

Appendix B.1

WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN
CONSISTENCY ANALYSIS

SUN LAKES BOULEVARD EXTENSION PROJECT



City of Banning and Unincorporated Riverside County, California

Prepared for:
Albert A. Webb Associates
3788 McCray Street
Riverside, CA. 92506

Submitted by:
WSP USA Inc.
11870 Pierce St #160
Riverside, CA 92505
Phone: (951) 299-4160

Principal Investigator: John F. Green, Senior Biologist

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1 EXECUTIVE SUMMARY

The proposed Sun Lakes Boulevard Extension Project (project) is a transportation project including construction of a new section of Sun Lakes Boulevard from Highland Home Road to Sunset Avenue (Figure 3) and intersection improvements within the city of Banning's existing road right-of-way (ROW). The project encompasses approximately 19.4 acres of direct footprint (permanent impacts) and another 9.1 acres of temporary construction disturbance area (temporary impacts). Project staging and stockpiling will occur within the city's ROW. The project site is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and this consistency analysis was performed in accordance with the requirements of the MSHCP.

The project site is not within any MSHCP Criteria Cells, Cell Groups, Cores, or Linkages. Studies required by the MSHCP include assessment for riparian/riverine/vernal pool resources, including a focused survey for fairy shrimp; a survey for the Narrow Endemic Plant Species (NEPS) Marvin's (Yucaipa) onion (*Allium marvinii*) and many stemmed dudleya (*Dudleya multicaulis*); a survey for the burrowing owl (*Athene cunicularia*); a survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*); and an assessment of whether the Delhi Sands flower loving fly (*Rhaphiomidas terminatus abdominalis*) or any of twenty-eight (28) species which were not adequately conserved at the time of MSHCP implementation may be present on the project site.

To date, results of those studies include:

- Riparian/riverine habitat is present on the project site, including potential habitat for Cooper's hawk (*Accipiter cooperii*) and possibly white-tailed kite (*Elanus leucurus*).
- Vernal pools are not present on the project site.
- Fairy shrimp habitat is present on the project site. Fairy shrimp focused surveys were completed on the project site during the 2020-2021 wet season and the 2021 dry season. The common versatile fairy shrimp (*Branchinecta lindahli*), which is not a special status species, was the only fairy shrimp species detected.
- Plant focused surveys were completed on the project site in 2020. No NEPS, riparian/riverine plant species, or plant species "not adequately conserved" were detected on the project site.
- Burrowing owl surveys were completed on the project site in 2020. Burrowing owls were not detected on the project site.
- Los Angeles pocket mouse surveys sufficient to sample project site habitats, but not to delineate all occupied habitat, were conducted in 2020. Los Angeles pocket mice were not detected on the project site.

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- No soils suitable for Delhi Sands flower loving fly are present on the project site and the project area is well beyond the known range of the species.
- The only wildlife species “not adequately conserved” which may occur as a breeding species on the project site is grasshopper sparrow (*Ammodramus savannarum*). It was not observed, but some suitable habitat is present.

The city intends to purchase land or preserve existing city land within the Whitewater Watershed, ideally along Smith Creek which would be placed in a conservation easement or have a deed restriction and protected in perpetuity with a non-wasting endowment. The land will be managed by a third-party land manager, such as Western Riverside County Regional Conservation Authority (RCA), Rivers and Lands Conservancy or Inland Empire Resource Conservation District. The purchased conservation land should contain similar habitat to the project site and provide similar or superior function and habitat value. Currently, the project site has relatively unvegetated, sandy bottom, riverine habitat. Any mitigation areas that contain riparian habitat would be considered superior habitat.

Permanent impacts will be mitigated at a 3:1 ($3 \times 0.37 = 1.11$ acres) ratio and temporary impacts will be mitigated at a 2:1 ratio ($2 \times 0.09 = 0.18$ acres). The total mitigation acreage should equal or surpass 1.3 acres. The primary method of mitigation will be offsite conservation and enhancement of City owned property located along Smith Creek. The City will place at least 1.3 acres into a Conservation Easement with an approved third party conservation holder such as Western Riverside County Regional Conservation Authority (RCA), Rivers and Lands Conservancy (RLC) or Inland Empire Resource Conservation District (IERCD). Additionally, the City has committed to participating in a regional solution of the sediment transport function of the Smith Creek watershed. The intended outcome of this regional solution is to bring the various stakeholders in this watershed together to work on a sediment management strategy to ensure sediment is transported efficiently and effectively to support ecological resources. The City's commitment to this regional solution will serve as providing rehabilitation mitigation for the overall impacts from this Project.

The project will also return temporary impact areas to their pre-existing contours and revegetate them with appropriate native species. The project will also mitigate and/or minimize impacts by following MSHCP Section 6.1.4 Urban Wildlands Interface Guidelines and MSHCP Volume I, Appendix C Standard Best Management Practices (BMPs). Because burrowing owl habitat and potential burrows are present, a preconstruction survey will be conducted. Should burrowing owls be detected at that time, an updated DBESP report will be prepared and mitigation will be achieved through the project following all MSHCP guidelines and the direction of the Environmental Programs

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Department, Western Riverside County Regional Conservation Authority, and/or the Wildlife Agencies.

The project will also mitigate and/or minimize impacts by following MSHCP Section 6.1.4 Urban Wildlands Interface Guidelines and MSHCP Volume I, Appendix C Standard Best Management Practices (BMPs).

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Jurisdictional delineation report

NHC 2024 High Level Assessment of Potential Sediment Transport Impacts
Associated with the Updated Sun Lakes Boulevard Improvement Project

2 INTRODUCTION

At the request of the Albert A. Webb Associates (Webb), WSP USA Inc. (WSP) prepared this Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report for the proposed Sun Lakes Boulevard Extension Project (project). The purpose of this analysis is to summarize the biological data for the project and to document the project's consistency with the goals and objectives of the MSHCP.

2.1 Project Area

The project is in the city of Banning, Riverside County, California and It is generally located south of Interstate 10, west of State Route 243 and east of Lambs Canyon Road (Figure 1). It can be found in Sections 7 and 18 of Township 3 South, Range 1 East of the *Beaumont, California*, United States Geological Survey (1978) 7.5-minute topographic quadrangle map (Figure 2). The elevation of the project site ranges from approximately 2,383 to 2,525 feet above sea level. The geographic coordinates near the middle of the site are 33.5512.85° North latitude and -116.5516.29° West longitude. The project occurs within portions of the following Assessor's Parcel Numbers (APN): 419140039, 537110013, 537110014, 537120023, 537120024, 537120025, 537120027, 537120028, 537120029, 537120030, 537120031, 537120033, 537120034, 537140001, 537140002, 538323024, and 538323029.

No off-site staging areas or off-site improvements are planned. No weed abatement or fuel modification zones have been identified. However, if unforeseen circumstances were to arise that required hazard reduction within an area considered environmentally sensitive or a part of the MSHCP Conservation Area, such as lands proposed for conservation on the adjacent project site, it would require approval from the appropriate agencies prior to any vegetation management activities. These could include but are not limited to the Western Riverside County Regional Conservation Authority (WRCRCA), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), United States Fish and Wildlife Service (USFWS), and the United States Army Corps of Engineers (USACE).

2.2 Project Description

The proposed project is a transportation project including construction of a new section of Sun Lakes Boulevard from Highland Home Road to Sunset Avenue (Figure 3) and intersection improvements within the City of Banning's existing and future road right-of-way (ROW). This report and associated figures have been updated to reflect the change in the area of the proposed impacts related to alignment revisions which have occurred so that the new roadway could be redesigned to avoid existing high pressure gas lines within the project area. The updated projects impacts include 19.4 acres of permanent impacts, 9.1 acres of temporary impacts. Project staging and stockpiling will occur within the City's ROW. Currently, Westward Avenue is a straight east-west

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unpaved dirt road between Highland Home Road and Sunset Avenue. The project crosses over three creeks, from west to east: Highland Wash, Smith Creek, and Pershing Creek. The project will include the construction of three sets of culverts to cross said creeks.

Surrounding land uses include residential subdivisions, public facilities, and open space. The approximately five-acres is currently undeveloped. Historically the project site was graded for agricultural purposes in the 1960's. It has remained vacant for the past 2 to 3 decades. Vegetation within the proposed project site consists of non-native grassland, California buckwheat scrub, and Riversidean alluvial fan sage scrub. Three deeply incised drainages and associated tributaries are present within the proposed project site. Structures within the general vicinity include city-owned wells, an agricultural storage shelter, and several easements for streets, utilities, gas and oil pipelines, landscaping, and communications systems are all located within the general proposed project alignment.

2.3 General Setting

Adjacent to and south of the Sun Lakes Boulevard ROW are existing utilities that include three well sites and one wastewater lift station. Within Westward Avenue, there are many existing utility lines including, a potable water line, sanitary sewer line, recycled water line, fiber optics line, three oil lines, and an underground telephone line. Single-family homes are west of Highland Home Road. East of Sunset Avenue are single-family homes, a small number of commercial businesses, the Mt. San Jacinto College San Geronimo Pass Campus, and undeveloped open space, including habitat for biological elements of concern to the MSHCP. The project footprint outside of the facilities detailed above is currently undeveloped open space, including habitat for biological elements of concern to the MSHCP, as are areas to the north and south of the project.

3 RESERVE ASSEMBLY ANALYSIS

3.1 Criteria Cells

No part of the project site lies within or adjacent to any MSHCP Criteria Cells. Therefore, the project will have no effect on the planned assembly of the MSHCP reserve.

3.2 Public Quasi-Public Lands

No part of the project site lies within or adjacent to any existing public quasi-public lands (PQP). Therefore, the project will have no effect on existing PQP lands. However, conservation is being proposed by an adjoining project immediately adjacent to proposed Sun Lakes Boulevard in Highland Wash, Smith Creek, Pershing Creek and in

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a buffer around them. Land conserved in those areas will become a part of the MSHCP Conservation Area; therefore, MSHCP Section 6.1.4 Urban Wildlands Interface Guidelines should be implemented.

4 VEGETATION MAPPING

The project site contains six vegetation communities / land cover categories: buckwheat scrub, non-native grassland, riparian scrub/woodland, Riversidean alluvial fan sage scrub, non-vegetated streambed, and disturbed/developed (Figure 4). *Disturbed/developed* areas are the direct result of current or past human activity (buildings, roads, et cetera). The following are somewhat more natural land cover categories, although non-native grasslands are comprised largely of naturalized non-native plant species introduced by humans:

Buckwheat Scrub

This habitat is dominated by California buckwheat (*Eriogonum fasciculatum*). Additionally, vegetation includes California sagebrush (*Artemisia californica*), brittlebush (*Encelia californica*), pinebush (*Ericameria pinifolia*), deerweed (*Acmispon glaber*), common sand aster (*Corethrogyne filaginifolia*), turkey mullein (*Eremocarpus setigerus*), shortpod mustard (*Hirschfeldia incana*), and horseweed (*Erigeron canadensis*). Areas within the eroded dry stream areas adjacent to the active channel also contain rough cocklebur (*Xanthium strumarium*), Johnson grass (*Sorghum halepense*), and mugwort (*Artemisia douglasiana*).

Non-native Grassland

This habitat is dominated by non-native annual grasses. Some species of grasses that are observed within the grassland include wild oats (*Avena fatua*), cheatgrass (*Bromus tectorum*), and red brome (*Bromus rubens*). Dominant broad-leaved species within this habitat include shortpod mustard, red-stemmed filaree (*Erodium cicutarium*), and annual ragweed (*Ambrosia acanthicarpa*). Late summer dominants include turkey-mullein and vinegarweed (*Trichostema lanceolatum*).

Non-vegetated Streambed

Although, not a vegetation community, it is a significant landscape feature found within the project site. The majority of the drainages within the project site contain mostly bare coarse sand with only isolated patches of vegetation including mule fat (*Baccharis salicifolia*), annual ragweed, shortpod mustard, and Johnson grass.

Riparian Scrub Woodland

This habitat is commonly dominated by young willow trees and shrubs. Within the project site, the riparian scrub woodland areas are small patches dominated by Fremont cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), red willow (*Salix lasiolepis*), or mule fat.

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Riversidean Alluvial Fan Sage Scrub

This is a 'soft chaparral' habitat found on south-facing upland slopes, and along sandy ephemeral streams. It occurs below 3,000 feet elevation and occupies generally drier sites than chaparral. Within the project site, scale broom (*Lepidospartum squamatum*) dominates. Other species observed include mugwort and tarragon (*Artemisia dracunculus*). Table 1 provides acreage and land usage by habitat.

Table 1. Land Use Impacts by Habitat (Vegetation Community / Land Cover) (Acres)

Vegetation Community	Permanent	Temporary	Grand Total
Buckwheat scrub	10.08	3.63	13.71
Disturbed/Developed	1.62	0.91	2.53
Non-native Grassland	6.97	4.34	11.31
Non-vegetated streambed	0.39	0.13	0.52
Riversidean alluvial fan sage scrub	0.28	0.04	0.32
Riparian Scrub/woodland	0.05	0.03	0.08
Grand Total	19.39	9.08	28.47

5 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (SECTION 6.1.2)

According to Section 6.1.2 of the MSHCP:

“Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.” and

“Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.”

“With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as

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described above which are artificially created are not included in these definitions.”

5.1 Riparian/Riverine

5.1.1 Methods

On 29 July and 4 and 6 August 2020 and 25 March 2024, WSP senior biologist conducted a jurisdictional waters delineation (JD) of the project site. On 25 June 2024 WSP updated the JD report for the project site. The JD report is attached to this analysis as an appendix. Drainages were evaluated for wetland/riparian associated vegetation, clearly defined bed and bank features, wetland soils, and/or evidence of an ordinary high watermark that would potentially be considered jurisdictional by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, CDFW, and/or MSHCP.

5.1.2 Existing Conditions and Results

The following riparian/riverine resources were identified on-site:

Highland Wash is an ephemeral drainage containing riparian and riverine resources that flows from north to south and crosses perpendicular to the proposed project. Flow originates from north of Interstate 10 and from the Sun Lakes community immediately northwest of the project. In the area of the project, Highland Wash contains an active low flow channel with adjacent active floodplain that is bordered on the west with low terraces and on the east are incised channel walls that are both bordered by uplands. The active low-flow channel is approximately 12-inches wide in the project area with a silty/sandy bed and no vegetation. Evidence of flows were identified by benches and drift present in the project area. The adjacent active floodplain varies from roughly 3-feet to 15-feet wide and evidenced by a more pebbly substrate than the low flow channel, as well as ripples, older drift, presence of bed and bank, benches and no vegetation. The ordinary high water mark (OHWM) is approximately 8-inches and indicated by break in slope and change in vegetative cover from active floodplain to low terrace. The low terrace borders the floodplain on the west with midstage upland vegetation consisting of California buckwheat that uniformly dominates the drainage area from the low terrace to the nearby hill tops. The outer limit of the low terrace is characterized by a higher vegetative density of buckwheat and marks the limit of potential CDFW jurisdiction.

Highland Wash likely flows for less than 3 months per year and is therefore does not have permanent flow and would not be considered USACE jurisdictional. Highland Wash joins with Smith Creek at Westward Avenue.

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Smith Creek is an ephemeral drainage containing riparian and riverine resources that flows from north to south and crosses perpendicular to the proposed project and east of Highland Wash. Flow to Smith Creek originates from a large watershed area north of Interstate 10. In the area of the project, Smith Creek contains an active low flow channel with adjacent active floodplain that is bordered with low terraces. The active low-flow channel is approximately 8-inches wide with a silty/sandy bed and no vegetation. Evidence of flows were identified by benches and drift present in the project area. The adjacent active floodplain was on average 20-feet wide and the limits of which evidenced by a more pebbly substrate then the low flow channel, as well as ripples, older drift, presence of bed and bank, benches and limited pockets of early-stage vegetation. OHWM is approximately 6-inches and indicated by break in slope and changes in vegetative cover and sediment texture from active floodplain to low terrace. The low terrace borders the floodplain on the west with late-stage upland vegetation consisting mostly of California buckwheat that uniformly dominates the drainage area from the low terrace to the nearby hill tops. The outer limit of the low terrace is characterized by change in slope and a higher vegetative density of California buckwheat and marks the limit of potential CDFW jurisdiction.

Smith Creek likely flows for less than 3 months per year and is therefore does not have permanent flow and would not be considered USACE jurisdictional. Highland Wash joins with Smith Creek at Westward Avenue. Smith Creek is tributary to San Geronio Creek, which is tributary to the Whitewater River. The Whitewater River is tributary to the Salton Sea located approximately 50 river miles to the southeast from the project area.

Pershing Creek is a wide ephemeral drainage containing riparian and riverine resources that flows from north to south and crosses perpendicular to the proposed project. It is located east of Smith Creek. Flows to Pershing Creek originate from north of Interstate 10. In the area of the project, Pershing Creek splits around an island approximately 0.24-acre in size of Riversidean alluvial fan sage scrub into two sets of active low flow channels with adjacent active floodplains. The Riversidean alluvial fan sage scrub is dominated by scale broom. The active low flow channels are approximately 10-inches wide in the project area with a fine sandy bed and no vegetation. Evidence of flows were identified by benches and ripples present in the project area. The active floodplain is on average 38-feet wide and bordered by short low terraces that are bordered by steep embankments that are roughly 20-feet high to the east and west of the creek. One mature eucalyptus tree (*Eucalyptus* species) on the far westerly bank is also within the project area. The active floodplain is evidenced by a more sandy/pebbly substrate then the low flow channel, as well as older drift, mud cracks, and earlystage vegetation of buckwheat and annual filarees (*Erodium* species). OHWM is approximately 10-inches and

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indicated by break in slope and changes in vegetative cover and sediment texture from active floodplain to low terrace. The low terrace borders the floodplain on the west with silty soil and 95% cover of late-stage upland vegetation consisting of California buckwheat that uniformly dominates the drainage area from the low terrace to the nearby hill tops. The outer limit of the low terrace on the east side of the creek is characterized by a change in slope and higher vegetative density of buckwheat and marks the limit of potential CDFW jurisdiction. The outer limit on the west side of the creek is characterized by a near-vertical incised channel bank.

Pershing Creek likely flows for less than 3 months per year and is therefore does not have permanent flow and would not be considered USACE jurisdictional. Pershing Creek merges with Smith Creek far downstream of the project limits.

Existing Culverts under Westward Avenue are riverine resources and potentially USACE jurisdictional waters because although they are confined and man-made, they convey flow from the three preceding drainages across Westward Avenue. There are a total of 6 culverts of varying diameters and lengths for a total footprint of approximately 0.02 acre within the project limits.

Highland Wash

- 18-inch diameter, 24 feet long
- 54-inch diameter, 27 feet long
- 54-inch diameter, 10 feet long Smith Creek
- 48-inch diameter, 35 feet long Pershing Creek
- 48-inch diameter, 45 feet long
- 48-inch diameter, 44 feet long

Table 2 lists the potentially jurisdictional features within the project footprint with additional details on each pursuant to USACE criteria. Figure 5 identifies all observed project site jurisdictional areas.

Flow from the project site drainages enters the MSHCP Conservation Area approximately 4.5 miles downstream in the San Geronio Pass Special Linkage Area.

The functions and values of the project site drainages and the surrounding upland loams include absorption and the gradual release of water into the downstream MSHCP Conservation Area. The drainages also provide sediment transport to downstream areas. The topography and vegetation in the project site drainages also provide cover and corridors for the shelter and movement of wildlife. The Project will include the construction of three sets of culverts to cross said creeks. The culverts are multi-cell reinforced concrete box (RCB)

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channels running under the proposed Sun Lakes Boulevard roadway extension. Straight wing walls with concrete and riprap aprons will be constructed at the upstream end of each channel while vertical wing walls and concrete aprons will be provided at the downstream end of channels. Concrete ramps will be constructed at the south end of the channels to provide maintenance access. Swales and trapezoidal channels will be provided to intercept stormwater runoff from north of the Project and discharge it to the proposed channels. The culverts were designed so that sediment transport and wildlife movement functions and values will be retained.

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Table 2. Project Site Riparian/Riverine Acreage

Name of Potential Aquatic Feature	Cowardin Type	Area, Length, Width	Summary of OHWM Presence	Summary of Wetland Presence	Dominant Vegetation / Listing Status	Location	Potentially Jurisdictional?
Highland Wash	R4SBJ ^(a)	0.12 acre	Change in vegetation, break in slope	None	<i>Eriogonum fasciculatum</i> / Not Listed ^(c)	33.918220, -116.924808	Yes; non-Section 10, non-wetland
		403 feet					
		15 feet ^(b)					
Smith Creek	R4SBJ ^(a)	0.12 acre	Change in average sediment texture, change in vegetation cover, break in slope	None	<i>Eriogonum fasciculatum</i> / Not Listed ^(c)	33.918290, -116.923923	Yes; non-Section 10, non-wetland
		256 feet					
		20 feet ^(b)					
Pershing Creek	R4SBJ ^(a)	0.23 acre	Change in average sediment texture, change in vegetation species and cover, break in slope	None	Riversidean alluvial fan sage scrub dominated by <i>Lepidospartum squamatum</i> / a facultative upland plant species ^(c) and <i>Eriogonum fasciculatum</i> / Not Listed ^(c)	33.918245, -116.914588	Yes; non-Section 10, non-wetland
		286 feet					
		38 feet ^(b)					
Existing Culverts Under Westward Avenue	Not Applicable	6 pipes of varying sizes for combined length of 185 feet and area of 0.02 acre (700 square feet)	Not Applicable	None	None	Varies	Yes; non-Section 10, non-wetland

^(a) = R4SBJ: "Riverine, Intermittent, Streambed, Intermittently Flooded" based on Cowardin et al, (1979)

^(b) = Widths are average widths in the Project limits.

^(c) = Listing status refers to the National Wetland Plant List.

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Other species discussed in Section 6.1.2 of the MSHCP include:

Plants

- California muhly (*Muhlenbergia californica*): WRCRCA (2019a) reports that this species does not occur in the MSHCP area.
- California Orcutt grass (*Orcuttia californica*): Narrow Endemic Plant Species Survey Area (NEPSSA) species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*): Criteria Area Species Survey Area (CASSA) species for which surveys are not required on this project site because the project site is not in any CASSA . Not incidentally detected by focused plant surveys.
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*): CASSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- little mousetail (*Myosurus minimus* ssp. *apus*): CASSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- Orcutt's brodiaea (*Brodiaea orcuttii*): NEPSSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- Parish's brittlescale (*Atriplex parishii*): CASSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- Parish's meadowfoam (*Limnanthes gracilis* var. *parishii*): Parish's meadowfoam is limited to ephemeral wetlands in the mountains of southern California between 600 and 1,700 meters. Within the MSHCP area, it is known only from ephemeral wetlands on the Santa Rosa Plateau. The project site is outside the known geographical range of the species. Not incidentally detected by focused plant surveys.
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*): This species occurs only in vernal pools with clay soils. Within the MSHCP area, it is known only from the Santa Rosa Plateau. The project site lacks suitable habitat and is outside the known range of the species. Not incidentally detected by focused plant surveys.
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*): CASSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- spreading navarretia (*Navarretia fossalis*): NEPSSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.

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- thread-leaved brodiaea (*Brodiaea filifolia*): CASSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.
- vernal barley (*Hordeum intercedens*): Suitable habitat for this species includes alkali annual grasslands and vernal pools and, to a lesser extent, alkali scrub and alkali playa in association with Domino, Willows, and Traver soils. The project site lacks suitable habitat. Not incidentally detected by focused plant surveys.
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*): NEPSSA species for which surveys are not required on this project site. Not incidentally detected by focused plant surveys.

Fish, Amphibians, Reptile

All these species require aquatic habitat that is not present on the project site:

- arroyo chub (*Gila orcutti*)
- Santa Ana sucker (*Catostomus santaanae*)
- arroyo toad (*Anaxyrus [Bufo] californicus*)
- coast range newt (*Taricha tarosa tarosa*)
- mountain (southern) yellow-legged frog (*Rana muscosa*)
- western pond turtle (*Clemmys marmorata pallida*)

Birds

- American bittern (*Botaurus lentiginosus*): American bitterns in California are found almost exclusively in the emergent habitat of freshwater marshes and vegetated borders of ponds and lakes. There is no suitable habitat on the project site.
- bald eagle (*Haliaeetus leucocephalus*): Considered a bird of aquatic ecosystems, it occurs primarily at or near seacoasts, rivers, swamps, and large lakes. There is no suitable habitat on the project site.
- black-crowned night heron (*Nycticorax nycticorax*): Habitat requirements are varied, including all types of wetland areas including swamps, streams, rivers, margins of pools, ponds, lakes, lagoons, tidal mudflats, fresh, brackish, and saltwater ecosystems and even using man-made ditches, canals, reservoirs, and wet agricultural fields. In inland areas, most colonies are associated with large wetlands. There is no suitable habitat on the project site.
- black swift (*Cypseloides niger*): It nests in moist crevices or caves on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. It forages widely over many habitats. Unlikely to occur on the project site, even as a foraging bird and there is no nesting habitat on the project site.

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- Cooper's hawk (*Accipiter cooperii*): This species is usually found in areas with dense tree stands or patchy woodland habitat. Recorded on the project site and there are trees suitable for nesting. Will be protected by "Protection of Nesting Birds" measures below.
- double-crested cormorant (*Phalacrocorax auritus*): Require lakes, rivers, reservoirs, estuaries, or the ocean. Possible only as a flyover species. There is no suitable breeding or foraging habitat on the project site.
- downy woodpecker: Within southern California, the species generally nests in deciduous (often willow) woodlands, deciduous growth/oak woodlands, orchards, suburban plantings, and occasionally in conifers. Lowland stream-bottoms constitute the main theaters of activity for this woodpecker. Available water may be a factor for the presence of the species. There is no suitable habitat on the project site.
- Lincoln's sparrow (*Melospiza lincolnii*): Breeding in southern California occurs in wet montane meadows of corn lily, sedges, and low willows. During the winter and spring and fall migration, the species requires thickets of shrubs or tall forbs interspersed with grassy areas, usually on damp ground or near water. It uses lowlands that are avoided during the breeding season. It likely occurs on the project site in winter and during spring and fall migration, but there is no breeding habitat.
- MacGillivray's warbler (*Geothlypis* [*Oporornis*] *tolmiei*): Breeding pairs of MacGillivray's warbler typically are found in moist brushy areas within coniferous forests between 2,000-2,800 meters but may also be found in clear-cuts or mixed deciduous forests up to 3,000 meters. It may occur on the project site during migration, but there is no breeding habitat.
- Nashville warbler (*Leiothlypis* [*Vermivora*] *ruficapilla*): This species most commonly breeds in montane chaparral habitats in southern California. It may occur on the project site during migration, but there is no breeding habitat on the project site.
- osprey (*Pandion haliaetus*): This species uses rivers, lakes, and reservoirs for foraging and rocky pinnacles, and large trees and snags in open forest for cover and nesting. There is no suitable habitat on the project site.
- peregrine falcon (*Falco peregrinus*): Within southern California, peregrine falcons are primarily found at coastal estuaries and inland oases. It nests on cliffs, generally 200 to 300 feet in height that tend to dominate the surrounding landscape. It may forage on the project site, but there is no breeding habitat on the project site.
- purple martin (*Progne subis*): The species nests in cavities constructed by other bird species in tall, old trees near a body of water. It forages over riparian areas, forests, and woodland. It may be found virtually anywhere in aerial habitat during migration but is quite rare. It may occur on the project site during migration but breeding on the project site is not

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expected because of low population size and currently known breeding distribution.

- tree swallow (*Tachycineta bicolor*): The species forages primarily over and around ponds, marshes, rivers, lakes, and estuaries. Tree swallows nest almost exclusively in cavity-containing trees or snags with cavities that are near, or preferably in, water. It may be found virtually anywhere in aerial habitat during migration and winter, so may occur while foraging or during migration. Breeding is not expected because there is no suitable habitat on the project site.
- tricolored blackbird (*Agelaius tricolor*): Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat composed of grassland, woodland, or agricultural cropland. In winter, they often form single-species, and sometimes single-sex, flocks, but they also flock with other blackbird species. It is unlikely to forage on the project site, and there is no breeding habitat.
- white-faced ibis (*Plegadis chihi*): In southern California, extensive marshes are required for nesting. The species prefers shallow, grassy marshes and nests in dense, fresh emergent wetland. Migrant and wintering birds forage in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries. There is no project site habitat.
- white-tailed kite (*Elanus leucurus*): This species inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas are used for nesting. The project site could be used for foraging, but nesting habitat is marginal to absent. Will be protected by "Protection of Nesting Birds" measures below.
- Wilson's warbler (*Cardellina [Wilsonia] pusilla*): Breeding habitats for this species include montane meadows and low, dense willow thickets as well as other shrubs and scrub, often on steep slopes. During migration, these birds can be seen passing through many habitats. It may occur on the project site during migration, but there is no breeding habitat on the project site.
- yellow-breasted chat: In Southern California primarily found in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. The species is seldom seen in migration but may occur on the project site at that time. There is no breeding habitat on the project site.
- yellow warbler: In Southern California, this species breeds in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs. During migration, they occur in many

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habitats. It may occur on the project site at that time, but there is no breeding habitat on the project site.

5.1.3 Impacts

The existing culverts located under Westward Avenue will remain in place and remain functional. Therefore, they are not included in the impact areas. Otherwise, all identified project site riparian/riverine drainages and areas will be permanently or temporarily impacted (Table 3).

Table 3. Project Site Riparian/Riverine Impacts

Name of Potentially Jurisdictional Feature	USACE/RWQCB		CDFW/Riverine/Riparian		Length (feet)
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres) (feet)	
Highland Wash (Creek Crossing No. 1)	0.1	0.01 (61)	0.1	0.01 (61)	403
Smith Creek (Creek Crossing No. 2)	0.08	0.04 (65)	0.08	0.04 (65)	256
Pershing Creek (Creek Crossing No. 3)	0.2	0.03 (72)	0.2	0.03 (72)	286
Total	0.38	0.09	0.38	0.09	945

5.1.4 Mitigation

The city intends to purchase land or preserve existing city land within the Whitewater Watershed, ideally along Smith Creek which would be placed in a conservation easement or have a deed restriction and protected in perpetuity with a non-wasting endowment. The land will be managed by a third-party land manager such as Western Riverside County Regional Conservation Authority (RCA), RLC or IERCD. . The purchased conservation land will contain similar habitat to the project site and provide similar or superior function and habitat value. Currently, the project site has relatively unvegetated, sandy bottom, riverine habitat. Any mitigation areas that contain riparian habitat would be considered superior habitat.

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Permanent impacts will be mitigated at a 3:1 ($3 \times 0.37 = 1.11$ acres) ratio and temporary impacts will be mitigated at a 2:1 ratio ($2 \times 0.09 = 0.18$ acres). The total mitigation acreage should equal or surpass 1.3 acres. The primary method of mitigation will be offsite conservation and enhancement of City owned property located along Smith Creek. The City will place at least 1.3 acres into a Conservation Easement with an approved third-party conservation holder such as Western Riverside County Regional Conservation Authority (RCA), Rivers and Lands Conservancy (RLC) or Inland Empire Resource Conservation District (IERCD). Additionally, the City has committed to participating in a regional solution of the sediment transport function of the Smith Creek watershed. The intended outcome of this regional solution is to bring the various stakeholders in this watershed together to work on a sediment management strategy to ensure sediment is transported efficiently and effectively to support ecological resources. The City's commitment to this regional solution will serve as providing re rehabilitation mitigation for the overall impacts from this Project.

The project will also return temporary impact areas to their pre-existing contours and revegetate them with appropriate native species. Further details on how the project will achieve mitigation and equivalency and ensure the long-term conservation, sustainability, and maintenance of the functions and values of the riparian/riverine resource(s) will be addressed in the project's Determination of Biological Equivalent or Superior Preservation (DBESP) report (WSP 2024e).

5.2 Vernal Pools

Vernal pools are seasonal wetlands that occur in depression areas. They have all three wetland indicators (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.

5.2.1 Methods

During all 2020-2021 project site surveys, pooled areas were watched for vernal pool indicators. The entire project site was transected numerous times in all seasons.

5.2.2 Existing Conditions and Results

No pools meeting the vegetation parameters of a vernal pool were identified on the project site during any 2020 – 2021 project site surveys.

5.2.3 Impacts

No vernal pools were detected, so there will be no impacts.

5.2.4 Mitigation

No vernal pools were detected, so no mitigation will be required.

5.3 Fairy Shrimp

Three species of fairy shrimp are covered by the MSHCP: Riverside fairy shrimp (*Streptocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and vernal pool fairy shrimp (*Branchinecta lynchi*). The MSHCP states that suitable fairy shrimp habitat is “defined as vernal pools, stock ponds, ephemeral ponds, or other human-modified depressions.” Although these species are covered by the MSHCP, surveys are required for them in appropriate habitat.

5.3.1 Methods

Although no clay soils are mapped on the project site (Figure 6), non-vernal pool potential fairy shrimp habitat is present on the project site including stock ponds, ephemeral pools, road ruts, and human-made depressions. Such pools have been noted during various 2020 field surveys (Figure 7). A protocol-level fairy shrimp survey was conducted in the wet and dry seasons of 2020 – 2021 (WSP 2024a).

5.3.2 Existing Conditions and Results

Multiple pools or potential pools have been identified as fairy shrimp habitat or potential fairy shrimp habitat from review of historic aerial photography and during 2020 – 2021 surveys. Only the common versatile fairy shrimp was detected by 2020 – 2021 focused surveys, both in the wet and dry seasons.

5.3.3 Impacts

All fairy shrimp habitat and potential fairy shrimp habitat on the project site will be impacted.

5.3.4 Mitigation

No special status fairy shrimp were detected so no mitigation and avoidance are required.

5.4 Riparian Birds

The project site and adjacent vegetation is unsuitable habitat for state and federally listed riparian bird species such as the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), or western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Stands are too small and lack the necessary structure and density to support these species. No mitigation is required.

6 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3)

The project site is within the Narrow Endemic Plant Species Survey Area (NEPSSA) for Marvin's onion (*Allium marvinii*) and many stemmed dudleya (*Dudleya multicaulis*) (Figure 8). Suitable habitat is present on site for those species. Therefore, focused surveys were conducted for these narrow endemic plants (NEPS).

6.1 Methods

The focused survey (WSP 2024b) was conducted on 26 and 27 May 2020 by WSP biologists Dale Hameister and Nathan T. Moorhatch. The survey was conducted during the appropriate time of year (blooming period) for the detection of the NEPSSA species and followed a period of above average rainfall for the 2019-2020 season. Areas of suitable habitat were surveyed utilizing transects which were adjusted based on topography and habitat coverage so that all potential NEPSSA habitat was surveyed.

6.2 Existing Conditions and Results

Marvin's onion and many stemmed dudleya were not observed or otherwise detected during the focused survey. There are no historic records of these species on the project site, including during surveys conducted from 2002 - 2005. These plant species are considered absent from the project site.

6.3 Mitigation

Because no NEPS were detected, no impacts will occur. For these reasons, mitigation for NEPS is not required for the project.

7 ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2)

7.1 Criteria Area Plant Species

The WRCRCA MSHCP Information Tool indicates the project site is not located within a CASSA for plants, therefore no actions are needed.

7.2 Amphibians

The WRCRCA MSHCP Information Tool indicates that the project site is not within a MSHCP designated amphibian survey area, therefore no actions are needed.

7.3 Burrowing Owl

Burrowing owl habitat is present and the project site is within the MSHCP designated burrowing owl survey area (Figure 9) so focused surveys were conducted (WSP 2024c).

7.3.1 Methods

All burrowing owl surveys were conducted in accordance with protocol provided by the Riverside County Transportation and Land Management Agency (Environmental Programs Department “RCTLMA EPD” 2006a). Step I habitat assessment and Step II, Part A focused burrow surveys were conducted on 17 July 2020 by WSP senior biologist Nathan Moorhatch and biologist Alec Williams. The non-native grassland vegetation and portions of the various drainages with California ground squirrel and other manmade “burrow surrogates” on and immediately adjacent to the project site provide suitable habitat for burrowing owls. The site was surveyed on foot, mapping the locations of California ground squirrel burrows and/or manmade “burrow surrogates” that were suitable for burrowing owl use. Step II, Part B focused burrowing owl surveys were then conducted by Moorhatch or Williams on 24 & 31 July and 6 & 12 August 2020. Surveys were completed via pre-dawn/early morning pedestrian transects over 100% of those areas of the site identified in the burrow search as having burrows or structures capable of supporting burrowing owls. Binoculars were used to visually inspect potential perching locations (i.e., rocks, debris, dirt mounds) as well as the entrances to all onsite mammal burrows and debris providing potential shelter (i.e., piles of concrete slabs, cement drainpipes). Potential burrows were carefully examined for evidence of burrowing owl occupation (i.e., animal dung, feathers, whitewash, pellets, debris, etc.). Where buffer areas were not accessible, they were visually inspected using binoculars in accordance with protocol.

7.3.2 Existing Conditions and Results

Potential burrow sites were present, but no burrowing owls or their sign were detected. Therefore, no impacts to burrowing owls are anticipated at this time.

7.3.3 Impacts

Most, if not all, potential burrows on the project site will be permanently impacted by the project.

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7.3.4 Mitigation

Because no burrowing owls were detected, no impacts will occur. For this reason, mitigation and/or equivalency requirements relative to burrowing owls are not anticipated to be required for the project.

Note, however, that because the project site contains suitable, but currently unoccupied habitat, burrowing owls have the potential to colonize and occupy the project site at any time in the future. MSHCP guidelines require a one-visit pre-construction presence/absence surveys for burrowing owls within the survey area where suitable habitat is present, even where protocol level surveys were negative. Surveys will be conducted within 30 days prior to disturbance. If burrowing owls are found at that time, refer to the following guidelines below.

The project site is not located within a Criteria Area, so the following MSHCP guidelines apply:

- “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 burrowing owls, then the project site burrowing owls will be passively or actively relocated following accepted protocols.”
- “If the site (including adjacent areas) supports three or more pairs of burrowing owls, 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 burrowing owl pairs will be conserved onsite.”
- “RCTLMA EPD (2006b) states: “In the event owls are observed on the project site, please contact the EPD immediately to discuss potential mitigation measures such as passive or active relocation.” Further WRCRCA guidelines (2019b) include:
- Coordinate with WRCRCA and the CDFW on all evictions (passive or active relocation).
- Eviction may be acceptable if suitable conserved habitat and natural or artificial burrows are within 75–100 meters. Note that eviction during the nesting season is generally prohibited.
- If adjacent or nearby suitable habitat is not conserved, eviction may still be acceptable at the discretion of WRCRCA and/or CDFW.
- A *Burrowing Owl Protection and Relocation Plan* will be prepared and must be reviewed, approved, and coordinated with WRCRCA and Wildlife Agencies, including the state banding permit office and federal Migratory Bird Treaty Act office if active relocation is needed.

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Should burrowing owls be detected, an updated DBESP report will be prepared and mitigation will be achieved through the project following all MSHCP guidelines and the direction of the Environmental Programs Department, Western Riverside County Regional Conservation Authority, and/or the Wildlife Agencies.

7.4 Mammals

Los Angeles pocket mouse (LAPM) habitat is present and approximately 19.6-acres of the project site are within the MSHCP designated LAPM survey area (Figure 10), so focused surveys were conducted for the LAPM (WSP 2024d).

7.4.1 Methods

Trapping operations were conducted by WSP biologist John F. Green under the authority of CDFW Scientific Collecting Permit (SCP) #SC-190360007. A total of six grids of 25 traps each were placed (Grids A through F). One grid was placed in each drainage and the remaining three grids were placed in upland habitats. All grids were within the MSHCP-designated survey area for the Los Angeles pocket mouse.

To ensure that weather conditions were suitable to conduct the survey with minimal stress to captured animals, National Weather Service forecasts were monitored for the weather stations nearest the trapping areas. Trapping is not conducted unless five consecutive nights with temperatures above 50 degrees Fahrenheit are forecasted. At this time of year, no temperatures approached that threshold.

All traps were 12" long folding Sherman® live traps, modified by the manufacturer for the prevention of tail lacerations when trapping long-tailed animals (such as kangaroo rats). Traps were placed approximately ten meters apart and baited with white proso millet. Traps were opened at dusk daily, checked for captures at mid-night and dawn, and closed for the day following each dawn check. Trapping at each grid was conducted for five consecutive nights. Captured animals were identified and released at the point of capture. Capture data and weather variables were recorded on standardized data forms. Weather variables were recorded with a handheld Kestrel anemometer.

7.4.2 Existing Conditions and Results

Within the LAPM survey area on the project site, potential habitat ranges from high quality in the drainages and from low-moderate quality in the uplands. No LAPM were detected during the focused survey, however.

7.4.3 Impacts

LAPM appears to be absent from the project site. Therefore, impacts to LAPM will not occur as a result of project implementation.

7.4.4 Mitigation

No LAPM are present, thus no impacts will occur and no mitigation for LAPM is required.

8 INFORMATION ON OTHER SPECIES

8.1 Delhi Sands Flower Loving Fly

The project does not fall within an area with mapped Delhi soils (Figure 6) and is outside of the range of the Delhi Sands flower loving fly (*Rhaphiomidas terminatus abdominalis*).

8.2 Species Not Adequately Conserved

Table 9-3 of the MSHCP lists twenty-eight (28) species for which certain conservation requirements must be achieved in order for them to be considered adequately conserved. Table 4 below lists those species, their current MSHCP status (adequately conserved or not), and their potential for occurrence on the project site if they have not been adequately conserved.

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Table 4. Species Not Adequately Conserved under MSHCP Table 9-3 in 2004

Species	Habitat and Distribution	Site & Current MSHCP Status (WRCRA 2019a)
Plants		
<i>Arctostaphylos rainbowensis</i> rainbow manzanita	Perennial evergreen shrub found in chaparral vegetation and known to occur in northwestern San Diego and southwestern Riverside Counties, from 100 to 870 meters elevation.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Calochortus plummerae</i> Plummer's mariposa lily	Found in sandy or rocky sites of (usually) granitic or alluvial material in valley and foothill grassland, coastal scrub, chaparral, cismontane woodland, and lower montane coniferous forest at 100 to 1,700 meters (300 to 5,600 feet) elevation.	VERY LOW POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Chorizanthe leptotheca</i> peninsular spineflower	Annual herb found on coastal and alluvial fans at 300 to 1,900 meters (984 to 6,235 feet elevation) in chaparral, yellow pine forest, coastal sage scrub habitats.	VERY LOW POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	Found in dry sandy soils in chaparral or coastal scrub at 40 to 1,750 meters (100 to 5,700 feet) elevation. Known only from Riverside and San Bernardino Counties and possibly extending into Los Angeles County.	VERY LOW POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Deinandra mohavensis</i> Mojave tarplant	Found in low sand bars in riverbeds, mostly in riparian areas or in ephemeral grassy areas, in riparian scrub and mesic chaparral at 640 to 1,645 meters elevation.	VERY LOW POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.

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Species	Habitat and Distribution	Site & Current MSHCP Status (WRCRCA 2019a)
<i>Dudleya viscida</i> sticky (-leaved) dudleya	Perennial herb found in rocky areas in coastal bluff scrub, chaparral, coastal sage scrub; 10-870 meters elevation.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have been met or partially met, but a Memorandum of Understanding (MOU) with the US Forest Service (USFS) is needed. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Gallium californicum</i> ssp. <i>primum</i> Alvin Meadow (California) bedstraw	Perennial herb found in granitic soils in chaparral and lower montane coniferous forest; 1,350 to 1,830 meters elevation.	ABSENT. project site is below known elevational range. Table 9-3 requirements for conservation have been met or partially met, but MOU with the USFS is needed. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Heuchera hirsutissima</i> shaggy-haired alumroot	Found in rocky areas in upper montane and subalpine coniferous forest 1,065 to 3,500 meters elevation.	ABSENT. project site is below known elevational range. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Holocarpha virgata</i> ssp. <i>elongata</i> graceful (curving) tarplant	Annual herb found in chaparral, valley and foothill grassland, foothill woodland, and coastal sage scrub habitats at 60 to 1,100 meters elevation.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Hulsea vestita</i> ssp. <i>callicarpa</i> beautiful hulsea	Perennial herb found in rocky or gravelly, granitic soils at 915 to 3,050 meters elevation in chaparral or lower montane coniferous forest habitat.	ABSENT. project site is below known elevational range. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.

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Species	Habitat and Distribution	Site & Current MSHCP Status (WRCRCA 2019a)
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated Humboldt lily	Found in openings within chaparral, cismontane woodland, coastal scrub, yellow pine forest, and riparian woodland at 30-1,800 meters elevation.	ABSENT. project site is outside of the expected range of the species. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Lilium parryi</i> lemon lily	Bulbiferous perennial herb of wet areas in meadows and riparian and montane coniferous forests at 625 to 2,930 meters elevation.	ABSENT. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> small-flowered microseris	Found in valley grassland, coastal prairie, cismontane woodland, coastal sage scrub habitats and vernal pools at 15 to 1,070 meters.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Mimulus (Diplacus) clevelandii</i> Cleveland's bush monkeyflower	Found in chaparral, lower montane coniferous forest, and yellow pine forest habitats at 450 to 2000 meters elevation.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Muhlenbergia californica</i> California muhly	Streambanks, canyons, and other moist sites in chaparral, coastal sage scrub, coniferous forest, and meadows; 100 to 2,000 meters elevation; San Gabriel, San Bernardino, and San Jacinto Mountains.	ABSENT. WRCRCA reports that Table 9-3 requirements for conservation have not been met because this species is not present in MSHCP area. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Sidothea (Oxythea) caryophylloides</i> chickweed oxythea	Annual herb found in lower montane coniferous forest (sandy) habitats at 1,114 to 2,600 meters.	ABSENT. project site below known elevational range. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.

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Species	Habitat and Distribution	Site & Current MSHCP Status (WRCRA 2019a)
<i>Polygala cornuta</i> var. <i>fishiae</i> Fish's milkwort	Chaparral, riparian woodland, cismontane woodland, 100 to 1,000 meters elevation.	ABSENT. project site is well outside of the known range of the species. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Potentilla rimicola</i> cliff cinquefoil	Granitic crevices and rocky slopes in subalpine coniferous forest and upper montane coniferous forest at 2,400 to 3,050 meters elevation.	ABSENT. project site below known elevational range. Table 9-3 requirements for conservation have not been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
<i>Romneya coulteri</i> Coulter's Matilija poppy	Dry washes and canyons 20 to 1,220 meters elevation. Coastal sage scrub and chaparral away from the immediate coast.	VERY LOW POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have been met. Not found on the project site by focused plant surveys, but this species was not a specific survey target.
Reptiles		
<i>Charina umbratica</i> Southern rubber boa	Found in montane coniferous forest; near rock outcrops and woody debris in the San Bernardino and San Jacinto Mountains.	ABSENT. project site is not in the range or habitat of this species. Table 9-3 requirements for conservation have been met or partially met, but MOU with the USFS is needed.
<i>Lampropeltis multifasciata</i> (<i>zonata parvirubra</i>) coast mountain kingsnake (San Bernardino mountain kingsnake)	"San Bernardino Mountain Kingsnake" is found in southern California in the San Jacinto, Santa Rosa, San Bernardino, Santa Susana, and San Gabriel Mountains, and the Verdugo Hills. It occurs in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub.	ABSENT. project site is not in the range of this former subspecies. Table 9-3 requirements for conservation have been met or partially met, but MOU with the USFS is needed.
<i>Lampropeltis multifasciata</i> (<i>zonata pulchra</i>) coast mountain kingsnake (San Diego mountain kingsnake)	"San Diego Mountain Kingsnake" is found in three areas in southern California: in the central San Diego County peninsular ranges - the Laguna, Palomar, Volcan, and Hot Springs Mountains; in the Santa Ana Mountains; and in the Hollywood Hills and the Santa Monica mountains. It is a habitat generalist, found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub.	ABSENT. project site is not in the range of this former subspecies. Table 9-3 requirements for conservation have not been met.

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Species	Habitat and Distribution	Site & Current MSHCP Status (WRCRCA 2019a)
<i>Sceloporus graciosus vandenburgianus</i> southern sagebrush lizard	Lives in shrublands such as chaparral, manzanita and ceanothus, as well as open pine and Douglas Fir forests, mainly in the mountains. This subspecies (or species) is found in the Transverse and Peninsular mountains of southern California, and in the Sierra San Pedro Martir of northern Baja California. Known from elevations above 2,900 meters.	ABSENT. project site is not in the elevational range of this former subspecies. Table 9-3 requirements for conservation have not been met.
Birds		
<i>Ammodramus savannarum</i> grasshopper sparrow	Grasslands, agricultural fields, prairie, old fields and open savanna. Uncommon and local summer resident on grassy slopes and mesas west of the deserts. Only rarely in migration and in winter.	MODERATE POTENTIAL TO OCCUR. Table 9-3 requirements for conservation have been partially met. Not reported from project area, but suitable habitat is present.
<i>Melospiza lincolnii</i> Lincoln's sparrow	Occurs in bogs, wet meadows, and riparian thickets, mostly in northern and montane areas. Winters in brushy areas, thickets, hedgerows, understory of open woodlands, forest edges, clearings, and scrubby areas.	POTENTIALLY OCCURS (WINTERING ONLY). Table 9-3 requirements for conservation have not been partially met. Breeding habitat is not present, but species may winter or occur in migration.
<i>Sphyrapicus thyroideus</i> Williamson's sapsucker	Occurs primarily in conifer forests (spruce, fir, and lodge pole pine). Winters in mostly pine and pine-oak woodlands in the mountains. Cavity nesters.	ABSENT. Table 9-3 requirements for conservation have not been met.
<i>Strix occidentalis</i> California spotted owl	Sparsely distributed in the MSHCP area in oak woodland and forest and montane coniferous forest and within canyons in chaparral covered hillsides where oak woodland is present within the Santa Ana Mountains, San Bernardino Mountains, and San Jacinto Mountains.	ABSENT. Suitable habitat is not present on the project site. Table 9-3 requirements for conservation have not been met. Suitable habitat is not present on the project site.
Mammals		
<i>Glaucomys sabrinus californicus</i> San Bernardino flying squirrel	In the MSHCP area, known only from the San Jacinto Mountains in broad-leaved upland forest, mixed evergreen forest, montane riparian forest, and coniferous forest mapping units (Jeffrey pine, lodgepole pine, lower montane coniferous forest, southern California white fir, and subalpine coniferous).	ABSENT. Suitable habitat is not present on the project site. Table 9-3 requirements for conservation have not been met.

The WRCRCA (2019a) also notes that take is very limited or unavailable for the Santa Rosa Plateau fairy shrimp, bald eagle, golden eagle, peregrine falcon, and white-tailed kite. The Santa Rosa Plateau fairy shrimp occurs only on the Santa Rosa Plateau. The bald eagle, golden eagle, peregrine falcon, and white-tailed kite are all raptors, and any of them could potentially forage on, or fly over the project site, but nesting habitat is not present for any, with the possible exception of white-tailed kite. The kite and grasshopper sparrow which are noted as being of potential occurrence in the table above will be protected by the following measures.

8.3 Protection of Nesting Birds

The MSHCP does not ever provide take for impacts to nesting birds (WRCRCA 2019b). The project site contains suitable nesting habitat for several bird species discussed in this document as well as many additional bird species protected under state code (California Legislative Information 2021) and the federal Migratory Bird Treaty Act (MBTA) (USFWS 2021). These include most native bird species. Impacts to nesting birds, both direct and indirect, can be minimized or eliminated during project activities by conducting work outside of the breeding season. Although nesting can occur year-round in southern California for some species, the typical avian breeding season is from approximately February 1 through August 31, so it is recommended to schedule initial clearing and grubbing work between September 1 and January 31 to avoid nesting activity. The project site and adjacent areas should be examined by a qualified biologist prior to disturbance, especially where there could be any direct impacts. If active nests are found, the nests should be avoided and a “no disturbance” buffer zone established and observed until young have fledged. While there is no established protocol for nest avoidance and buffer zones, when consulted, the CDFW generally recommends avoidance buffers of 500 feet for raptors and listed species and 100–300 feet for other unlisted birds.

9 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (MSHCP SECTION 6.1.4)

Although the project site is not currently in or adjacent to the MSHCP Conservation Area, conservation is being proposed by an adjoining project immediately adjacent to proposed Sun Lakes Boulevard in Highland Wash, Smith Creek, Pershing Creek and in a buffer around them. Land conserved in those areas will become a part of the MSHCP Conservation Area. To preserve the integrity of areas described as existing or future parts of the MSHCP Conservation Area, the guidelines contained in the MSHCP Section 6.1.4 Urban Wildlands Interface Guidelines below should be implemented. The intent is to control the potential adverse effects of development on adjacent existing and future parts of the MSHCP Conservation Area.

- Measures will be incorporated to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area, either directly or indirectly. Standard best management practices (BMPs) from MSHCP Volume I, Appendix C will be included as applicable to ensure that siltation and erosion are minimized during construction, and also incorporated into the final design in order to ensure that future water quality is not degraded. In particular, measures shall be put in place to avoid the discharge of untreated surface runoff from developed and paved areas into existing natural drainage courses and/or the MSHCP Conservation Area. Any water quality or other drainage discharges must be reviewed by WRCRCA prior to conveyance into the MSHCP Conservation Area.
- Land uses in proximity to the proposed conserved areas that use chemicals or generate bio-products, such as manure; that are potentially toxic; or that may

MSHCP Consistency Analysis

adversely affect wildlife species, habitat, or water quality will incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.

- The siting and design of fencing will not impede wildlife movement. Design features may include, but not be limited to, jump-outs, pass-through gates and/or one-way gates. Fencing plans will include a commitment to routine maintenance.
- Proposed land uses adjacent to the conserved areas will incorporate barriers, where appropriate, to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.
- Night lighting will be directed away from the conserved areas to protect species within the conserved areas from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the conserved areas is not increased.
- Proposed noise-generating land uses affecting the conserved areas will incorporate setbacks, berms, or walls to minimize the effects of noise on conserved areas pursuant to applicable rules, regulations, and guidelines related to land use noise standards.
- Invasive species will not be used in development or restoration plan activities, such as landscaping:

Plants That Should Be Avoided Adjacent to the Conservation Area (MSHCP Table 6-2)

Acacia spp. (all species) acacia
Achillea millefolium var. *millefolium* common yarrow
Ailanthus altissima tree of heaven
Aptenia cordifolia red apple
Arctotheca calendula cape weed
Arctotis spp. (all species & hybrids) African daisy
Arundo donax giant reed or arundo grass
Asphodelus fistulosus asphodel
Atriplex glauca white saltbush
Atriplex semibaccata Australian saltbush
Carex spp. (all species*) sedge
Carpobrotus chilensis ice plant
Carpobrotus edulis sea fig
Centranthus ruber red valerian
Chrysanthemum coronarium annual chrysanthemum
Cistus ladanifer (incl. hybrids/varieties) gum rockrose
Cortaderia jubata [syn. *C. Atacamensis*] jubata grass, pampas grass
Cortaderia dioica [syn. *C. sellowana*] pampas grass
Cotoneaster spp. (all species) cotoneaster
Cynodon dactylon (incl. hybrids, varieties) Bermuda grass
Cyperus spp. (all species*) nutsedge, umbrella plant
Cytisus spp. (all species) broom
Delosperma 'Alba' white trailing ice plant
Dimorphotheca spp. (all species) African daisy, Cape marigold
Drosanthemum floribundum rosea ice plant
Drosanthemum hispidum purple ice plant
Eichhornia crassipes water hyacinth

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Elaeagnus angustifolia Russian olive
Eucalyptus spp. (all species) eucalyptus or gum tree
Eupatorium coelestinum [syn. *Ageratina* sp.] mist flower
Festuca arundinacea tall fescue
Festuca rubra creeping red fescue
Foeniculum vulgare sweet fennel
Fraxinus uhdei (and cultivars) evergreen ash, shamel ash
Gaura (spp.) (all species) gaura
Gazania spp. (all species & hybrids) gazania
Genista spp. (all species) broom
Hedera canariensis Algerian ivy
Hedera helix English ivy
Hypericum spp. (all species) St. John's Wort
Ipomoea acuminata Mexican morning glory
Lampranthus spectabilis trailing ice plant
Lantana camara common garden lantana
Lantana montevidensis [syn. *L. sellowiana*] lantana
Limonium perezii sea lavender
Linaria bipartita toadflax
Lolium multiflorum Italian ryegrass
Lolium perenne perennial ryegrass
Lonicera japonica (incl. 'Halliana') Japanese honeysuckle
Lotus corniculatus birdsfoot trefoil
Lupinus arboreus yellow bush lupine
Lupinus texanus Texas blue bonnets
Malephora crocea ice plant
Malephora luteola ice plant
Mesembryanthemum nodiflorum little ice plant
Myoporum laetum myoporum
Myoporum pacificum shiny myoporum
Myoporum parvifolium (incl. 'Prostratum') ground cover myoporum
Oenothera berlandieri Mexican evening primrose
Olea europea European olive tree
Opuntia ficus-indica Indian fig
Osteospermum spp. (all species) trailing African daisy, African daisy
Oxalis pes-caprae Bermuda buttercup
Parkinsonia aculeata Mexican palo verde
Pennisetum clandestinum Kikuyu grass
Pennisetum setaceum fountain grass
Phoenix canariensis Canary Island date palm
Phoenix dactylifera date palm
Plumbago auriculata cape plumbago
Polygonum spp. (all species) knotweed
Populus nigra 'italica' Lombardy poplar
Prosopis spp. (all species*) mesquite
Ricinus communis castorbean
Robinia pseudoacacia black locust
Rubus procerus Himalayan blackberry
Sapium sebiferum Chinese tallow tree
Saponaria officinalis bouncing bet, soapwort
Schinus molle Peruvian pepper tree, California pepper
Schinus terebinthifolius Brazilian pepper tree
Spartium junceum Spanish broom

MSHCP Consistency Analysis

Tamarix spp. (all species) tamarisk, salt cedar

Trifolium fragiferum strawberry clover

Tropaeolum majus garden nasturtium

Ulex europaeus prickly broom

Vinca major periwinkle

Yucca gloriosa Spanish dagger

An asterisk (*) indicates some native species of the genera exist that may be appropriate.

- Manufactured slopes will not extend into existing or planned conserved areas.
- Weed abatement and fuel modification zones may not encroach into existing or planned Conservation Areas or avoidance areas.

10 BEST MANAGEMENT PRACTICES (MSHCP VOLUME I, APPENDIX C)

The project will implement the following MSHCP Volume I, Appendix C Standard BMPs, as applicable:

- A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
- The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint, particularly during any activity that could directly or indirectly impact MSHCP resources.
- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of project disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian species identified in MSHCP Global Species Objective No. 7.
- When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling

MSHCP Consistency Analysis

ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.

- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitats. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, US Fish and Wildlife Service, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
- The Permittee shall have the right to access and inspect the project site including any restoration/enhancement area for compliance with project approval conditions including these BMPs ("The Permittee in this context is a signatory agency to the MSHCP).

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Appendix A – Figures



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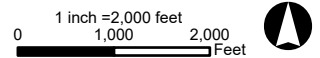
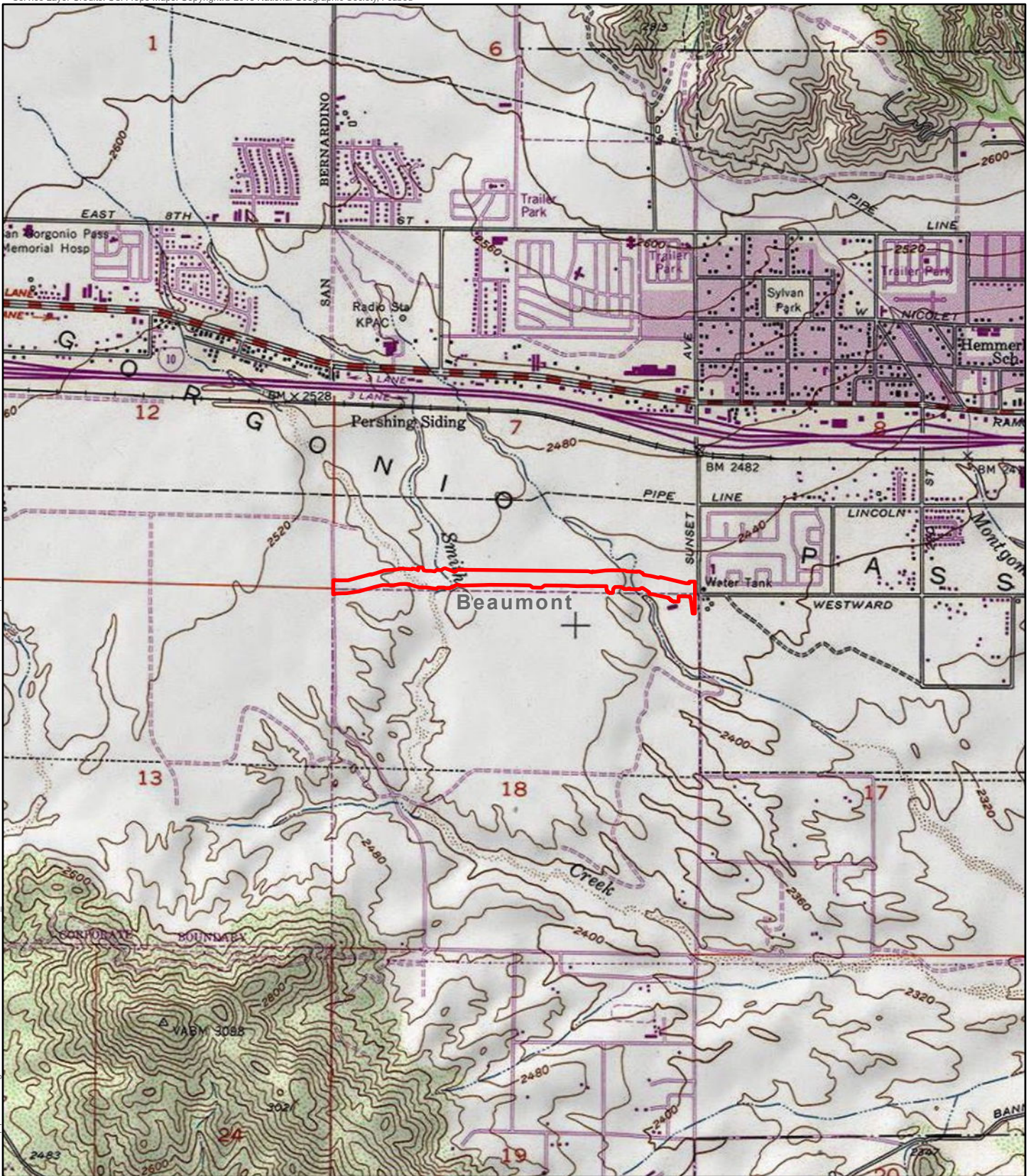


 Project Alignment

0 1 2 Miles
1 inch = 2 miles

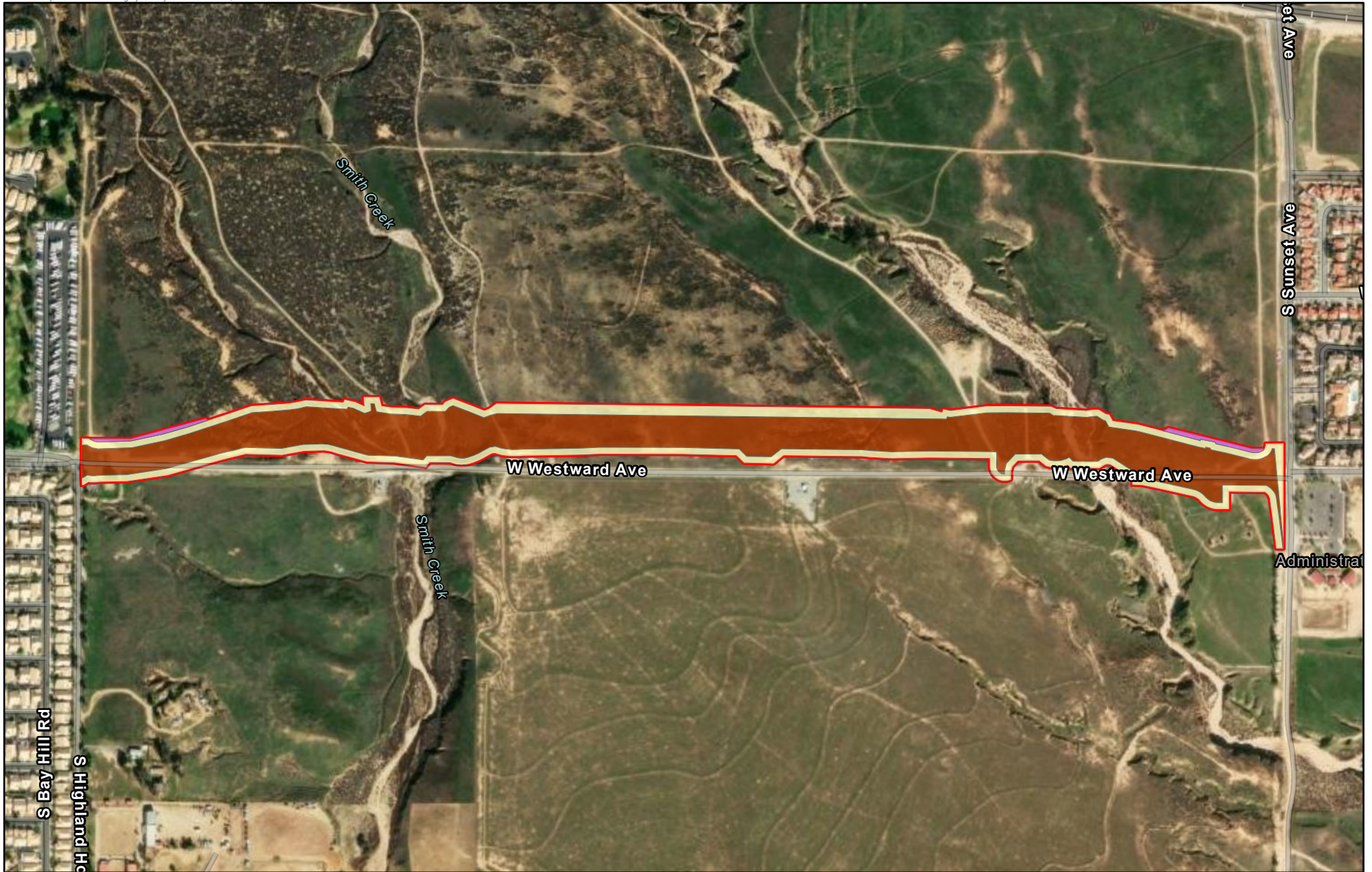


FIGURE 1
Project Vicinity and Location
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 Project Alignment

FIGURE 2
USGS 7.5' Topo Quad: Beaumont
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Sun Lakes Blvd. Realignment Project
Banning, CA



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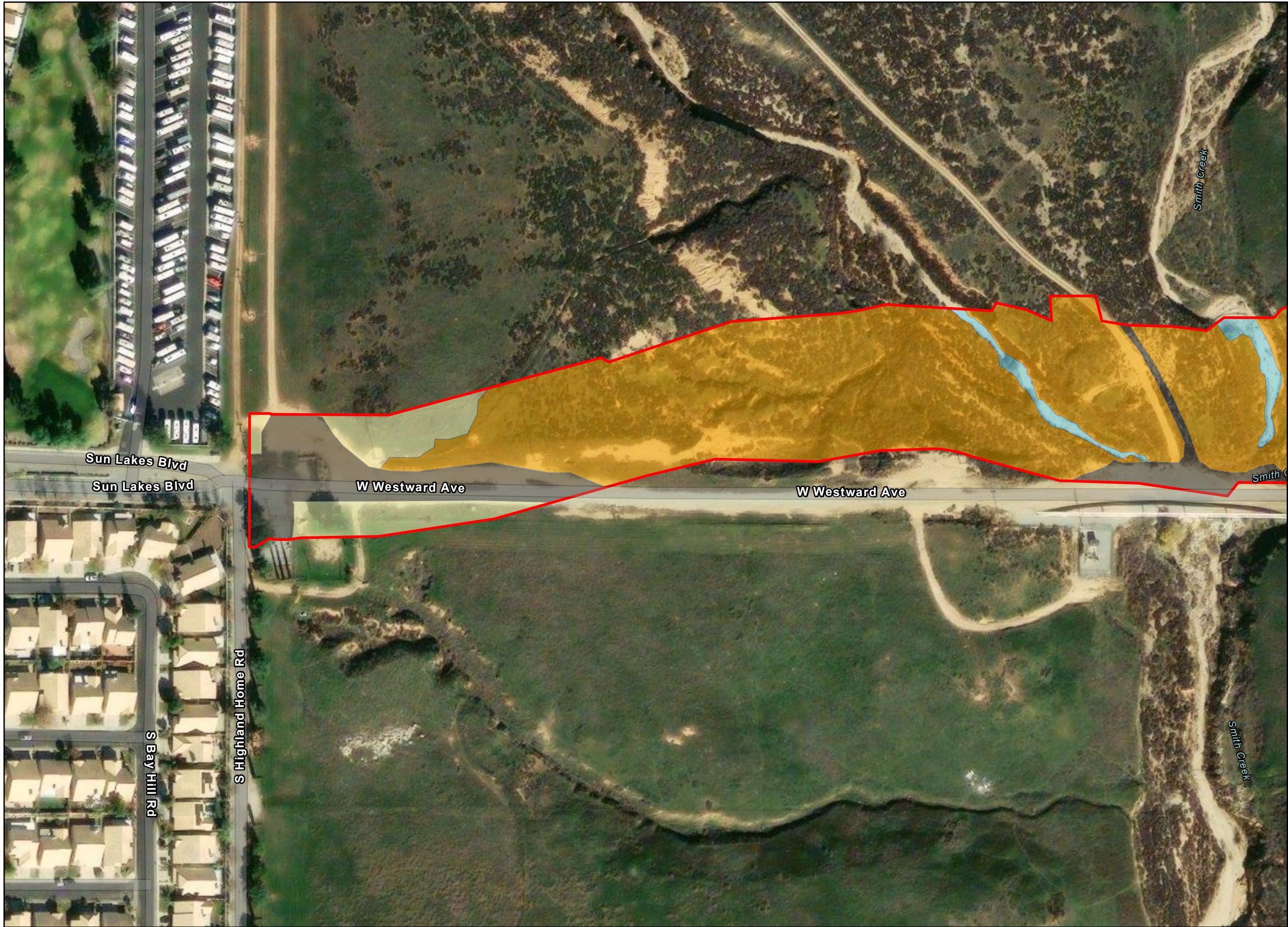
-  Project Alignment
-  Permanent Impacts (19.39 Acres)
-  Temporary Impacts (8.73 Acres)
-  Kinder Morgan Impacts (0.33 Acre)

1 inch = 600 feet
0 300 600 Feet

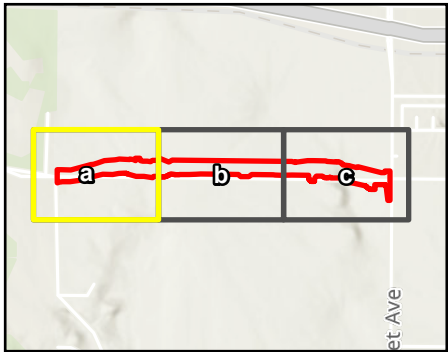


FIGURE 3

Project Impacts
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- Vegetation Communities**
- Buckwheat scrub
 - Disturbed/Developed
 - Non-native Grassland
 - Non-vegetated streambed
 - Project Alignment



1 inch = 150 feet
0 150 Feet

FIGURE 4a
Vegetation Communities
MSHCP Consistency Report
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Vegetation Communities

- Buckwheat scrub
- Disturbed/Developed
- Non-native Grassland
- Project Alignment

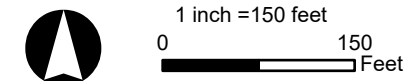
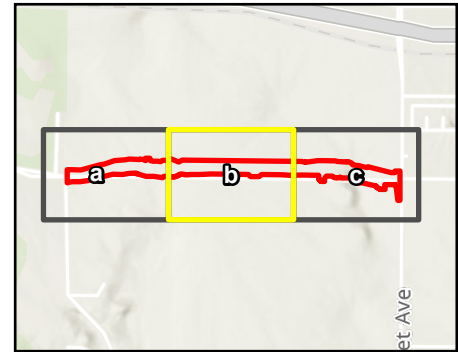
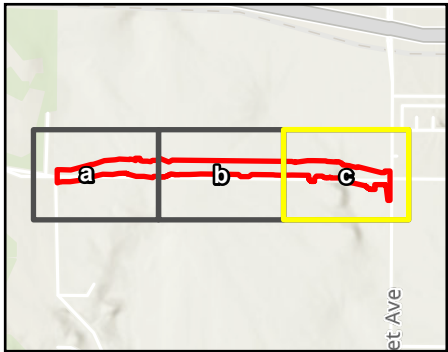


FIGURE 4b
Vegetation Communities
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- Vegetation Communities**
- Buckwheat scrub
 - Disturbed/Developed
 - Non-native Grassland
 - Non-vegetated streambed
 - Riparian Scrub/woodland
 - Riversidean alluvial sage scrub
 - Project Alignment

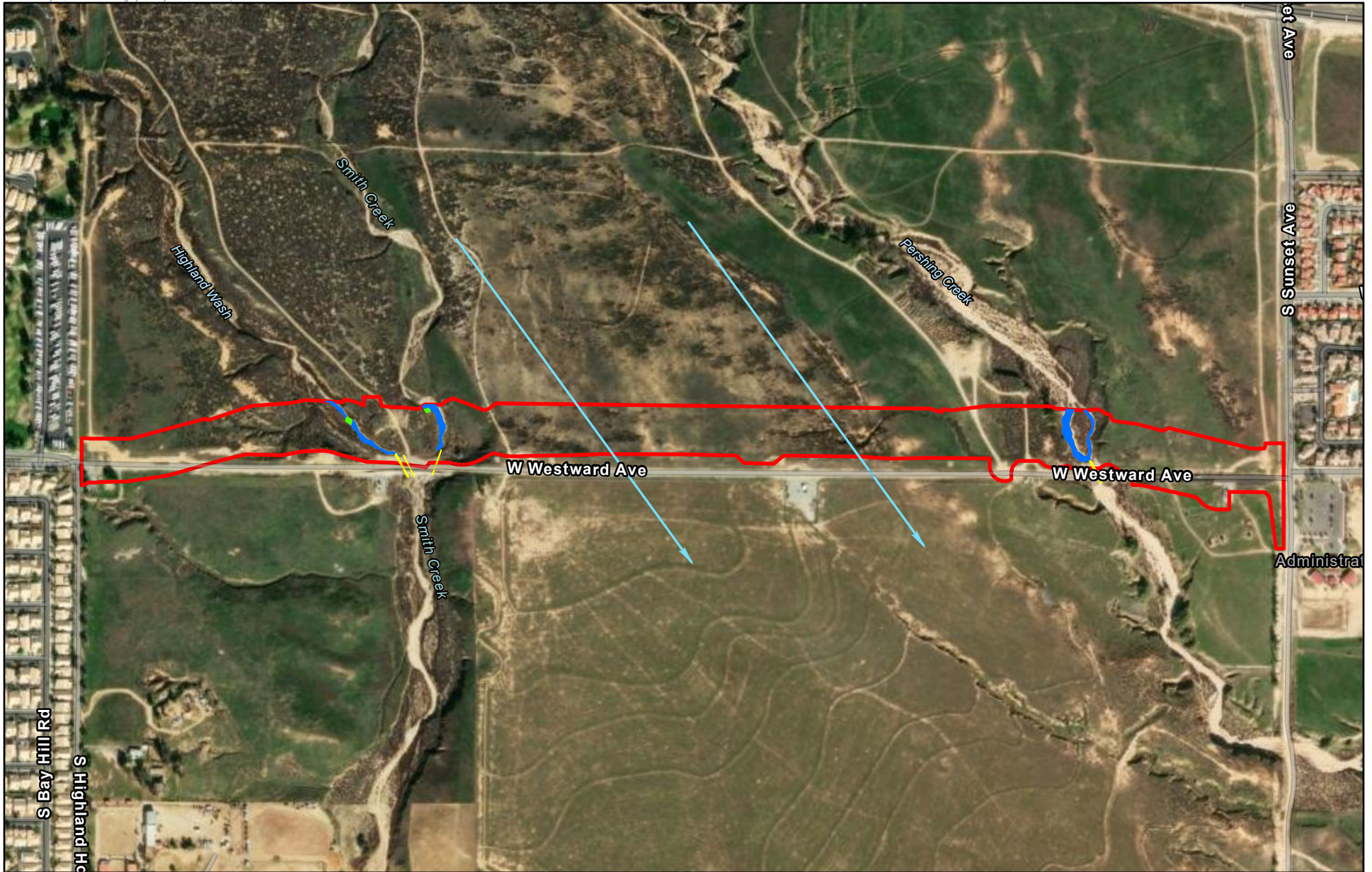


1 inch = 150 feet
0 150 Feet

FIGURE 4c
Vegetation Communities
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Banning, CA



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- Flow Direction
- Project Alignment
- MSHCP Riverine
- MSHCP Riparian
- Existing Culvert

1 inch = 600 feet
0 300 600 Feet



FIGURE 5

Riverine/Riparian Areas
MSHCP Consistency Report
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- GyD2: Greenfield sandy loam, 8 to 15 percent slopes, eroded
- RaB2: Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3: Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RsC: Riverwash
- TeG: Terrace escarpments
- Project Alignment

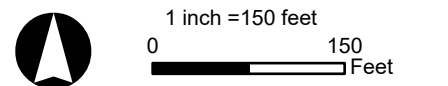
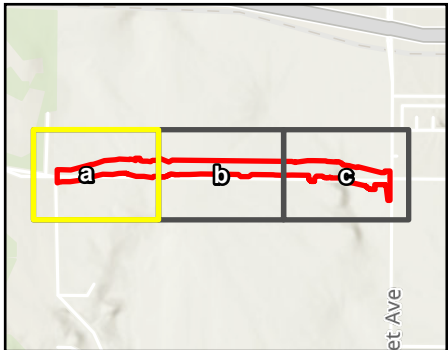


FIGURE 6a
Soil Types
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- GyD2: Greenfield sandy loam, 8 to 15 percent slopes, eroded
- RaB2: Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3: Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3: Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- RsC: Riverwash
- Project Alignment

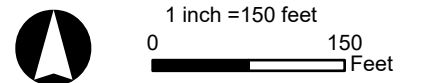
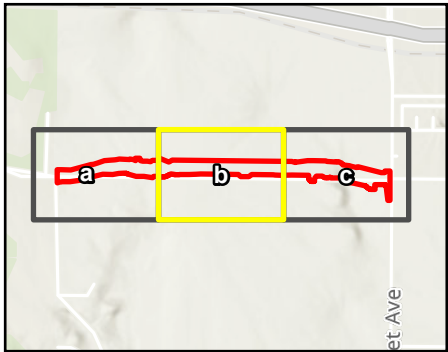


FIGURE 6b
Soil Types
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- GyC2: Greenfield sandy loam, 2 to 8 percent slopes, eroded
- RaB2: Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3: Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3: Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- TeG: Terrace escarpments
- Project Alignment

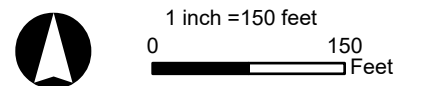
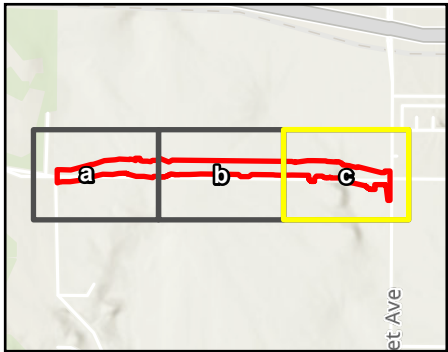
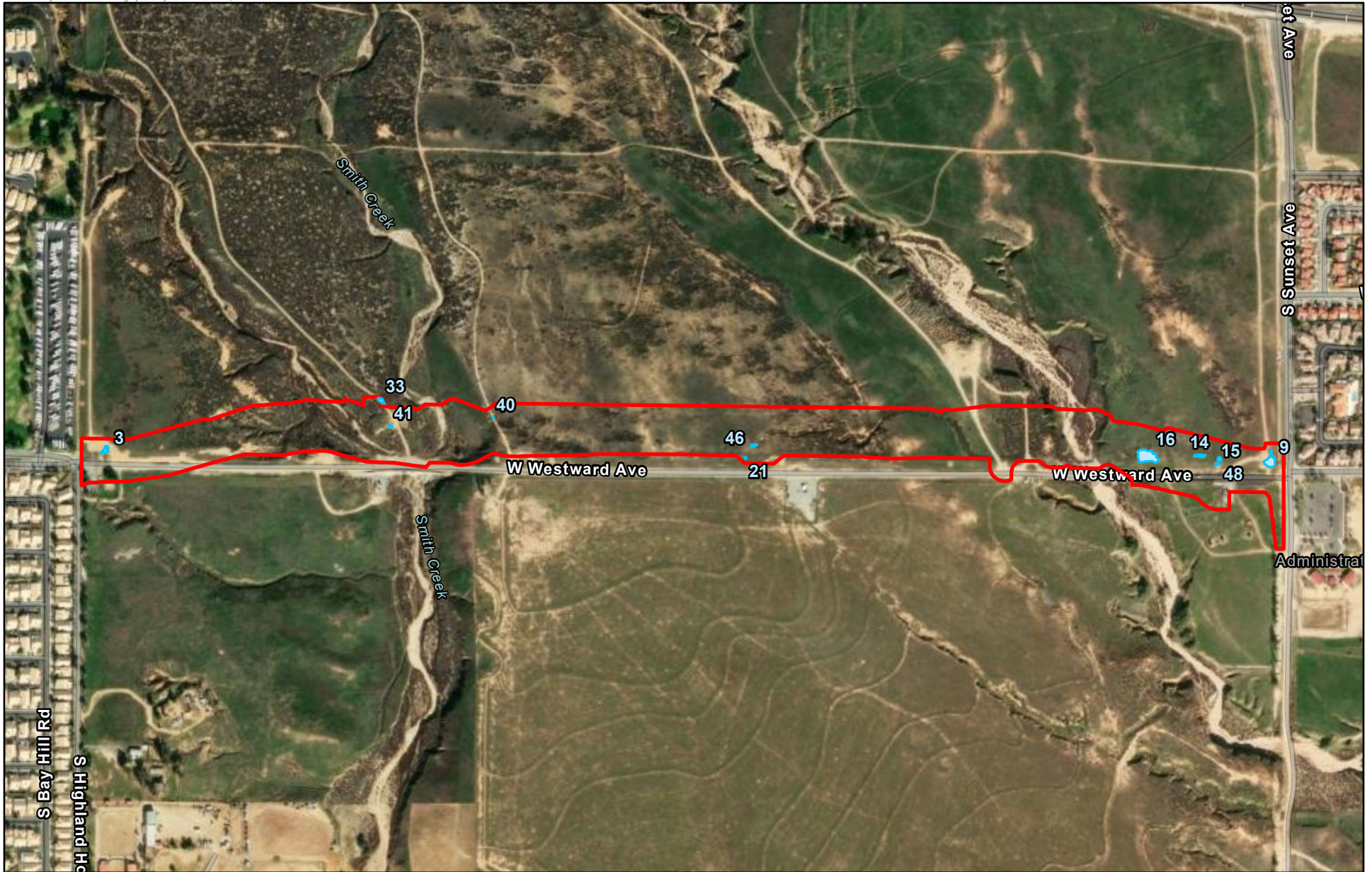


FIGURE 6c
Soil Types
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Sun Lakes Blvd. Realignment Project
Banning, CA



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-  Project Alignment
-  Fairy Shrimp Sampling Pools

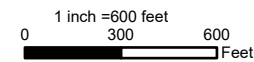
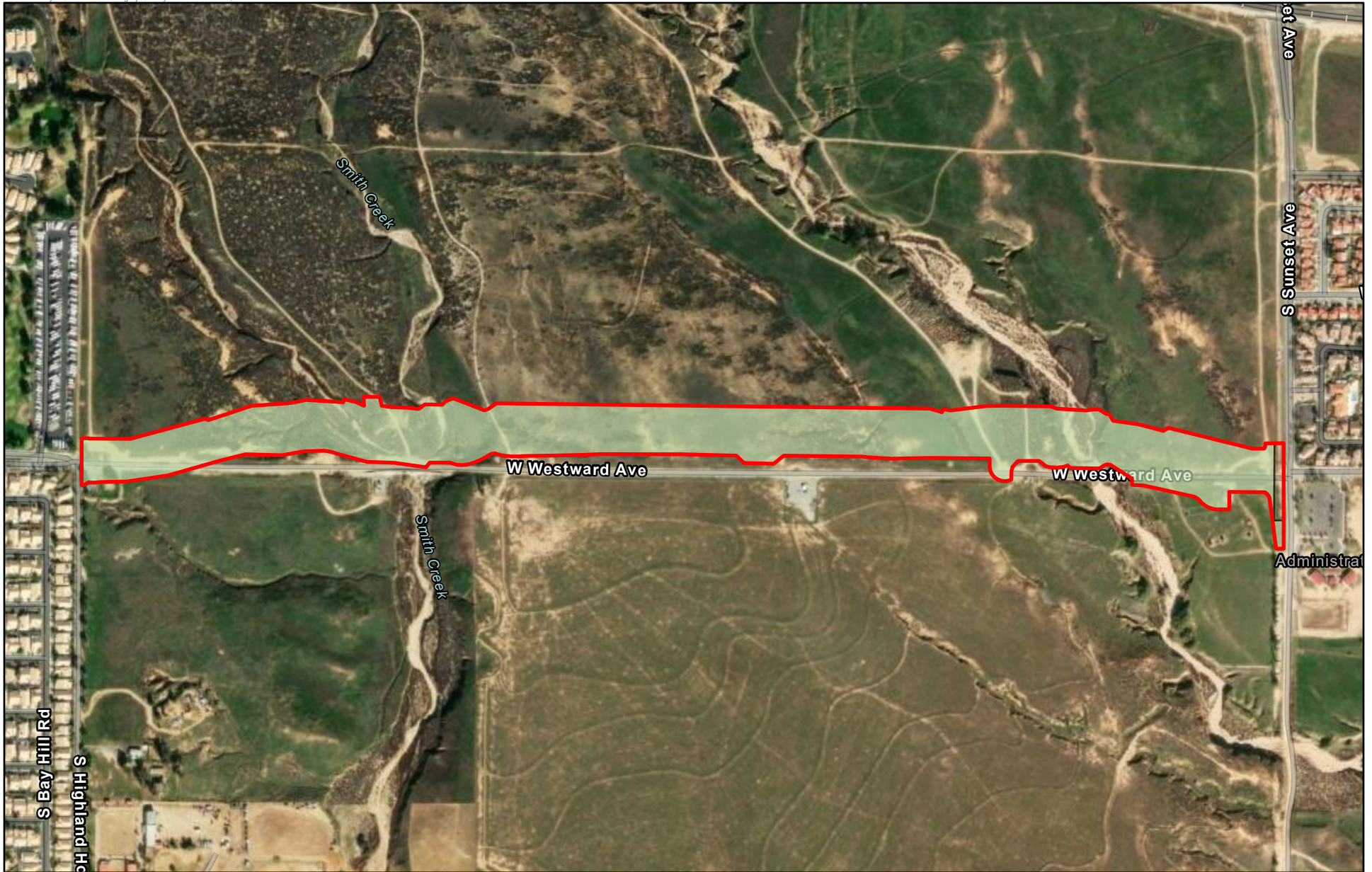


FIGURE 7

Fairy Shrimp Habitat
MSHCP Consistency Report
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Banning, CA



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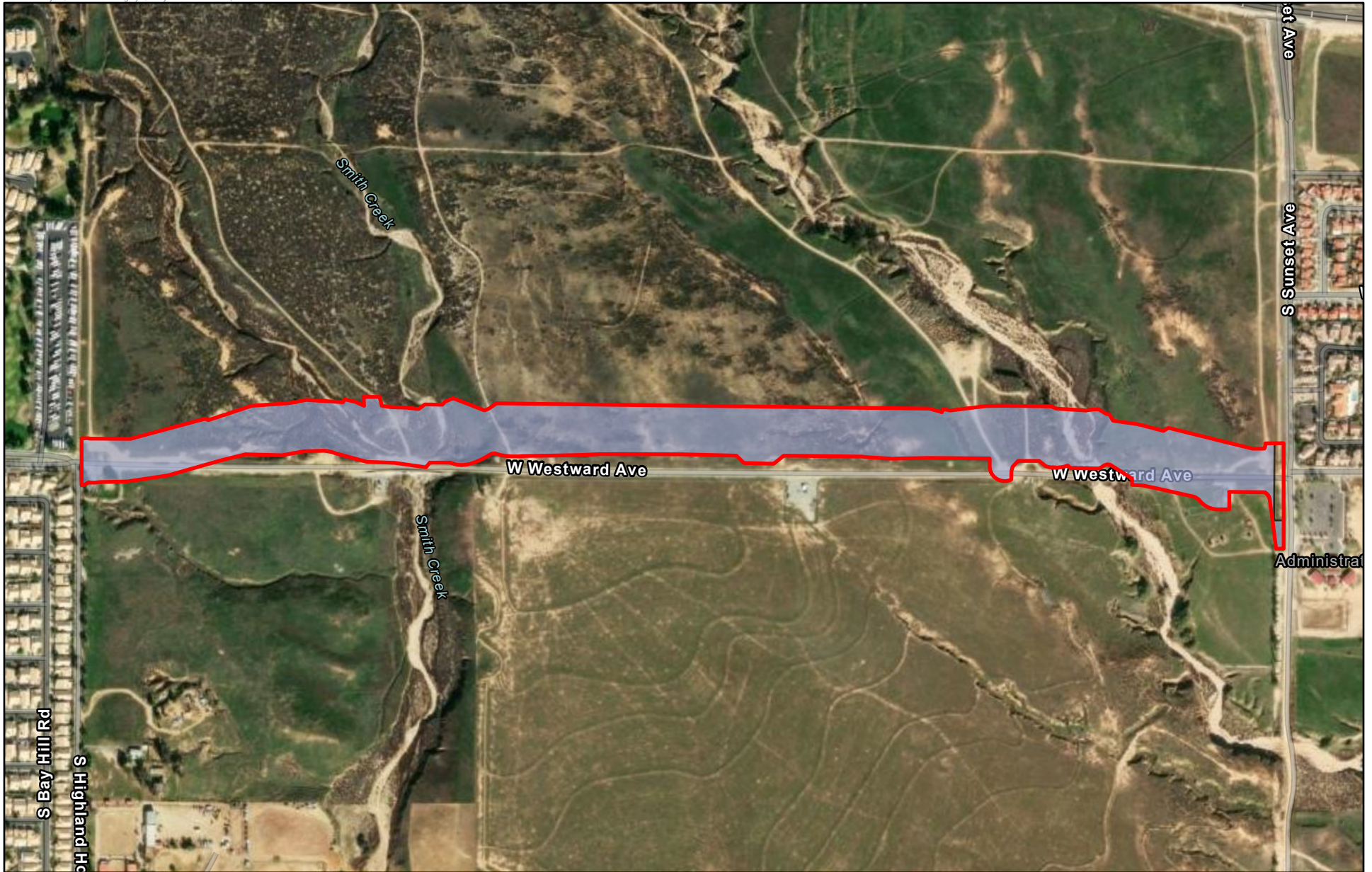
- Project Alignment
- Marvin's onion (*Allium marvinii*),
Many-stemmed dudleya (*Dudleya multicaulis*)

1 inch = 600 feet
0 300 600 Feet



FIGURE 8

Narrow Endemic Plant Species Survey Area
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-  Project Alignment
-  MSHCP Burrowing Owl Survey Area

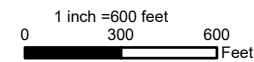
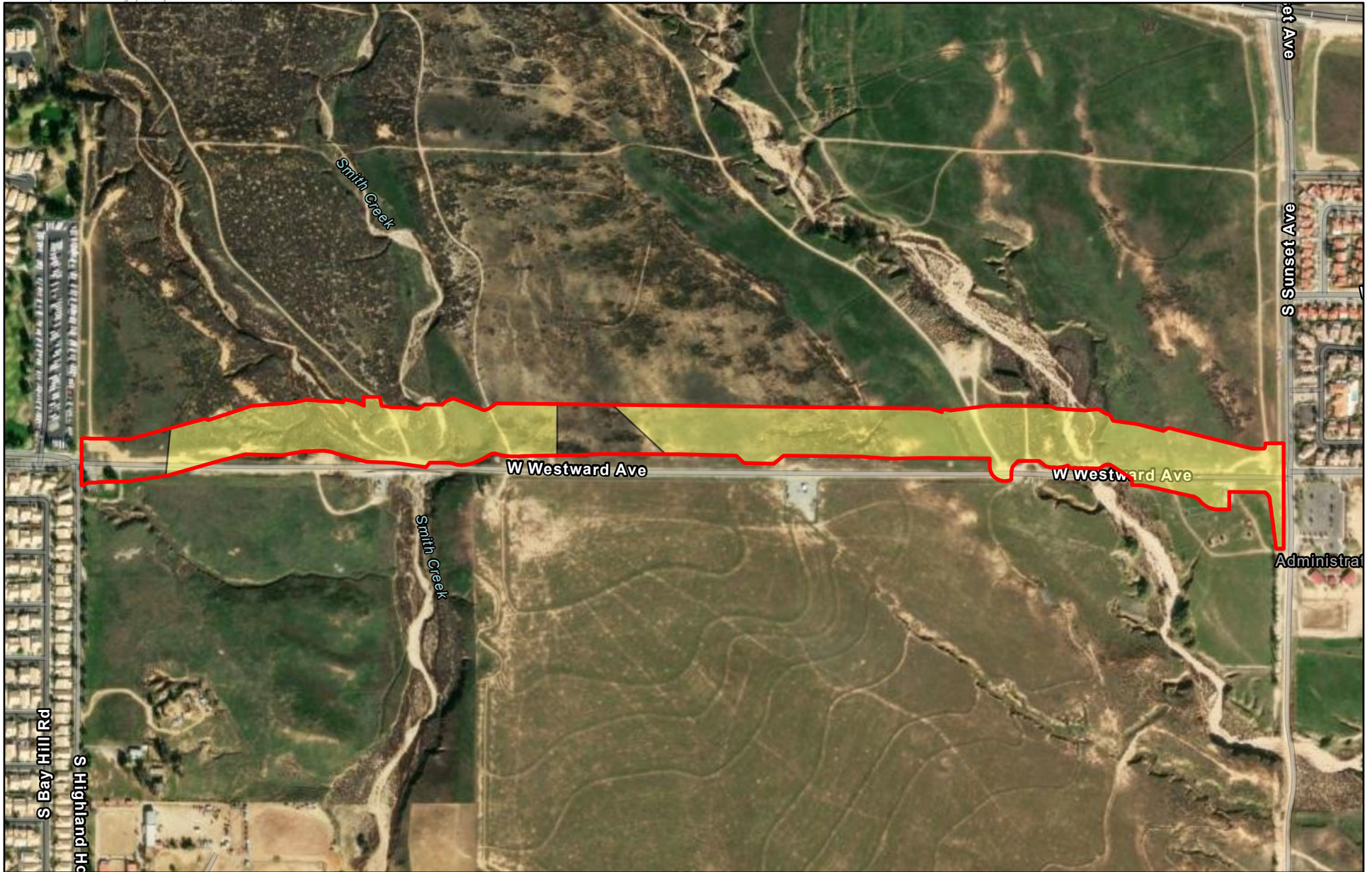


FIGURE 9

MSHCP BUOW Survey Area
MSHCP Consistency Report
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-  Project Alignment
-  MSHCP L.A. Pocket Mouse Survey Area

1 inch = 600 feet
0 300 600 Feet



FIGURE 10

Los Angeles Pocket Mouse Survey Area
MSHCP Consistency Report
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