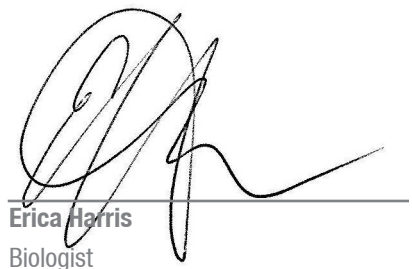


Judson Potable Water Storage Tank and Transmission Pipeline Project

General Biological Resources Assessment Report

July 2019



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Prepared for:
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Report Date: July 3, 2019

Title: General Biological Resources Assessment Report for Judson Potable Water Storage Tank and Transmission Pipeline Project.

Project Location: The approximately 8.3-acre project site is in the City of Moreno Valley, Riverside County, California. It is located within Township 2 South, Range 3 West, Section 29, on the U.S. Geological Survey 7.5-minute Sunnymead quadrangle map.

Assessor Parcel Number: 474-040-034

Owner/Applicant: Eastern Municipal Water District
2270 Trumble Rd.
Perris, California 92570

Principal Investigator: HELIX Environmental Planning, Inc.
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Report Summary: The purpose of this report is to summarize the findings of a biological resources technical study and analyze project impacts in light of the California Environmental Quality Act and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). HELIX Environmental Planning, Inc. completed biological surveys at the project site in 2016, 2017, and 2018, including a general biological survey, jurisdictional assessment, rare plant surveys, and protocol surveys for the coastal California gnatcatcher (*Polioptila californica californica*). The majority of the project site is characterized by Riversidean sage scrub with non-native vegetation and disturbed habitat. Two unnamed ephemeral drainages occur in the vicinity of the northern and southern boundaries of the site. The project has been specifically designed to completely avoid these drainages and would further protect these areas through establishment of a Restrictive Covenant over the avoided drainage features; therefore, no impacts would occur. No rare plants occur on the site. One coastal California gnatcatcher pair was detected within the project site. The project proponent, Eastern Municipal Water District, is not a permittee or signatory agency to the MSHCP but is pursuing coverage as a Participating Special Entity for the project. With the implementation of the avoidance, minimization, and mitigation measures proposed herein, the project would be consistent with the MSHCP.

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Judson Potable Water Storage Tank and Transmission Pipeline Project General Biological Resources Assessment Report

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1.0 INTRODUCTION

At the request of Eastern Municipal Water District (EMWD; Applicant), HELIX Environmental Planning, Inc. (HELIX) has prepared this report for the Judson Potable Water Storage Tank and Transmission Pipeline Project (project) proposed in the City of Moreno Valley, Riverside County. This report summarizes the findings of a biological resources technical study and project impact analysis in light of the California Environmental Quality Act (CEQA) and other relevant federal, state, and local policies, as well as regulations pertaining to biological resources. The Applicant is not a permittee or signatory agency to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Dudek and Associates [Dudek] 2003) but is pursuing coverage as a Participating Special Entity (PSE) for the project. Therefore, this report also addresses impacts and demonstrates consistency with the MSHCP.

1.1 PROJECT LOCATION

The approximately 8.3-acre project site is located within the City of Moreno Valley in the northwestern portion of Riverside County, California (Figure 1). It is depicted within Section 29 of Township 2 South, Range 3 West of the U.S. Geological Survey (USGS) 7.5-minute Sunnymead quadrangle map (Figure 2). The site is bordered by undeveloped and agricultural land to the north and east, and residential development to the south and west (Figure 3). The project site consists of a single 8.3-acre parcel (Assessor Parcel Number 474-040-034), just south of the San Bernardino County line. The site consists of a single hillside within the center of the site with lower lying drainages to the northwest and east. Site elevations range between 1,968 to 2,744 feet above mean sea level (AMSL).

As described in the MSHCP, the site is located within the Riverside Lowlands bioregion, an area lying generally below 2,000 feet elevation and characterized by Riversidean sage scrub and annual grasslands. The relatively arid climate is partly the result of rain shadow cast by the Santa Ana Mountains. A high level of disturbance and urbanization are noted within this bioregion (Dudek 2003).

The site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, outside of any Criteria Cells or Cell Groups. The closest MSHCP Criteria Area is Criteria Cell 563, which occurs 0.64 mile to the northwest (Figure 4). The area plan subunits each have specific planning species and biological considerations. These items do not apply to the subject property as it is not within a subunit.

1.2 PROJECT DESCRIPTION

The project proposes to construct and operate a 2.2-million-gallon potable water storage tank, approximately 2,300 linear feet of 18-inch diameter transmission pipeline, a paved access road, a detention basin, and other associated utilities to support tank operation (Figures 5a and b). The access road and the transmission pipeline would connect to the northern terminus of Judson Street (Old Perris Boulevard) and continue onto Perris Boulevard.

The proposed potable water storage tank would be constructed at an elevation of 2,029 feet AMSL and would measure approximately 34 feet in height with an internal diameter of approximately 110 feet. The proposed transmission pipeline would extend from the valve enclosure to the property line approximately 1,000 linear feet south. From the southerly property line, the transmission pipeline would continue 700 linear feet along Judson Street to the centerline of Pico Vista Way, and then 600 linear feet further along the Old Perris Boulevard right of way from Pico Vista Way to Robin Lane, near the Covey Booster Station where it would connect to an existing 16-inch diameter transmission line at the intersection of Perris Boulevard and Robin Lane.

The detention basin would be located southwest of the proposed tank (Figure 5a). The maximum depth of the basin would be approximately six feet deep. A concrete-lined, 10-foot-wide emergency spillway would be constructed on the northwestern side of the detention basin. An 8-inch outlet pipe with a sluice gate or gate valve would be installed near the spillway so EMWD could control discharge. A 12-foot-wide access road would be constructed around the perimeter of the detention basin for operation and maintenance activities.

The project also proposes to construct an access driveway measuring approximately 20 feet in width that would provide access to the storage tank and would connect to Judson Street in the adjacent housing tract. The access driveway would be paved for safety purposes and all-weather access, consistent with EMWD standards; however, pavement would be limited to areas necessary for safe maintenance access. The access driveway would have standard curb and gutter on the downslope side. Additionally, the project proposes to construct concrete-lined v-ditches to direct tank-related water down the access driveway on the upslope side of the road, through a new proposed culvert that will be constructed under the access driveway at the southwest corner of the site, and into the proposed detention basin.

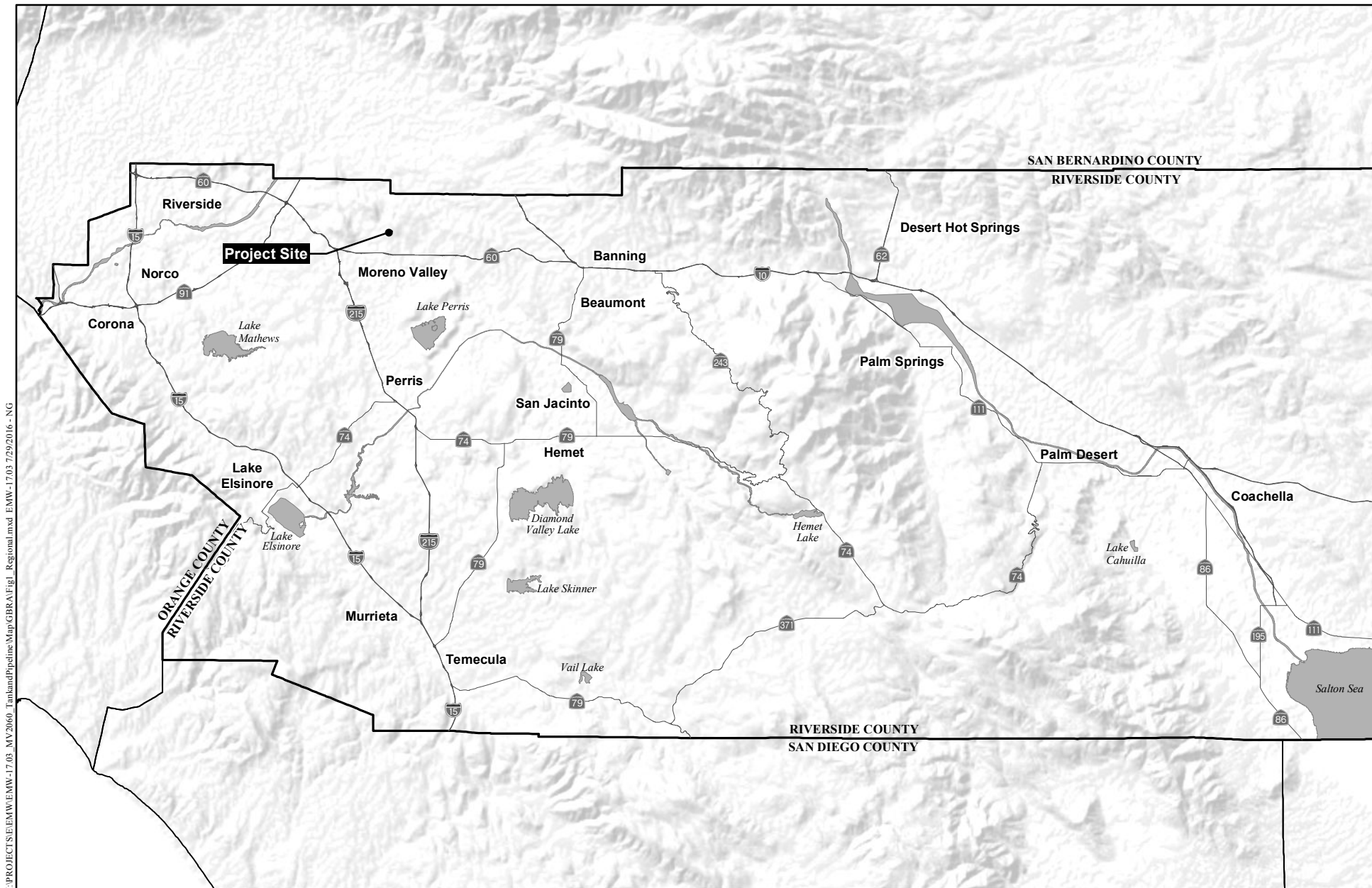
The proposed site footprint is anticipated to be cleared and graded during the Spring/Summer 2020. The site would then be maintained until the remaining construction activities are initiated at a later date. Construction is anticipated to last approximately one year, not including the potential period of relative inactivity between grading and facility construction. Upon completion of construction, maintenance and security checks would occur periodically.

2.0 METHODS

The evaluation of the project site involved a literature review, database search, vegetation mapping, a Riparian/Riverine and Vernal Pool habitat assessment, a jurisdictional assessment, a focused survey for coastal California gnatcatcher, and a general habitat assessment of the potential for sensitive species to occur on site. The methods used to evaluate the biological resources present of the property are discussed in this section.

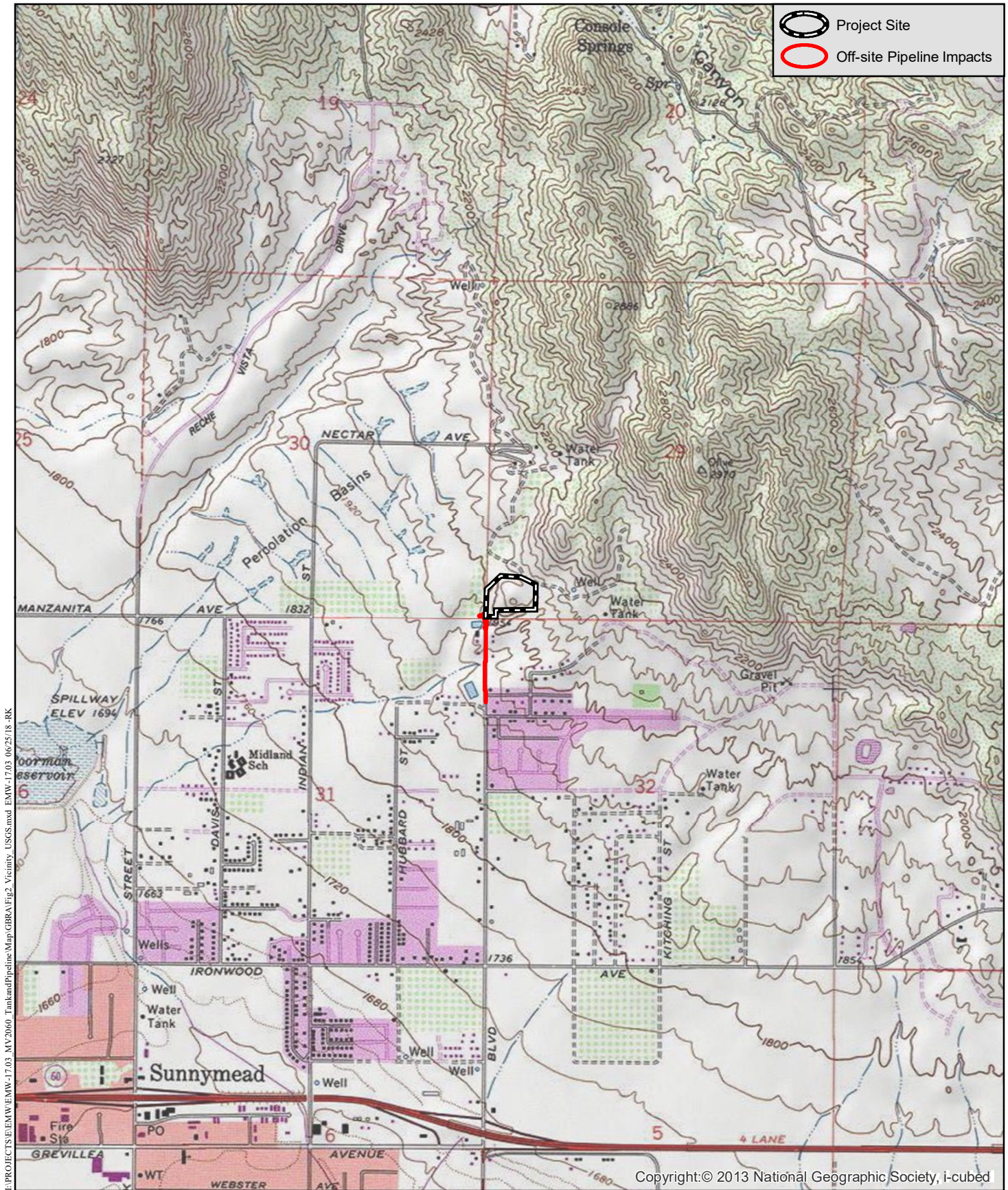
2.1 NOMENCLATURE AND LITERATURE REVIEW

Nomenclature for this report follows Baldwin et al. (2012) for plants and the MSHCP (Dudek 2003) for vegetation community classifications, with additional vegetation community



Regional Location

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT



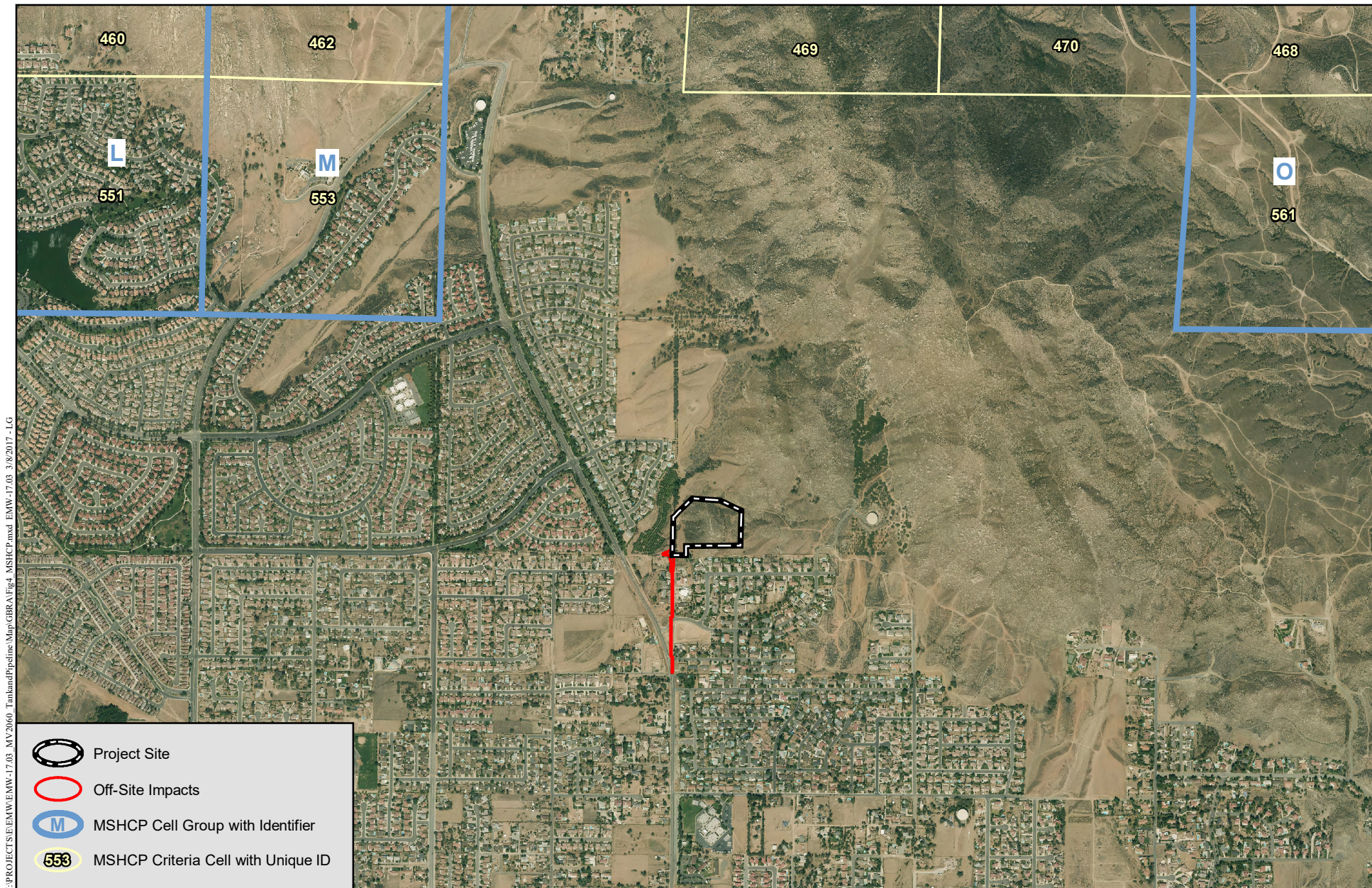
Project Vicinity (USGS Topography)

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT



Project Vicinity (Aerial Photograph)

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

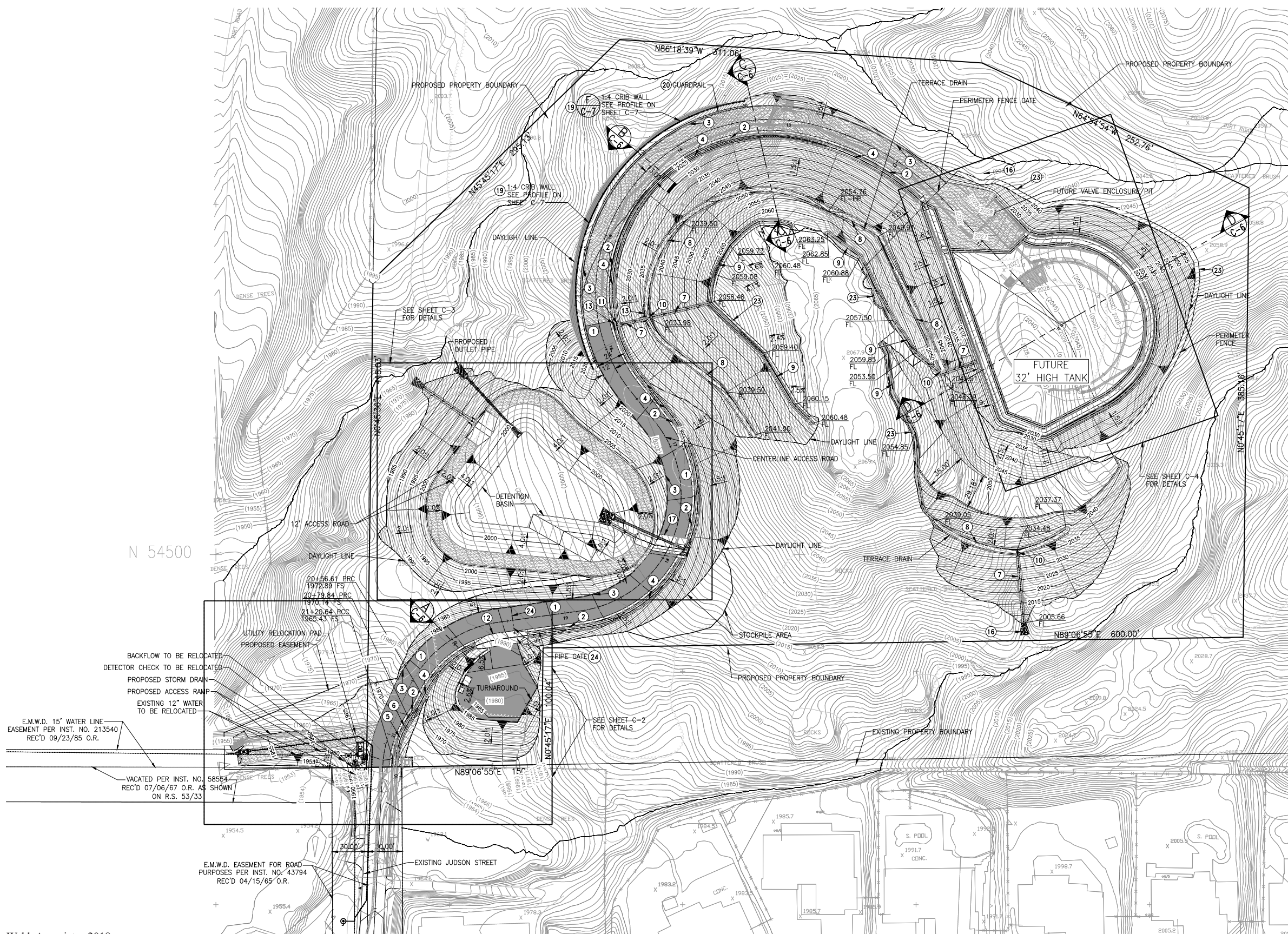


MSHCP Criteria Cells

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

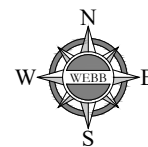
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Source: Webb Associates 2018



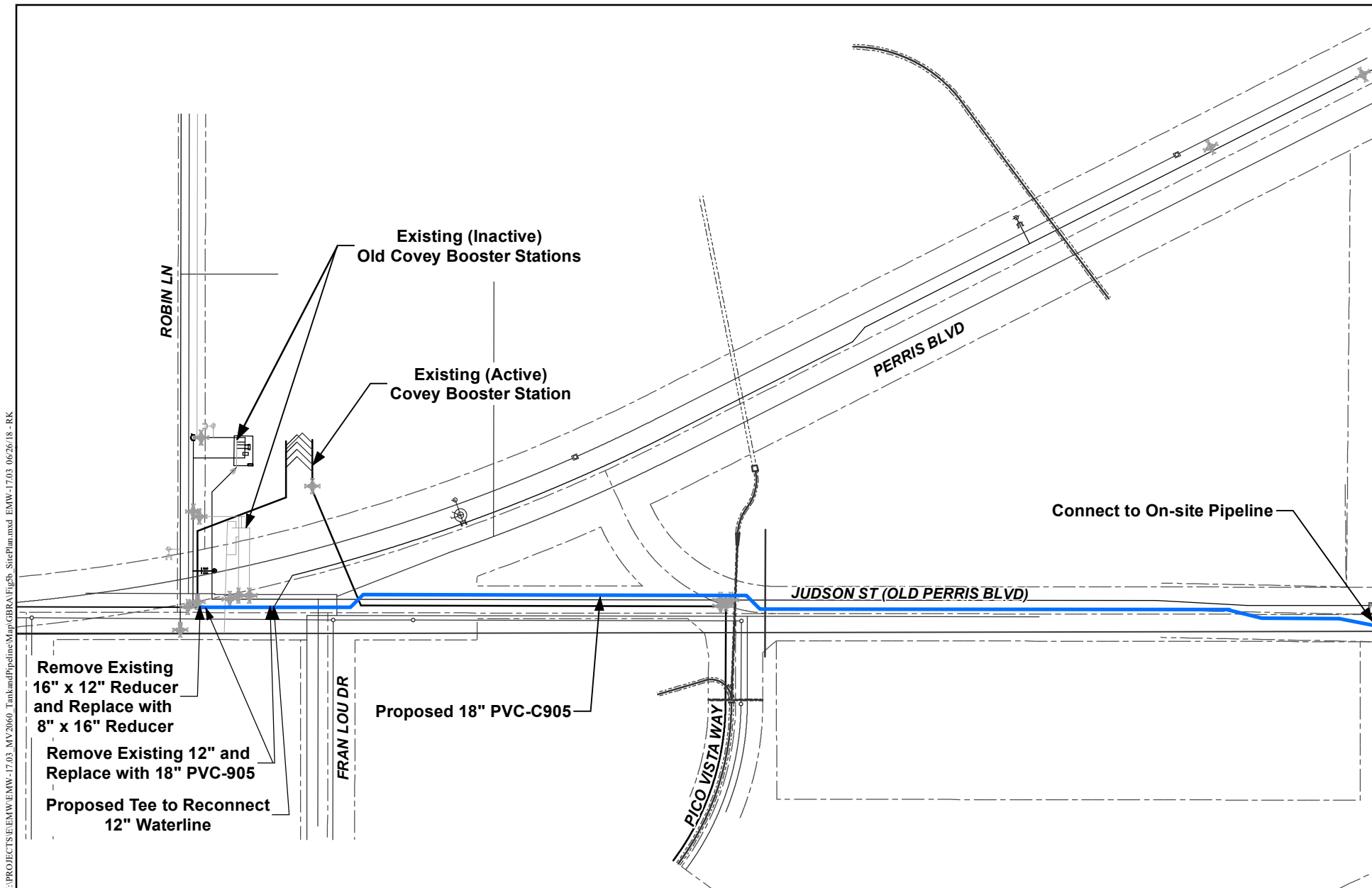
CONSTRUCTION NOTES

- 1 4" ASPHALT CONCRETE OVER 6" AGGREGATE BASE
- 2 6" TYPE "A-6" CURB AND GUTTER PER RIVERSIDE COUNTY STD 200
- 3 TYPE "D-1" CURB PER RIVERSIDE COUNTY STD. 203
- 4 5' SHOTCRETE SWALE PER DETAIL 1 ON SHEET C-10
- 5 5' CONCRETE U-DITCH PER DETAIL 2 ON SHEET C-10
- 6 TRANSITION FOR 5' SHOTCRETE SWALE TO 5' CONCRETE U DITCH PER DETAIL 5 ON SHEET C-10
- 7 DOWNDRAIN PER DETAIL 13 ON SHEET C-11
- 8 6' TERRACE DRAIN PER DETAIL 9 ON SHEET C-11
- 9 INTERCEPTOR DRAIN PER DETAIL 10 ON SHEET C-11
- 10 TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL 7 ON SHEET C-10.
- 11 DOWNDRAIN TO SHOTCRETE SWALE TRANSITION STRUCTURE PER DETAIL 3 ON SHEET C-10
- 12 ARIZONA CROSSING FOR 5' SHOTCRETE DITCH PER DETAIL 11 ON SHEET C-11
- 13 SPLASH WALL PER DETAIL 12 ON SHEET C-11
- 16 RIP RAP OUTLET PER DETAIL 4 ON SHEET C-10
- 17 SLOPED ARIZONA CROSSING PER DETAIL 14 ON SHEET C-12.
- 19 CRIB WALL PER SPECIFICATIONS
- 20 CRIB WALL GUARD RAIL PER DETAIL 16 ON SHEET C-12
- 21 RETAINING WALL PER COUNTY OF RIVERSIDE BUILDING DEPARTMENT RETAINING WALLS STANDARD AND PER PLAN AND PROFILE ON SHEETS C-1 & C-7.
- 23 CHAIN LINK FENCE PER RCFC&WCD STANDARD DRAWING NUMBER M801.
- 24 PIPE SWING GATE PER RCFC&WCD STANDARD DRAWING NUMBER M820.



Site Plan

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT



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Site Plan

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

information taken from Holland (1986) and/or Oberbauer (2008). Animal nomenclature follows North American Butterfly Association (2017) for butterflies, Society for the Study of Amphibians and Reptiles (2017) for amphibians and reptiles, American Ornithological Society (2017) for birds, and Bradley et al. (2014) for mammals.

Sensitive plant and wildlife status is taken from the California Native Plant Society's (CNPS) online database (2017) and the California Department of Fish and Wildlife's (CDFW's) Special Plant List (CDFW 2017a) and Special Animal list (CDFW 2017b). Sensitive plant species habitats and blooming periods are taken from the MSHCP (Dudek 2003). Soils classifications are obtained the U.S. Department of Agriculture (USDA; 2017).

2.2 FIELD SURVEYS

Surveys were conducted to evaluate the general condition of the project site and surrounding lands. The general survey included mapping vegetation communities, noting dominant plant species, evaluating habitat suitability for sensitive species, and assessing the site for Riparian/Riverine and vernal pool habitats. Focused surveys for the federally-threatened coastal California gnatcatcher (*Poliophtila californica californica*) were also conducted (Table 1). The plant and animal species detected on site are shown in Appendices A and B, respectively. Appendix C contains site photographs. Appendix D contains definitions of plant and animal species designations used throughout this document.

Table 1 BIOLOGICAL SURVEY INFORMATION		
DATE	BIOLOGISTS	SURVEY
July 27, 2016	Robert Hogenauer	General Biological Survey, Jurisdictional Assessment, Vegetation Mapping, Habitat Assessment
November 28, 2016	Erica Harris	Coastal California Gnatcatcher Survey #1
December 12, 2016	Erica Harris Katie Bellon* Robert Hogenauer*	Coastal California Gnatcatcher Survey #2
January 5, 2017	Erica Harris	Coastal California Gnatcatcher Survey #3
January 25, 2017	Erica Harris Summer Schlageter*	Coastal California Gnatcatcher Survey #4
February 8, 2017	Erica Harris Katie Bellon* Robert Hogenauer*	Coastal California Gnatcatcher Survey #5
February 22, 2017	Erica Harris Katie Bellon* Robert Hogenauer*	Coastal California Gnatcatcher Survey #6
March 8, 2017	Erica Harris Katie Bellon*	Coastal California Gnatcatcher Survey #7

Table 1 (cont.) BIOLOGICAL SURVEY INFORMATION		
DATE	BIOLOGISTS	SURVEY
March 23, 2017	Erica Harris Summer Schlageter*	Coastal California Gnatcatcher Survey #8
April 7, 2017	Erica Harris	Coastal California Gnatcatcher Survey #9
November 14, 2017	Robert Hogenauer	General Biological Survey, Jurisdictional Assessment, Vegetation Mapping
January 18, 2018	Karl Osmundson Erica Harris	Jurisdictional Assessment

*Supervised individual

2.2.1 General Biological Survey

A general biological survey of the project site was conducted by HELIX on July 27, 2016 by HELIX biologist Robert Hogenauer. The general biological survey included vegetation mapping, plant and animal inventories, habitat assessments for sensitive species, and mapping of sensitive resources detected at the time of the survey. Vegetation communities/land cover types were mapped on a 1"=200' scale aerial photograph of the project site. Vegetation communities were identified by walking the project site during field surveys. Vegetation was classified in accordance with MSHCP Table 2-1 and Holland (1986) where vegetation did not match the MSHCP classifications. Observed or detected plant and animal species were recorded in field notes and/or on an aerial photograph (the latter for sensitive species).

2.2.2 Riparian/Riverine and Vernal Pool Habitat Assessment

An initial Riparian/Riverine and Vernal Pool habitat assessment was conducted by HELIX as part of the general biological survey on July 27, 2016. A subsequent assessment was conducted on November 14, 2017 and January 18, 2018 to verify conditions at the request of the U.S. Fish and Wildlife Service (USFWS), CDFW, and Western Riverside County Regional Conservation Authority (RCA). The MSHCP defines Riparian/Riverine habitat "as 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." The MSHCP defines Vernal Pools as "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" (Dudek 2003). In general, habitats determined to be under CDFW jurisdiction are also considered to be Riparian/Riverine under the MSHCP.

The project site was assessed for the presence of Riparian/Riverine and Vernal Pool habitats through a review of aerial photographs, topographic maps, and soils maps for signs of flowing or ponded water, topographic depressions, and drainage features. The evaluation consisted of a directed search for field characteristics indicative of Riparian/Riverine or Vernal Pool habitats. Field indicators include certain plants, drainage courses, drainage patterns, ponded water,

changes in soil character, changes in vegetation character, and deposits of water-borne debris. All habitats that could be considered Riparian/Riverine habitat under the MSHCP were assessed.

Riparian/Riverine Plants

The MSHCP lists 23 sensitive plant species that have potential to occur in Riparian/Riverine and Vernal Pool habitats. These species are:

- California black walnut (*Juglans californica* var. *californica*),
- Engelmann oak (*Quercus engelmannii*),
- Coulter's matilija poppy (*Romneya coulteri*),
- San Miguel savory (*Satureja chandleri*),
- spreading navarretia (*Navarretia fossalis*),
- graceful tarplant (*Holocarpha virgata* ssp. *elongata*),
- California Orcutt grass (*Orcuttia californica*),
- prostrate navarretia (*Navarretia prostrata*),
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*),
- Orcutt's brodiaea (*Brodiaea orcuttii*),
- thread-leaved brodiaea (*Brodiaea filifolia*),
- Fish's milkwort (*Polygala cornuta* var. *fishiae*),
- lemon lily (*Lilium parryi*),
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*),
- ocellated Humboldt lily (*L. humboldtii* ssp. *ocellatum*),
- Mojave tarplant (*Deinandra mohavensis*),
- vernal barley (*Hordeum intercedens*),
- Parish's meadowfoam (*Limnanthes gracilis* var. *parishii*),
- slender-horned spineflower (*Dodecahema leptoceras*),
- Santa Ana River woolly-star (*Eriastrum densifolium* ssp. *sanctorum*),
- Brand's phacelia (*Phacelia stellaris*),
- mud nama (*Nama stenocarpum*), and
- smooth tarplant (*Centromadia pungens* ssp. *laevis*)

The Riparian/Riverine habitat assessments conducted on July 27, 2016, November 14, 2017, and January 18, 2018 included a focused search for the aforementioned species. If these species occur, they are required to be mapped and avoided. If avoidance is not feasible, then a Determination of Biologically Equivalent Superior Preservation is required to quantify impacts and establish mitigation for the impacted species.

Fairy Shrimp

There are three species of sensitive fairy shrimp that occur in western Riverside County: Riverside fairy shrimp (*Streptocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and vernal pool fairy shrimp (*Branchinecta lynchi*). The property was surveyed for habitat, such as vernal pools or ephemeral ponds, which could support fairy shrimp. Indicators of potential fairy shrimp habitat that were searched include basins, ruts, cracked mud, algal mats, and drift lines. Suitable fairy shrimp habitat is not present within the project site.

Amphibians

The MSHCP has three amphibians in the list of Riparian/Riverine species: arroyo toad (*Anaxyrus californicus*), mountain yellow-legged frog (*Rana muscosa*), and the California red-legged frog (*Rana aurora draytonii*). No habitat with potential to support these three species occurs within the project site.

Fish

The Santa Ana sucker (*Catostomus santaanae*) is the only fish shown on the list of MSHCP Riparian/Riverine species. No appropriate habitat occurs within the project site.

Riparian Birds

The project site was assessed for habitat that could support the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Typical habitat for least Bell's vireo consists of well-developed riparian scrub, woodland, or forest dominated by willows (*Salix* spp.), mule fat (*Baccharis salicifolia*), and western cottonwood (*Populus fremontii*). The least Bell's vireo will also use small patches of trees adjacent to dense riparian habitat. The southwestern willow flycatcher and western yellow-billed cuckoo require mature riparian forest with a stratified canopy and nearby water. The MSHCP requires surveys to be conducted for projects that have impacts to suitable habitat for the aforementioned riparian birds. No habitat with potential to support least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo occurs on the project site; therefore, surveys for these species were not conducted.

Both the bald eagle (*Haliaeetus leucocephalus*) and peregrine falcon (*Falco peregrinus*) occur primarily in and adjacent to open water habitats, with the peregrine falcon possibly occurring adjacent to riparian areas. The peregrine falcon nests on large cliffs that are generally 200 to 300 feet in height. Habitat to support the bald eagle or peregrine falcon does not occur on the project site.

2.2.3 Narrow Endemic Plant Species Survey Area

The project site is not within a Narrow Endemic Plant Species Survey Area (NEPSSA) of the MSHCP. No surveys for NEPSSA species are required.

2.2.4 Criteria Area Species Survey Area

The project site does not occur within a Criteria Area Species Survey Area (CASSA) of the MSHCP. No surveys for CASSA species area required.

2.2.5 Burrowing Owl Habitat

The site occurs within an area that requires protocol surveys for the burrowing owl (*Athene cunicularia*) if suitable habitat is found to be present. An initial on-site burrowing owl habitat assessment was conducted on July 27, 2016, by Mr. Hogenauer as part of a general biological survey to determine if the project contained areas that met the basic requirements of owl habitat, which include open expanses of sparsely vegetated areas (less than 30 percent canopy cover for trees and shrubs), gently rolling or level terrain, small mammal burrows (especially those of California ground squirrel [*Spermophilus beecheyi*]), and/or fence posts, rock, or other low perching locations. The habitat assessment complies with the burrowing owl survey guidelines for the MSHCP (RCA 2006). The project site lacked suitable habitat for burrowing owl based on the moderate to high density of sage scrub habitat and absence of suitable burrows; therefore, surveys for the species were not conducted.

2.2.6 Coastal California Gnatcatcher Survey

EMWD is not a participating agency in the Natural Community Conservation Planning program. For non-participating agencies, the USFWS requires that a minimum nine surveys be conducted, at least two weeks apart, during the period between July 1 and March 14 (USFWS 1997). The surveys were initiated during the non-breeding season (July 1 to March 14) but extended into the breeding season since surveys were rescheduled due to inclement weather. The surveys were conducted by permitted biologist Erica Harris (TE-778195-13; Table 1). The survey covered all potential coastal California gnatcatcher habitat composed of Riversidean sage scrub. The surveys were conducted by walking along the edges of, as well as within, suitable coastal California gnatcatcher habitat. The survey route was arranged to ensure complete survey coverage of all habitat with potential for occupancy by coastal California gnatcatcher. All surveys were conducted with binoculars to aid in bird detection. Recorded coastal California gnatcatcher vocalizations were played sparingly and only if other means of detection had failed. If a gnatcatcher was detected before playing recorded vocalizations, the recordings were not played. Once coastal California gnatcatchers were initially detected in an area, use of playback was discontinued.

2.3 AGENCY MEETINGS

EMWD and HELIX attended a Wildlife Agency coordination meeting with the USFWS, CDFW, and RCA on January 18, 2018 to discuss the project, present the results of the 2016 and 2017 biological resources studies, and confirm the project requirements for MSHCP consistency and PSE processing. During the meeting, EMWD received input and requests to modify the project design and verify the extent of a potential jurisdictional drainage feature and Riparian/Riverine Area. Subsequently, an additional field survey was conducted and the project design was

modified to further avoid the gullied land upslope from the potential jurisdictional drainage and Riparian/Riverine Area, as demonstrated in this report.

3.0 RESULTS

This section addresses the results of research and fieldwork conducted as part of the biological resources technical study, including discussions on the existing conditions and sensitive biological resources that occur or have potential to occur on the project site.

3.1 SOILS

The MSHCP lists nine sensitive soil types as occurring within the Plan Area (Dudek 2003). None of the MSHCP sensitive soils occurs on the project site. Three soil types are mapped within the project site: Cieneba rocky sandy loam (15 to 50 percent slopes, eroded), Monserate sandy loam (8 to 15 percent slopes, eroded), and terrace escarpments (USDA 2017). The Cieneba rocky sandy loam is the dominant soil type on the site, with the Monserate sandy loam occurring within the southwestern portion of the site, and terrace escarpments occurring within the eastern portion of the site (Figure 6).

3.2 VEGETATION COMMUNITIES

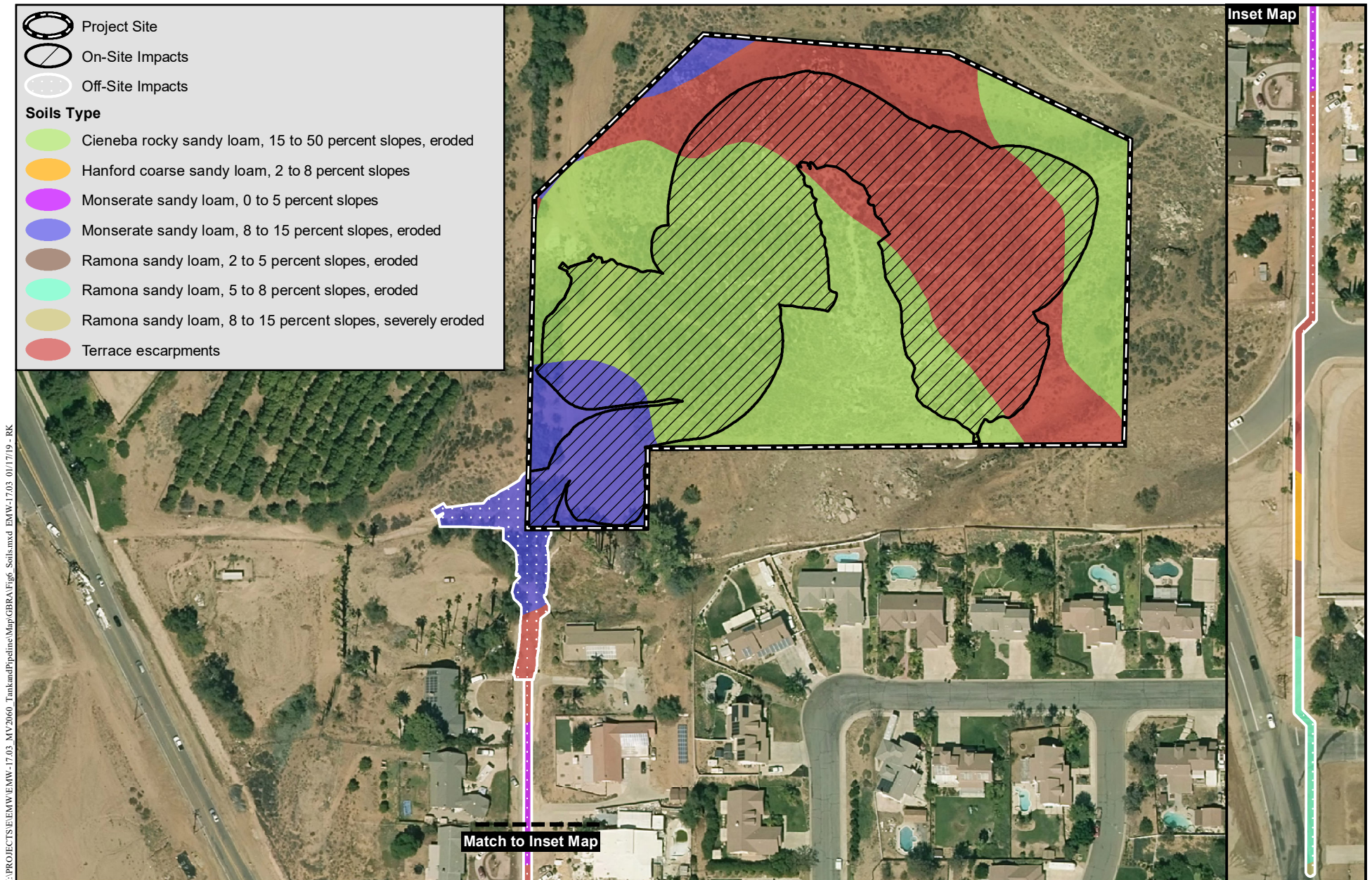
The project site and off-site impact area is made up of four vegetation communities/land uses: Riversidean sage scrub, non-native woodland, disturbed habitat, and developed land (Table 2; Figure 7).

Table 2 EXISTING VEGETATION COMMUNITIES		
VEGETATION COMMUNITY	ACRES*	
	On-Site	Off-Site
Riversidean sage scrub	7.2	< 0.1
Non-native vegetation	0.3	0.1
Disturbed habitat	0.8	0.1
Developed	--	0.3
TOTAL	8.3	0.5

*Acreage is rounded to the nearest 0.1 acre for upland types.

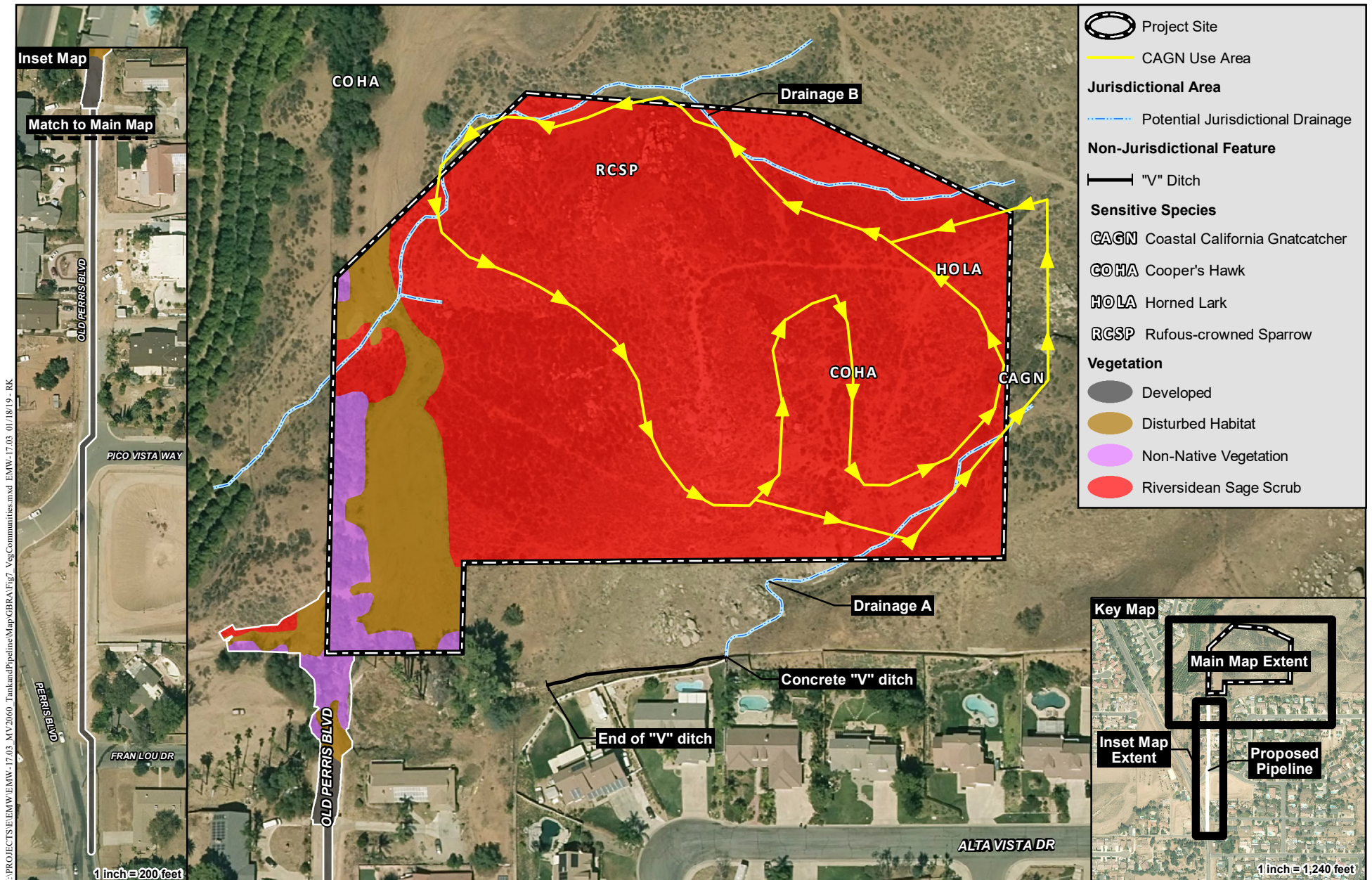
3.2.1 Riversidean Sage Scrub

Riversidean sage scrub is the most xeric expression of coastal sage scrub, typically found on xeric sites such as steep slopes, severely drained soils, or clays that release stored soil moisture slowly. Typical stands are fairly open and dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and foxtail chess (*Bromus madritensis* ssp. *rubens*). Dominant species in this vegetation community within the project site include California sagebrush, California buckwheat, brittlebush (*Encelia farinosa*), black sage (*Salvia mellifera*), and white sage (*Salvia apiana*). Riversidean sage scrub is the



Soils

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Vegetation/Sensitive Resources

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dominant vegetation community within the project site, encompassing 7.2 acres. A small patch, 0.01 acre in size, of Riversidean sage scrub is located within the off-site impact area.

3.2.2 Non-native Vegetation

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping. A total of 0.3 acre of non-native vegetation is present along the western portion of the site consisting of stands of olive trees (*Olea europaea*). Non-native vegetation in the off-site impact area consists of Peruvian pepper tree (*Schinus molle*), Washington fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* sp.) located at the end of Old Perris Boulevard.

3.2.3 Disturbed Habitat

Disturbed habitat includes unvegetated or sparsely vegetated areas, particularly where the soil has been heavily compacted by prior development or where agricultural lands have been abandoned. Disturbed habitat is generally dominated by non-native weedy species that adapt to frequent disturbance or consists of dirt trails and roads. Disturbed habitat occurs along the western border of the site between non-native woodland and Riversidean sage scrub. It is made up of dirt roads and disced lands dominated by non-native herbs and grasses. Disturbed habitat in the off-site impact area consists of an existing dirt access road at the end of Old Perris Boulevard.

3.2.4 Developed Land

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Developed land occurs off-site and includes residential developed and Old Perris Boulevard.

3.3 JURISDICTIONAL WATERS AND WETLANDS

Although a preliminary jurisdictional assessment and mapping were performed, a formal jurisdictional delineation was not conducted as the project will avoid potential jurisdictional resources. Two potentially jurisdictional ephemeral drainages were identified within the project site (Figure 7): one northeast-southwest trending unnamed drainage along the project's southern boundary (Drainage A) and another northeast-southwest trending unnamed drainage along the project's northern boundary (Drainage B). Drainage A bisects the southeastern corner of the project site entering from the northeast and exiting to the southwest. It connects to a concrete "V" ditch located to the south of the project site that flows to the west and eventually abates within uplands. The "V" ditch ends approximately 200 feet west of its connection to Drainage A to a patch of bare ground that slopes upward; the drainage terminates at this location and there is no downstream connectivity to another receiving water. Drainage B bisects the northwestern corner of the project site entering from the northeast and exiting to the southwest. It connects to a culvert located west of the project site that then continues under Perris Boulevard where it is conveyed by underground pipe to a Riverside County Flood and Water Conservation District's (RCFCWD) flood control facility (Pigeon Pass Dam) located over one mile southwest of site, which is not a MSCHP Conservation Area. Further downstream, Pigeon Pass Dam ultimately

discharges into the Poorman Reservoir, which is a MSHCP Conservation Area under Public/Quasi-Public Conserved Lands.

The drainage features on the project site likely support non-wetland waters of the U.S. subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404, and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to CWA Section 401; and unvegetated streambed subject to the regulatory jurisdiction of the CDFW pursuant to Sections 1600 *et seq.* of the California Fish and Game Code (CFG Code). Jurisdictional waters and wetlands that are also Riparian/Riverine and Vernal Pool resources are discussed below.

3.4 RIPARIAN/RIVERINE AND VERNAL POOL HABITAT ASSESSMENT

The identification of Riparian/Riverine Areas is based on the potential for the habitat to support, or be tributary to habitat that support, Riparian/Riverine Covered Species, which are identified in MSHCP Section 6.1.2. Habitats that are jurisdictional to the CDFW are also considered Riparian/Riverine resources under the MSHCP. Drainages A and B are unvegetated streambeds subject to CDFW jurisdiction, at a minimum, and therefore, are classified as Riparian/Riverine resources. No vernal pools occur on the property. The site was assessed for the presence of Riparian/Riverine and Vernal Pool Species. The Riparian/Riverine and vernal pool habitat assessment determined that none of the species shown in the MSHCP as associated with Riparian/Riverine and Vernal Pool habitats were observed or are expected to occur on the site.

Riparian/Riverine Plants

Twenty-three plant species are identified in the MSHCP as potentially occurring in Riparian/Riverine and Vernal Pool habitats. None of the 23 sensitive plant species identified in the MSHCP as potentially occurring in association with Riparian/Riverine and Vernal Pool habitats occur on the project site. Unless otherwise noted, the habitat requirements and distributions described below are from the MSHCP Volume 2 species accounts (Dudek 2003).

Several species including California black walnut, Engelmann oak, and Coulter's matilija poppy are large species that are readily identifiable year-round. None of these species was observed on site.

San Miguel savory is primarily restricted to rocky, gabbroic, and metavolcanic substrates in coastal sage scrub, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands (between 120 and 1,005 meters; Dudek 2003). The majority of the populations/individuals are associated with the Santa Rosa Plateau and the Santa Ana Mountains. Habitat for this species does not occur on the project site and the species is not expected to occur.

Spreading navarretia, California Orcutt grass, prostrate navarretia, San Diego button-celery, Orcutt's brodiaea, thread-leaved brodiaea, San Jacinto Valley crownscale, vernal barley, and Parish's meadowfoam occur in vernal pools, flood plains, or similar habitat. No vernal pools occur within the project site; therefore, the project site lacks suitable habitat for these species and they are not expected to occur.

Graceful tarplant has a fairly scattered distribution, with known occurrences concentrated within the Santa Ana Mountains and Foothills, primarily within U.S. Forest Service lands (Dudek 2003). Within the Plan Area, graceful tarplant is restricted to coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grasslands at elevations below 2,000 feet AMSL within western Riverside County (Dudek 2003). No known occurrences of the species are present within the project vicinity and the species is not expected to occur.

Fish's milkwort is restricted to the eastern slopes of the Santa Ana Mountains and possibly the northern slopes of the Agua Tibia Mountains (Dudek 2003). It is associated with shaded areas within cismontane oak woodlands and riparian woodlands, although it also occurs in xeric and mesic chaparral habitat. Suitable habitat does not occur on the project site and this species was not observed during biological surveys conducted on the property.

Lemon lily requires year-round moisture and is limited to the banks of springs, permanent streams at an elevation above 1,300 meters (over 4,200 feet) AMSL. The project site lacks suitable habitat for these species and they are not expected to occur.

Ocellated Humboldt lily occurs in openings in oak canyons, chaparral, and yellow pine forest. Within western Riverside County, this species is restricted to canyons along the eastern slope of the Santa Ana Mountains and the northern slope of the Palomar Mountains (Dudek 2003). Habitat for this species does not occur on the project site and this species is not expected to occur.

Mojave tarplant is restricted to the San Jacinto Mountains. It occurs on sand bars within river beds and ephemeral grassy areas in riparian scrub. Habitat for this species does not occur on the project site and the species is not expected to occur.

Slender-horned spineflower is typically found in mature alluvial scrub with sandy soils but is also found in rocky soils and open chamise chaparral. Ideal habitat is thought to be benches or terraces that receive overbank flow every 50 to 100 years. Habitat for this species does not occur on the project site and the species is not expected to occur.

Santa Ana River woolly-star occurs only within open washes and early successional alluvial fan scrub where frequent flooding and scouring maintain the open shrub land. Suitable sand washes occur within the project site but the site does not receive sufficient surface flows to support the species. There are no records of the species within one mile of the project site, therefore, the species is not expected to occur.

Brand's phacelia has limited distribution and is restricted to sandy beaches along the Santa Ana River. It occurs in sandy openings within coastal dunes or coastal scrubs. Habitat for this species does not occur within the project site and the species is not expected to occur.

Mud nama is restricted to muddy embankments of marshes and swamps and within lake margins and riverbanks. Three populations are known from Riverside County, with two occurring along

the San Jacinto River (Dudek 2003). Habitat for this species does not occur on the project site and this species is not expected to occur.

Smooth tarplant is found in southwestern California and northwestern Baja California, Mexico and occurs in San Bernardino, Riverside, and San Diego counties. This species occurs in open spaces within a variety of habitats including alkali scrub and playas, riparian woodland, watercourses, and grasslands with alkaline affinities (Dudek 2003). Habitat for this species does not occur on the project site and this species is not expected to occur.

Fairy Shrimp

Vernal pool fairy shrimp occurs throughout the Central Valley and in several disjunct populations in Riverside County. This species exists in vernal pools and other ephemeral basins often located in patches of grassland and agriculture interspersed in Diegan coastal sage scrub and chaparral. Vernal pool fairy shrimp prefer cool water pools that are often short lived. Riverside fairy shrimp occurs in Riverside, Orange, and San Diego counties, as well as in northern Baja California, Mexico. This species is typically found in deeper vernal pools and other ephemeral basins that hold water for long periods (30 or more days). Santa Rosa Plateau fairy shrimp are limited to the Santa Rosa Plateau.

The project site includes two ephemeral drainages but does not include vernal pools or similar habitat in which fairy shrimp would occur. No habitat for fairy shrimp occurs on the site; therefore, no surveys are required or were conducted.

Fish

The Santa Ana sucker is restricted to the Santa Ana River watershed with year-round flows. This species generally lives in small shallow streams less than seven meters wide with various current strengths. They require permanent streams with a preferred gravel bottom. They prefer cool, clear water but can tolerate turbid waters. The ephemeral drainages on site lack sufficient surface flows and are not suitable for this species. This species is not expected to occur on the project site.

Amphibians

Arroyo toads occur in streams that have breeding pools that are shallow with minimal current. Requirements also include sandy banks with area of minimal vegetative cover. Mountain yellow-legged frog and California red-legged frog are not known to occur in the project vicinity. The mountain yellow-legged frog occurs in mountain streams and is currently only known within Riverside County in the San Jacinto Mountains. The California red-legged frog is only known within Riverside County on the Santa Rosa Plateau. It requires deep water with adjacent uplands to move between breeding sites. No appropriate habitat for these three species occurs on site, and none of these species has any potential to occur on site.

Birds

The least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo are found in riparian habitats such as southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, and arroyo willow riparian forest habitats that typically feature dense cover. The MSHCP requires surveys to be conducted for projects that have impacts to suitable habitat for the aforementioned riparian birds.

The project site does not include habitat with potential to support least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. The drainages that do occur are unvegetated or vegetated similar to surrounding sage scrub habitat. Due to the lack of habitat, surveys are not required and the species are not expected to occur on site.

Both the bald eagle and peregrine falcon occur primarily in and adjacent to open water habitats, with the falcon possibly occurring in riparian areas. Open water habitats do not occur on the site. The site does not include habitat with potential to support the peregrine falcon or bald eagle. The proposed project would not impact habitat with potential to support bald eagle or peregrine falcon.

3.5 BURROWING OWL

A burrowing owl habitat assessment was conducted on July 27, 2016, during the general biological survey. The project site does not include habitat with potential to support burrowing owls. The project site lacks burrows at least 3 inches in diameter suitable for burrowing owl use, debris piles, or other habitat that could be utilized by burrowing owls for nesting purposes. The site is also hilly and characterized by dense scrub-type vegetation (greater than 30 percent cover), providing poor lines of sight. Therefore, no focused surveys were conducted for burrowing owl and the species is not expected to occur on the project site. Furthermore, no burrowing owl or burrowing owl sign (i.e., feather, white wash, and/or pellets) was observed during the numerous other surveys conducted within the project site.

3.6 OTHER SENSITIVE SPECIES

A nine-quadrangle search (San Bernardino South, Redlands, Yucaipa, Riverside East, Sunnymead, El Casco, Steele Peak, Perris, Lakeview) database search of the California Natural Diversity Database and the CNPS was conducted along with an in-house database search for sensitive plants and animals that have potential to occur in the project vicinity. Below is a discussion of the sensitive plants and animals from the database search. Plant and animal species already discussed in the report above are not included here to avoid duplicate discussions.

3.6.1 Sensitive Plants

A total of 55 sensitive plant species were analyzed for their potential to occur on the site, four of which are federally and/or state listed (Table 3). The listed species are Munz's onion (*Allium munzii*), marsh sandwort (*Arenaria paludicola*), salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*), and Gambel's water cress (*Nasturtium gambelii*). None of these species were observed on the project site. None of the other listed species is expected to occur within the project site.

Table 3
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Chaparral sand verbena (<i>Abronia villosa</i> var. <i>aurita</i>)	--/-- CRPR 1B.1	Sandy floodplains or flats in generally, inland, arid areas of sage scrub and open chaparral.	High. Suitable habitat is present within the project site along the northern and southern ephemeral drainages.
Yucaipa onion (<i>Allium marvinii</i>)	--/-- CRPR 1B.2 MSHCP Covered	Clay soils, openings in chaparral.	None. No clay soils or chaparral occur within the project site.
Munz's onion (<i>Allium munzii</i>)	FE/ST CRPR 1B MSHCP Covered	Clay soils, opening in grasslands and sage scrub.	None. Suitable clay soils do not occur within the project site.
Marsh sandwort (<i>Arenaria paludicola</i>)	FE/SE CRPR 1B.1	Bogs, marshes, and swamps.	None. Suitable habitat does not occur on the project site.
Western spleenwort (<i>Asplenium vespertinum</i>)	--/-- CRPR 4.2	Preferred habitats are chaparral, woodland, coastal sage scrub, and rocky areas with semi-shaded but seasonally arid conditions. Sometimes found at the shaded base of overhanging boulders.	High. Limited suitable habitat occurs within the project site along the northern and southern ephemeral drainages.
Horn's milkvetch (<i>Astragalus hornii</i> var. <i>hornii</i>)	--/-- CRPR 1B.1	Salty flats and lakes shores.	None. Suitable habitat does not occur on the project site.
Jaeger's astragalus (<i>Astragalus pachypus</i> ssp. <i>jaegeri</i>)	--/-- CRPR 1B.1 MSHCP Covered	Chaparral understory with a coastal/desert ecotonal mix of shrubs. Also occurs in cismontane woodlands, coastal sage scrub, grasslands, and sandy or rocky soils.	Low. Suitable habitat occurs within the project site but no records of the species occur within the project's vicinity.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
South coast saltscale (<i>Atriplex pacifica</i>)	--/-- CRPR 1B.2	Xeric, often mildly disturbed locales of coastal bluff scrub. Usually the surrounding habitat is an open Diegan coastal sage scrub, although it is found on alkaline flats in areas devoid of taller shrubs.	Low. Suitable habitat occurs within the project but no records of the species occur within the project vicinity.
Parish's brittlescale (<i>Atriplex parishii</i>)	--/-- CRPR 1B.1 MSHCP Covered	Chenopod scrub, vernal pools, and playas. Alkaline flats on the periphery of salt pannes.	None. Suitable habitat for the species does not occur within the project site.
Davidson's saltscale (<i>Atriplex serenana</i> var. <i>davidsonii</i>)	--/-- CRPR 1B.2 MSHCP Covered	Historically associated with the isolated alkaline flats of southern California valley areas that have primarily been drained and converted to residential housing or agriculture.	None. Suitable habitat for the species does not occur within the project site.
Nevin's barberry (<i>Berberis nevinii</i>)	FE/SE CRPR 1B.1 MSHCP Covered	Chaparral, woodland, scrub, riparian scrub, sandy, or gravelly soil.	Presumed Absent. Suitable habitat occurs within the project site. However, the species is a perennial shrub that would have been detected if present.
round-leaved filaree (<i>California macrophylla</i>)	--/-- CRPR 1B.1 MSHCP Covered	Clay soils, woodland and grassland.	None. Suitable clay soils do not occur within the project site.
Plummer's mariposa lily (<i>Calochortus plummerae</i>)	--/-- CRPR 4.2 MSHCP Covered	Rocky and sandy soils, in scrub, chaparral, woodland and grassland.	High. Suitable habitat and soils for the species occur within the project site.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Bristly sedge (<i>Carex comosa</i>)	--/-- CRPR 2B.1	Marshes, swamps, and lake shores.	None. Suitable habitat for the species does not occur within the project site.
Payson's jewel-flower (<i>Caulanthus simulans</i>)	--/-- CRPR 4.2 MSHCP Covered	Pinyon-juniper woodland, chaparral and sage scrub. Typically on slopes and ridgelines with sandy granitic soil.	Low. Marginal suitable habitat occurs within the northern portion of the project site.
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>)	--/-- CRPR 1B.1 MSHCP Covered	Valley and foothill grasslands, particularly near alkaline locales.	None. No suitable habitat occurs within the project site.
Salt marsh bird's beak (<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>)	FE/SE CRPR 1B.2	Salt marshes, particularly slightly raised hummocks.	None. Suitable habitat for the species does not occur within the project site.
Peninsular spineflower (<i>Chorizanthe leptotheca</i>)	--/-- CRPR 4.2 MSHCP Covered	Alluvial fans with granitic soils and chaparral, coastal scrub, or coniferous forest habitats.	Low. The site is not located on an alluvial fan and does not contain suitable granitic soils.
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parryi</i>)	--/-- CRPR 1B.1 MSHCP Covered	Sandy soil on flats and foothills in mixed grassland, coastal sage scrub, and chaparral communities	High. Suitable habitat and sandy soils occur within the project site.
Long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>)	--/-- CRPR 1B.2 MSHCP Covered	Chaparral, sage scrub, grassland, often in clay soils.	Low. Suitable clay soils do not occur within the project site.
White-bracted spineflower (<i>Chorizanthe xanti</i> var. <i>leucotheca</i>)	--/-- CRPR 1B.2	Sandy or gravelly soil in alluvial sage scrub, desert scrub and juniper woodland.	Low. Suitable habitat and soils occur within the project site. However, the site is not located on an alluvial fan and no records of the species occur within the project vicinity.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Small-flowering morning-glory (<i>Convolvulus simulans</i>)	--/-- CRPR 4.2 MSHCP Covered	Clay soils, seeps, in chaparral, coastal scrub and grasslands.	None. Suitable clay soils do not occur within the project site.
Peruvian dodder (<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>)	--/-- CRPR 2B.2	Marshes and swamps.	None. No suitable habitat occurs within the project site.
Snake cholla (<i>Cylindropuntia californica</i> var. <i>californica</i>)	--/-- CRPR 1B.1	Chaparral and coastal scrub	None. Suitable habitat occurs within the project site but the species would have been observed if present.
Paniculate tarplant (<i>Deinandra paniculata</i>)	--/-- CRPR 4.2	Usually found in vernal mesic areas and sometimes sandy areas within coastal scrub, grassland and vernal pools.	Low. No vernal pools occur within the project site but the site does contain suitable sandy soils.
Alvin meadow bedstraw (<i>Galium californicum</i> ssp. <i>premium</i>)	--/-- CRPR 1B.2 MSHCP Covered	Granitic or sandy soils, shade at ecotone of chaparral, and coniferous forest.	Low. Sandy soils occur within the project site but the site lacks suitable habitat.
Palmer's grapplinghook (<i>Harpagonella palmeri</i>)	--/-- CRPR 4.2 MSHCP Covered	Clay soil, chaparral, sage scrub and grassland.	None. Suitable habitat does not occur on project site.
Los Angeles sunflower (<i>Helianthus nuttallii</i> ssp. <i>parishii</i>)	--/-- CNPS Rank 1A	Marshes and swamps.	None. Suitable habitat does not occur on site and species is presumed extinct in California.
Mesa horkelia (<i>Horkelia cuneata</i> ssp. <i>puberula</i>)	--/-- CRPR 1B.1	Sandy or gravelly areas in chaparral, coastal sage scrub, and coastal mesas	Low. Suitable habitat and soils occur in the site; however, there are no records of the species within the project's vicinity.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
California satintail (<i>Imperata brevifolia</i>)	--/-- CRPR 2B.1	Wet springs, meadows, streambanks, and floodplains.	None. Suitable habitat does not occur on site.
Southern California black walnut (<i>Juglans californica</i>)	--/-- CRPR 4.2 MSHCP Covered	Open savannah, often in habitat best labeled walnut woodland. May be more tolerant of clay soils than most native trees and shrubs. Shows preference for deep alluvial soils with high water-retention capacity and tends to grow in creekbeds, alluvial terraces, and north-facing slopes.	None. No suitable habitat for the species occurs on the site.
Duran's rush (<i>Juncus duranii</i>)	--/-- CRPR 4.3	Creek banks, wet places, in montane conifer forests	None. Suitable habitat does not occur on site.
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	--/-- CRPR 1B.1 MSHCP Covered	Marshes, swamps, playas, and vernal pools	None. Suitable habitat does not occur on site.
Heart-leaved pitcher sage (<i>Lepechinia cardiophylla</i>)	--/-- CRPR 1B.2 MSHCP Covered	Perennial shrub found in coniferous forests, chaparral, and cismontane woodland.	None. Habitat for the species does not occur on the project site.
Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	--/-- CRPR 4.3	Openings in chaparral and sage scrub, typically dry sites.	High. Suitable habitat occurs within the project site.
Parish's bush-mallow (<i>Malacothamnus parishii</i>)	--/-- CRPR 1A	Chaparral and coastal sage scrub.	Low. Suitable habitat occurs within the site but the species has been extirpated within the region.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Hall's monardella (<i>Monardella macrantha</i> ssp. <i>hallii</i>)	--/-- CRPR 1B.3 MSHCP Covered	Lower montane coniferous forest and montane chaparral, usually near rocky rubble and boulders where shrub cover was limited. Canopy may either provide occasional shade or be lacking.	None. No suitable habitat for the species occurs within the project site.
Pringle's monardella (<i>Monardella pringlei</i>)	--/-- CRPR 1A	Sandy soils in coastal sage scrub and interior sand dunes.	None. Presumed extinct in California.
crowned muilla (<i>Muilla coronata</i>)	--/-- CRPR 4.2	Open desert scrub and woodland.	None. Suitable habitat does not occur on site.
Little mouseltail (<i>Myosurus minimus</i> ssp. <i>apus</i>)	--/-- CRPR 3.1 MSHCP Covered	Alkaline vernal pools in grassland.	None. Suitable habitat does not occur on site.
Gambel's water cress (<i>Nasturtium gambelii</i>)	FE/ST CRPR 1B.1	Marshes, streambanks, and lake margins.	None. Suitable habitat does not occur on site. Only four occurrences known in California.
Narrow-petaled rein orchid (<i>Piperia leptopetala</i>)	--/-- CRPR 4.3	Dry shublands and woodlands at middle elevations.	Low. No records of the species occur within the project's vicinity.
Parish's gooseberry (<i>Ribes divaricatum</i> var. <i>parishii</i>)	--/-- CRPR 1A	Riparian woodland	None. Suitable habitat does not occur on site.
Parish psoralea (<i>Rupertia rigida</i>)	--/-- CRPR 4.3	Montane chaparral and lower montane coniferous forests	None. Suitable habitat does not occur within the project site.
San Gabriel ragwort (<i>Senecio astephanus</i>)	--/-- CRPR 4.3	Steep rocky slopes in chaparral, coastal sage scrub, and oak woodlands.	Low. The site lacks suitable steep rocky slopes.
Parish's checkerbloom (<i>Sidalcea hickmanii</i>)	--/-- CRPR 1B.2	Chaparral, woodland, and open conifer forest.	None. No suitable habitat occurs within the project site.

Table 3 (cont.)
SENSITIVE PLANT SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Salt spring checkerbloom (<i>Sidalcea neomexicana</i>)	--/-- CRPR 2B.2	Alkaline mesic soils, chaparral, coastal and desert scrub, playas.	None. Suitable habitat and soils do not occur within the project site.
Prairie wedge grass (<i>Sphenopholis obtusata</i>)	--/-- CRPR 2B.2	Meadows and seeps, woodland.	None. Suitable habitat does not occur within the project site.
Southern jewelflower (<i>Streptanthus campestris</i>)	--/-- CRPR 1B.3	Pinyon juniper areas and high desert transitional chaparral.	None. The site lacks suitable habitat for the species.
San Bernardino aster (<i>Symphyotrichum defoliatum</i>)	--/-- CRPR 1B.2	Sage scrub, grassland, meadows and seeps. Usually near ditches, streams, or other vernal mesic areas.	Low. Marginal habitat occurs along the two ephemeral drainages.
Woven spored lichen (<i>Texosporium sancti-jacobi</i>)	--/-- CRPR 3	Chaparral openings, usually on animal pellets, dead twigs or detritus rich soil.	Low. No chaparral occurs within the project site.
California screw-moss (<i>Tortula californica</i>)	--/-- CRPR 1B.2	Sandy soils in grasslands and chenopod scrub.	Low. The site contains sandy soils but lacks suitable habitat.
Wright's trichocoronis (<i>Trichocoronis wrightii</i>)	--/-- CRPR 2B.1 MSHCP Covered	Moist places and drying riverbeds.	None. Suitable habitat does not occur within the project site.

¹ F = Federal; S = State of California; E = Endangered; T = Threatened; R = Rare

CRPR = California Native Plant Society Rare Plant Rank: 1A – presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California, but more common elsewhere; 2B – rare, threatened, or endangered in California, but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered. County of Riverside Sensitivity Status: MSHCP Covered – Covered Species under the Western Riverside County MSHCP.

² Potential to Occur is assessed as follows. **None:** Species is either sessile (i.e. plants) or so limited to a particular habitat that it cannot disperse on its own, and habitat suitable for its establishment and survival does not occur in the study area; **Not Expected:** Species moves freely and might disperse through or across the study area, but suitable habitat for residence or breeding does not occur in the study area; **Low:** Suitable habitat is present in the study area but no sign of the species was observed during surveys, however the species cannot be excluded with certainty; **High:** Suitable habitat occurs in the study area and the species has been recorded recently on or near the study area, but was not observed during project surveys; **Present:** The species was observed during biological surveys for the project and is assumed to occupy the study area; **Presumed Absent:** Species would be visible all year and would have been observed if present.

3.6.2 Sensitive Animals

A total of 25 sensitive animal species, two of which are listed at the federal or state level, were analyzed for their potential to occur (Table 4). The listed species are San Bernardino kangaroo rat (*Dipodomys merriami parvus*) and coastal California gnatcatcher. The San Bernardino kangaroo rat has a low potential to occur within the project site. One pair of coastal California gnatcatchers was observed within the project site during focused surveys conducted by HELIX (Figure 7; HELIX 2017). Three other sensitive species were documented within the project site: Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and California horned lark (*Eremophila alpestris actia*). Three sensitive species have a high potential to occur within the project site: orange-throated whiptail (*Aspidoscelis hyperthra*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), and red-diamond rattlesnake (*Crotalus ruber*).

Table 4
SENSITIVE ANIMAL SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS ¹	HABITAT	POTENTIAL TO OCCUR ²
Amphibians			
Western spadefoot (<i>Spea hammondi</i>)	--/SSC MSHCP Covered	Open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas. Temporary pools required for breeding and friable soils for burrowing.	None. No vernal pools or other temporary pools detected during surveys.
Reptiles			
Orange-throated whiptail (<i>Aspidoscelis hyperthra</i>)	--/WL MSHCP Covered	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base.	High. Suitable habitat for the species occurs on the project site.
Coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	--/SSC MSHCP Covered	Open rocky areas with sparse vegetation, usually coastal sage scrub, chaparral, and woodlands.	High. Suitable habitat and rocky areas occur on the project site adjacent to the drainages.

Table 4 (cont.)
SENSITIVE ANIMAL SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS ¹	HABITAT	POTENTIAL TO OCCUR ²
Reptiles (cont.)			
Red-diamond rattlesnake (<i>Crotalus ruber</i>)	--/SSC MSHCP Covered	Chaparral, coastal sage scrub, along creek banks, particularly among rock outcrops or piles of debris with a supply of burrowing rodents for prey.	High. Suitable habitat and rocky areas occur on the project site adjacent to the drainages.
Southwestern pond turtle (<i>Actinemys pallida</i>)	--/SSC MSHCP Covered	Almost entirely aquatic; occurs in freshwater marshes, creeks, ponds, rivers and streams, particularly where basking sites, deep water retreats, and egg laying areas are readily available.	None. No suitable aquatic habitat occurs on the project site.
Coast patch-nosed snake (<i>Salvadora hexalepis virgulata</i>)	--/SSC	Primarily found in chaparral but also inhabits coastal sage scrub and areas of grassland mixed with scrub.	Low. Suitable habitat occurs on the project site; however, there are no known occurrences of the species within the project vicinity.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	--/SSC MSHCP Covered	Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil. Requires native ants, especially harvester ants (<i>Pogonomyrmex</i> sp.), and are generally excluded from areas invaded by Argentine ants (<i>Linepithema humile</i>).	High. Suitable habitat occurs within the project site.
Birds			
Cooper's hawk (<i>Accipiter cooperii</i>)	--/WL MSHCP Covered	Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests.	Present. Species detected during multiple surveys flying over the project site and perched within trees adjacent to the project site (Figure 7).

Table 4 (cont.)
SENSITIVE ANIMAL SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS ¹	HABITAT	POTENTIAL TO OCCUR ²
Birds (cont.)			
Tricolored blackbird (<i>Agelaius tricolor</i>)	--/SC BBC/SSC MSHCP Covered	Marsh habitat near grasslands, pastures, and agricultural fields.	None. No suitable marsh habitat occurs on the project site.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	--/WL MSHCP Covered	Coastal sage scrub and open chaparral as well as shrubby grasslands.	Present. Species observed along the slope bordering the northern drainage (Figure 7).
Bell's sparrow (<i>Amphispiza belli</i>)	BBC/WL MSHCP Covered	Low, fairly dense chaparral and sage scrub. Less common in tall, dense chaparral habitats.	High. Suitable habitat present within the project site and recent records of the species occur within the project area.
Burrowing Owl (<i>Athene cunicularia</i>)	BCC/SSC MSHCP Covered	Primarily a grassland species that prefers areas with level to gentle topography and well-drained soils. Species can also occupy agricultural areas, vacant lots, and pastures. Requires underground burrows for nesting and roosting that are typically dug by other species such as California ground squirrel (<i>Spermophilus beecheyi</i>) and round-tailed ground squirrel (<i>Citellus tereticaudus</i>). Species will also utilize natural rock cavities, debris piles, culverts, and pipes for nesting and roosting.	None. Suitable habitat is not found within the project site and no suitable burrows were present. No recent records of the species present within the project vicinity.
Ferruginous hawk (<i>Buteo regalis</i>)	BBC/WL MSHCP Covered	Large areas of open grassland or shrub with elevated nest sites.	Low. Open grassland not present within the project site.
California horned lark (<i>Eremophila alpestris actia</i>)	--/WL MSHCP Covered	Coastal strand, arid grasslands, sandy desert floors, agriculture fields, and disturbed fields.	Present. Species observed foraging along dirt road within the project site (Figure 7).
Birds (cont.)			

Table 4 (cont.)
SENSITIVE ANIMAL SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT/SSC MSHCP Covered	Coastal sage typically dominated by California sagebrush, California buckwheat, California sunflower, and black sage.	Present. A single pair was observed foraging within and adjacent to the project site during protocol surveys (HELIX 2017). The pair was observed nesting to the east of the project site (Figure 7).
Lawrence's goldfinch (<i>Carduelis lawrencei</i>)	BBC/--	Nests in arid open woodland, near fields and small bodies of water. Prefers seeds of <i>Amsinckia</i> spp.	None. Arid woodlands not present.
yellow breasted chat (<i>Icteria virens</i>)	--/SSC MSHCP Covered	Breeds in lowland and foothill riparian woodland dominated by cottonwoods, alder, or willows.	None. No riparian habitat is found on site.
yellow warbler (<i>Setophaga petechia</i>)	--/SSC MSHCP Covered	Breeds in lowland and foothill riparian woodland, dominated by cottonwoods, alder, or willows.	None. No riparian habitat is found on site.
Mammals			
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	--/SSC MSHCP Covered	Open areas of coastal sage scrub and weedy growth, often on sandy substrates.	Low. Suitable habitat and sandy soils occur within the project site; however, there are no recent records of the species within the project vicinity.
San Bernardino kangaroo rat (<i>Dipodomys merriami parvus</i>)	FE/SSC MSHCP Covered	Sandy, loamy soils along washes or alluvial fans with associated sage scrub, and occasionally in chaparral.	Low. Suitable sandy soils and washes occur within the project site but no records of the species occur within the project vicinity.

Table 4 (cont.)
SENSITIVE ANIMAL SPECIES ANALYZED FOR POTENTIAL TO OCCUR

SPECIES	SENSITIVITY STATUS¹	HABITAT	POTENTIAL TO OCCUR²
Mammals (cont.)			
Western mastiff bat (<i>Eumops perotis californicus</i>)	--/SSC	Rocky areas, cliff faces; also known to roost in buildings.	None. Suitable habitat not present on site.
Western yellow bat (<i>Lasiurus xanthinus</i>)	--/SSC	Desert grassland and scrub with associated water.	None. No open water found within the project site.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	--/SSC MSHCP Covered	Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.	Low. Suitable habitat present within and surrounding the project site; however, no records of the species occurs within the project vicinity.
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	--/SSC MSHCP Covered	Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca.	Low. Suitable habitat for the species is found within the project site; however, no records of the occurs within the project vicinity.
Los Angeles pocket mouse (<i>Perognathus longimembris brevinasus</i>)	--/SSC MSHCP Covered	Fine sandy soils with sparse vegetation. Often associated with sage scrub.	Low. The site contains sandy soils but vegetation is dense.
American badger (<i>Taxidea taxus</i>)	--/SSC	Open plains and prairies, farmland, and sometimes edges of woods.	None. Suitable habitat for the species is not found within the project site.

¹ Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; R = Rare; BCC = Federal Bird of Conservation Concern; SSC = State Species of Special Concern; FP = State Fully Protected.

County of Riverside Status: MSHCP Covered – Covered Species under the Western Riverside County MSHCP.

² Potential to Occur is assessed as follows. **None:** Species is so limited to a particular habitat that it cannot disperse on its own, and habitat suitable for its establishment and survival does not occur in the project site; **Not Expected:** Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur in the study area; **Low:** Suitable habitat is present in the project site but no sign of the species was observed during surveys, however the species cannot be excluded with certainty; **High:** Suitable habitat occurs in the study area and the species has been recorded recently on or near the study area, but was not observed during project surveys; **Present:** The species was observed during biological surveys for the project and is assumed to occupy the project site; **Presumed Absent:** Focused surveys were conducted and the species was not detected.

3.6.3 Listed Species

A single listed animal species, the coastal California gnatcatcher, was observed on site. This species was observed using the Riversidean sage scrub in the project site and surrounding area. On April 7, 2017, the pair was observed with a nest approximately 54 feet east of the project site, 2 feet off the ground, within a brittlebush shrub. Potential impacts on coastal California gnatcatcher are covered through demonstration of compliance with the MSHCP. No species-specific conservation is required for this species other than compliance with the MSHCP.

3.6.4 Sensitive Non-Listed Species

Three sensitive species were documented within the project site. The CDFW Watch List species Cooper's hawk was observed flying over the project site and perched on trees adjacent to the site. This is a covered species under the MSHCP. The CDFW Watch List species southern California rufous-crowned sparrow was observed along the northern slope to the south of Drainage B. This is a covered species under the MSHCP. The CDFW Watch List species California horned lark was observed foraging along dirt roads within the northeastern portion of the site. This is a covered species under the MSHCP. No surveys are required for these species. No species-specific conservation is required for these species other than compliance with the MSHCP.

4.0 REGULATORY CONTEXT

4.1 FEDERAL

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take can be authorized via a letter of Biological Opinion (BO), issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species' use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows the issuance of permits for "incidental" take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity. An umbrella Section 10(a) permit was issued for the MSHCP.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S. (including wetlands and vernal pools) is overseen by the USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. Individual Permits typically require substantial time (often longer than six months) to review and approve, while Nationwide Permits are pre-approved if a project meets appropriate conditions. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board, must be issued prior to any 404 Permit.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the Migratory Bird Treaty Act (MBTA), as amended under the MBTA of 2004 (FR Doc. 05-5127). This law is generally protective of migratory birds from the direct physical take of the species.

Critical Habitat

As described by the federal ESA, critical habitat is the geographic area occupied by a threatened or endangered species essential to species conservation that may require special management considerations or protection. Critical habitat also may include specific areas not occupied by the species but that have been determined to be essential for species conservation.

Critical habitat does not occur on the project site. Critical habitat for the coastal California gnatcatcher occurs approximately 4.5 miles to the northwest of the project.

4.2 STATE

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes the CDFW to enter into a memorandum of agreement for the take of listed species for scientific, educational, or management purposes. An umbrella Section 2081 permit was issued for the MSHCP. The golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*) are considered State Fully Protected Species. Fully Protected species may not be taken or possessed at any time and no state licenses or permits may be issued for their take except for collecting these species necessary for scientific research and relocation of the bird species for the protection of livestock (CFG Code Sections 3511, 4700, 5050, and 5515).

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates the collection, transport, and commerce of listed plants.

The California ESA follows the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the California ESA.

The CFG Code (Section 1600 et seq.) requires an agreement with the CDFW for projects affecting riparian and wetland habitats through the issuance of a Streambed Alteration Agreement.

4.3 WESTERN RIVERSIDE MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The MSHCP is a comprehensive multi-jurisdictional effort that includes western Riverside County and multiple cities. EMWD is not a participating entity under the MSHCP but is pursuing a PSE designation for the project site. Rather than address sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system (Dudek 2003). Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003, by the Riverside County Board of Supervisors. The Incidental Take Permit was issued by the USFWS and CDFW on June 22, 2004.

As noted above, the project is located in the Reche Canyon/Badlands Area Plan of the MSHCP. The site is not within a subunit, Criteria Cell or Cell Group. In order to obtain MSHCP coverage as a PSE, the project is required to demonstrate MSHCP compliance through specific habitat assessments, applicable biological surveys, and the provision of an MSHCP consistency analysis. This report includes an analysis of the project compliance with the MSHCP.

Multiple Species Habitat Conservation Plan Conservation

This project is within the Reche Canyon/Badlands Area Plan. Each area plan of the MSHCP is divided into sub units made up of cells and cell groups. The sub units, cells, and cell groups have specific conservation requirements. This project site is not within a cell, cell group, or sub unit and is not subject to special conservation requirements that apply to cells or cell groups. The property is not targeted for conservation that will contribute to the assembly of the MSHCP reserve.

5.0 IMPACTS

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes,

and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

According to Appendix G of the CEQA Guidelines, project impacts to biological resources would be considered significant if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any sensitive species in local or regional plans, policies, or regulations, or by the CDFW and or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW and Game or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.1 SENSITIVE SPECIES

5.1.1 Sensitive Plants

No sensitive plants were observed or are expected to occur within the study area. No impacts on sensitive plant species would occur.

5.1.2 Sensitive Wildlife

The federally threatened coastal California gnatcatcher and three State Watch List species (Cooper's hawk, southern California rufous-crowned sparrow, and California horned lark) were observed on site. These species are covered under the MSHCP, with no additional survey needs or species-specific mitigation requirements. Impacts would be less than significant through demonstration of project compliance with the MSHCP.

5.1.3 Nesting Birds

Development of the proposed project could disturb or destroy active migratory bird nests including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is, therefore, considered to be a potentially significant impact. The Riversidean sage scrub on the site has high potential to provide nesting habitat for a variety of bird species including the coastal California gnatcatcher which was found on the project site and documented nesting immediately east of the site. The MSHCP does not cover impacts to nesting birds that are protected under the MBTA. Impacts to nesting birds such as coastal California gnatcatcher, California towhee (*Melospiza crissalis*), and all other birds protected under the MBTA would be considered potentially significant.

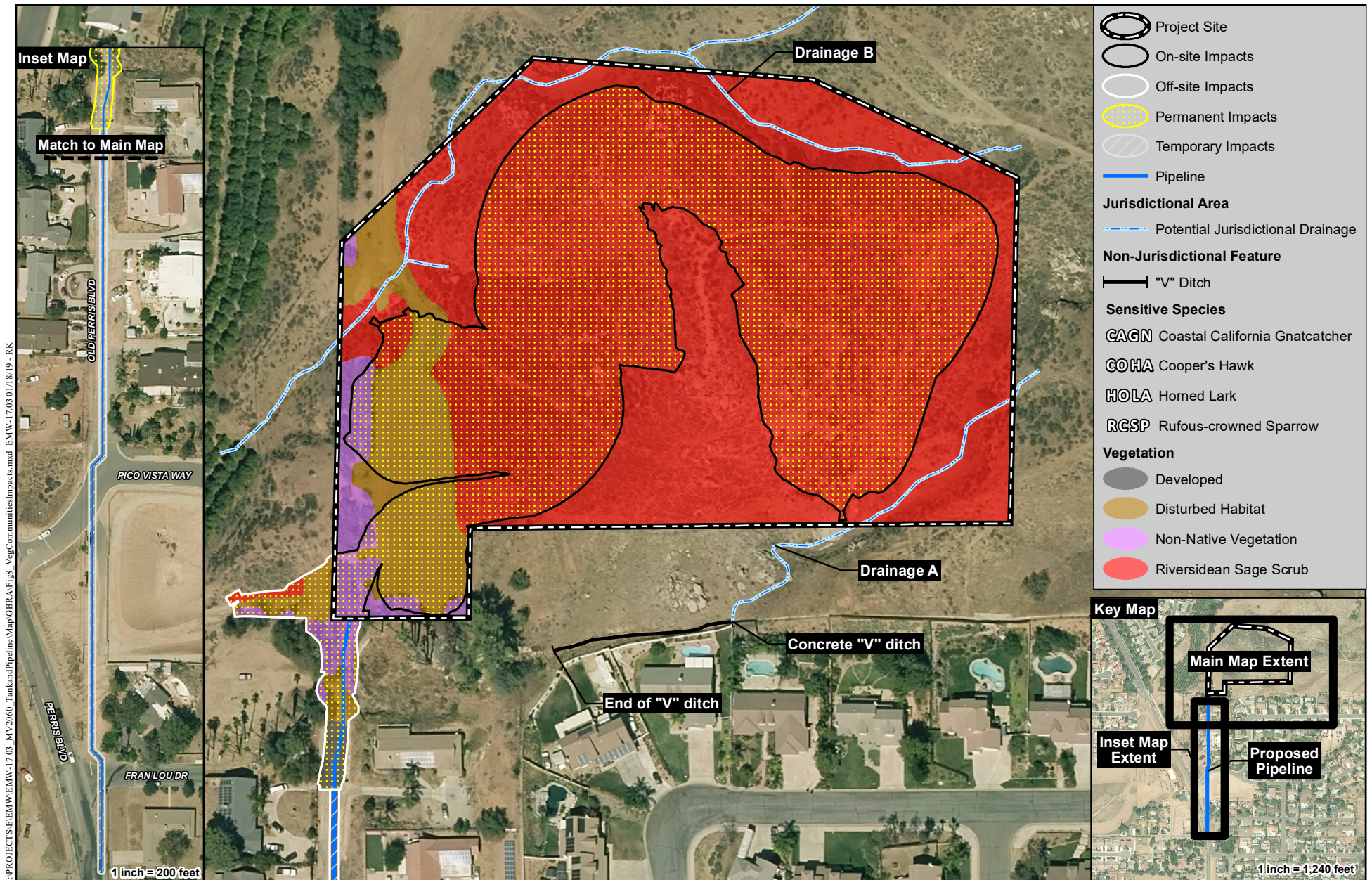
5.2 VEGETATION COMMUNITIES

The proposed project would result in on-site impacts of 4.9 acres and off-site impacts of 0.5 acre (Figure 8). On-site impacts include 4.9 acres of permanent impacts. Off-site impacts include 0.2 acre of permanent impacts and 0.3 acre of temporary impacts. Total on-site impacts would consist of 4.2 acres of Riversidean sage scrub, 0.1 acre of non-native vegetation, and 0.6 acre of disturbed habitat (Table 5). Total off-site impacts would consist of less than 0.1 acre of Riversidean sage scrub, 0.1 acre of non-native vegetation, 0.1 acre of disturbed habitat, and 0.3 acre of developed land (Table 5).

Table 5 IMPACTS TO VEGETATION COMMUNITIES						
VEGETATION COMMUNITY	IMPACTS					
	On-Site			Off-Site		
	Temporary	Permanent	Total	Temporary	Permanent	Total
Riversidean sage scrub	--	4.2	4.2	--	<0.1	<0.1
Non-native vegetation	--	0.1	0.1	--	0.1	0.1
Disturbed Habitat	--	0.6	0.6	--	0.1	0.1
Developed Land	--	--	--	0.3	<0.1	0.3
TOTAL	--	4.9	4.9	0.3	0.2	0.5

Impacts to disturbed habitat and developed land are not considered significant and do not require mitigation, as they do not represent habitat with potential to support native plant or animals. Impacts to Riversidean sage scrub are considered significant. Projects within the MSHCP plan area are subject to an MSHCP mitigation fee as discussed in more detail in Section 6.4.

Portions of the project site impacted by construction activities, such as the graded slopes and the stockpile area, will be revegetated with native plantings and/or hydroseeded with a native seed mix. Off-site temporary impacts are primarily limited to disturbed and developed habitat along Old Perris Boulevard. Off-site areas will be backfilled and repaved to pre-project conditions.



Vegetation/Sensitive Resources/Impacts

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

5.3 JURISDICTIONAL WATERS AND WETLANDS

Impacts of the project would be restricted to upland areas that lack potential jurisdictional waters and wetlands. The project has been designed to avoid the ephemeral drainages that occur along the northern and southern boundaries of the site. These features would be conserved on site through placement of a Restrictive Covenant to protect the resources in perpetuity (Figure 9). The Restrictive Covenant will be reviewed and approved by RCA prior to the initiation of ground-disturbance activities (e.g., vegetation clearing and grubbing, equipment staging, etc.). Additionally, as further described in Section 6.2, implementation of mitigation measures BIO-3 and BIO-4 would ensure that drainages near the project would not be impacted by construction activities. A permanent perimeter fence would be installed around the permanent project features to avoid unauthorized access to the facilities. Permanent fencing would ensure that maintenance activities would be restricted to the permanent project footprint, protecting the avoided area and associated functions and values. Signage would also be installed along the perimeter of the Restrictive Covenant, at the site entry points, and along the edges of permanent project features prohibiting access to the area. Therefore, no impacts to jurisdictional waters and wetlands would occur.

5.4 MULTIPLE SPECIES HABITAT CONSERVATION PLAN IMPACTS CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the project with respect to compliance with biological resources aspects of the MSHCP.

The project was evaluated for consistency with the following MSHCP issue areas:

- MSHCP Reserve Assembly requirements;
- Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools);
- Section 6.1.3 (Protection of Narrow Endemic Plant Species);
- Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface);
- Section 6.3.2 (Additional Survey Needs and Procedures); and,
- Section 6.4 (Fuels Management).

The discussions below provide a summary demonstrating how the project is consistent with MSHCP requirements for each of the above-listed issue areas.

5.4.1 Multiple Species Habitat Conservation Plan Reserve Assembly Requirements

The project site is not located within a Cell or Cell Group and is not otherwise targeted for conservation. The project site does not include land conservation requirements to contribute to the MSHCP reserve assembly. No sensitive species were determined to occupy the site that would warrant additional survey, avoidance, or conservation requirements.

5.4.2 Multiple Species Habitat Conservation Plan Section 6.1.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

The proposed project complies with the policies of Section 6.1.2 that protect species associated with vernal pools and Riparian/Riverine areas. No vernal pools exist on site, and no vernal pool species are expected to occur. None of the plant or animal species listed in Section 6.1.2 of the MSHCP was observed or expected to occur in the project site.

MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, states:

The purpose of the procedures described in this section is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that Habitat values for species inside the MSHCP Conservation Area are maintained.

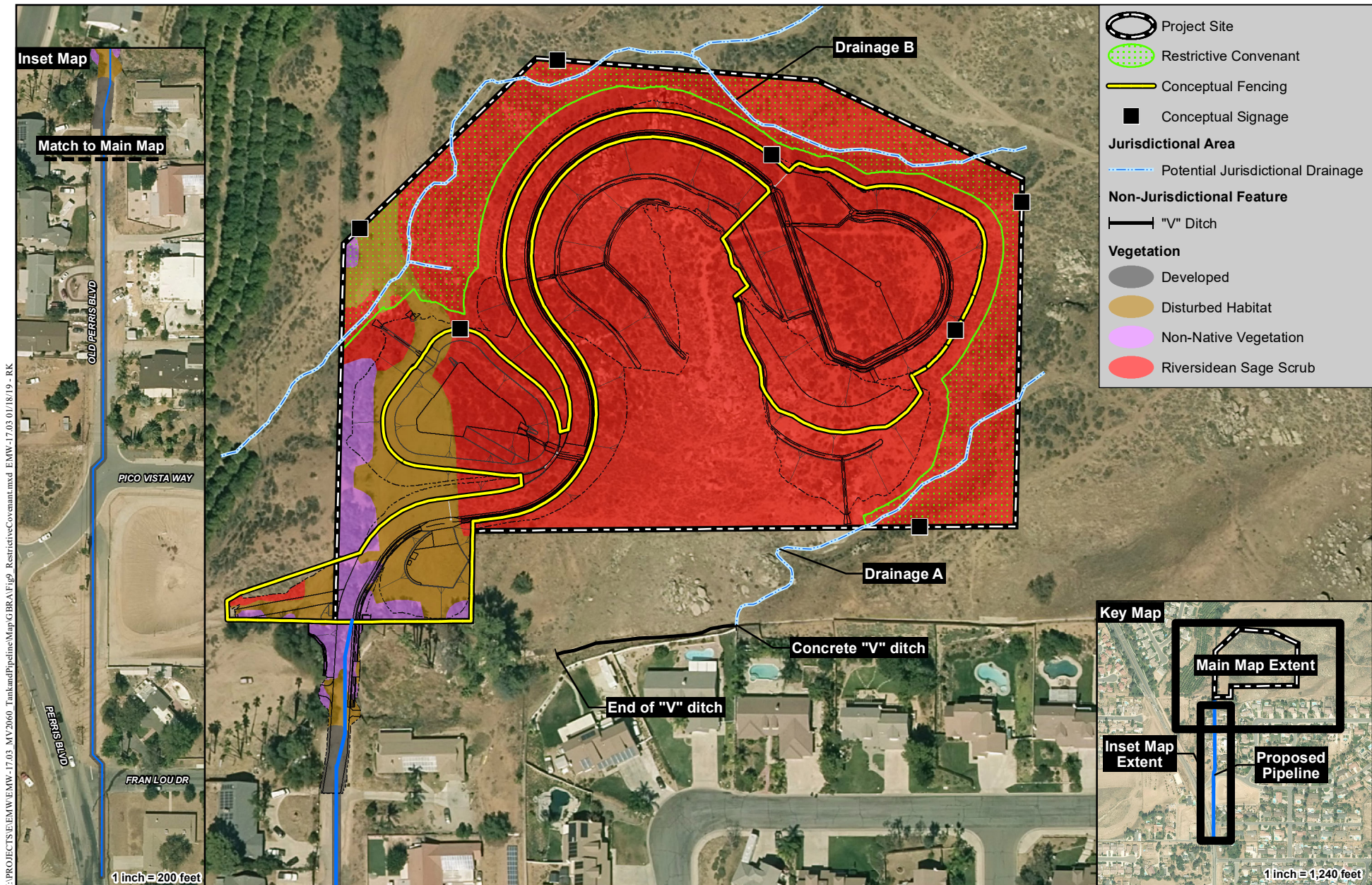
Section 6.1.2 of the MSHCP focuses on protection of Riparian/Riverine areas and vernal pool habitats capable of supporting, or that are tributary to habitats that support, MSHCP covered species, particularly within the identified Conservation Area. The project site includes portions of two ephemeral drainage features that meet the minimum criteria to be considered Riverine. The project has been specifically designed to avoid impacts to the two drainage features and would further conserve these features through placement of a Restrictive Covenant. As previously stated, the Restrictive Covenant will be reviewed and approved by RCA prior to the initiation of ground-disturbance activities (e.g., vegetation clearing and grubbing, equipment staging, etc.). Additionally, implementation of mitigation measures BIO-3 and BIO-4 would ensure avoidance of construction-related impacts; therefore, no impacts to Riparian/Riverine Areas or associated species would occur as part of project implementation (Figure 8). No Vernal Pools occur on the project site; therefore, the project would not impact vernal pools or associated sensitive vernal pool species.

Vernal Pools and Invertebrates

The property does not support vernal pools or other basins with potential to support sensitive fairy shrimp. No impacts to vernal pool or similar habitats are proposed.

5.4.3 Multiple Species Habitat Conservation Plan Section 6.1.3 Protection of Narrow Endemic Plant Species

The property is not within a survey area for NEPSSA species and no NEPSSA species were observed during the various surveys conducted on the property. No NEPSSA species would be impacted by the project.



Proposed Restrictive Covenant, Conceptual Fencing, and Signage

JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

5.4.4 Multiple Species Habitat Conservation Plan Section 6.1.4 Guidelines Pertaining to the Urban/Wildlands Interface

Section 6.1.4 of the MSHCP addresses potential indirect impacts to MSHCP Conservation Areas via the Urban/Wildlands Interface Guidelines (UWIG). The project does not occur adjacent to MSHCP Conservation Areas or other lands targeted for conservation or already in preservation. The nearest conservation lands occur more than one mile to the southwest of the project site. The project will avoid the two MSHCP riverine resources that occur within the site (i.e., Drainages A and B) and will further conserve these resources through the placement of a Restrictive Covenant over these areas. The project's compliance with the UWIG guidelines are discussed below to demonstrate avoidance and minimization of potential indirect effects to these riverine resources.

Drainage

The project does not directly drain into an MSHCP Conservation Area. However, Drainage B indirectly discharges into downstream Public/Quasi-Public Conserved Lands associated with Poorman Reservoir, a RCFCWD's flood control facility. As a stand condition to meet storm water requirements, the project has been specifically designed to include terrace drains, interceptor drains, a detention basin, and dissipating structures at outlets to collect, detain, and dissipate potential runoff from the site. No surface runoff from developed and paved areas would directly enter the on-site riverine resources and there would be no adverse increase in the amount of runoff entering these areas as a result of the proposed project. Regular maintenance of the facilities would occur to ensure effective operation. No impacts on drainage would occur.

Toxics

The project does not occur adjacent to an MSHCP Conservation Area, though, as previously stated, Drainage B indirectly drains into Public/Quasi-Public Conserved Lands whereby the potential effects of toxics could be introduced. The project also occurs adjacent to undeveloped land occupied by sensitive species, including MSHCP covered species, that could be affected by toxins. However, the project does not require the use of chemicals and would not generate excessive bio-products such as oil from roads and cars that are potentially toxic or that may adversely affect wildlife species, habitat, or water quality. Furthermore, as mentioned above, no surface runoff from developed and paved areas would directly enter the on-site riverine resources and thereby be conveyed to off-site MSHCP Conservation Areas. No impacts from toxics would occur.

Lighting

The project does not occur adjacent to an MSHCP Conservation Area whereby the potential effects of lighting could be introduced. Nevertheless, the project would occur adjacent to undeveloped land occupied by sensitive species, including MSHCP covered species, that could be affected by lighting. Project construction would not require nighttime lighting and no lighting elements are included in the project design. No impacts from lighting would occur.

Noise

The project does not occur adjacent to an MSHCP Conservation Area whereby the potential effects of noise could be introduced. The project would occur adjacent to undeveloped land occupied by sensitive species, including MSHCP covered species, that could be affected by noise during breeding activities. Potential adverse indirect effects on nesting birds from construction noise would be prevented through implementation of BIO-1, with measures for pre-construction survey and avoidance, with buffers, around any active bird nests. Potential operation effects are not anticipated as the project would be unmanned and no noise generating elements are proposed.

Invasives

The project shall not use invasive plants for erosion control, landscaping, wind rows, or other purposes. The project would comply with the MSHCP and avoid the use of invasive, non-native plants in accordance with MSHCP Table 6.2.

Barriers

The project does not occur adjacent to an MSHCP Conservation Area and would not introduce barriers to wildlife movement. The project's water tank and associated access road would not preclude wildlife from moving through the local area unimpeded. Impacts would be less than significant.

Grading/Land Development

The project does not occur adjacent to an MSHCP Conservation Area whereby the potential effects of grading would occur. Project grading would be restricted to a narrow footprint. No impacts would occur.

5.4.5 Multiple Species Habitat Conservation Plan Section 6.3.2 Additional Survey Needs and Procedures

The MSHCP (Section 6.3.2) requires a habitat assessment and survey if burrowing owl habitat occurs on site. No suitable burrowing owl habitat was found on the project site; therefore, no focused surveys were conducted. No impacts are expected to occur to burrowing owl.

The project site is not within a CASSA, or an amphibian or mammal survey area. No surveys or mitigation is required under the MSHCP.

No other surveys are required or recommended, and the proposed project is consistent with MSHCP Section 6.3.2.

5.4.6 Multiple Species Habitat Conservation Plan Section 6.4 Fuels Management

No fuel modification zones are proposed for this project. Therefore, no potential impacts resulting from fuel modification would occur to undeveloped land to the north and east of the project that has potential to support sensitive species. The proposed project is consistent with Section 6.4 of the MSHCP.

6.0 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

6.1 SENSITIVE SPECIES

6.1.1 Sensitive Wildlife

The project will demonstrate compliance with the MSHCP through implementation of mitigation measure BIO-1. Potential impacts to the federally threatened coastal California gnatcatcher and State Watch List species Cooper's hawk, southern California rufous-crowned sparrow, and California horned lark are covered under the MSHCP, with no species-specific mitigation requirements.

BIO-1: MSHCP Mitigation Impact Fee. Prior to construction, the Applicant will pay the appropriate MSHCP mitigation fee in accordance with Section 6.1.6 of the MSHCP for Participating Special Entities or take other such actions as agreed upon in coordination with, the Western Riverside County Regional Conservation Authority (RCA) and the Wildlife Agencies. The fees shall be either collected by, or submitted to, the RCA.

6.1.2 Nesting Birds

Implementation of mitigation measure BIO-2 would ensure that potential impacts to birds protected under the MBTA and CFG Code are avoided during project construction.

BIO-2: Pre-Construction Nesting Bird Survey and Avoidance. Vegetation clearing should be conducted outside the nesting season, which is generally defined as January 15 to August 31. If vegetation clearing must take place during the nesting season, a qualified biologist shall be retained to perform a pre-construction survey for nesting birds. A pre-construction nesting bird survey would not be required unless direct impacts to vegetation are proposed to occur. The nesting bird survey shall occur no more than seven days prior to vegetation removal.

Additionally, raptors (birds of prey) are known to begin nest building in January or February. If vegetation clearing is to occur between January 1 and February 15, a nesting raptor survey will be conducted within the project site, including a 500-foot buffer.

If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist until a qualified biologist has verified

that the young have fledged or the nest has otherwise become inactive.

6.2 SENSITIVE VEGETATION

The project has been designed to concentrate and reduce the impact footprint and amount of pavement to the smallest area necessary to construct the project at the required elevations and with the required infrastructure and safe, operational access. The design has been modified to retreat from all existing riverine features and minimize impacts to Riversidean sage scrub to the maximum extent. A Restrictive Covenant would be established over the riverine features to conserve and protect these features in perpetuity (Figure 9). As stated previously, the Restrictive Covenant will be reviewed and approved by RCA prior to the initiation of ground-disturbance activities (e.g., vegetation clearing and grubbing, equipment staging, etc.). An unavoidable impact on Riversidean sage scrub would occur and would be considered significant. The impact would be reduced to a less-than-significant level with implementation of mitigation measures BIO-1. The project proponent will pay the appropriate mitigation fee, or take other actions as agreed to by the RCA and Wildlife Agencies, and demonstrate compliance with the MSHCP as a PSE. Sensitive riverine and Riversidean sage scrub habitat occurs immediately adjacent to the proposed work limits that must be protected during construction. If activities are not properly contained and kept within the proposed work limits, potentially significant direct and indirect impacts could occur to these adjacent sensitive natural communities. These potential impacts would be avoided through the implementation of mitigation measures BIO-3 and BIO-4, which require a biological monitor during construction and the installation of temporary construction fencing.

Furthermore, as a regulatory requirement, the project would incorporate standard Best Management Practices (BMPs) to help ensure the protection of sensitive habitat during project construction. Specific BMPs may include but would not necessarily be limited to: maintaining the project work areas free of trash and debris; employing appropriate standard spill prevention practices and clean-up materials; installing and maintaining sediment and erosion control measures; maintaining effective control of fugitive dust; and properly storing, handling, and disposing of toxins and pollutants, including waste materials.

Implementation of required BMPs in combination with mitigation measures BIO-1, BIO-3, and BIO-4 would ensure that construction activities are contained within the proposed work limits and that potentially significant direct and indirect impacts on sensitive natural communities are reduced to less-than-significant levels.

BIO-3: Biological Monitor. Prior to construction, the EMWD shall retain a qualified biologist to monitor clearing and/or grubbing activities. The biological monitor shall attend pre-construction meetings and be present during the removal of vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. Before construction activities occur in areas containing sensitive biological resources, workers shall be educated by the biologist to recognize and avoid those areas that have been marked as sensitive biological resources.

BIO-4: Temporary Construction Fencing. Prior to construction, EMWD shall require that environmentally sensitive areas that occur outside of the approved work limits are identified on construction plans. Temporary construction fencing shall be installed along the approved work limits under the direction of the qualified biological monitor. Fencing shall be maintained and remain in place through the duration of project construction.

6.3 NON-NATIVE INVASIVE SPECIES RESTRICTIONS

In accordance with the MSHCP, no plant species on List 6.2 of the MSHCP shall be utilized on the site (including any hydroseed mix used for interim erosion control) for consistency with Section 6.1.4 of the MSHCP.

6.4 MULTIPLE SPECIES HABITAT CONSERVATION PLAN PARTICIPATING SPECIAL ENTITY FEE

EMWD is not a participating agency under the MSHCP but is seeking a PSE for the proposed project due to the presence of the coastal California gnatcatcher within the project site. Properties within the MSHCP plan area are subject to an MSHCP mitigation fee that, based on the recommendation of the RCA. Section 6.1.6 of the MSHCP requires that PSEs contribute through payment of a fee based upon the type of proposed activity. For Regional Utility Projects that will be constructed to serve Development, such as major trunk lines, PSEs shall pay a fee in the amount of up to five percent of the total capital costs or take such other actions as may be agreed to by the RCA and the Wildlife Agencies. All fees shall be either collected by, or submitted to, the RCA. All obligations must be satisfied prior to impacts to Covered Species and their Habitats.

6.5 STEPHENS' KANGAROO RAT HCP FEE

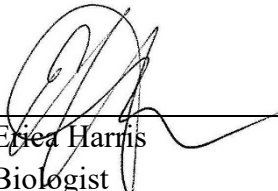
The project is also within the Stephens' kangaroo rat fee area and is subject to the Stephens' kangaroo rat fee of \$500 per acre (County 1996).

7.0 CERTIFICATION/QUALIFICATION

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: July 1, 2019

SIGNED: _____


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Appendix A

PLANT SPECIES OBSERVED



Appendix A

PLANT SPECIES OBSERVED

<u>TAXON</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
Adoxaceae	<i>Sambucus nigra</i>	black elderberry
Anacardiaceae	<i>Schinus molle</i> *	Peruvian pepper tree
Asteraceae	<i>Artemisia californica</i>	California sagebrush
	<i>Baccharis salicifolia</i>	mule fat
	<i>Encelia farinosa</i>	brittlebush
	<i>Helianthus annuus</i>	western sunflower
	<i>Pseudognaphalium</i> sp.	everlasting
	<i>Sonchus</i> sp.*	sow thistle
Boraginaceae	<i>Amsinckia intermedia</i>	rancher's fiddleneck
	<i>Cryptantha</i> sp.	cryptantha
	<i>Nemophila menziesii</i>	baby blue-eyes
	<i>Phacelia cicutaria</i>	caterpillar phacelia
	<i>Phacelia parryi</i>	Parry's phacelia
Brassicaceae	<i>Hirschfeldia incana</i> *	perennial mustard
	<i>Sisymbrium</i> sp.*	mustard
Convolvulaceae	<i>Calystegia macrostegia</i>	morning-glory
Cucurbitaceae	<i>Marah macrocarpa</i>	wild cucumber
Fabaceae	<i>Acmispon glaber</i>	deerweed
	<i>Acmispon maritimus</i>	alkali lotus
	<i>Parkinsonia aculeata</i> *	Mexican palo verde
	<i>Erodium cicutarium</i> *	red-stem filaree
Geraniaceae		
Lamiaceae	<i>Salvia apiana</i>	white sage
	<i>Salvia columbariae</i>	chia
	<i>Salvia mellifera</i>	black sage
Malvaceae	<i>Malva parviflora</i> *	cheeseweed
Nyctaginaceae	<i>Mirabilis laevis</i>	wishbone bush
Oleaceae	<i>Olea europaea</i> *	olive
Onagraceae	<i>Camissoniopsis</i> sp.	sun cup
Poaceae	<i>Avena barbata</i> *	slender wild oat
	<i>Bromus diandrus</i> *	common ripgut grass
	<i>Bromus madritensis</i> ssp. <i>rubens</i> *	foxtail chess
	<i>Hordeum</i> sp.*	barley
	<i>Lamarckia aurea</i> *	goldentop
	<i>Schismus barbatus</i> *	Mediterranean grass
	<i>Eriogonum fasciculatum</i>	California buckwheat
Polygonaceae		
Themidaceae	<i>Dichelostemma capitatum</i>	blue dicks

*Non-native Species

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Appendix B

ANIMAL SPECIES OBSERVED OR DETECTED



Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
INVERTEBRATES			
<u>Order</u>	<u>Family</u>		
Lepidoptera	Papilionidae	<i>Papilio rutulus</i>	western tiger swallowtail
	Pieridae	<i>Anthocharis sara</i>	Sara orangetip
	Nymphalidae	<i>Vanessa annabella</i>	west coast lady
VERTEBRATES			
<u>Reptiles</u>			
<u>Order</u>	<u>Family</u>		
Squamata	Phrynosomatidae	<i>Sceloporus magister</i>	desert spiny lizard
		<i>Sceloporus occidentalis</i>	western fence lizard
		<i>Uta stansburiana</i>	common side-blotched lizard
<u>Birds</u>			
<u>Order</u>	<u>Family</u>		
Accipitriformes	Accipitridae	<i>Accipiter cooperii</i> †	Cooper's Hawk
		<i>Buteo jamaicensis</i>	Red-tailed Hawk
		<i>Buteo lineatus</i>	Red-shouldered Hawk
		<i>Circus cyaneus</i>	Northern Harrier
Apodiformes	Apodidae	<i>Aeronautes saxatalis</i>	White-throated Swift
	Trochilidae	<i>Calypte anna</i>	Anna's Hummingbird
Columbiformes	Columbidae	<i>Zenaida macroura</i>	Mourning Dove
Falconiformes	Falconidae	<i>Falco sparverius</i>	American Kestrel
Galliformes	Odontophoridae	<i>Callipepla californica</i>	California Quail
Passeriformes	Aegithalidae	<i>Psaltriparus minimus</i>	Bushtit
	Alaudidae	<i>Eremophila alpestris actia</i> †	California Horned Lark
	Corvidae	<i>Aphelocoma californica</i>	California Scrub-Jay

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
VERTEBRATES (cont.)			
<u>Birds</u> (cont.)			
<u>Order</u>	<u>Family</u>		
Passeriformes	Corvidae	<i>Corvus brachyrhynchos</i>	American Crow
		<i>Corvus corax</i>	Common Raven
	Emberizidae	<i>Aimophila ruficeps canescens</i> †	Southern California Rufous-crowned Sparrow
		<i>Artemisiospiza belli</i>	Sage Sparrow
		<i>Melospiza crissalis</i>	California Towhee
		<i>Pipilo maculatus</i>	Spotted Towhee
		<i>Zonotrichia leucophrys</i>	White-crowned Sparrow
	Fringillidae	<i>Haemorrhous mexicanus</i>	House Finch
		<i>Spinus psaltria</i>	Lesser Goldfinch
	Mimidae	<i>Mimus polyglottos</i>	Northern Mockingbird
		<i>Toxostoma redivivum</i>	California Thrasher
	Parulidae	<i>Setophaga coronata</i>	Yellow-rumped Warbler
	Poliophtilidae	<i>Poliophtila caerulea</i>	Blue-gray Gnatcatcher
	Regulidae	<i>Regulus calendula</i>	Ruby-crowned Kinglet
	Sylviidae	<i>Chamaea fasciata</i>	Wrentit
		<i>Poliophtila californica californica</i> †	Coastal California Gnatcatcher
	Troglodytidae	<i>Salpinctes obsoletus</i>	Rock Wren
		<i>Thryomanes bewickii</i>	Bewick's Wren
	Tyrannidae	<i>Sayornis nigricans</i>	Black Phoebe
		<i>Sayornis saya</i>	Say's Phoebe
		<i>Tyrannus vociferans</i>	Cassin's Kingbird
Piciformes	Picidae	<i>Colaptes auratus</i>	Northern Flicker
<u>Mammals</u>			
<u>Order</u>	<u>Family</u>		
Artiodactyla	Cervidae	<i>Odocoileus hemionus</i>	mule deer
Carnivora	Canidae	<i>Canis familiaris</i>	domestic dog
		<i>Canis latrans</i>	coyote
	Procyonidae	<i>Procyon lotor</i>	raccoon

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
VERTEBRATES (cont.)			
<u>Mammals</u> (cont.)			
<u>Order</u>	<u>Family</u>		
Lagomorpha	Leporidae	<i>Sylvilagus audubonii</i>	desert cottontail
Rodentia	Geomyidae	<i>Thomomys bottae</i>	Botta's pocket gopher
	Muridae	<i>Neotoma lepida</i>	desert woodrat
	Sciuridae	<i>Spermophilus beecheyi</i>	California ground squirrel

†Sensitive Species

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Appendix C

REPRESENTATIVE SITE PHOTOGRAPHS





Photo 1. View of disturbed habitat and Riversidean sage scrub from the southwestern portion of the site facing northeast.



Photo 2. Overview of the project site facing west.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

Appendix C



Photo 3. Representative photo of Riversidean sage scrub and central hilltop facing west.



Photo 4. Overview of eastern portion of the site facing southwest.



Photo 5. Representative view of Riversidean sage scrub from southern portion of site facing north towards central hilltop.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

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Photo 6. Upstream end of ephemeral Drainage A facing south.



Photo 7. Downstream end of ephemeral Drainage A facing north.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE
JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT



Photo 8. Upstream end of Drainage B facing southwest.



Photo 9. Upstream end of Drainage B facing north.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE
JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

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Photo 10. Overview of Drainage B and tributary in western portion of the site outside of project impact area, facing west. The project has been specifically sited within uplands that occur outside of the photo, further to the left and behind the photographer. No impacts would occur to Drainage B or its tributary.



Photo 11. Upstream view of tributary to Drainage B, facing east. The project has been specifically sited within uplands, well above this feature, in the background of the photo.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE
JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

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Photo 12. Uplands and upstream terminus of tributary to Drainage B facing east. The project has been specifically sited within the uplands, well above this feature, in the background of the photo.



Photo 13. South-facing view of planned pipeline location, off site and within developed/paved portions of Old Perris Boulevard.

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Representative Site Photos

GENERAL BIOLOGICAL RESOURCES ASSESSMENT FOR THE
JUDSON POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

Appendix C



Appendix D

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES



Appendix D

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

U.S. Fish and Wildlife Service (USFWS)

FE	Federally listed endangered
FT	Federally listed threatened
BCC	Bird of Conservation Concern—Represents USFWS’ highest conservation priorities and draw attention to species in need of conservation action.
BGEPA	Protected under the Bald and Golden Eagle Protection Act

California Department of Fish and Wildlife (CDFW)

SE	State listed endangered
SR	State listed rare
ST	State listed threatened
SSC	State species of special concern—Declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
WL	Watch list—Birds that are/were: a) not on the current list of species of special concern but were on previous lists and have not been State listed under the California Endangered Species Act; b) previously State or federally listed and now are on neither list; or c) on the list of “Fully Protected” species.
FP	Fully Protected refers to all vertebrate and invertebrate taxa of concern to the California Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

County of Riverside

Multiple Species Habitat Conservation Plan (MSHCP) Covered

MSHCP Covered Species indicates that the species is part of a proposed list of species (146 total) considered at this time to be adequately conserved by the Western Riverside MSHCP, provided that participants meet all conditions listed in the Final MSHCP. Some of these species require surveys.

MSHCP Not Covered

Not Covered refers to species that are not among the 146 species conserved under the MSHCP. Impacts to such species are assessed on an individual basis. If impacts are considered significant, additional mitigation may be required.

Appendix D (cont.)
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

MSHCP Special Species Acronyms/Abbreviations

NEPSSA	Narrow Endemic Plant Species Survey Area species – Plant species that are highly restricted by their habitat affinities, edaphic requirements, or other ecological factors, and for which specific conservation measures have been identified in <i>Section 6.1.3</i> of the <i>MSHCP, Volume I</i> .
CASSA	Criteria Area Species Survey Area – Species for which existing available information is not sufficient and for which specific conservation measures have been identified in <i>Section 6.3.2</i> of the <i>MSHCP, Volume I</i> .
Planning Species	Refers to species for which conservation requirements of a Subunit or Linkage are specifically designed to provide long-term conservation for the species. Planning species are also MSHCP covered species.

California Native Plant Society (CNPS)

California Rare Plant Rank	Threat Rank
1A = Presumed extirpated in California and either rare or extinct elsewhere.	.1 = Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
1B = Rare, threatened, or endangered in California and elsewhere.	.2 = Moderately endangered in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat)
2A= Presumed extirpated in California but more common elsewhere.	.3 = Not very threatened in California (less than 20 percent of occurrences threatened/ low degree and immediacy of threat or no current threats known)
2B= Rare, threatened, or endangered in California but more common elsewhere.	
3 = More information is needed.	
4 = A watch list for species of limited distribution.	