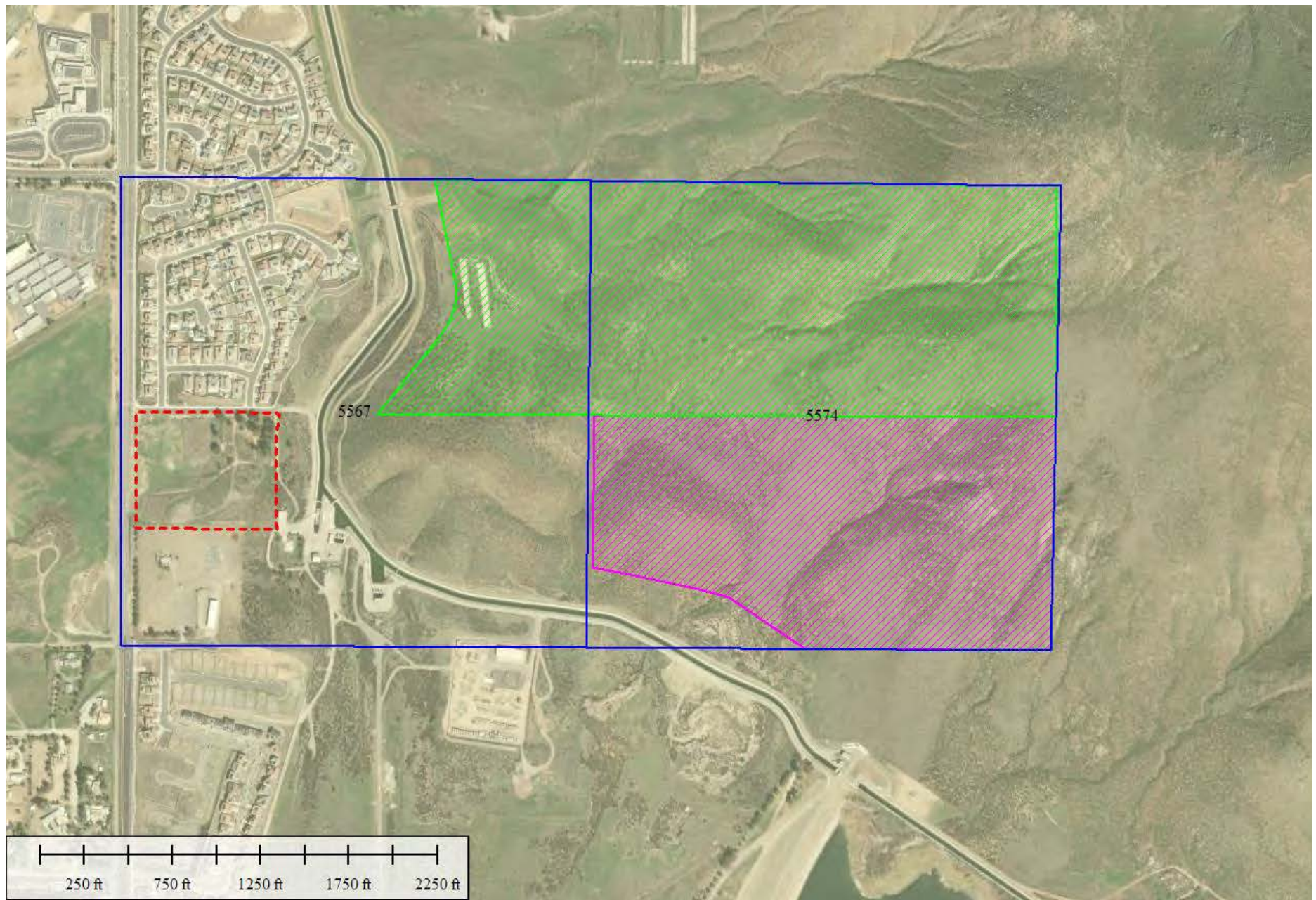


Figure 5

Reserve Assembly Analysis Map
TV Charter School
Riverside County, California

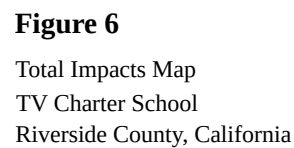
 Property Line
 Criteria Cell

Legend

 RCA Conserved Lands (106.8 Acres)
 PQP Conserved Lands (71.37 Acres)



FIGURE 6



Total Impacts Map
TV Charter School
Riverside County, California

	Limits of Impact		Disturbed CSS (0.82 Acre)
	Ruderal (11.13 Acres)		Disturbed/Developed (0.52 Acre)



Hernandez
Environmental
Services

APPENDIX A

Species List

Plant List

<i>Acmispon americanus</i>	Spanish clover
<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Artemisia californica</i>	California sagebrush
<i>Bromus rubens</i>	Red brome
<i>Callistemon</i> sp.	Bottlebrush sp.
<i>Centaurea melitensis</i>	Maltese star-thistle
<i>Croton setiger</i>	Doveweed
<i>Cupressus sempervirens</i>	Italian Cypress
<i>Cynodon dactylon</i>	Bermuda grass
<i>Datura stramonium</i>	Jimsonweed
<i>Deinandra paniculata</i>	Paniculate tarweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eucalyptus robusta</i>	Swamp mahogany
<i>Euphorbia albomarginata</i>	Rattlesnake weed
<i>Avena fatua</i>	Common wild oat
<i>Heterotheca grandiflora</i>	Telegraphweed
<i>Hirschfeldia incana</i>	Shortpod mustard
<i>Hordeum murinum</i>	Wall barley
<i>Lactuca serriola</i>	Prickly lettuce
<i>Lepidium latifolium</i>	Perennial pepperweed
<i>Malva</i> sp.	Cheeseweed
<i>Melilotus indicus</i>	Annual yellow sweetclover
<i>Nicotiana glauca</i>	Tree tobacco
<i>Oncosiphon piluliferum</i>	Stinknet
<i>Pinus attenuata</i>	Knobcone pine
<i>Polypogon monspeliensis</i>	Annual rabbitsfoot grass

Rumex crispus

Schinus molle

Schinus terebinthifolia

Sonchus oleraceus

Symphyotrichum chilense

Trichostema lanceolatum

Vulpia myuros

Curly dock

Peruvian peppertree

Brazilian peppertree

Common sowthistle

California aster

Vinegarweed

Rattail fescue

Animal List

Buteo jamaicensis

Icterus cucullatus

Psaltiriparus minimus

Spinus psaltria

Red-tailed hawk

Hooded oriole

American bushtit

Lesser goldfinch

APPENDIX B

Scientific Name	Common Name	Taxon Group	Federal List	State List	Other Status	Habitats	General Habitat	Micro Habitat	Presence/Absence
Accipiter cooperii	Cooper's hawk	Birds	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	No suitable habitat is present for this species. This species is not present.
Agelaius tricolor	tricolored blackbird	Birds	None	Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern	Freshwater marsh Marsh & swamp Swamp Wetland	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No suitable habitat is present for this species. This species is not present.

Aimophila ruficeps canescens	southern California rufous- crowned sparrow	Birds	None	None	CDFW_WL- Watch List	Chaparral Coastal scrub	Resident in Southern California coastal sage scrub and sparse mixed chaparral.	Frequents relatively steep, often rocky hillsides with grass and forb patches.	No suitable habitat is present for this species. This species is not present.
Anaxyrus californicus	arroyo toad	Amphibians	Endangered	None	CDFW_SSC- Species of Special Concern IUCN_EN- Endangered	Desert wash Riparian scrub Riparian woodland South coast flowing waters South coast standing waters	Semi-arid regions near washes or intermittent streams, including valley- foothill and desert riparian, desert wash, etc.	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	No suitable habitat is present for this species. This species is not present.

Anniella stebbinsi	Southern California legless lizard	Reptiles	None	None	CDFW_SSC- Species of Special Concern USFS_S- Sensitive	Broadleaved upland forest Chaparral Coastal dunes Coastal scrub	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County.	Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	No suitable habitat is present for this species. This species is not present.
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Aquila chrysaetos	golden eagle	Birds	None	None	BLM_S- Sensitive CDF_S- Sensitive CDFW_FP- Fully Protected CDFW_WL- Watch List IUCN_LC- Least Concern	Broadleaved upland forest Cismontane woodland Coastal prairie Great Basin grassland Great Basin scrub Lower montane coniferous forest Pinon & juniper woodlands Upper montane coniferous forest Valley & foothill grassland	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No suitable habitat is present for this species. This species is not present.
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Arizona elegans occidentalis	California glossy snake	Reptiles	None	None	CDFW_SSC- Species of Special Concern		Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	No suitable habitat is present for this species. This species is not present.
Artemisiospi za belli belli	Bell's sparrow	Birds	None	None	CDFW_WL- Watch List	Chaparral Coastal scrub	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.	Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	No suitable habitat is present for this species. This species is not present.

Aspidoscelis hyperythra	orange- throated whiptail	Reptiles	None	None	CDFW_WL- Watch List IUCN_LC- Least Concern USFS_S- Sensitive	Chaparral Cismontane woodland Coastal scrub	Inhabits low- elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	No suitable habitat is present for this species. This species is not present.
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	None	None	CDFW_SSC- Species of Special Concern		Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas.	Ground may be firm soil, sandy, or rocky.	No suitable habitat is present for this species. This species is not present.

Athene cunicularia	burrowing owl	Birds	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No suitable habitat is present for this species. This species is not present.
Bombus crotchii	Crotch bumble bee	Insects	None	Candidate Endangered	IUCN_EN-Endangered		Coastal California east to the Sierra-Cascade crest and south into Mexico.	Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No suitable habitat is present for this species. This species is not present.

Bombus pennsylvanicus	American bumble bee	Insects	None	None	IUCN_VU- Vulnerable	Coastal prairie Great Basin grassland Valley & foothill grassland		Long-tongued; forages on a wide variety of flowers including vetches (Vicia), clovers (Trifolium), thistles (Cirsium), sunflowers (Helianthus), etc. Nests above ground under long grass or underground. Queens overwinter in rotten wood or underground.	No suitable habitat is present for this species. This species is not present.
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Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	Threatened	None	IUCN_VU-Vulnerable	Valley & foothill grassland Vernal pool Wetland	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	No suitable habitat is present for this species. This species is not present.
Branchinecta sandiegonensis	San Diego fairy shrimp	Crustaceans	Endangered	None	IUCN_EN-Endangered	Chaparral Coastal scrub Vernal pool Wetland	Endemic to San Diego and Orange County mesas.	Vernal pools.	No suitable habitat is present for this species. This species is not present.
Buteo regalis	ferruginous hawk	Birds	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Great Basin grassland Great Basin scrub Pinon & juniper woodlands Valley & foothill grassland	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	No suitable habitat is present for this species. This species is not present.

Buteo swainsoni	Swainson's hawk	Birds	None	Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	Great Basin grassland Riparian forest Riparian woodland Valley & foothill grassland	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No suitable habitat is present for this species. This species is not present.
Chaetodipus californicus femoralis	Dulzura pocket mouse	Mammals	None	None		Chaparral Coastal scrub Valley & foothill grassland	Variety of habitats including coastal scrub, chaparral, and grassland primarily in San Diego County.	Attracted to grass-chaparral edges.	No suitable habitat is present for this species. This species is not present.

Chaetodipus fallax fallax	northwestern San Diego pocket mouse	Mammals	None	None		Chaparral Coastal scrub	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego, Riverside, San Bernardino, and Los Angeles Counties, inclusive of Orange County.	Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	No suitable habitat is present for this species. This species is not present.
Circus hudsonius	northern harrier	Birds	None	None	CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern USFWS_BCC- Birds of Conservation Concern	Coastal scrub Great Basin grassland Marsh & swamp Riparian scrub Valley & foothill grassland Wetland	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas.	Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	No suitable habitat is present for this species. This species is not present.

Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	Threatened	Endangered	BLM_S-Sensitive USFS_S-Sensitive	Riparian forest	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	No suitable habitat is present for this species. This species is not present.
Coleonyx variegatus abbotti	San Diego banded gecko	Reptiles	None	None	CDFW_SSC-Species of Special Concern	Chaparral Coastal scrub	Coastal and cismontane Southern California.	Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	No suitable habitat is present for this species. This species is not present.

Corynorhinus townsendii	Townsend's big-eared bat	Mammals	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	No suitable habitat is present for this species. This species is not present.
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Crotalus ruber	red-diamond rattlesnake	Reptiles	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	Chaparral Mojavean desert scrub Sonoran desert scrub	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains.	Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No suitable habitat is present for this species. This species is not present.
Diadophis punctatus modestus	San Bernardino ringneck snake	Reptiles	None	None	USFS_S-Sensitive		Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams.	Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous veg.	No suitable habitat is present for this species. This species is not present.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Mammals	Endangered	Candidate Endangered	CDFW_SSC-Species of Special Concern	Coastal scrub	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Needs early to intermediate seral stages.	No suitable habitat is present for this species. This species is not present.

Dipodomys stephensi	Stephens' kangaroo rat	Mammals	Threatened	Threatened	IUCN_VU-Vulnerable	Coastal scrub Valley & foothill grassland	Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover.	Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	No suitable habitat is present for this species. This species is not present.
Elanus leucurus	white-tailed kite	Birds	None	None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	Cismontane woodland Marsh & swamp Riparian woodland Valley & foothill grassland Wetland	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	No suitable habitat is present for this species. This species is not present.

Emys marmorata	western pond turtle	Reptiles	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	No suitable habitat is present for this species. This species is not present.
Eremophila alpestris actia	California horned lark	Birds	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Marine intertidal & splash zone communities Meadow & seep	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	No suitable habitat is present for this species. This species is not present.

Eumops perotis californicus	western mastiff bat	Mammals	None	None	BLM_S- Sensitive CDFW_SSC- Species of Special Concern	Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	Roosts in crevices in cliff faces, high buildings, trees and tunnels.	No suitable habitat is present for this species. This species is not present.
Euphydryas editha quino	quino checkerspot butterfly	Insects	Endangered	None		Chaparral Coastal scrub	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties.	Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	No suitable habitat is present for this species. This species is not present.

Gila orcuttii	arroyo chub	Fish	None	None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	Aquatic South coast flowing waters	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins.	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No suitable habitat is present for this species. This species is not present.
Haliaeetus leucocephalus	bald eagle	Birds	Delisted	Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	Lower montane coniferous forest Oldgrowth	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	No suitable habitat is present for this species. This species is not present.

Lanius ludovicianus	loggerhead shrike	Birds	None	None	CDFW_SSC- Species of Special Concern IUCN_NT- Near Threatened	Broadleaved upland forest Desert wash Joshua tree woodland Mojavean desert scrub Pinon & juniper woodlands Riparian woodland Sonoran desert scrub	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes.	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	No suitable habitat is present for this species. This species is not present.
Lasiurus xanthinus	western yellow bat	Mammals	None	None	CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern	Desert wash	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Roosts in trees, particularly palms. Forages over water and among trees.	No suitable habitat is present for this species. This species is not present.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	None	None		Coastal scrub	Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges.	Coastal sage scrub habitats in Southern California.	No suitable habitat is present for this species. This species is not present.

Linderiella occidentalis	California linderiella	Crustaceans	None	None	IUCN_NT- Near Threatened	Vernal pool	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	No suitable habitat is present for this species. This species is not present.
Linderiella santarosae	Santa Rosa Plateau fairy shrimp	Crustaceans	None	None		Vernal pool	Found only in the vernal pools on Santa Rosa Plateau in Riverside County.	Southern basalt flow vernal pools.	No suitable habitat is present for this species. This species is not present.
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	None	None	CDFW_SSC- Species of Special Concern	Coastal scrub	Coastal scrub of Southern California from San Diego County to San Luis Obispo County.	Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	No suitable habitat is present for this species. This species is not present.

Nycticorax nycticorax	black-crowned night heron	Birds	None	None	IUCN_LC- Least Concern	Marsh & swamp Riparian forest Riparian woodland Wetland	Colonial nester, usually in trees, occasionally in tule patches.	Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	No suitable habitat is present for this species. This species is not present.
Onychomys torridus ramona	southern grasshopper mouse	Mammals	None	None	CDFW_SSC- Species of Special Concern	Chenopod scrub	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	No suitable habitat is present for this species. This species is not present.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Mammals	None	None	CDFW_SSC- Species of Special Concern	Coastal scrub	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin.	Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	No suitable habitat is present for this species. This species is not present.

Perognathus longimembris internationalis	Jacumba pocket mouse	Mammals	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub Desert wash Sonoran desert scrub	Desert riparian, desert scrub, desert wash, coastal scrub and sagebrush.	Rarely found on rocky sites; uses all canopy coverages.	No suitable habitat is present for this species. This species is not present.
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub Desert wash Pinon & juniper woodlands Riparian scrub Riparian woodland Valley & foothill grassland	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	No suitable habitat is present for this species. This species is not present.

Piranga rubra	summer tanager	Birds	None	None	CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern	Riparian forest	Summer resident of desert riparian along lower Colorado River, and locally elsewhere in California deserts.	Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams.	No suitable habitat is present for this species. This species is not present.
Plestiodon skiltonianus interparietalis	Coronado skink	Reptiles	None	None	BLM_S-Sensitive CDFW_WL-Watch List	Chaparral Cismontane woodland Pinon & juniper woodlands	Grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forests in Coast Ranges of Southern California.	Prefers early successional stages or open areas. Found in rocky areas close to streams and on dry hillsides.	No suitable habitat is present for this species. This species is not present.
Poliophtila californica californica	coastal California gnatcatcher	Birds	Threatened	None	CDFW_SSC- Species of Special Concern	Coastal bluff scrub Coastal scrub	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California.	Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	No suitable habitat is present for this species. This species is not present.

Salvadora hexalepis virgultea	coast patch-nosed snake	Reptiles	None	None	CDFW_SSC- Species of Special Concern	Coastal scrub	Brushy or shrubby vegetation in coastal Southern California.	Require small mammal burrows for refuge and overwintering sites.	No suitable habitat is present for this species. This species is not present.
Setophaga petechia	yellow warbler	Birds	None	None	CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern	Riparian forest Riparian scrub Riparian woodland	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	No suitable habitat is present for this species. This species is not present.

Socalchemm s icenoglei	Icenogle's socalchemmis spider	Arachnids	None	None		Coastal scrub	Known only from the type locality in the vicinity of Winchester, Riverside County.		No suitable habitat is present for this species. This species is not present.
Spea hammondii	western spadefoot	Amphibians	None	None	BLM_S- Sensitive CDFW_SSC- Species of Special Concern IUCN_NT- Near Threatened	Cismontane woodland Coastal scrub Valley & foothill grassland Vernal pool Wetland	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.	No suitable habitat is present for this species. This species is not present.
Streptoceph alus woottoni	Riverside fairy shrimp	Crustaceans	Endangered	None	IUCN_EN- Endangered	Coastal scrub Valley & foothill grassland Vernal pool Wetland	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub.	Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	No suitable habitat is present for this species. This species is not present.

Taricha torosa	Coast Range newt	Amphibians	None	None	CDFW_SSC- Species of Special Concern		Coastal drainages from Mendocino County to San Diego County.	Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow moving streams.	No suitable habitat is present for this species. This species is not present.
Thamnophis hammondi	two-striped gartersnake	Reptiles	None	None	BLM_S-Sensitive CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern USFS_S-Sensitive	Marsh & swamp Riparian scrub Riparian woodland Wetland	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation.	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No suitable habitat is present for this species. This species is not present.

Toxostoma bendirei	Bendire's thrasher	Birds	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFWS_BCC-Birds of Conservation Concern	Joshua tree woodland Mojavean desert scrub	Migratory; local spring/summer resident in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert.	Nests in cholla, yucca, palo verde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	No suitable habitat is present for this species. This species is not present.
Vireo bellii pusillus	least Bell's vireo	Birds	Endangered	Endangered		Riparian forest Riparian scrub Riparian woodland	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No suitable habitat is present for this species. This species is not present.

Scientific Name	Common Name	Taxon Group	Federal List	State List	Rare Plant Rank	Other Status	Habitats	General Habitat	Micro Habitat	Presence/Absence
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	Dicots	None	None	1B.1	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Coastal scrub Desert dunes	Chaparral, coastal scrub, desert dunes.	Sandy areas. 60-1570 m.	No suitable habitat is present for this species. This species is not present.
<i>Allium marvinii</i>	Yucaipa onion	Monocots	None	None	1B.2	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral	Chaparral.	In openings on clay soils. 850-1070 m.	No suitable habitat is present for this species. This species is not present.
<i>Allium munzii</i>	Munz's onion	Monocots	Endangered	Threatened	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Coastal scrub Pinon & juniper woodlands Valley & foothill grassland	Chaparral, coastal scrub, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland.	Heavy clay soils; grows in grasslands and openings within shrublands or woodlands. 375-1040 m.	No suitable habitat is present for this species. This species is not present.

Almutaster pauciflorus	alkali marsh aster	Dicots	None	None	2B.2	SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden	Meadow & seep	Meadow and seeps.	Alkaline. 60-765 m.	No suitable habitat is present for this species. This species is not present.
Ambrosia pumila	San Diego ambrosia	Dicots	Endangered	None	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Coastal scrub Valley & foothill grassland	Chaparral, coastal scrub, valley and foothill grassland.	Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. 3-580 m.	No suitable habitat is present for this species. This species is not present.

Arctostaphylos rainbowensis	Rainbow manzanita	Dicots	None	None	1B.1	BLM_S- Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Chaparral Ultramafic	Chaparral.	Usually found in gabbro chaparral. 100-870 m.	No suitable habitat is present for this species. This species is not present.
Astragalus pachypus var. jaegeri	Jaeger's milk- vetch	Dicots	None	None	1B.1	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden USFS_S- Sensitive	Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland.	Dry ridges and valleys and open sandy slopes; often in grassland and oak- chaparral. 365-1040 m.	No suitable habitat is present for this species. This species is not present.
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Dicots	Endangered	None	1B.1	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden	Alkali playa Valley & foothill grassland Vernal pool Wetland	Playas, valley and foothill grassland, vernal pools.	Alkaline areas in the San Jacinto River Valley. 35-460 m.	No suitable habitat is present for this species. This species is not present.

Atriplex parishii	Parish's brittlescale	Dicots	None	None	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	Alkali playa Chenopod scrub Meadow & seep Vernal pool Wetland	Vernal pools, chenopod scrub, playas.	Usually on drying alkali flats with fine soils. 4-1420 m.	No suitable habitat is present for this species. This species is not present.
Atriplex serenana var. davidsonii	Davidson's saltscale	Dicots	None	None	1B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden	Coastal bluff scrub Coastal scrub	Coastal bluff scrub, coastal scrub.	Alkaline soil. 0-480 m.	No suitable habitat is present for this species. This species is not present.
Berberis nevinii	Nevin's barberry	Dicots	Endangered	Endangered	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	Chaparral Cismontane woodland Coastal scrub Riparian scrub	Chaparral, cismontane woodland, coastal scrub, riparian scrub.	On steep, N-facing slopes or in low grade sandy washes. 90-1590 m.	No suitable habitat is present for this species. This species is not present.

Brodiaea filifolia	thread-leaved brodiaea	Monocots	Threatened	Endangered	1B.1	SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland Vernal pool Wetland	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools.	Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 15- 1030 m.	No suitable habitat is present for this species. This species is not present.
Brodiaea orcuttii	Orcutt's brodiaea	Monocots	None	None	1B.1	BLM_S- Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Chaparral Cismontane woodland Closed-cone coniferous forest Meadow & seep Ultramafic Valley & foothill grassland Vernal pool Wetland	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows and seeps.	Mesic, clay habitats; usually in vernal pools and small drainages. 30- 1615 m.	No suitable habitat is present for this species. This species is not present.

Brodiaea santarosae	Santa Rosa Basalt brodiaea	Monocots	None	None	1B.2	USFS_S-Sensitive	Valley & foothill grassland	Valley and foothill grassland.	Santa Rosa Basalt. 585-1045 m.	No suitable habitat is present for this species. This species is not present.
Calochortus plummerae	Plummer's mariposa-lily	Monocots	None	None	4.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Coastal scrub Lower montane coniferous forest Valley & foothill grassland	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest.	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	No suitable habitat is present for this species. This species is not present.
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	None	None	1B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Coastal scrub Valley & foothill grassland	Coastal scrub, chaparral, valley and foothill grassland.	Dry, rocky calcareous slopes and rock outcrops. 60-1575 m.	No suitable habitat is present for this species. This species is not present.

Caulanthus simulans	Payson's jewelflower	Dicots	None	None	4.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	Chaparral Coastal scrub	Chaparral, coastal scrub.	Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. Sandy, granitic soils. 90-2200 m.	No suitable habitat is present for this species. This species is not present.
Ceanothus ophiochilus	Vail Lake ceanothus	Dicots	Threatened	Endangered	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden	Chaparral Ultramafic	Chaparral.	Gabbro seams on north-facing ridges on the eastern sides of mountains. 620-915 m.	No suitable habitat is present for this species. This species is not present.

Centromadia pungens ssp. laevis	smooth tarplant	Dicots	None	None	1B.1	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden	Alkali playa Chenopod scrub Meadow & seep Riparian woodland Valley & foothill grassland Wetland	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland.	Alkali meadow, alkali scrub; also in disturbed places. 5- 1170 m.	No suitable habitat is present for this species. This species is not present.
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	Dicots	None	None	1B.1	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal bluff scrub Coastal dunes	Coastal bluff scrub, coastal dunes.	Sandy sites. 3- 80 m.	No suitable habitat is present for this species. This species is not present.
Chaenactis parishii	Parish's chaenactis	Dicots	None	None	1B.3	BLM_S- Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral	Chaparral.	Rocky sites. 670-2135 m.	No suitable habitat is present for this species. This species is not present.

Chorizanthe parryi var. parryi	Parry's spineflower	Dicots	None	None	1B.1	BLM_S- Sensitive SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden USFS_S- Sensitive	Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland.	Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90- 1220 m.	No suitable habitat is present for this species. This species is not present.
Chorizanthe polygonoides var. longispina	long-spined spineflower	Dicots	None	None	1B.2	BLM_S- Sensitive SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Coastal scrub Meadow & seep Ultramafic Valley & foothill grassland Vernal pool	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools.	Gabbroic clay. 30-1630 m.	No suitable habitat is present for this species. This species is not present.

Clarkia delicata	delicate clarkia	Dicots	None	None	1B.2	BLM_S- Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Cismontane woodland Ultramafic	Cismontane woodland, chaparral.	Often on gabbro soils. 95-1800 m.	No suitable habitat is present for this species. This species is not present.
Clinopodium chandleri	San Miguel savory	Dicots	None	None	1B.2	BLM_S- Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Chaparral Cismontane woodland Coastal scrub Riparian woodland Ultramafic Valley & foothill grassland	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland.	Rocky, gabbroic or metavolcanic substrate. 120-975 m.	No suitable habitat is present for this species. This species is not present.
Cryptantha wigginsii	Wiggins' cryptantha	Dicots	None	None	1B.2		Coastal scrub	Coastal scrub.	Often on clay soils. 45-110 m.	No suitable habitat is present for this species. This species is not present.

Deinandra mohavensis	Mojave tarplant	Dicots	None	Endangered	1B.3	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Coastal scrub Riparian scrub	Riparian scrub, coastal scrub, chaparral.	Low sand bars in river bed; mostly in riparian areas or in ephemeral grassy areas. 640-1645 m.	No suitable habitat is present for this species. This species is not present.
Dodecahema leptoceras	slender-horned spineflower	Dicots	Endangered	Endangered	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland Coastal scrub	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub).	Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	No suitable habitat is present for this species. This species is not present.
Dudleya multicaulis	many-stemmed dudleya	Dicots	None	None	1B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Coastal scrub Valley & foothill grassland	Chaparral, coastal scrub, valley and foothill grassland.	In heavy, often clayey soils or grassy slopes. 1-910 m.	No suitable habitat is present for this species. This species is not present.

Dudleya viscida	sticky dudleya	Dicots	None	None	1B.2	BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub	Coastal scrub, coastal bluff scrub, chaparral, cismontane woodland.	On north and south-facing cliffs and banks. 20-870 m.	No suitable habitat is present for this species. This species is not present.
Eryngium aristulatum var. parishii	San Diego button-celery	Dicots	Endangered	Endangered	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal scrub Valley & foothill grassland Vernal pool Wetland	Vernal pools, coastal scrub, valley and foothill grassland.	San Diego mesa hardpan and claypan vernal pools and southern interior basalt flow vernal pools; usually surrounded by scrub. 15-880 m.	No suitable habitat is present for this species. This species is not present.

Githopsis diffusa ssp. filicaulis	Mission Canyon bluecup	Dicots	None	None	3.1	USFS_S-Sensitive	Chaparral	Chaparral.	Probably in open, grassy places and mesic, disturbed areas; much overlooked. 450-700 m.	No suitable habitat is present for this species. This species is not present.
Harpagonella palmeri	Palmer's grapplinghook	Dicots	None	None	4.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Coastal scrub Valley & foothill grassland	Chaparral, coastal scrub, valley and foothill grassland.	Clay soils; open grassy areas within shrubland. 20-955 m.	No suitable habitat is present for this species. This species is not present.
Horkelia cuneata var. puberula	mesa horkelia	Dicots	None	None	1B.1	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Cismontane woodland Coastal scrub	Chaparral, cismontane woodland, coastal scrub.	Sandy or gravelly sites. 15-1645 m.	No suitable habitat is present for this species. This species is not present.

Hulsea californica	San Diego sunflower	Dicots	None	None	1B.3	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Lower montane coniferous forest Upper montane coniferous forest	Chaparral, lower montane coniferous forest, upper montane coniferous forest.	Burns, clearings, or openings in chaparral and pine-oak woodland. 365-1860 m.	No suitable habitat is present for this species. This species is not present.
Juncus luciensis	Santa Lucia dwarf rush	Monocots	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Great Basin scrub Lower montane coniferous forest Meadow & seep Vernal pool Wetland	Vernal pools, meadows and seeps, lower montane coniferous forest, chaparral, Great Basin scrub.	Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. 280-2035 m.	No suitable habitat is present for this species. This species is not present.

Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Dicots	None	None	1B.1	BLM_S- Sensitive SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_SBBG- Santa Barbara Botanic Garden	Alkali playa Marsh & swamp Salt marsh Vernal pool Wetland	Coastal salt marshes, playas, vernal pools.	Usually found on alkaline soils in playas, sinks, and grasslands. 1- 1375 m.	No suitable habitat is present for this species. This species is not present.
Lepechinia cardiophylla	heart-leaved pitcher sage	Dicots	None	None	1B.2	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Chaparral Cismontane woodland Closed-cone coniferous forest	Closed-cone coniferous forest, chaparral, cismontane woodland.	115-1345 m.	No suitable habitat is present for this species. This species is not present.

Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	None	None	4.3		Chaparral Coastal scrub	Chaparral, coastal scrub.	Dry soils, shrubland. 4-1435 m.	No suitable habitat is present for this species. This species is not present.
Linanthus orcuttii	Orcutt's linanthus	Dicots	None	None	1B.3	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Lower montane coniferous forest Pinon & juniper woodlands	Chaparral, lower montane coniferous forest, pinyon and juniper woodland.	Sometimes in disturbed areas; often in gravelly clearings. 850-2775 m.	No suitable habitat is present for this species. This species is not present.

Mielichhoferia shevockii	Shevock's copper moss	Bryophytes	None	None	1B.2	BLM_S-Sensitive	Cismontane woodland	Cismontane woodland.	Moss on metamorphic rocks containing heavy metals; mesic sites. On rocks along roads, in same habitat as Mielichhoferia elongata. 365-1110 m.	No suitable habitat is present for this species. This species is not present.
Monardella hypoleuca ssp. intermedia	intermediate monardella	Dicots	None	None	1B.3		Chaparral Cismontane woodland Lower montane coniferous forest	Chaparral, cismontane woodland, lower montane coniferous forest (sometimes).	Often in steep, brushy areas. 195-1675 m.	No suitable habitat is present for this species. This species is not present.

Monardella macrantha ssp. hallii	Hall's monardella	Dicots	None	None	1B.3	SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden USFS_S- Sensitive	Broadleaved upland forest Chaparral Cismontane woodland Lower montane coniferous forest Valley & foothill grassland	Broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, valley and foothill grassland.	Dry slopes and ridges in openings. 700-1800 m.	No suitable habitat is present for this species. This species is not present.
Myosurus minimus ssp. apus	little mousetail	Dicots	None	None	3.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Valley & foothill grassland Vernal pool Wetland	Vernal pools, valley and foothill grassland.	Alkaline soils. 20-640 m.	No suitable habitat is present for this species. This species is not present.

Navarretia fossalis	spreading navarretia	Dicots	Threatened	None	1B.1	SB_CalBG/RSA BG- California/Ran- cho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Alkali playa Chenopod scrub Marsh & swamp Vernal pool Wetland	Vernal pools, chenopod scrub, marshes and swamps, playas.	San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. 15- 850 m.	No suitable habitat is present for this species. This species is not present.
Navarretia prostrata	prostrate vernal pool navarretia	Dicots	None	None	1B.2		Coastal scrub Meadow & seep Valley & foothill grassland Vernal pool Wetland	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps.	Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	No suitable habitat is present for this species. This species is not present.

Nolina cismontana	chaparral nolina	Monocots	None	None	1B.2	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_SBBG- Santa Barbara Botanic Garden USFS_S- Sensitive	Chaparral Coastal scrub Ultramafic	Chaparral, coastal scrub.	Primarily on sandstone and shale substrates; also known from gabbro. 140-1100 m.	No suitable habitat is present for this species. This species is not present.
Orcuttia californica	California Orcutt grass	Monocots	Endangered	Endangered	1B.1	SB_CalBG/RSA BG- California/Ranc ho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Vernal pool Wetland	Vernal pools.	10-660 m.	No suitable habitat is present for this species. This species is not present.

Packera ganderi	Gander's ragwort	Dicots	None	Rare	1B.2	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	Chaparral Ultramafic	Chaparral.	Recently burned sites and gabbro outcrops. 485-1070 m.	No suitable habitat is present for this species. This species is not present.
Penstemon californicus	California beardtongue	Dicots	None	None	1B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	Chaparral Lower montane coniferous forest Pinon & juniper woodlands	Chaparral, lower montane coniferous forest, pinyon and juniper woodland.	Stony slopes and shrubby openings; sandy or granitic soils. 240-2290 m.	No suitable habitat is present for this species. This species is not present.

Phacelia keckii	Santiago Peak phacelia	Dicots	None	None	1B.3	SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Closed-cone coniferous forest	Closed-cone coniferous forest, chaparral.	Open areas, sometimes along creeks. 545-1525 m.	No suitable habitat is present for this species. This species is not present.
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub Desert wash Pinon & juniper woodlands Riparian scrub Riparian woodland Valley & foothill grassland	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	No suitable habitat is present for this species. This species is not present.

Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	None	None	2B.2		Chaparral Cismontane woodland Coastal scrub Riparian woodland	Riparian woodland, cismontane woodland, coastal scrub, chaparral.	Sandy, gravelly sites. 35-515 m.	No suitable habitat is present for this species. This species is not present.
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	Scrub	None	None			Coastal scrub			This is not present.
Saltugilia latimeri	Latimer's woodland-gilia	Dicots	None	None	1B.2	BLM_S-Sensitive SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	Chaparral Limestone Mojavean desert scrub Pinon & juniper woodlands	Chaparral, Mojavean desert scrub, pinyon and juniper woodland.	Rocky or sandy substrate; sometimes in washes, sometimes limestone. 120-2200 m.	No suitable habitat is present for this species. This species is not present.

Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	Dicots	None	None	1B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Chaparral Cismontane woodland Lower montane coniferous forest	Chaparral, cismontane woodland, lower montane coniferous forest.	In gravelly soils on streambanks or in mesic sites in oak or pine woodland. 425-2000 m.	No suitable habitat is present for this species. This species is not present.
Senecio aphanactis	chaparral ragwort	Dicots	None	None	2B.2	SB_CalBG/RSA BG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral Cismontane woodland Coastal scrub	Chaparral, cismontane woodland, coastal scrub.	Drying alkaline flats. 20-1020 m.	No suitable habitat is present for this species. This species is not present.
Sidalcea neomexicana	salt spring checkerbloom	Dicots	None	None	2B.2	USFS_S-Sensitive	Alkali playa Chaparral Coastal scrub Lower montane coniferous forest Mojavean desert scrub Wetland	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub.	Alkali springs and marshes. 3-2380 m.	No suitable habitat is present for this species. This species is not present.

Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	Riparian	None	None			Riparian forest			This is not present.
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	None	None			Riparian forest			This is not present.
Southern Interior Basalt Flow Vernal Pool	Southern Interior Basalt Flow Vernal Pool	Herbaceous	None	None			Vernal pool Wetland			This is not present.
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	None	None			Riparian woodland			This is not present.
Southern Willow Scrub	Southern Willow Scrub	Riparian	None	None			Riparian scrub			This is not present.
Sphaerocarpos drewiae	bottle liverwort	Bryophytes	None	None	1B.1	IUCN_EN-Endangered	Chaparral Coastal scrub	Chaparral, coastal scrub.	Liverwort in openings; on soil. 60-585 m.	No suitable habitat is present for this species. This species is not present.

Symphyotrichum defoliatum	San Bernardino aster	Dicots	None	None	1B.2	SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Cismontane woodland Coastal scrub Lower montane coniferous forest Marsh & swamp Meadow & seep Valley & foothill grassland	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland.	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3- 2045 m.	No suitable habitat is present for this species. This species is not present.
Tetracoccus dioicus	Parry's tetracoccus	Dicots	None	None	1B.2	BLM_S- Sensitive SB_CalBG/RSA BG- California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S- Sensitive	Chaparral Coastal scrub Ultramafic	Chaparral, coastal scrub.	Stony, decomposed gabbro soil. 135-705 m.	No suitable habitat is present for this species. This species is not present.

Texosporium sancti-jacobi	woven-spored lichen	Lichens	None	None	3		Chaparral	Chaparral.	Open sites; in California with Adenostoma fasciculatum, Eriogonum, Selaginella. Found on soil, small mammal pellets, dead twigs, and on Selaginella. 60-870 m.	No suitable habitat is present for this species. This species is not present.
Tortula californica	California screw moss	Bryophytes	None	None	1B.2	BLM_S-Sensitive	Chenopod scrub Valley & foothill grassland	Chenopod scrub, valley and foothill grassland.	Moss growing on sandy soil. 45-750 m.	No suitable habitat is present for this species. This species is not present.
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	None	None			Valley & foothill grassland			This is not present.

APPENDIX C



View of ruderal habitat where impacts will occur followed by residential development in the distance. View looking northwest.



View of California buckwheat (*Eriogonum fasciculatum*) in disturbed coastal sage scrub area. View looking north.



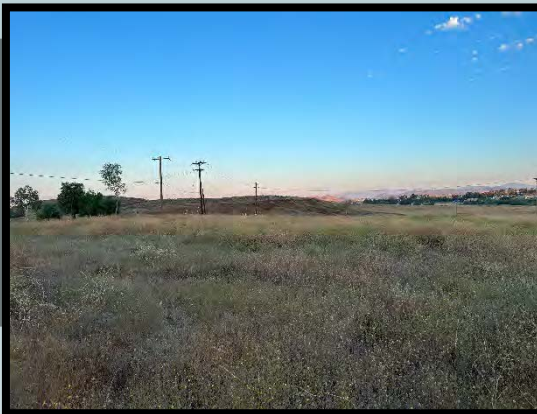
View of ruderal vegetation on site including short pod mustard (*Hirschfeldia incana*). View looking east.



View of ruderal habitat followed by intersection of Washington Street and Yates Street. View looking north.



View of ruderal vegetation including paniculate tarweed (*Deinandra paniculata*). View looking east.



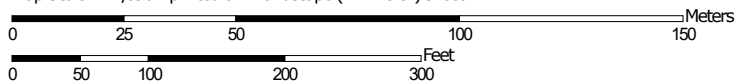
View of ruderal habitat on site. View looking south.

APPENDIX D

Soil Map—Western Riverside Area, California
(TV Charter PL)



Map Scale: 1:1,690 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

9/11/2023
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California

Survey Area Data: Version 15, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2022—Mar 17, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BkC2	Buchenau silt loam, 2 to 8 percent slopes, eroded	0.2	1.3%
EcC2	Escondido fine sandy loam, 2 to 8 percent slopes, eroded	8.0	67.2%
FwE2	Friant fine sandy loam, 5 to 25 percent slopes, eroded	0.4	3.7%
LpE2	Lodo rocky loam, 8 to 25 percent slopes, eroded	3.3	27.8%
Totals for Area of Interest		11.9	100.0%

APPENDIX E



Memorandum

Date: September 28, 2023

To: Grant Becklund

From: Juan J. Hernandez, Hernandez Environmental Services

Subject: Focused Burrowing Owl Survey Report for APN 472-210-002

This memorandum provides the methods and results of a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl (*Athene cunicularia*) (BUOW) survey for Assessor's Parcel Number (APN) 472-210-002 located within the City of Winchester, Riverside County, California.

Project Location

The project site consists of Riverside County Assessor's Parcel Numbers (APNs) 472-210-002. The 11.95-acre property is located at 35780 Washington Street in the City of Winchester, County of Riverside, California. Specifically, the project site is located within the *Bachelor Mountain* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude for the project site are 33° 36' 03.6404" North, 117° 04' 55.8587" West (Figures 1 and 2).

Project Description

The proposed project consists of the construction of a new campus for Temecula Valley Charter School. The proposed campus will consist of a 17,292 square foot (SF) main building, library, classroom buildings, parking spaces, playgrounds, and recreational areas. Outside of the project boundary, roadside improvements and a proposed sidewalk along the northern and western boundaries will be developed, impacting Washington Street and Yates Road (Figure 3). Approximately 12.47 total acres are expected to be impacted by development.

Project Contact Information

Owner/Applicant: Grant Becklund
30811 E Garbani Road
Winchester, CA 92596

Principal Investigator: Juan J. Hernandez
Hernandez Environmental Services

17037 Lakeshore Drive
Lake Elsinore, CA 92530
(909) 772-9009

Field Survey Methods

HES implemented the three steps as described in the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area*. The General Biological Assessment and Western Riverside MSHCP Consistency Analysis prepared for the project determined that focused surveys for BUOW would be required due to the presence of suitable habitat documented during the June 20, 2023, habitat assessment. In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area*, focused burrow and focused BUOW surveys (Part A and Part B, respectively) were conducted on four separate days during the 2023 nesting season: June 20, June 28, July 5, and July 12. Survey times, weather, and sunrise/sunset information is described in Table 1 below.

Table 1. Survey Information

Survey	Date	Survey Start Time	Survey End Time	Sunrise/Sunset	Weather
1	June 20, 2023	O630 hours	O725 hours	O538 hours 2002 hours	57 degrees Fahrenheit, cloudy, winds 0-1 miles per hour to the northwest.
2	June 28, 2023	O630 hours	O730 hours	O541 hours 2002 hours	53-56 degrees Fahrenheit, 60% cloud cover, winds 0-2 miles per hour to the north.
3	July 5, 2023	O650 hours	O740 hours	O544 hours 2002 hours	58 degrees Fahrenheit, 10% cloud cover, winds 0 - 2 miles per hour to the south.
4	July 12, 2023	O550 hours	O630 hours	O548 hours 2000 hours	67 degrees Fahrenheit, clear skies, winds 0-2 mile per hour to the west.

Surveys were conducted from one hour before sunrise to two hours after sunrise or two hours before sunset to one hour after sunset and during weather that was conducive to observing owls outside their burrows and detecting BUOW sign. The surveys were not conducted during rain, high winds (> 20 miles per hour), dense fog, or temperatures above 90 degrees Fahrenheit. Surveys involved walking through potentially suitable habitat within the survey area. The pedestrian survey transects were spaced approximately 30 to 50 feet apart to allow 100 percent visual coverage of the ground surface. Special attention was paid to those habitat areas that

appeared to provide suitable habitat for BUOW. Where permission to access the buffer areas could not be obtained, the biologist visually inspects adjacent habitats with binoculars (Figure 4).

All encountered burrows or structure entrances were checked for the presence of BUOW, molted feathers, cast pellets, prey remains, eggshell fragments, tracks, or excrement. Natural or man-made structures and debris piles that could support BUOW were also surveyed. The locations of all suitable BUOW habitat, potential burrows, BUOW sign, and any BUOW observed was recorded and mapped with a handheld Global Positioning System (GPS) unit.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Binoculars were used to aid in the identification of observed wildlife. Representative site photographs were taken and are included within Appendix A.

Results

The project site supports two habitat communities: ruderal and disturbed coastal sage scrub habitat. The site is located southeast of the intersection Washington Street and Yates Road. The site is located less than three hundred feet west of the San Diego Canal. Soil at the project site is classified as Buchenau silt loam (BkC2), 2 to 8 percent slopes, eroded; Escondido fine sandy loam (EcC2), 2 to 8 percent slopes, eroded; Friant fine sandy loam (FwE2), 5 to 25 percent slopes, eroded; and Lodo rocky loam (LpE2), 8 to 25 percent slopes, eroded. Elevations on the project site range from 1,423 feet to 1,493 feet above mean sea level (AMSL).

The habitat assessment conducted on June 20, 2023, found that the project site does provide suitable habitat and burrows/nesting opportunities for BUOW. Ground squirrel burrows were observed, and approximately 3 suitable burrows were identified and recorded in the study area (Figure 5). 7 burrows occur within the project site and 18 burrow occur within the 500-foot buffer. BUOW signs such as molted feathers, cast pellets, and excrement found on rock outcroppings were not found. All burrows are considered inactive and not in use by burrowing owl. No BUOW were observed on the project site.

Based on the absence of BUOW and BUOW evidence (i.e., scat, pellets, and feathers) within the study area, it can be concluded that the study area is not in use by BUOW.

Recommendations

It is recommended that the following measures be implemented to ensure that potential impacts to BUOW are less than significant:

- Based on the presence of suitable habitat documented during the habitat assessment and focused burrowing owl surveys, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure the protection of this species and compliance with the conservation goals as outlined in the MSHCP.

- According to the MSHCP, if BUOW are detected on the project site then the action(s) taken will be as follows:
 - If the site is within the Criteria Area, then at least 90 percent of the area with long-term conservation value will be included in the MSHCP Conservation Area.
 - Otherwise:
 1. If the site contains or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than 3 pairs of BUOWs, then the on-site BUOWs will be passively or actively relocated following accepted protocols.
 2. If the site (including adjacent areas) supports three or more pairs of BUOWs, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and BUOW pairs will be conserved onsite.
 - If the project site is found to support BUOWs, a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report and Burrowing Owl Relocation Plan will need to be prepared in coordination with the RCA and resource agencies.
 - The DBESP and Burrowing Owl Relocation Plan will include the following:
 - Location that BUOWs are being removed from;
 - Number of BUOWs being relocated, including number of pairs and number of singles;
 - Description of methods that will be used to ensure that onsite burrows are vacant prior to their collapse;
 - Location and landowner contact information for the release site;
 - Description of the release site, including habitat description, presence/absence of ground squirrels, presence/absence of other BUOWs, results of predator survey, results of prey survey, and plans to maintain artificial burrow systems and manage the land for BUOWs long-term.
- If the presence/absence survey finds that BUOW no longer occupy the study area, conduct an MSHCP preconstruction survey within 30 days prior to the start of any ground disturbing activities a 30-day preconstruction survey is required prior to the commencement of project activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no owls have colonized the site in the days or weeks preceding project activities.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present 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: September 28, 2023



Juan J. Hernandez
Principal Biologist

Enclosures:

Figure 1: Location Map
Figure 2: Vicinity Map
Figure 3: Project Plans
Figure 4: Survey Area Map
Figure 5: Survey Results Map
Appendix A: Site Photographs

FIGURE 1

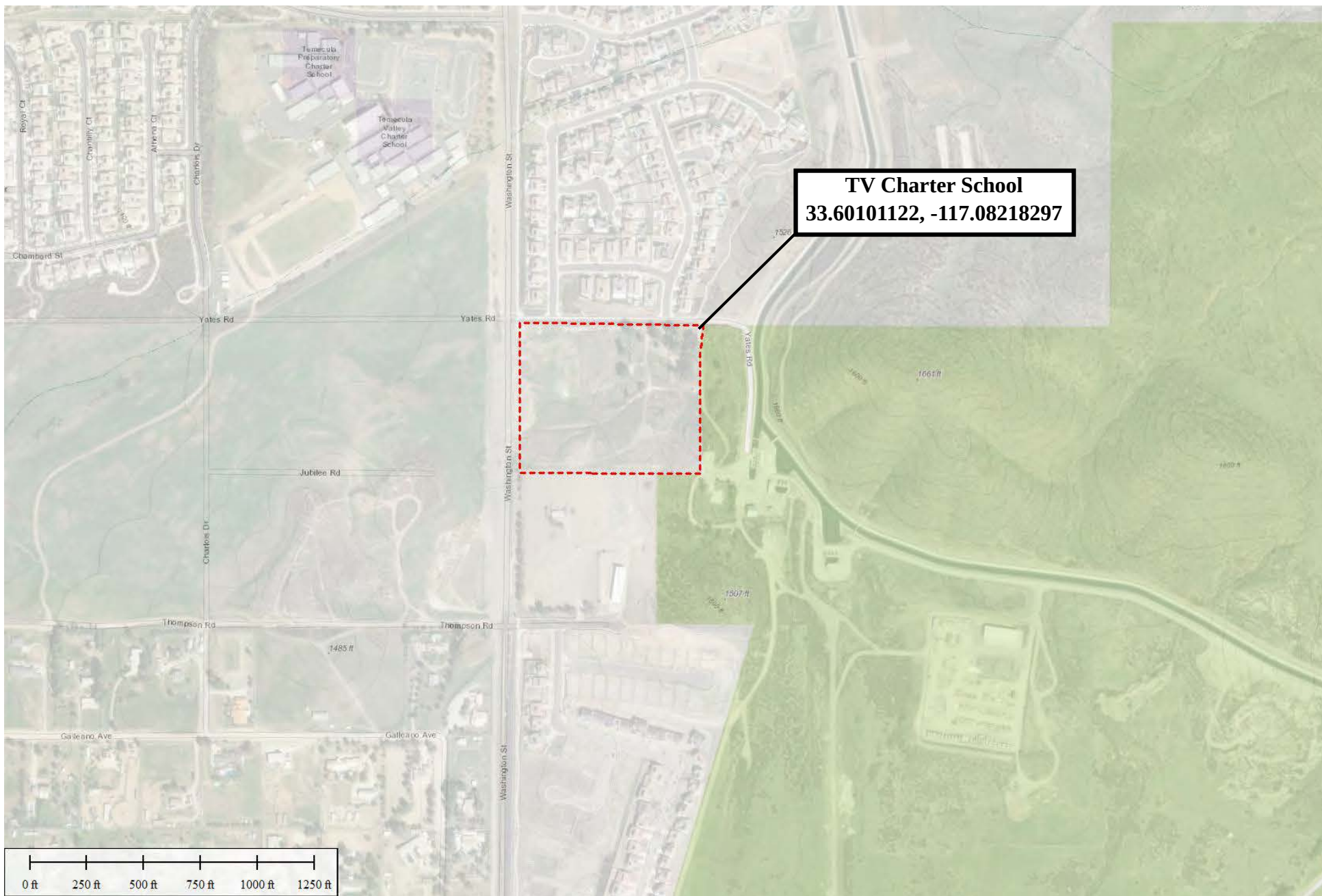


Figure 1
Location Map
TV Charter School
Riverside County, California



FIGURE 2

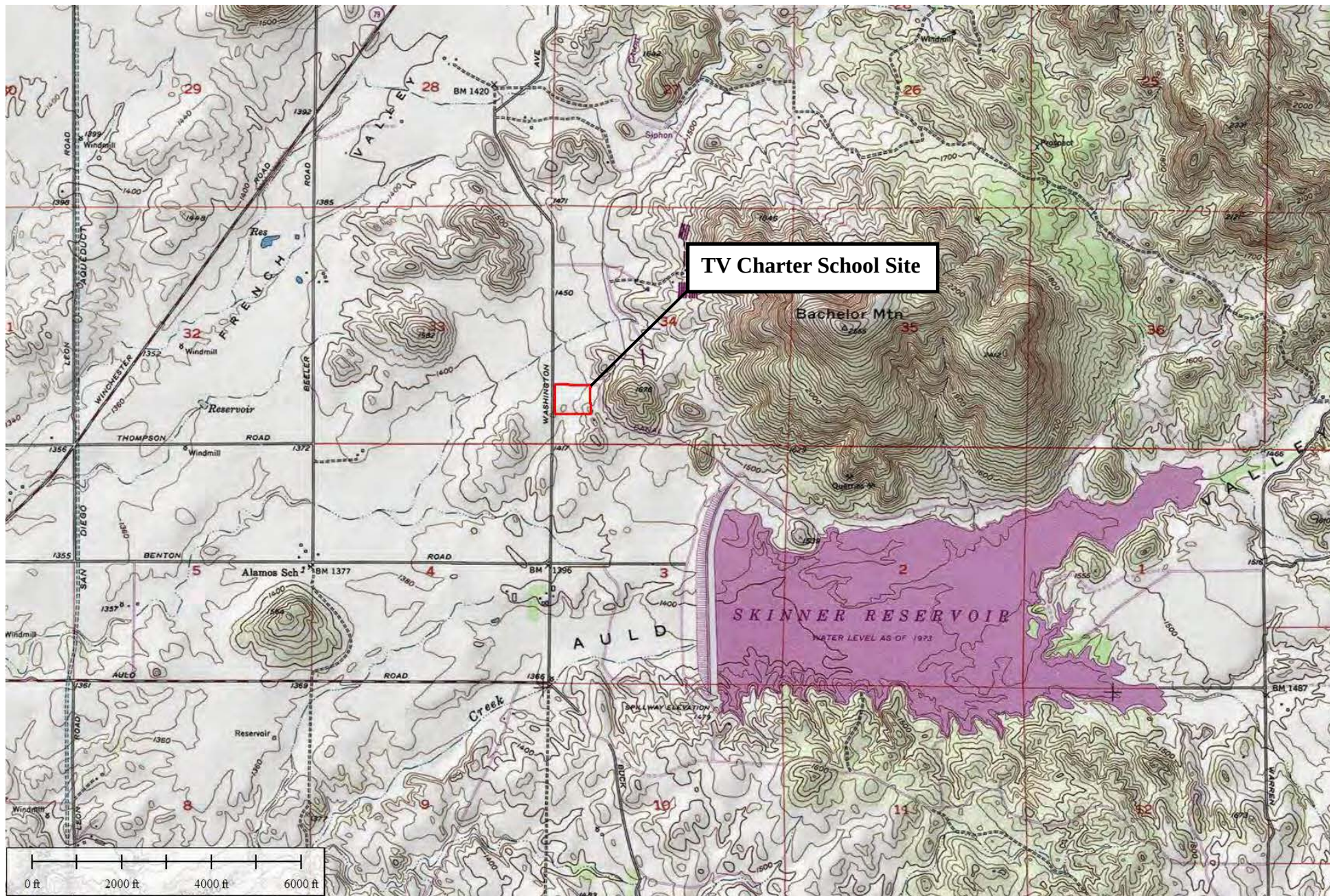


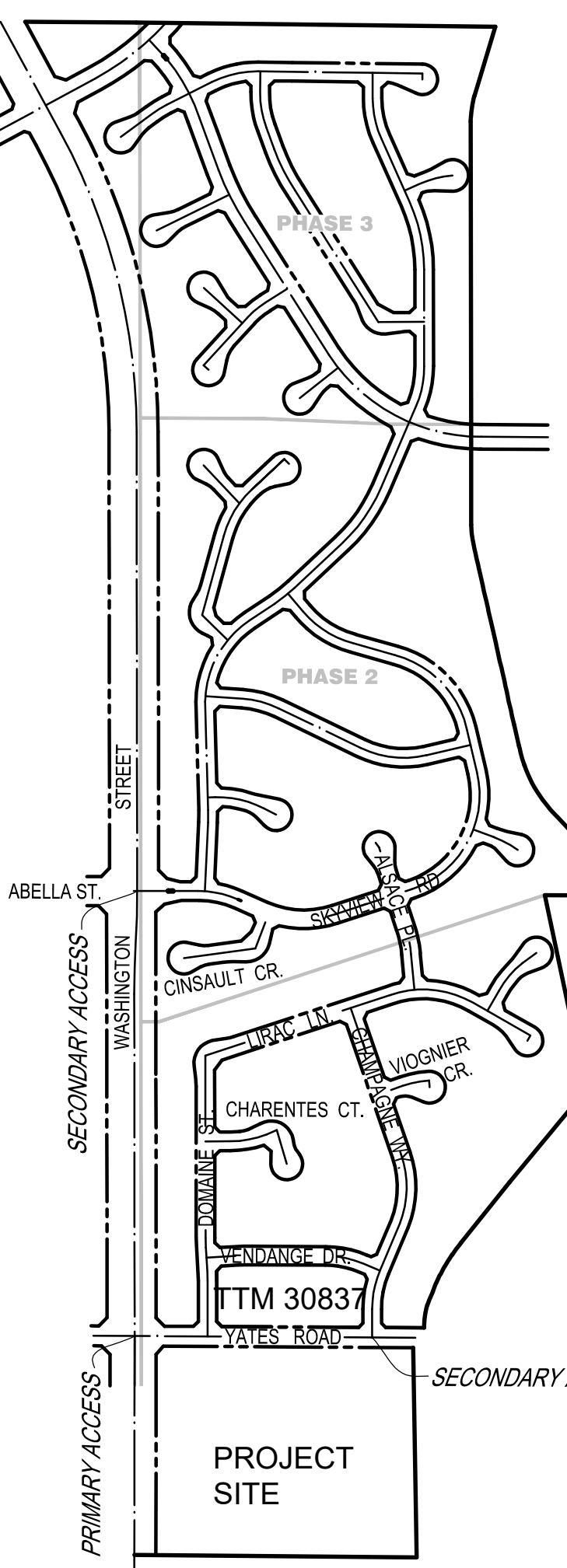
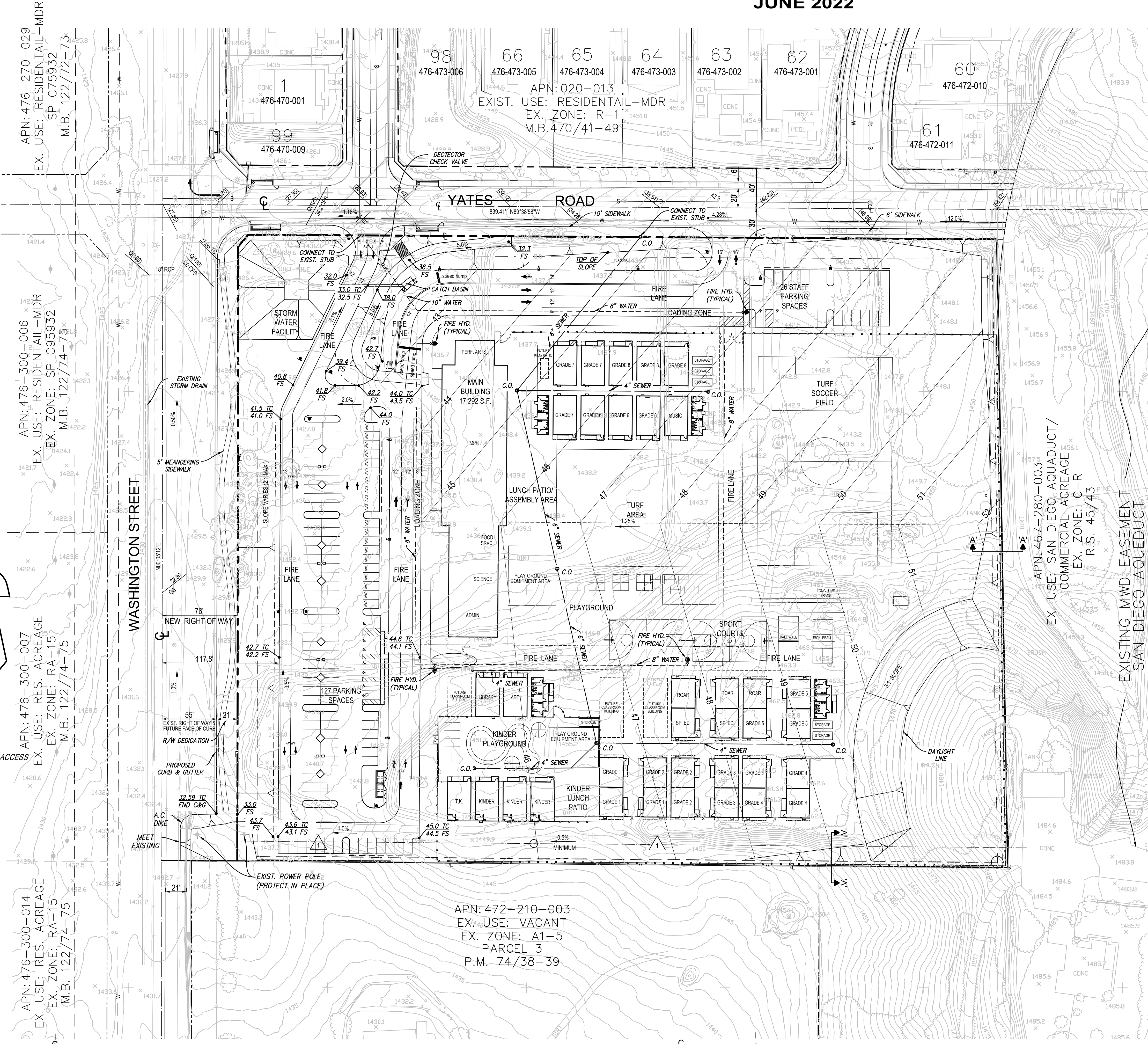
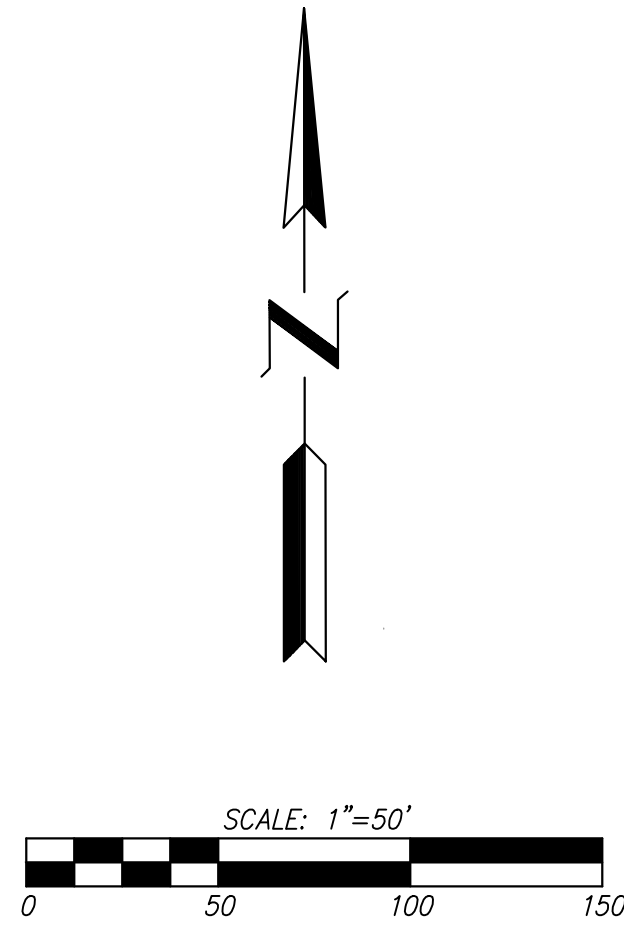
Figure 2
 Vicinity Map
 TV Charter School
 Riverside County, California



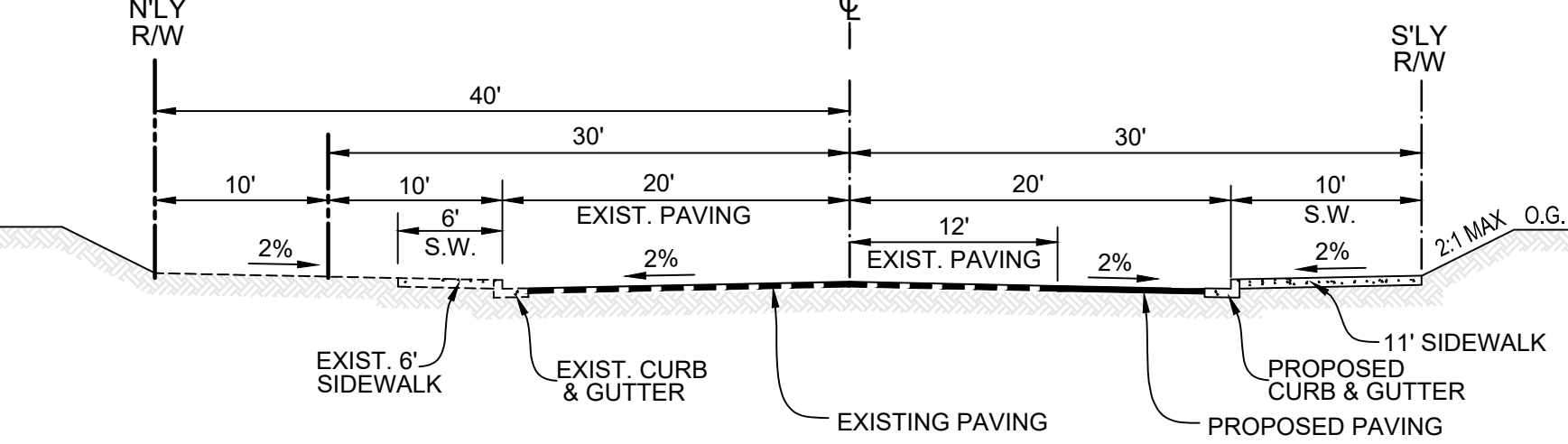
FIGURE 3

IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
PUBLIC USE PERMIT XXX

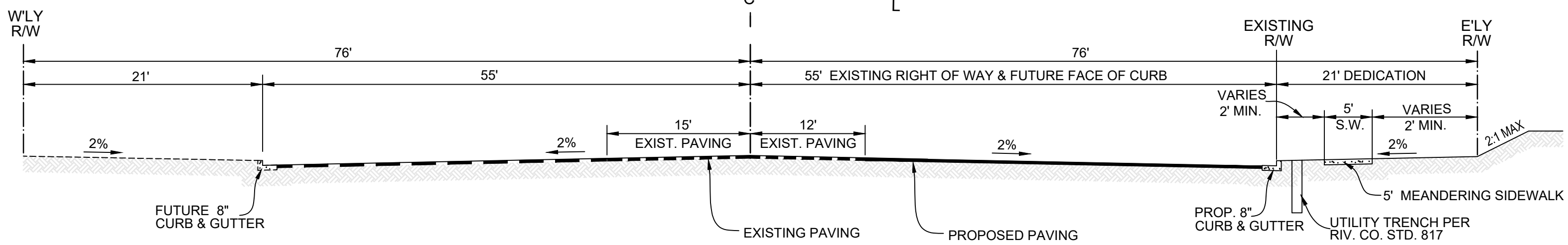
JUNE 2022



SECONDARY ACCESS



YATES ROAD TYPICAL SECTION



WASHINGTON STREET TYPICAL SECTION

LEGEND

—+—+—+—	CENTERLINE	—x—x—x—	EXISTING CHAIN LINK FENCE	—o—	EXISTING POWER POLE
—+—+—+—	PROPERTY LINE	—+—+—+—	EXISTING PIPE-RAIL FENCE	—o—	EXISTING GUY WIRE
—+—+—+—	RIGHT-OF-WAY	—o—o—o—	EXISTING WIRE FENCE	—o—	EXISTING OVERHEAD LINE
—+—+—+—	EDGE OF PAVEMENT	—o—o—o—	EXISTING WOOD RAIL FENCE	—o—	EXISTING DEPRESSION
—+—+—+—	EXISTING DIRT ROAD	—+—+—+—	PROP. RETAINING WALL		

—o—	EXISTING POWER POLE
—o—	EXISTING GUY WIRE
—o—	EXISTING OVERHEAD LINE
—o—	EXISTING DEPRESSION

Engineer	Revisions:	County
Mark: By: Date:	Description:	Appr. Date
Designed By: GB	Drawn By: BB	Checked By:

Principal
GRANT W. BECKLUND
CIVIL ENGINEER
STATE OF CALIFORNIA

Prepared Under The Supervision Of:
GRANT BECKLUND CIVIL ENGINEERING
30811 GARBANI ROAD WINCHESTER, CA 92596 (951) 288-0601
Date: GRANT BECKLUND R.C.E. No. 23737 Exp. 12/31/2023
Reviewed By:
Date: COUNTY OF RIVERSIDE

Scale:	Bench Mark:
AS NOTED	TOPO DATA AS NOTED ABOVE

COUNTY OF RIVERSIDE	Sheet No.
PUBLIC USE PERMIT XXXX	1
FOR	OF 1 SHEET
TEMECULA VALLEY CHARTER SCHOOL	File No.
Plot date: 8/1/2022	File name:

OWNER / APPLICANT:

TEMECULA VALLEY CHARTER SCHOOL
35755 ABELLA STREET
WINCHESTER, CA 92596
PHONE: (951) 288-0601
EMAIL: GRANTBECKLUND@GMAIL.COM

ENGINEER & REPRESENTATIVE:

GRANT BECKLUND CIVIL ENGINEERING
30811 GARBANI ROAD
WINCHESTER, CA 92596
PHONE: (951) 288-0601
EMAIL: GRANTBECKLUND@GMAIL.COM

LEGAL DESCRIPTION

PARCEL 4 OF PARCEL MAP 14030 COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 74, PAGES 38 AND 39 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID RIVERSIDE COUNTY.

ASSESSOR'S PARCEL NO.

APN: 472-210-002

SITE ADDRESS:

35780 WASHINGTON STREET
WINCHESTER, CA 92596

OPINION OF EARTHWORK QUANTITIES

CUBIC YARDS OF CUT: 50,000 CY (RAW), CUBIC YARDS OF FILL: 5,000 CY (RAW), THE OPINION OF EARTHWORK QUANTITIES SHOWN ABOVE ARE UNADJUSTED GROSS VOLUMES, AND DO NOT INCLUDE THE EFFECTS OF SCARPING, OVER ESCAVATION, RECOMPACTION, SHRINKAGE, SUBSIDENCE OR OTHER FACTORS AND ARE SUBJECT TO FIELD CONDITIONS THAT MAY BE SPECIFIED IN THE PRELIMINARY SOILS REPORT AND ARE FOR REFERENCE AND FEE PURPOSES ONLY.

DEVELOPER SHALL BE REQUIRED TO SPECIFY THE PRECISE LOCATION OF EXPORT OR IMPORT IN EITHER CASE, PRIOR TO THE ISSUANCE OF A GRADING PERMIT. PROJECT WILL RESULT IN A "BALANCED" CONDITION.

NOTES:

- ALL IMPROVEMENTS SHALL BE PER RIVERSIDE COUNTY STANDARDS
- PUP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER
- ALL SLOPES ARE 2:1 RATIO EXCEPT IN DETENTION BASIN AREA WHERE THEY ARE 4:1, UNLESS OTHERWISE NOTED
- SETBACKS OF SLOPES TO PROPERTY LINES SHALL CONFORM TO ORDINANCE 457 REQUIREMENTS
- ALL ON-SITE, OVERHEAD, EDISON POWER LINES WILL REMAIN IN PLACE
- LANDSCAPING WILL BE PER DESIGN AND LANDSCAPING GUIDELINES IN WINCHESTER 1800 SPECIFIC PLAN NO. 286
- THIS PROPERTY DOES NOT LIE WITHIN A "COMMUNITY SERVICES DISTRICT."
- WASHINGTON STREET AND YATES ROAD ARE TO BE DEDICATED PUBLIC RIGHT-OF-WAY TO THE COUNTY OF RIVERSIDE FOR TRANSPORTATION AND UTILITY PURPOSES
- THIS PROPERTY LIES WITHIN A NON-PRINTED SPECIFIED FLOOD ZONE (FIRM NO. 0602452755A) AND IS NOT SUBJECT TO OVERFLOW, INUNDATION, OR FLOOD HAZARDS
- THIS PROPERTY DOES NOT LIE WITHIN A SPECIAL STUDY ZONE, A C.S.D., AND IS NOT SUBJECT TO LIQUIDATION OR OTHER GEOLOGIC HAZARDS
- NO SUBSURFACE SEPTIC SEWAGE DISPOSAL IS INTENDED
- THE PROJECT IS ADJACENT TO SPECIFIC PLAN 286
- THIS PROPERTY CONTAINS KNOWN WELLS
- THIS PROPERTY CONTAINS EXISTING STRUCTURES AS SHOWN
- THIS PROJECT IS WITHIN ZONE 'D' OF THE 'SWAP R&BB'
- THIS PROJECT IS PROPOSED IN ONE PHASE
- MAINTENANCE OF ON-SITE SLOPES AND DETENTION BASIN SHALL BE BY OWNER

SEWER & WATER NOTES:

8" SEWER EXISTS IN YATES ROAD

12" WATER EXISTS IN YATES ROAD

FENCING:

ENTIRE SCHOOL WILL BE FENCED WITH 6 FT DECORATIVE AND/OR CHAIN LINK FENCING

MANUAL GATES WILL BE INSTALLED AT DRIVEWAYS ON YATES ROAD AND ACCESS POINTS TO SCHOOL AREAS

HAZARD MATERIALS:

NO FLAMMABLE/ COMBUSTIBLE LIQUIDS OR WASTE OIL WILL BE STORED ON SITE

FIRE DEPARTMENT NOTES:

PRIOR TO ISSUANCE OF A BUILDING PERMIT THE FOLLOWING SHALL PROVIDED:

FIRE HYDRANTS AND FIRE FLOW: PROVIDE OR SHOW WHERE EXIST FIRE HYDRANT(S) CAPABLE OF DELIVERING FIRE FLOW AS REQUIRED BY CALIFORNIA FIRE CODE AND RIVERSIDE COUNTY FIRE DEPARTMENT STANDARDS WITHIN 400 FEET OF ALL PORTIONS OF ALL STRUCTURES.

TOPOGRAPHY SOURCE

TOPO BY AERIAL SURVEY BY: WALTERS MAPS & ASSOCIATES
7225 ALABAMA AVENUE
CANOGA PARK, CALIFORNIA 91303
COMPLETED 4/13/2022

BENCH MARK

NGS BENCHMARK DX5501, LOCATED AT BOREL ROAD AND AULD ROAD AT UTILITY POLE NUMBER 2328445E.
ELEV. = 1397.43 FEET (NAVD88)

AREA CALCULATIONS

TOTAL NET AREA: 11.44 AC.
TOTAL GROSS AREA: 11.99 AC.

ZONING AND LAND USE

EXIST. ZONING: R-1 (SINGLE FAMILY RESIDENTIAL)
EXIST. LAND USE: VACANT
PROP. LAND USE: CHARTER SCHOOL
GENERAL PLAN DESIGNATION: MEDIUM DENSITY RESIDENTIAL (2-5 DU/AC)
FLOOD ZONE: NONE

UTILITIES

WATER/SEWER: EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD.
PERRIS, CA 92572-8300
(909) 928-3777

GAS: SOUTHERN CALIFORNIA GAS COMPANY
CENTRALIZED CORRESPONDENCE
P.O. BOX 3150
SAN DIMAS, CA 91773
(800) 427-2000

TELEPHONE: VERIZON
CUSTOMER SALES & SOLUTIONS CENTER
P.O. BOX 11328
ST. PETERSBURG, FL 33733
(800) 483-4000

ELECTRICAL: SOUTHERN CALIFORNIA EDISON COMPANY
28100 MENEFEE RD.
ROMOLAND, CA 92585
(909) 928-8207

CABLE: ADELPHIA CABLE
4077 W. STETSON AVE.
HEMET, CA 92345
(888) 683-1000

SCHOOL DISTRICT: TEMECULA UNIFIED SCHOOL DISTRICT
31350 RANCHO VISTA RD.
TEMECULA, CA 92592
(909) 676-2861

FIRE PROTECTION: RIVERSIDE COUNTY HEADQUARTERS
210 W. SAN JACINTO AVE.
PERRIS, CA 92570
(909) 940-6900

EASEMENT NOTE(S):

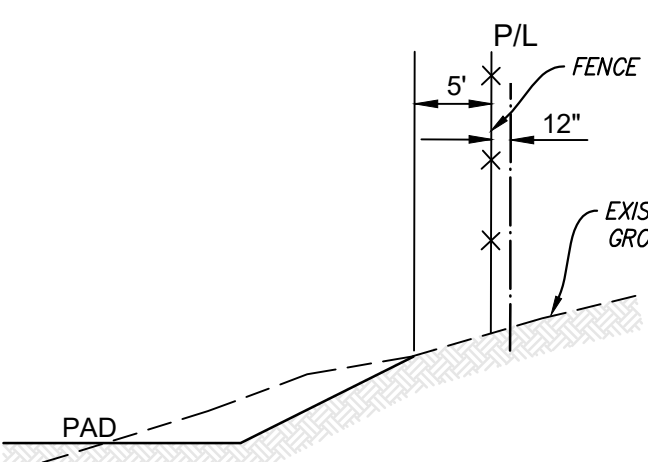
AN EASEMENT FOR UTILITIES IN FAVOR OF SO. CALIF. EDISON CO. & GENERAL TELEPHONE CO., REC. JAN. 6, 1961 PER INST. # 1422.

GENERAL CONSTRUCTION NOTES:

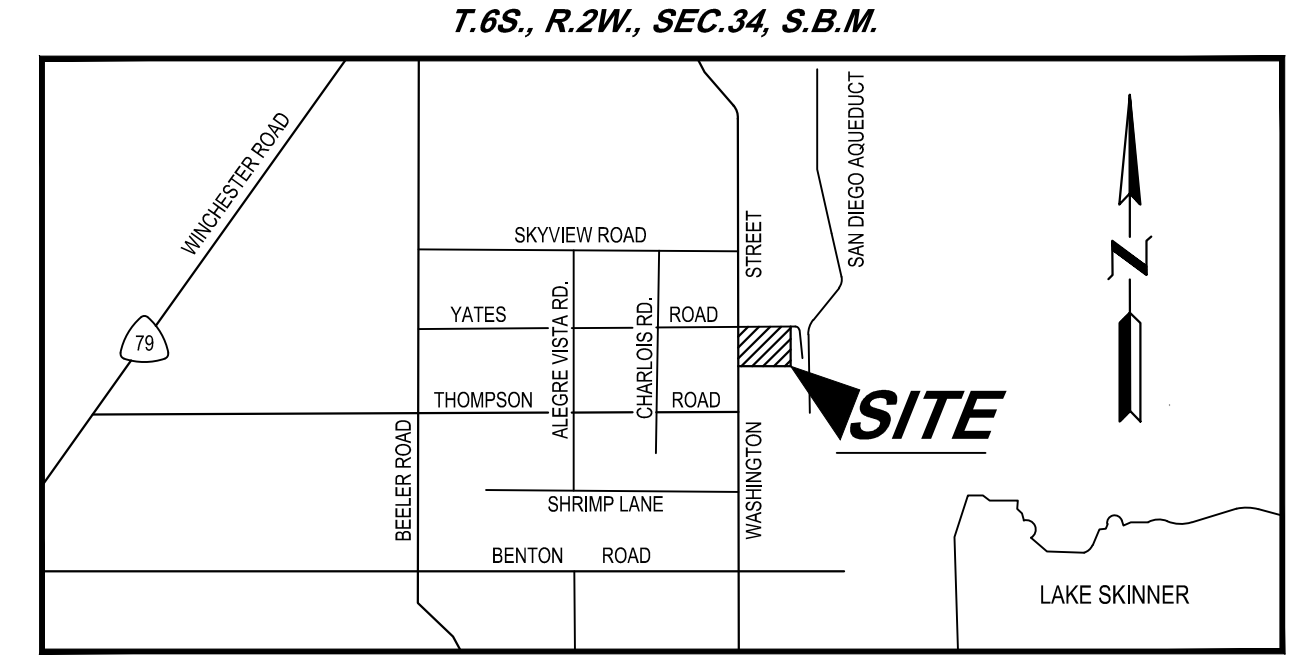
- ALL 2:1 SLOPES 10' OR HIGHER AND RETAINING WALLS 5' OR HIGHER SHALL HAVE V-DITCHES PLACED AT THE TOP OF WALL OR SLOPE RIDGE.
- ALL STRUCTURES ON SITE, EXCLUDING THOSE BELONGING TO ANY RELEVANT UTILITY COMPANIES, ARE TO BE REMOVED. THOSE BELONGING TO THE UTILITY COMPANIES SHALL BE EITHER PROTECTED IN PLACE OR RELOCATED.
- ALL EXISTING ON-SITE POWER POLES WILL REMAIN.

ABBREVIATIONS

C.L.	IRRIGATION FACILITIES	IRR
CL	FINISHED SURFACE	FS
FL	FINISH GRADE	FG
PP	POWER POLE	P.P.
H.P.	PAV ELEVATION	EP
TC	EDGE OF PAVEMENT	P.L.
AC	PROPERTY LINE	R.W.
F.H.	RIGHT-OF-WAY	GB
	GRADE BREAK	



SECTION "A"-A"



VICINITY MAP

NOT TO SCALE
THOMAS BROS. (RIVERSIDE & SAN BERNARDINO COUNTIES)
PAGE 899, COORD G-6, 2022 EDITION

FIGURE 4

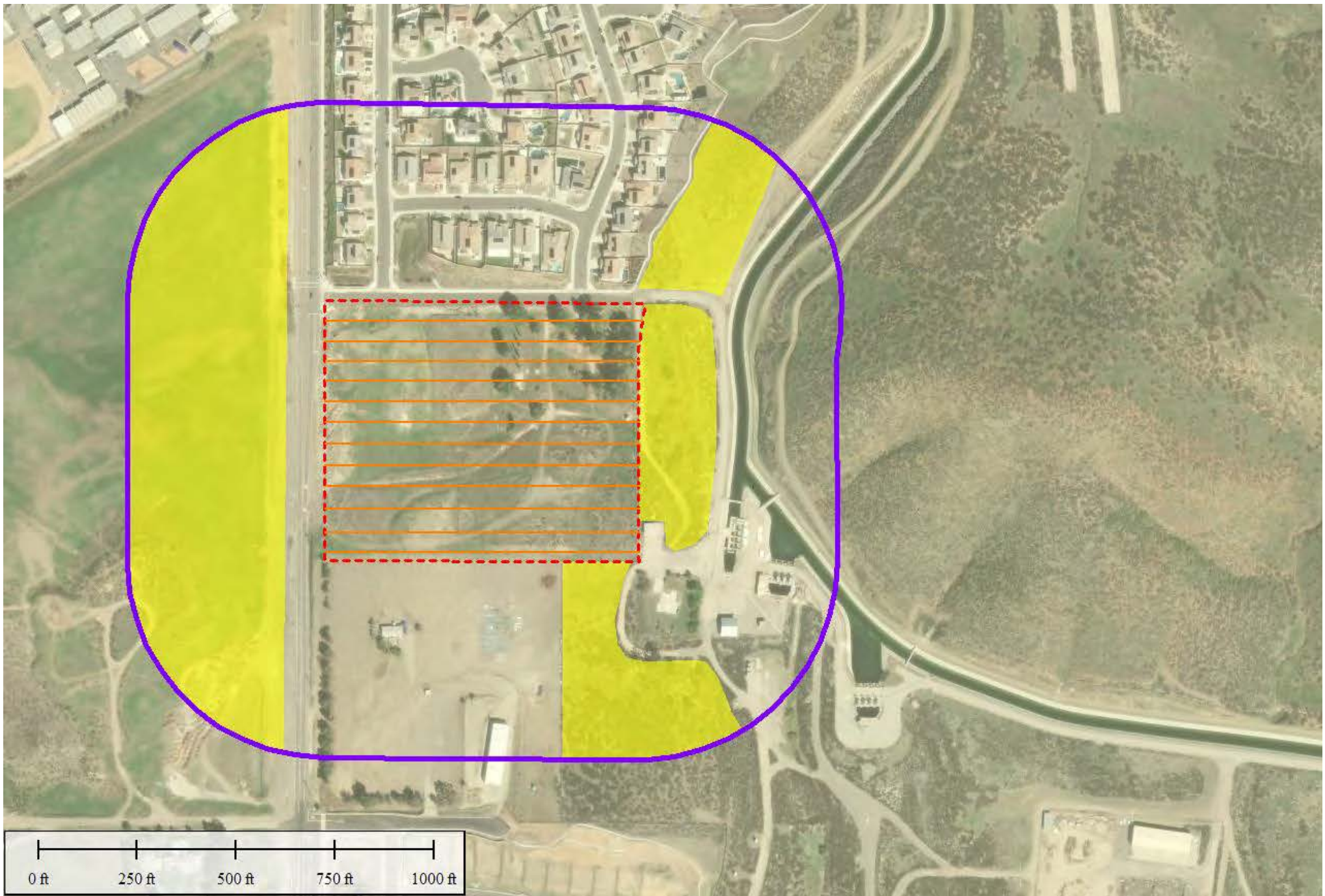


Figure 4
BUOW Survey Area Map
TV Charter School
Riverside County, California

Project Site Boundary

500 Foot Buffer

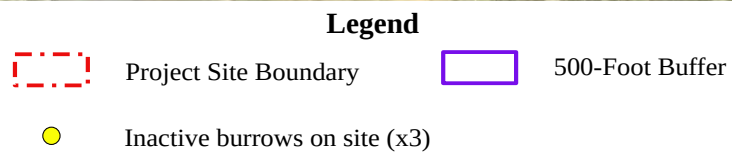
Area Viewed with Binoculars

Transects

FIGURE 5



Figure 5
BUOW Survey Results Map
TV Charter School
Riverside County, California



APPENDIX A



View of suitable burrowing owl burrow.



View of California buckwheat (*Eriogonum fasciculatum*) in disturbed coastal sage scrub area. View looking north.



View of ruderal vegetation including paniculate tarweed (*Deinandra paniculata*). View looking east.

APPENDIX F



PROJECT 35780 WASHINGTON

RARE PLANT SURVEY
REPORT

October, 2023

Prepared For:
Hernandez Environmental
17037 Lakeshore Drive Lake
Elsinore, CA 92530

Prepared By:
Huffman Environmental
PO Box 2024
Julian, CA 92036





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2.2 Project Description	1
2.3 Adjacent Lands	1
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1. Summary

Huffman Environmental, LLC. (Huffman Environmental) were contracted to conduct rare plant surveys to support Project permitting referred to as the 35780 Washington Project (herein Project) in this report. The Project site is located in Winchester, Riverside County, California. It comprises one parcel recorded under Assessor Parcel Number (APN) 472-210-002.

Surveys were conducted over two survey days on May 4, 2023. Two CNPS ranked 4.2 species, San Diego tarplant (*Deinandra paniculata*) and small-flower bindweed (*Convolvulus simulans*), was recorded onsite. No other rare plant species were detected. A comprehensive plant list of species observed was documented and presented in Table 3.

2. Introduction

2.1 Geographic Setting

The approximate 12-acre project site is located southwest of the Temecula Valley Charter School and northeast of Lake Skinner in Riverside County, California. Specifically, the project site is in the Bachelor Mountain United States Geological Survey (USGS) 7.5' topographic quadrangle. The project site's center point latitude and longitude coordinates are 117.0822134° West and 33.6009306° North (Figure 1).

2.2 Project Description

The proposed project consists of the construction of a new campus for Temecula Valley Charter School. The proposed campus will consist of a 17,292 square foot (SF) main building, library, classroom buildings, parking spaces, playgrounds, and recreational areas. Outside of the project boundary, roadside improvements and a proposed sidewalk along the northern and western boundaries will be developed, impacting Washington Street and Yates Road.

2.3 Adjacent Lands

The Project is located at the eastern base of Bachelor Mountain. In all other directions of the parcel is moderate to high density residential neighborhoods.

2.4 Geology, Hydrology, Soils and Climate

The relationship between rare plants and environmental factors is intricate. Geology influences soil composition and availability of specific minerals, while hydrology affects water availability and distribution. Soils provide physical support, nutrients, and water to



Legend

 Project Boundary

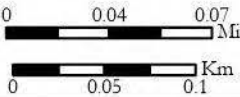


Figure 1: Project Location

**Rare Plant Surveys
Project 35780 Washington**

10/2023

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere





The land formation history within the Bachelor Mountain quadrangle is shaped by a complex interplay of geological processes over millions of years. The San Andreas Fault, Elsinore Fault, and the San Jacinto Fault primarily influence the Winchester area (Kennedy 2003). The most recent geological period spanning back 2.6 million to the present day, known as the Quaternary Period, led to the creation of the biomes observed within the Winchester area. Alluvial deposits, consisting of gravel, sand, and clay, were deposited by streams and rivers due to this tectonic movement.

According to the USDA Web Soil Survey, the Project is comprised of four different soil types with Escondido Fine Sandy Loam as the highest percentages of occurrence. The complete list of soil types can be found in Table 1 and their map locations with descriptions in Appendix D.

Table 1. Soil Composition

Recorded Soil Types on Project Site		
Soil Composition	Site Acreage (in acres)	Percentage of Site
Buchenau Silt Loam; 2 to 8% slopes	0.1	0.8
Escondido Fine Sandy Loam, 2 to 8% slopes	8.0	68.3
Friant Fine Sandy Loam, 5 to 25%	0.3	3.0
Lodo Rocky Loam, 8 to 25%	3.3	27.9
Totals	11.7	100

Source: USDA Soil Survey (2023)

3. Methods

3.1 Literature Review

Huffman Environmental conducted a literature review and reviewed aerial photographs and topographic maps of the project site and surrounding areas. The Bachelor Mountain United States Geological Survey (USGS) 7.5' topographic quadrangle and eight surrounding USGS 7.5' topographic quadrangles were used to identify sensitive species with the California Natural Diversity Data Base (CNDDB), the U.S. Fish and Wildlife Service (USFWS) Endangered Species Lists, and the California Native Plant Society



(CNPS) Rare Plant Inventory to obtain species information for the project area. The CNDDDB and USFWS critical habitat databases and Geographic Information System (GIS) software were utilized to locate the previously recorded locations of sensitive plant and wildlife occurrences. They designated critical habitat and determined the distance from the project site.

Table 2. Precipitation Levels in Winchester

Precipitation (inches)												
Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2021	2.66	0.09	1.67	0.26	0	0	0.18	0	0.11	0.87	0	6.29
2022	0.03	0.91	1.56	0.26	0.02	0	0	0	1.36	0.58	2.86	1.87
2023	7.22	3.44	7.19	0.03	1.05	0	0	3.55	0.11	-	-	-

Source: National Oceanic and Atmospheric Administration National Weather Service (NOAA 2023).

3.2 Field Surveys

Huffman Environmental botanist Ryan Meszaros conducted a rare plant survey within the Project on May 4, 2023. The surveyors noted environmental conditions and documented all plant species observed. Plants not readily identified in the field were collected and pressed for subsequent identification.

The property was systematically surveyed by walking all accessible portions, ensuring all habitats were sufficiently covered for defensible and properly inventoried. Roughly parallel transects were spaced approximately 10 to 12 meters since the open space of the habitat allowed for greater visibility (CNPS 2001). Areas in which CNDDDB and CNPS-sensitive species could occur were focused on.

4. RESULTS

4.1 Preliminary Analysis

The preliminary analysis of known and documented occurrences of the rare plant species evaluated in the study revealed populations of several sensitive species of plants near the property. Numerous species from CNDDDB and CNPS 9-Quad queries were identified as unlikely to occur due to the Project needing to meet the minimum habitat requirements for occurrence. If any species' habitat requirements were met, they were identified as potentially able to occur onsite. A list of plants was compiled from the



CNDDDB and CNPS query that met distribution and habitat requirements before the survey. The CNDDDB and CNPS list can be read in Appendix B and C, respectively. A list compiled of these sensitive species recorded within a 10-mile radius of the project site can be observed in Figure 3. Below is a list of plant species classified as meeting the Criteria Area Species and Narrow Endemic List identified in the Western Riverside Multiple Species Habitat Conservation Plan (WRMSHCP) as having the potential to occur at the Project's location:

Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)

Wright's trichocoronis is an annual herb with a slender and erect stem that can grow to about 30-70 centimeters (12-28 inches) in height. It has narrow, lance-shaped leaves that are alternately arranged along the stem. The leaves can be slightly hairy. The flowers of *Trichocoronis wrightii* var. *wrightii* are small and arranged in dense clusters at the tips of the stems. Each flower head contains both disc florets and ray florets. The disc florets are yellow, while the ray florets are usually white, creating a striking contrast. It's commonly found in open, sandy, or disturbed areas, including deserts, grasslands, and along roadsides (Baldwin, B.G., D.H. Goldman, and L.A. Vorobik. 2012).

California Orcutt grass (*Orcuttia californica*)

California Orcutt grass is a small grass species, typically reaching heights of about 5 to 15 centimeters (2 to 6 inches). It has slender, erect stems with narrow, linear leaves. The inflorescence of *Orcuttia californica* is composed of tiny spikelets that form a compact, cylindrical structure. Each spikelet contains florets with small, inconspicuous flowers. The grass typically blooms in the spring. This plant is native to California, particularly in vernal pool habitats and seasonally wet areas. It is well adapted to thrive in areas with seasonal flooding, and its germination is often triggered by inundation (Baldwin et al., 2012). This species is listed both state and federally as threatened and is ranked by CNPS as 1B.1 (CNPS 2023).

Spreading navarretia (*Navarretia fossalis*)

Gravel navarretia is a small, annual herb. It typically grows to about 5 to 15 centimeters (2 to 6 inches). The stems are slender and covered in glandular hairs. The leaves are linear or lance-shaped. The flowers of *Navarretia fossalis* are small and bell-shaped, with a tubular corolla. They are typically a shade of blue or purple. The flowers are clustered at the tips of the stems (Baldwin et al., 2012). It is listed as threatened by the USFWS and is on List 1B.1 of the CNPS Inventory. It is not listed by the CDFW (CNPS 2023).

Mud Nama (*Nama stenocarpa*)

Mud nama is a small, low-growing herbaceous plant. It typically reaches about 10 to 30 centimeters (4 to 12 inches). The stems are slender and can be reddish or purplish. The leaves are narrow, lance-shaped, and grayish-green in color. The flowers of *Nama stenocarpa* are small and bell-shaped, with five lobes. They are typically a shade of



purple or lavender, which gives the plant its common name. The flowers are arranged in clusters at the tips of the stems. It is commonly found in desert washes, sandy areas, and rocky slopes (Baldwin et al., 2012). It is not state or federally listed but is designated a List 2B.2 (CNPS 2023).

Parish's Britblescale (*Atriplex parishii*)

Parish's brittlescale is a shrub with a somewhat rounded form. It typically reaches a height of 1 to 2 meters (3 to 6.5 feet). The leaves are alternate, simple, and often somewhat fleshy. They are usually gray-green or bluish-green. The flowers of *Atriplex parishii* are small, greenish, and not particularly showy. They are typically arranged in spikes. The plant is monoecious, meaning both male and female flowers are found on the same plant. The fruit is a small, bladder-like structure containing a single seed. This plant is well-adapted to arid and semi-arid environments. It's commonly found in desert shrublands, salt flats, alkali playas, and other saline habitats. It is known for tolerating high soil salinity (Baldwin et al., 2012). It is not state or federally listed as threatened or endangered, but is CNPS ranked 1B.1 (CNPS 2023).

Davidson's saltscale (*Atriplex serenana* var. *Davidsonii*)

Davidson's Saltbush is a perennial shrub that typically grows to a height of about 1 to 3 meters (3 to 10 feet). It has a rounded to spreading growth habit with many slender, wiry stems. The leaves are alternate, simple, and often have a gray-green or silvery appearance. The flowers of *Atriplex serenana* var. *davidsonii* are small and not particularly showy. They are typically greenish or yellowish and arranged in clusters along the stems. The fruit is a small, bladder-like structure containing a single seed. This plant is well-adapted to arid and semi-arid environments. It is commonly found in coastal and inland habitats, including coastal scrub, dry washes, and alluvial flats. It is often associated with saline soils and can tolerate high soil salinity levels (Baldwin et al., 2012). It is not state or federally listed as threatened or endangered, but is CNPS ranked 1B.2 (CNPS 2023).

Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)

Coulter's goldfields is an annual herb with a low-growing and spreading growth habit. It typically reaches about 4 to 12 inches (10 to 30 cm). The stems are usually unbranched and have small, linear leaves. The leaves are typically lance-shaped or linear and arranged alternately along the stems. They are typically green and may have smooth or slightly toothed edges. The flowers are small and daisy-like, with yellow to golden-yellow ray florets surrounding a central cluster of disk florets and are arranged in compact clusters at the ends of the stems. They are native to California and primarily found in coastal and inland regions. It grows in various habitats, including grasslands, coastal scrub, and disturbed areas. Its distribution extends from central California to Baja California (Baldwin et al., 2012).



Little Mousetail (*Myosurus minimus*)

The little mousetail is a diminutive plant, usually measuring between 2 to 10 centimeters (0.8 to 4 inches) in height. It has a slender, delicate stem with basal leaves that form a rosette around the base. The leaves are generally lobed or deeply divided. The inflorescence consists of tiny, greenish-yellow flowers arranged in a spike-like cluster at the top of the stem. Each individual flower has six petals and resembles a mouse's tail. This plant is commonly found in moist habitats such as damp meadows, riverbanks, and marshes (Baldwin et al., 2012). It is not state or federally listed as threatened or endangered, but is CNPS ranked 3.1 (CNPS 2023).

Thread-leaved Brodiaea (*Brodiaea filifolia*)

Thread-leaved Brodiaea is a perennial herbaceous plant with slender and erect stems that can reach about 8 to 20 inches (20 to 50 cm). The stems are typically unbranched and leafless, except for a few small bracts at the base. As the common name suggests, the distinguishing feature of this plant is its thread-like leaves. The leaves are incredibly narrow and filamentous, giving the plant a delicate and graceful appearance. The leaves are typically shorter than the flowering stem and can be up to 12 inches (30 cm) long. The flowers are borne in compact clusters at the top of the stem. Each cluster contains several tubular-shaped flowers with six distinct tepals (petal-like structures). The flower color can vary but is often shades of blue or purple, occasionally white. The flowers bloom in late spring or early summer (Baldwin et al., 2012). This species is listed state and federally as threatened and is ranked by CNPS as 1B.1 (CNPS 2023).

Round-leaved Filaree (*California macrophylla*)

Round-leaved filaree is a low-growing, herbaceous annual plant. It typically reaches a height of about 10-30 centimeters (4-12 inches). As the name suggests, the leaves are deeply lobed and roughly circular. The flowers are small and have five pink to lavender petals. They are arranged in clusters and have distinctive long, slender seedpods, which resemble the beak of a stork or crane. It is found in chaparral, cismontane woodland, coastal sage scrub, riparian scrub; on steep north-facing slopes or in low- grade sandy washes at elevations below 1,200 meters (4,000 feet) (Baldwin et al., 2012). This species is listed both state and federally as threatened and is ranked by CNP. It is not state or federally listed but is designated a List 1B.2 (CNPS 2023).

Munz's Onion (*Allium munzii*)

Munz's onion is a perennial herb that typically reaches a height of about 15 to 40 centimeters (6 to 16 inches). It has narrow, grass-like leaves that arise from a bulb. The leaves are usually flat and can be slightly waxy or glaucous in appearance. The flowers are typically pink to purple and are arranged in a dense, spherical cluster at the top of a slender stem. The individual flowers are six-petaled and have a distinctive onion-like fragrance. It typically blooms in the spring, usually from March to June. This plant is endemic to California and is primarily found in the southern part of the state. It typically



grows in grasslands, open woodlands, and other dry, well-drained habitats (Baldwin et al., 2012). It can also be found in disturbed areas. Munz's onion is listed as endangered by the USFWS and threatened by the CDFW. It is on List 1B.1 of the CNPS Inventory (CNPS 2023).

San Diego Ambrosia (*Ambrosia pumila*)

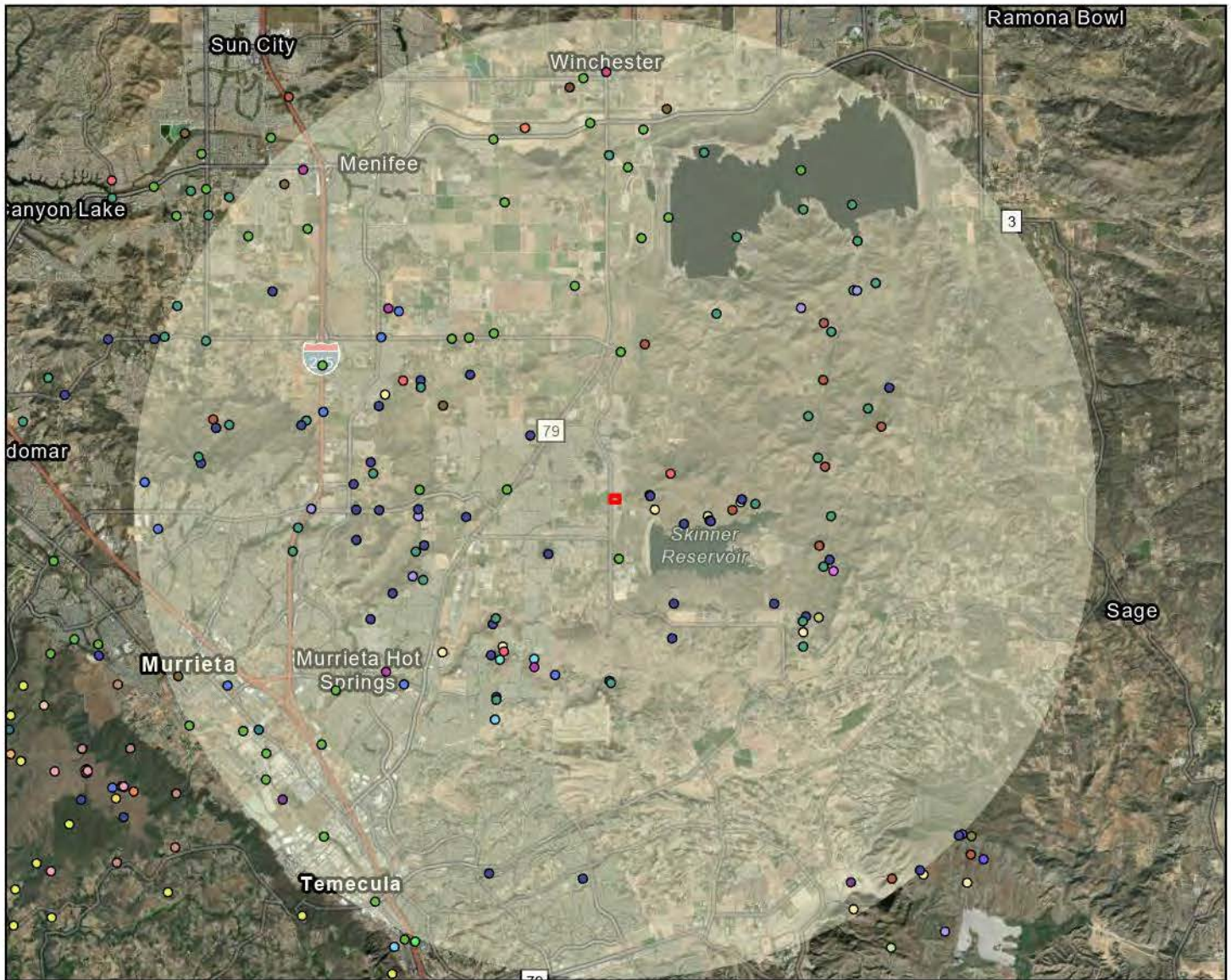
San Diego ambrosia is an annual herb that typically grows to a height of about 20-50 centimeters (8-20 inches). It has finely divided leaves that give it a feathery appearance. The plant is covered in fine hairs. The flowers are small and greenish-yellow in color, with no showy petals. They are arranged in dense spikes at the ends of the stems. This species is native to North America and is primarily found in southwestern regions, particularly in California and parts of Mexico (Baldwin et al., 2012). It thrives in various habitats, including grasslands, open woodlands, and disturbed areas. It is listed as endangered by the USFWS and is on List 1B.1 of the CNPS Inventory. It is not listed by the CDFW (CNPS 2023).

Many-stemmed Dudleya (*Dudleya multicaulis*)

Many-stemmed dudleya is a perennial succulent, forming a rosette of fleshy, lance-shaped leaves. The leaves are often bluish-green, varying depending on the environmental conditions. The plant typically grows to about 15 to 30 centimeters (6 to 12 inches). The flowering stem emerges from the center of the rosette and can be pretty tall relative to the size of the plant. The flowers are typically yellow and star-shaped, with a cluster of petals surrounding a central cluster of stamens. This species is endemic to California and is primarily found in the coastal regions, particularly along cliffs and rocky outcrops. It is well-adapted to dry, rocky habitats and can tolerate exposure to salt spray (Baldwin et al., 2012). It is not state or federally listed but is designated a List 1B.2 (CNPS 2023).

Smooth Tarplant (*Centromadia pungens* ssp. *laevis*)

Smooth tarplant is an annual herb with an erect or spreading growth habit. It typically grows to about 8 to 24 inches (20 to 60 cm). The stems are usually green or reddish and smooth or slightly hairy. The leaves are linear to lanceolate in shape and arranged alternately along the stems. They are typically smooth, lacking hairs, or with minimal hairiness. The leaves can range in color from green to grayish-green. The flowers are small and arranged in compact clusters or heads at the tips of the stems. Each flower head contains multiple yellow disc florets surrounded by yellow to orange ray florets (Baldwin et al., 2012). It is not state or federally listed as threatened or endangered, but is CNPS ranked 1B.1 (CNPS 2023).



Legend

- | | | | | |
|--|--|--|--|-------------------------------------|
| ● <i>Abronia villosa</i> var. <i>aurita</i> | ● <i>Brodiaea orcuttii</i> | ● <i>Clinopodium chandleri</i> | ● <i>Lepidium virginicum</i> var. <i>robinsonii</i> | ● <i>Saltugilia latimeri</i> |
| ● <i>Allium marvinii</i> | ● <i>Brodiaea santarosae</i> | ● <i>Cryptantha wigginsii</i> | ● <i>Mielichhoferia shevockii</i> | ○ <i>Scutellaria bolanderi</i> ssp. |
| ● <i>Allium munzii</i> | ● <i>Calochortus plummerae</i> | ● <i>Dodecahema leptoceras</i> | ● <i>Monardella hypoleuca</i> ssp. <i>intermedia</i> | ● <i>Senecio</i> |
| ● <i>Almutaster pauciflorus</i> | ● <i>Calochortus weedii</i> var. <i>intermedius</i> | ● <i>Dudleya viscida</i> | ● <i>Myosurus minimus</i> ssp. <i>apus</i> | ● <i>Sphaerocarpos</i> |
| ● <i>Ambrosia pumila</i> | ● <i>Caulanthus simulans</i> | ● <i>Eryngium aristulatum</i> var. <i>parishii</i> | ● <i>Navarretia fossalis</i> | ● <i>Symphytotrichum</i> |
| ● <i>Arctostaphylos rainbowensis</i> | ● <i>Ceanothus ophiocylus</i> | ● <i>Harpagonella palmeri</i> | ● <i>Navarretia prostrata</i> | ● <i>Tetracoccus</i> |
| ● <i>Astragalus pachypus</i> var. <i>jaegeri</i> | ● <i>Centromadia pungens</i> ssp. <i>laevis</i> | ● <i>Horkelia cuneata</i> var. <i>puberula</i> | ● <i>Orcuttia californica</i> | ● <i>Texosporium</i> |
| ● <i>Atriplex parishii</i> | ● <i>Chorizanthe parryi</i> var. <i>parryi</i> | ● <i>Juncus luciensis</i> | ● <i>Packera ganderi</i> | ● <i>Tortula californica</i> |
| ● <i>Berberis nevini</i> | ● <i>Chorizanthe polygonoides</i> var. <i>longispina</i> | ● <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> | ● <i>Pseudognaphalium leucocephalum</i> | ■ Project Boundary |
| ● <i>Brodiaea filifolia</i> | | | | ○ 10-Mile Buffer |

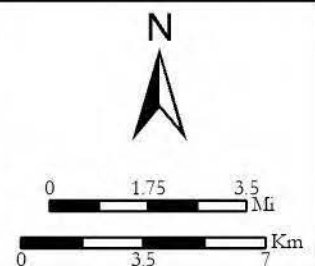


Figure 2: Sensitive Plant Species within 10-Mile Radius

Rare Plant Surveys
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Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere





4.2 Survey Results

Two CNPS ranked 4.2 species, San Diego tarplant (*Deinandra paniculata*) and small-flower bindweed (*Convolvulus simulans*), was recorded onsite (Figure 3). These species are CNPS ranked as 4.2, but carries no CDFW or USFWS threatened or endangered status. No other rare plants were observed or documented onsite during the rare plant survey. A comprehensive list of all plant species is presented in Table 3.

Table 3: Species Observed

Family	Species	Common Name
Adoxaceae	<i>Sambucus nigra</i> subsp. <i>caerulea</i>	Blue Elderberry
Agavaceae	<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	Wavy-Leaf Soap-Plant/Amole
Agavaceae	<i>Yucca gloriosa</i>	Spanish Dagger
Amaranthaceae	<i>Amaranthus albus</i>	White Tumbleweed
Anacardiaceae	<i>Schinus molle</i>	Peruvian Pepper Tree
Anacardiaceae	<i>Schinus terebinthifolius</i>	Brazilian Pepper Tree
Apiaceae	<i>Daucus pusillus</i>	Rattlesnake Weed
Asteraceae	<i>Artemisia californica</i>	Coastal Sagebrush
Asteraceae	<i>Centaurea melitensis</i>	Tocalote
Asteraceae	<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	California Sand-Aster
Asteraceae	<i>Cotula australis</i>	Australian Brass-Buttons
Asteraceae	<i>Deinandra paniculata</i>	San Diego Tarplant
Asteraceae	<i>Encelia farinosa</i> var. <i>farinosa</i>	Brittlebush, Incienso
Asteraceae	<i>Ericameria palmeri</i> var. <i>pachylepis</i>	Thickbracted Goldenbush
Asteraceae	<i>Erigeron canadensis</i>	Horseweed
Asteraceae	<i>Hedypnois cretica</i>	Crete Hedypnois
Asteraceae	<i>Helianthus annuus</i>	Western Sunflower
Asteraceae	<i>Heterotheca grandiflora</i>	Telegraph Weed
Asteraceae	<i>Hypochaeris glabra</i>	Smooth Cat's Ear
Asteraceae	<i>Lactuca serriola</i>	Prickly Lettuce
Asteraceae	<i>Lasthenia gracilis</i>	Common Goldfields
Asteraceae	<i>Logfia gallica</i>	Narrow-Leaf Cottonrose
Asteraceae	<i>Microseris elegans</i>	Elegant Microseris
Asteraceae	<i>Oncosiphon piluliferum</i>	Stinknet
Asteraceae	<i>Pseudognaphalium californicum</i>	California Everlasting
Asteraceae	<i>Pseudognaphalium luteoalbum</i>	Fragrant Everlasting Cudweed
Asteraceae	<i>Sonchus asper</i> subsp. <i>asper</i>	Prickly Sow-Thistle



Asteraceae	<i>Sonchus oleraceus</i>	Common Sow-Thistle
Asteraceae	<i>Stylocline gnaphaloides</i>	Everlasting Nest-Straw
Asteraceae	<i>Uropappus lindleyi</i>	Silver Puffs
Boraginaceae	<i>Amsinckia menziesii</i>	Rigid Fiddleneck
Boraginaceae	<i>Amsinckia retrorsa</i>	Harvest Fiddleneck
Boraginaceae	<i>Pectocarya linearis</i> subsp. <i>ferocula</i>	Slender Combseed
Boraginaceae	<i>Phacelia minor</i>	Wild Canterbury-Bell
Boraginaceae	<i>Plagiobothrys canescens</i>	Valley Popcornflower
Brassicaceae	<i>Capsella bursa-pastoris</i>	Shepherd's Purse
Brassicaceae	<i>Hirschfeldia incana</i>	Short-Pod Mustard
Brassicaceae	<i>Lepidium latifolium</i>	Broad-Leaf Peppergrass
Brassicaceae	<i>Raphanus sativus</i>	Wild Radish
Brassicaceae	<i>Sisymbrium irio</i>	London Rocket
Brassicaceae	<i>Sisymbrium orientale</i>	Hare's-Ear Cabbage
Caryophyllaceae	<i>Silene gallica</i>	Common Catchfly
Chenopodiaceae	<i>Atriplex suberecta</i>	Peregrine Saltbush
Chenopodiaceae	<i>Chenopodium murale</i>	Nettle-Leaf Goosefoot
Chenopodiaceae	<i>Salsola tragus</i>	Prickly Russian-Thistle, Tumbleweed
Convolvulaceae	<i>Calystegia macrostegia</i>	Morning-Glory
Convolvulaceae	<i>Convolvulus arvensis</i>	Field Bindweed
Convolvulaceae	<i>Convolvulus simulans</i>	Small-Flower Bindweed
Crassulaceae	<i>Crassula connata</i>	Pygmyweed
Euphorbiaceae	<i>Croton setiger</i>	Doveweed
Euphorbiaceae	<i>Euphorbia albomarginata</i>	White-Margin Sandmat
Fabaceae	<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish-Clover
Fabaceae	<i>Acmispon micranthus</i>	Grab Lotus
Fabaceae	<i>Acmispon strigosus</i>	Bishop's/Strigose Lotus
Fabaceae	<i>Acmispon wrangelianus</i>	Calf Lotus
Fabaceae	<i>Lupinus bicolor</i>	Miniature Lupine
Fabaceae	<i>Lupinus sparsiflorus</i>	Coulter's Lupine
Fabaceae	<i>Lupinus succulentus</i>	Arroyo Lupine
Fabaceae	<i>Medicago polymorpha</i>	California Burclover
Fabaceae	<i>Melilotus indicus</i>	Indian Sweetclover
Fabaceae	<i>Trifolium albopurpureum</i>	Rancheria Clover
Fabaceae	<i>Trifolium ciliolatum</i>	Tree Clover
Fabaceae	<i>Trifolium microcephalum</i>	Maiden Clover
Geraniaceae	<i>Erodium cicutarium</i>	Red-Stem Filaree/Storksbill
Geraniaceae	<i>Erodium moschatum</i>	White-Stem Filaree/Storksbill
Heliotropiaceae	<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	Salt Heliotrope
Juncaceae	<i>Juncus bufonius</i> var. <i>bufonius</i>	Toad Rush



Liliaceae	<i>Calochortus splendens</i>	Splendid Mariposa Lily
Lythraceae	<i>Lythrum hyssopifolia</i>	Grass Poly
Malvaceae	<i>Malva parviflora</i>	Cheeseweed
Montiaceae	<i>Calandrinia menziesii</i>	Red Maids
Myrsinaceae	<i>Lysmachis arvensis</i>	Scarlet Pimpernel, Poor Man's Weatherglass
Myrtaceae	<i>Eucalyptus camaldulensis</i>	River Red Gum
Nyctaginaceae	<i>Mirabilis laevis</i> var. <i>crassifolia</i>	Coastal Wishbone Plant
Onagraceae	<i>Camissoniopsis intermedia</i>	Intermediate Sun Cup
Onagraceae	<i>Epilobium brachycarpum</i>	Summer Cotton Weed
Pinaceae	<i>Pinus</i> sp.	Ornamental Pine
Plantaginaceae	<i>Veronica peregrina</i> subsp. <i>xalapensis</i>	Mexican/Purslane Speedwell
Poaceae	<i>Avena barbata</i>	Slender Wild Oat
Poaceae	<i>Avena fatua</i>	Wild Oat
Poaceae	<i>Bromus catharticus</i> var. <i>catharticus</i>	Rescue Grass
Poaceae	<i>Bromus diandrus</i>	Ripgut Grass
Poaceae	<i>Bromus hordeaceus</i>	Soft Chess
Poaceae	<i>Bromus rubens</i>	Foxtail Chess, Red Brome
Poaceae	<i>Cynodon dactylon</i>	Bermuda Grass
Poaceae	<i>Festuca octoflora</i>	Tufted Fescue
Poaceae	<i>Festuca perennis</i>	Perennial Rye Grass
Poaceae	<i>Hordeum murinum</i>	Foxtail
Poaceae	<i>Lamarckia aurea</i>	Golden-Top
Poaceae	<i>Phalaris minor</i>	Little-Seed Canary Grass
Poaceae	<i>Polypogon monspeliensis</i>	Annual Beard Grass
Poaceae	<i>Schismus barbatus</i>	Mediterranean Schismus
Polygonaceae	<i>Polygonum aviculare</i>	Common Knotweed
Polygonaceae	<i>Rumex crispus</i>	Curly Dock
Salicaceae	<i>Populus fremontii</i> subsp. <i>fremontii</i>	Western Cottonwood
Solanaceae	<i>Nicotiana glauca</i>	Tree Tobacco
Themidaceae	<i>Dichelostemma capitatum</i> subsp. <i>capitatum</i>	Blue Dicks, School Bells



Legend

- Project Boundary
- Rare Plant
- + Convolvulus simulans
- + Deinandra paniculata

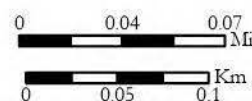


Figure 3: Survey Results

Rare Plant Surveys
Project 35780 Washington

10/2023

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere





5. CERTIFICATION

All biologists working under Huffman Environmental for the 2023, 35780 Washington Project rare plant surveys are qualified to identify all sensitive plant species.

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Please feel free to contact me at (623) 238-1545 or garrett@huffmanenvironmental.com if you have any questions regarding the contents of this report.

Cordially,

A handwritten signature in black ink that reads "Garrett Huffman".

Garrett Huffman
Principal Biologist
Huffman Environmental, LLC
(623) 238-1545
garrett@huffmanenvironmental.com



6. REFERENCES

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Appendix A
Site Photos



Photo 1: San Diego tarplant (*Deinandra paniculata*)



Photo 2. View of Project site consisting primarily of nonnative grassland habitat.



Photo 3: View of the dominant species in this portion of the site, short-pod mustard (*Hirschfeldia incana*).



Appendix B
CNDDDB 9-QUAD
Search Results



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Lake Elsinore (3311763) OR Bachelor Mtn. (3311751) OR Murrieta (3311752) OR Wildomar (3311753) OR Romoland (3311762) OR Winchester (3311761) OR Pechanga (3311741) OR Fallbrook (3311743) OR Temecula (3311742))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)
 AND County IS (Riverside)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	G5T2? S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	650 1,600	98 S:8	0	1	0	1	1	5	5	3	7	0	1
<i>Allium marvinii</i> Yucaipa onion	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,200 3,330	47 S:3	0	0	0	0	0	3	2	1	3	0	0
<i>Allium munzii</i> Munz's onion	G1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,275 3,500	21 S:13	2	5	3	0	0	3	3	10	13	0	0
<i>Almutaster pauciflorus</i> alkali marsh aster	G4 S1S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		7 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ambrosia pumila</i> San Diego ambrosia	G1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,050 1,900	61 S:6	1	2	2	0	0	1	0	6	6	0	0
<i>Arctostaphylos rainbowensis</i> Rainbow manzanita	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	815 2,600	89 S:37	2	3	3	3	0	26	18	19	37	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Astragalus pachypus</i> var. <i>jaegeri</i> Jaeger's milk-vetch	G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,200 1,200	18 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crownscale	G4T1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,250 1,500	16 S:2	1	1	0	0	0	0	0	2	2	0	0
<i>Atriplex parishii</i> Parish's brittlescale	G1G2 S1	None None	Rare Plant Rank - 1B.1 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	1,460 1,500	15 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscale	G5T1 S1	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,500 1,500	26 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Ayenia compacta</i> California ayenia	G4 S3	None None	Rare Plant Rank - 2B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	3,400 3,400	74 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Berberis nevinii</i> Nevin's barberry	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,100 1,100	32 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Brodiaea filifolia</i> thread-leaved brodiaea	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	498 3,370	141 S:7	2	1	1	0	1	2	1	6	6	1	0



Summary Table Report

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California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	1,500 1,500	142 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Brodiaea santarosae</i> Santa Rosa Basalt brodiaea	G1 S1	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	1,850 3,400	12 S:11	2	1	1	0	0	7	5	6	11	0	0
<i>Calochortus plummerae</i> Plummer's mariposa-lily	G4 S4	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,620 1,620	230 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Calochortus weedii</i> var. <i>intermedius</i> intermediate mariposa-lily	G3G4T3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,300 2,500	197 S:5	0	0	0	0	0	5	2	3	5	0	0
<i>Caulanthus simulans</i> Payson's jewelflower	G4 S4	None None	Rare Plant Rank - 4.2 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive		31 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ceanothus ophiocylus</i> Vail Lake ceanothus	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	3,000 3,000	3 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Centromadia pungens</i> ssp. <i>laevis</i> smooth tarplant	G3G4T2 S2	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,000 1,600	137 S:55	0	8	15	4	8	20	22	33	47	4	4
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	G3T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,263 2,400	150 S:53	0	7	1	2	7	36	22	31	46	0	7



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,200 3,400	166 S:61	3	13	2	1	3	39	10	51	58	0	3
<i>Clinopodium chandleri</i> San Miguel savory	G2G3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	1,100 2,050	37 S:7	0	0	0	0	0	7	4	3	7	0	0
<i>Cryptantha wigginsii</i> Wiggins' cryptantha	G2 S1	None None	Rare Plant Rank - 1B.2		10 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Dodecahema leptoceras</i> slender-horned spineflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,236 1,800	42 S:3	0	2	0	0	1	0	1	2	2	0	1
<i>Dudleya multicaulis</i> many-stemmed dudleya	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,600 1,600	154 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Dudleya viscida</i> sticky dudleya	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	700 700	31 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	G5T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,950 2,072	83 S:3	1	1	0	0	0	1	0	3	3	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Geothallus tuberosus</i> Campbell's liverwort	G2 S2	None None	Rare Plant Rank - 1B.1 IUCN_CR-Critically Endangered	2,000 2,000	12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Harpagonella palmeri</i> Palmer's grapplinghook	G4 S3	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,300 2,600	57 S:10	1	2	0	0	0	7	10	0	10	0	0
<i>Hesperocyparis forbesii</i> Tecate cypress	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank SB_UCSC-UC Santa Cruz SB_USDA-US Dept of Agriculture USFS_S-Sensitive		27 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Horkelia cuneata var. puberula</i> mesa horkelia	G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive		103 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Juncus luciensis</i> Santa Lucia dwarf rush	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,000 2,000	37 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,000 1,500	111 S:11	3	0	1	0	0	7	6	5	11	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	G5T3 S3	None None	Rare Plant Rank - 4.3	1,125 2,900	142 S:14	0	0	1	0	0	13	12	2	14	0	0
<i>Lilium parryi</i> lemon lily	G3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive		160 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Limnanthes alba</i> ssp. <i>parishii</i> Parish's meadowfoam	G4T2 S2	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	2,000 2,000	33 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Mielichhoferia shevockii</i> Shevock's copper moss	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,200 1,200	6 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i> intermediate monardella	G4T2? S2?	None None	Rare Plant Rank - 1B.3	1,300 1,970	38 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	G5T3 S3	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,600 3,600	41 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Myosurus minimus</i> ssp. <i>apus</i> little mouse-tail	G5T2Q S2	None None	Rare Plant Rank - 3.1 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,450 2,100	24 S:6	1	2	0	1	0	2	6	0	6	0	0
<i>Navarretia fossalis</i> spreading navarretia	G2 S2	Threatened None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,200 2,000	82 S:18	1	4	2	2	1	8	4	14	17	0	1



Summary Table Report

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California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	G2 S2	None None	Rare Plant Rank - 1B.2	1,975 2,075	61 S:3	0	0	0	0	0	3	0	3	3	0	0
<i>Orcuttia californica</i> California Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,140 2,030	39 S:11	0	5	1	0	2	3	6	5	9	1	1
<i>Packera ganderi</i> Gander's ragwort	G2 S2	None Rare	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	1,600 1,600	14 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	G4 S2	None None	Rare Plant Rank - 2B.2	1,185 1,185	62 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Saltugilia latimeri</i> Latimer's woodland-gilia	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	1,525 1,525	60 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Scutellaria bolanderi ssp. austromontana</i> southern mountains skullcap	G4T3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,400 1,400	43 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Senecio aphanactis</i> chaparral ragwort	G3 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,450 1,450	98 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sibaropsis hammittii</i> Hammitt's clay-cress	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,280 3,400	7 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Sphaerocarpos drewiae</i> bottle liverwort	G1 S1	None None	Rare Plant Rank - 1B.1 IUCN_EN-Endangered	1,850 2,000	23 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Symphotrichum defoliatum</i> San Bernardino aster	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	1,800 1,800	102 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Tetracoccus dioicus</i> Parry's tetracoccus	G2G3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	680 2,000	49 S:7	0	2	0	0	0	5	7	0	7	0	0
<i>Texosporium sancti-jacobi</i> woven-spored lichen	G3 S2	None None	Rare Plant Rank - 3	1,600 1,600	19 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Tortula californica</i> California screw moss	G2G3 S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	600 600	15 S:1	0	0	0	0	0	1	1	0	1	0	0



Appendix C
CNPS 9-QUAD
Search Results

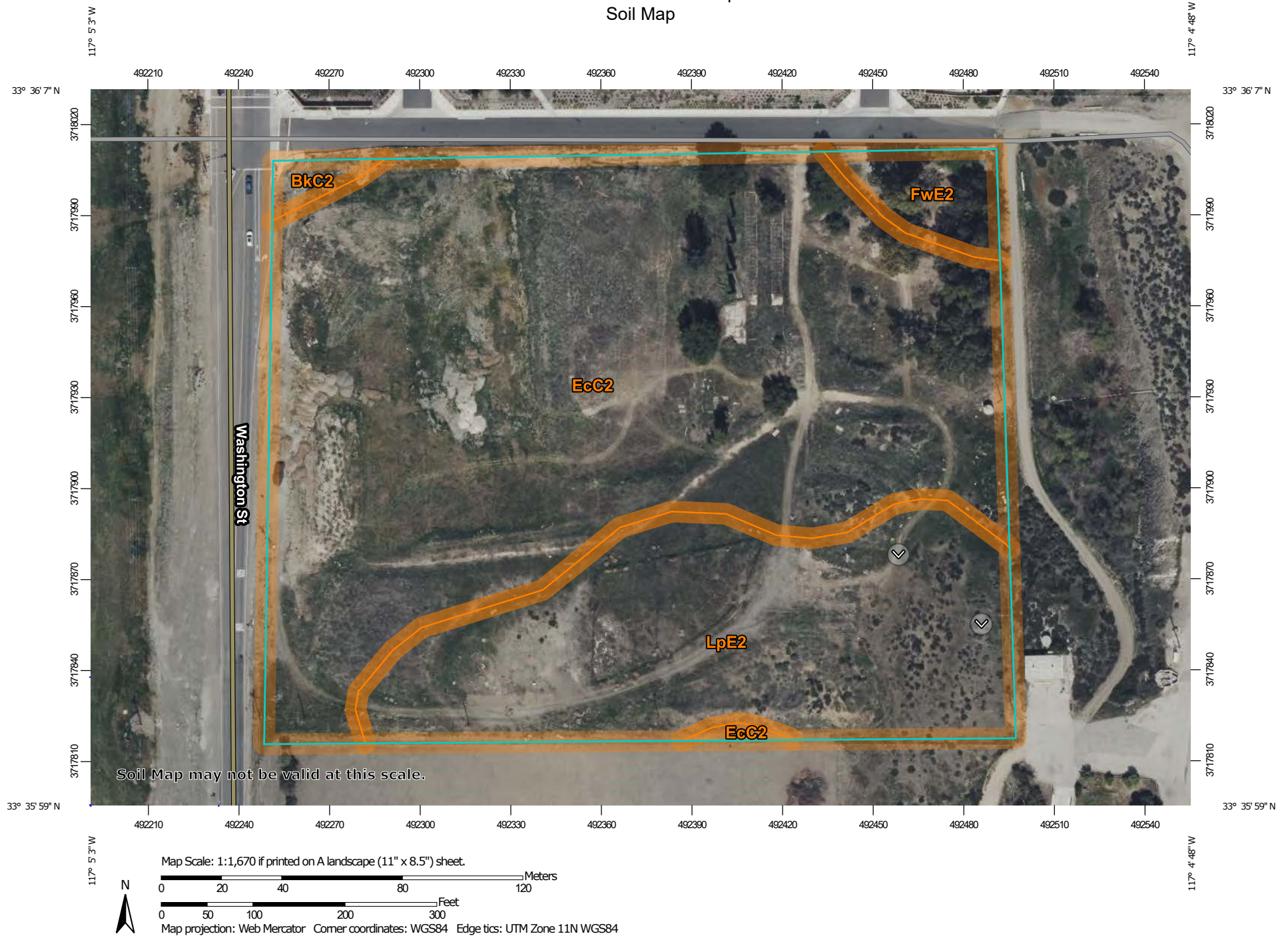
ScientificName	CommonName	Family	CRPR	CESA	FESA
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	Nyctaginaceae	1B.1	None	None
<i>Allium marvinii</i>	Yucaipa onion	Alliaceae	1B.2	None	None
<i>Allium munzii</i>	Munz's onion	Alliaceae	1B.1	CT	FE
<i>Almutaster pauciflorus</i>	alkali marsh aster	Asteraceae	2B.2	None	None
<i>Ambrosia pumila</i>	San Diego ambrosia	Asteraceae	1B.1	None	FE
<i>Amsinckia douglasiana</i>	Douglas' fiddleneck	Boraginaceae	4.2	None	None
<i>Arctostaphylos rainbowensis</i>	Rainbow manzanita	Ericaceae	1B.1	None	None
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's milk-vetch	Fabaceae	1B.1	None	None
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	Chenopodiaceae	1B.1	None	FE
<i>Atriplex parishii</i>	Parish's brittlescale	Chenopodiaceae	1B.1	None	None
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	Chenopodiaceae	1B.2	None	None
<i>Ayenia compacta</i>	California ayenia	Malvaceae	2B.3	None	None
<i>Berberis nevinii</i>	Nevin's barberry	Berberidaceae	1B.1	CE	FE
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	Themidaceae	1B.1	CE	FT
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	Themidaceae	1B.1	None	None
<i>Brodiaea santarosae</i>	Santa Rosa Basalt brodiaea	Themidaceae	1B.2	None	None
<i>Calochortus catalinae</i>	Catalina mariposa lily	Liliaceae	4.2	None	None
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	Liliaceae	4.2	None	None
<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa-lily	Liliaceae	1B.2	None	None
<i>Caulanthus simulans</i>	Payson's jewelflower	Brassicaceae	4.2	None	None
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus	Rhamnaceae	1B.1	CE	FT
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	Asteraceae	1B.1	None	None
<i>Chorizanthe leptotheca</i>	Peninsular spineflower	Polygonaceae	4.2	None	None
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	Polygonaceae	1B.1	None	None
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	Polygonaceae	1B.2	None	None
<i>Clinopodium chandleri</i>	San Miguel savory	Lamiaceae	1B.2	None	None
<i>Convolvulus simulans</i>	small-flowered morning-glory	Convolvulaceae	4.2	None	None
<i>Cryptantha wigginsii</i>	Wiggins' cryptantha	Boraginaceae	1B.2	None	None
<i>Deinandra paniculata</i>	paniculate tarplant	Asteraceae	4.2	None	None
<i>Diplacus clevelandii</i>	Cleveland's bush monkeyflower	Phrymaceae	4.2	None	None
<i>Dodecahema leptoceras</i>	slender-horned spineflower	Polygonaceae	1B.1	CE	FE

<i>Dudleya multicaulis</i>	many-stemmed dudleya	Crassulaceae	1B.2	None	None
<i>Dudleya viscida</i>	sticky dudleya	Crassulaceae	1B.2	None	None
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	Apiaceae	1B.1	CE	FE
<i>Erythranthe diffusa</i>	Palomar monkeyflower	Phrymaceae	4.3	None	None
<i>Geothallus tuberosus</i>	Campbell's liverwort	Sphaerocarpaceae	1B.1	None	None
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>	Mission Canyon bluecup	Campanulaceae	3.1	None	None
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	Boraginaceae	4.2	None	None
<i>Hesperocyparis forbesii</i>	Tecate cypress	Cupressaceae	1B.1	None	None
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	graceful tarplant	Asteraceae	4.2	None	None
<i>Hordeum intercedens</i>	vernal barley	Poaceae	3.2	None	None
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	Rosaceae	1B.1	None	None
<i>Juglans californica</i>	Southern California black walnut	Juglandaceae	4.2	None	None
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	Juncaceae	4.2	None	None
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	Juncaceae	1B.2	None	None
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	Asteraceae	1B.1	None	None
<i>Lathyrus splendens</i>	pride-of-California	Fabaceae	4.3	None	None
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	Lamiaceae	1B.2	None	None
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	Brassicaceae	4.3	None	None
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	ocellated Humboldt lily	Liliaceae	4.2	None	None
<i>Lilium parryi</i>	lemon lily	Liliaceae	1B.2	None	None
<i>Limnanthes alba</i> ssp. <i>parishii</i>	Parish's meadowfoam	Limnanthaceae	1B.2	CE	None
<i>Microseris douglasii</i> ssp. <i>platycarpha</i>	small-flowered microseris	Asteraceae	4.2	None	None
<i>Mielichhoferia shevockii</i>	Shevock's copper moss	Mielichhoferiaceae	1B.2	None	None
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	intermediate monardella	Lamiaceae	1B.3	None	None
<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's monardella	Lamiaceae	1B.3	None	None
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	Ranunculaceae	3.1	None	None
<i>Navarretia fossalis</i>	spreading navarretia	Polemoniaceae	1B.1	None	FT
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	Polemoniaceae	1B.2	None	None
<i>Nolina cismontana</i>	chaparral nolina	Ruscaceae	1B.2	None	None
<i>Orcuttia californica</i>	California Orcutt grass	Poaceae	1B.1	CE	FE
<i>Packera ganderi</i>	Gander's ragwort	Asteraceae	1B.2	CR	None
<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	Asteraceae	2B.2	None	None

<i>Quercus engelmannii</i>	Engelmann oak	Fagaceae	4.2	None	None
<i>Rhinotropis cornuta</i> var. <i>fishiae</i>	Fish's milkwort	Polygalaceae	4.3	None	None
<i>Romneya coulteri</i>	Coulter's matilija poppy	Papaveraceae	4.2	None	None
<i>Saltugilia latimeri</i>	Latimer's woodland-gilia	Polemoniaceae	1B.2	None	None
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	southern mountains skullcap	Lamiaceae	1B.2	None	None
<i>Senecio aphanactis</i>	chaparral ragwort	Asteraceae	2B.2	None	None
<i>Sibaropsis hammittii</i>	Hammitt's clay-cress	Brassicaceae	1B.2	None	None
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	Malvaceae	2B.2	None	None
<i>Sphaerocarpos drewiae</i>	bottle liverwort	Sphaerocarpaceae	1B.1	None	None
<i>Symphotrichum defoliatum</i>	San Bernardino aster	Asteraceae	1B.2	None	None
<i>Tetracoccus dioicus</i>	Parry's tetracoccus	Picrodendraceae	1B.2	None	None
<i>Texosporium sancti-jacobi</i>	woven-spored lichen	Caliciaceae	3	None	None
<i>Tortula californica</i>	California screw moss	Pottiaceae	1B.2	None	None
<i>Viguiera laciniata</i>	San Diego County viguiera	Asteraceae	4.3	None	None



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 16, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2022—Mar 17, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BkC2	Buchenau silt loam, 2 to 8 percent slopes, eroded	0.1	0.8%
EcC2	Escondido fine sandy loam, 2 to 8 percent slopes, eroded	8.0	68.3%
FwE2	Friant fine sandy loam, 5 to 25 percent slopes, eroded	0.3	3.0%
LpE2	Lodo rocky loam, 8 to 25 percent slopes, eroded	3.3	27.9%
Totals for Area of Interest		11.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Western Riverside Area, California

BkC2—Buchenau silt loam, 2 to 8 percent slopes, eroded

Map Unit Setting

National map unit symbol: hcrm

Elevation: 500 to 1,500 feet

Mean annual precipitation: 13 inches

Mean annual air temperature: 63 degrees F

Frost-free period: 250 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Buchenau and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buchenau

Setting

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from mixed sources

Typical profile

H1 - 0 to 7 inches: silt loam

H2 - 7 to 45 inches: loam

H3 - 45 to 61 inches: cemented

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 40 to 60 inches to duripan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: R019XD029CA - LOAMY

Hydric soil rating: No

Minor Components

Arlington

Percent of map unit: 5 percent

Hydric soil rating: No

Buren

Percent of map unit: 5 percent

Hydric soil rating: No

Greenfield

Percent of map unit: 3 percent

Hydric soil rating: No

Porterville

Percent of map unit: 2 percent

Hydric soil rating: No

EcC2—Escondido fine sandy loam, 2 to 8 percent slopes, eroded

Map Unit Setting

National map unit symbol: hctb

Elevation: 400 to 2,800 feet

Mean annual precipitation: 10 to 20 inches

Mean annual air temperature: 63 degrees F

Frost-free period: 230 to 280 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Escondido and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Escondido

Setting

Landform: Hills

Landform position (two-dimensional): Backslope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from metamorphic rock

Typical profile

H1 - 0 to 5 inches: fine sandy loam

H2 - 5 to 34 inches: silt loam

H3 - 34 to 38 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

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Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: R019XD029CA - LOAMY

Hydric soil rating: No

Minor Components

Fallbrook

Percent of map unit: 5 percent

Hydric soil rating: No

Lodo

Percent of map unit: 5 percent

Hydric soil rating: No

Friant

Percent of map unit: 5 percent

Hydric soil rating: No

FwE2—Friant fine sandy loam, 5 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: hcty

Elevation: 500 to 5,800 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 59 to 64 degrees F

Frost-free period: 210 to 280 days

Farmland classification: Not prime farmland

Map Unit Composition

Friant and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Friant

Setting

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Residuum weathered from schist, mica

Typical profile

H1 - 0 to 13 inches: fine sandy loam

H2 - 13 to 17 inches: unweathered bedrock

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Properties and qualities

Slope: 9 to 25 percent

Depth to restrictive feature: 6 to 20 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Ecological site: R019XD060CA - SHALLOW LOAMY

Hydric soil rating: No

Minor Components

Vista

Percent of map unit: 5 percent

Hydric soil rating: No

Escondido

Percent of map unit: 5 percent

Hydric soil rating: No

Cieneba

Percent of map unit: 5 percent

Hydric soil rating: No

LpE2—Lodo rocky loam, 8 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: hcwr

Elevation: 300 to 4,000 feet

Mean annual precipitation: 8 to 35 inches

Mean annual air temperature: 45 to 64 degrees F

Frost-free period: 110 to 250 days

Farmland classification: Not prime farmland

Map Unit Composition

Lodo and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lodo

Setting

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Metamorphosed residuum weathered from sandstone

Typical profile

H1 - 0 to 8 inches: gravelly loam

H2 - 8 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 25 percent

Depth to restrictive feature: 8 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: R019XD060CA - SHALLOW LOAMY

Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 10 percent

Hydric soil rating: No

Unnamed

Percent of map unit: 3 percent

Hydric soil rating: No

Cajalco

Percent of map unit: 3 percent

Hydric soil rating: No

Escondido

Percent of map unit: 3 percent

Hydric soil rating: No

Temescal

Percent of map unit: 3 percent

Hydric soil rating: No

Vallecitos

Percent of map unit: 3 percent

Hydric soil rating: No

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