Technical Memorandum

To: Matthew Bates, PE, Engineering Manager, Elsinore Valley Municipal Water District (EVMWD)

From: Stephanie Standerfer, Vice President
Autumn DeWoody, Senior Environmental Analyst

Date: May 25, 2022, revised October 5, 2022

Re: EVMWD Rice Canyon Replacement Land Equivalency Report

1 Introduction

This document has been prepared consistent with the "Modified Reserve Land Exchange Equivalency Report Outline" that EVMWD provided to RCA on February 28, 2022 (enclosed).

1.1 Project Background

Since 1992, Elsinore Valley Municipal Water District (EVMWD or "District") has owned and operated the 1.5-million-gallon (MG) Rice Canyon Reservoir to provide potable water to its customers. EVMWD also owns and operates a 16-inch diameter water pipeline and a 3-inch diameter electrical conduit both buried within the District's earthen access road, which extends approximately one-half mile from Dale Court to the reservoir. Rice Canyon Creek flows through the canyon, next to the reservoir and across the access road in three Arizona Crossing locations.

In 2018, the open space surrounding the Rice Canyon Reservoir sustained fire damage as a result of the Holy Fire. The Holy Fire burned more than 23,000 acres in Riverside and Orange Counties. Subsequently, the storms of winter 2018/2019 resulted in high intensity and debris ladened flows in Rice Canyon Creek because the native vegetation had been burned in the fire. The impacts from the winter storms resulted in the State of California declaring a State of Emergency for Orange and Riverside Counties since the effects of the Holy Fire threatened critical infrastructure, thousands of homes, and other structures.

The flood events in Rice Canyon Creek that followed the Holy Fire in 2018/2019 damaged the EVMWD access road to the District's Rice Canyon Reservoir including the three concrete Arizona creek crossings and the electrical conduit to the reservoir. The District's 16-inch diameter potable water pipeline beneath the access road was not damaged. The damage made the road impassable by vehicles and the reservoir lost its power source and remote connection to the District's monitoring communication system. Because power was lost, the reservoir's anti-corrosion system was disabled, and corrosion began to occur inside the reservoir which poses a threat to its structural integrity. In 2019, the District obtained environmental permits (i.e., Emergency Notification to California Department of Fish and Wildlife and Regional General Permit 63 Notification to California Regional Water Quality Control Board –

Santa Ana Region)[1] to perform emergency repairs to the access road, however subsequent rain events continued to damage the access road.

On July 22, 2020, the Federal Emergency Management Agency (FEMA) and the California Governor's Office of Emergency Services (CalOES) awarded the District a disaster relief funding grant to repair the Rice Canyon Reservoir access road and electrical conduit.

1.2 Replacement Trigger

The District access road, conduit, and water pipeline are partially located on land that the Regional Conservation Authority (RCA) unknowingly accepted ownership not knowing that these facilities were there and require constant access and potential disturbance/maintenance. Upon acceptance of these lands by the RCA, the area became part of the Multiple Species Habitat Conservation Plan (MSHCP). The replacement is needed to essentially allow the District to retain access through a land swap to their Rice Canyon Reservoir as well as maintain the ability to repair and maintain the access road to the reservoir which also contains the buried water pipeline and conduit for the reservoir.

1.3 Project Components – District acquired permanent access property

On March 15, 2018, the RCA acquired real property (APN 394-140-002, -003, -004, 395-150-001, portion of 394-150-002, and 394-150-005) from K. Hovnanian Communities, Inc. ("La Laguna Specific Plan Donation"). The EVMWD Reservoir Access Road and portions of the conduit and pipeline are located in APN 394-140-003, -004, 394-150-001 and -011. The parcel on which the reservoir resides is APN 394-140-001, which is owned by the City of Lake Elsinore and is not RCA Reserved Land. An access easement to the Rice Canyon Reservoir had been identified on Parcel Map No. 32336 approved by the City of Lake Elsinore in 2004, but the access easement was not recorded prior to RCA acquiring the property.

EVMWD proposes to make improvements to Rice Canyon Reservoir Access Road that include widening the road to a maximum width of 40-feet and replacing the three damaged Arizona crossings with three new Arizona crossings through Rice Canyon Creek for a total project footprint of 2.56-acres ("Project"). The Project improvements to the road will allow equipment access to install a new conduit up to the reservoir. Future operation and maintenance of the road to allow for continued access to the reservoir.

2 Methods

2.1 Previous Studies and Summary of Studies Performed

The following are a list of biological studies which have been prepared to date for the Rice Canyon Reservoir Access Road and Conduit replacement project:

- Albert A. Webb Associates and Osprey Environmental Associates. September 17, 2019. *Technical Memorandum: Jurisdictional Delineation of Rice Canyon Reservoir Access Road.*
  - Summary: This documents a delineation of potentially jurisdictional resources in the access road area for the purpose of obtaining regulatory permits to complete the repairs in October/November 2019.

- Osprey Environmental Associates. October 17, 2019. *Pre-Construction Survey Report for the Rice Canyon Reservoir Access Road Project (APNs: 394-150-011, 394-150-001, 394-140-004, and 394-140- 003), City of Lake Elsinore, Riverside County, California*

[1] The U.S. Army Corps of Engineers determined the emergency repair to be exempt from Clean Water Act section 404 permitting pursuant to 33 CFR 323.4(a)(2).

- Summary: This report contains the results of the biological survey conducted prior to access road repairs performed by EVMWD in October/November 2019. The survey documented vegetation communities and individual plant species present in the 20-foot-wide EVMWD road easement.

- Osprey Environmental Associates. November 26, 2019. *Post-Construction Biological Survey Report for the Rice Canyon Reservoir Access Road Project (APNs: 394-150-011, 394-150-001, 394-140-004, and 394-140- 003), City of Lake Elsinore, Riverside County, California*
  - Summary: This report contains the results of the biological survey conducted after the access road repairs were completed by EVMWD in October/November 2019. The survey documents the native plant species (including plant maturity and height) that were impacted during construction.

- South Environmental. August 29, 2022. *Equivalency Analysis for the Elsinore Valley Municipal Water District (EVMWD) Rice Canyon Reservoir Access Road and New Conduit Project, City of Lake Elsinore, California*
  - Summary: This report is the basis for this analysis and qualitatively analyzes the biological values of both the Project site and a proposed mitigation site (Replacement Parcel) to determine whether preservation of the Replacement Parcel is biologically equivalent to the biological value of areas impacted by the Project based on a literature review and field surveys performed in February 2022.

- Cadre Environmental. April 23, 2022. *Coastal California Gnatcatcher United States Fish and Wildlife Service Focused Surveys for the 2.60-Acre Elsinore Valley Municipal Water District (EVMWD) Rice Canyon Reservoir Access Road & New Conduit Project Site, City of Lake Elsinore, Western Riverside County, California.*
  - Summary: This report contains the results of the Costal California Gnatcatcher United States Fish and Wildlife Service Focused Surveys. Based on the 2022 focused surveys conducted within and immediately adjacent to the Project site the coastal California gnatcatcher was not documented.

- Osprey Environmental Associates. June 9, 2022. *2022 Focused Quino Checkerspot Butterfly Survey Report for the Proposed Rice Canyon Reservoir Access Road Project, Lake Elsinore, CA. Marshall Paymard (TE-64455D-0)*.
  - Summary: This report contains the results of the focused Quino Checkerspot Butterfly surveys. Based on the results of the 12 surveys, the report concludes this species was not present within the Project site.

- South Environmental. August 29, 2022. *Burrowing Owl Survey Report for the Elsinore Valley Municipal Water District (EVMWD) Rice Canyon Reservoir Access Road and New Conduit Project, City of Lake Elsinore, California.*
  - Summary: This report contains the results of burrowing owl habitat assessment and four surveys conducted between April and July 2022. No presence of burrowing owl was detected, including no sightings of burrowing owls or signs of potential burrows.

- South Environmental. August 29, 2022. *Botanical Survey Elsinore Valley Municipal Water District Rice Canyon Reservoir Access Road and New Conduit Project in Lake Elsinore, California.*
  - Summary: The report contains the results of botanical surveys focusing on "Narrow Endemic," "Criteria Species," and "Area Plan" plant species with potential to occur onsite. The surveys found no MSHCP narrow endemic, criteria, or area plan species observed on the site.

3 Impacted RCA Reserve Lands Within EVMWD Project

Approximately 2.56-acres of RCA Reserve Land are within EVMWD's Project area. The Project site includes 2.56-acres located west of Dale Court in Lake Elsinore, California where a dirt access road extends west from Dale Court for approximately 2,500-feet and ends at an EVMWD reservoir (attached **Figure 1 – Project Location** and **Figure 2 – Project Site Vicinity**). The Project site is located on portions of five assessor's parcels (APNs 394-140-001, -003, and-004; 394-150-001; and -011) on the Alberhill USGS 7.5-minute quad in Sections 28 and 33 of Township 05 South and Range 05 West. The Project site is within Rice Canyon and the dirt road to be improved crosses through the creek at three locations. A 40-foot-wide access area is being analyzed for the proposed Project.

The Project site is within MSHCP Cell Numbers 4250 and 4251 and is not within a Cell Group. Cells 4250 and 4251 are in the Alberhill Subunit of the Elsinore Area Plan. The areas surrounding the Project site to the north, south, and west are RCA Reserve Lands containing undeveloped native habitats except for the existing reservoir at the west end of the Project site. Houses occur to the east of the Project site on both sides of Dale Court.

The Project site includes a dirt road that travels through a mosaic of upland and riparian/riverine habitats at the base of Rice Canyon and parallel to the creek. The creek is ephemeral and dry for large portions of the year, including during the survey. The Project site is immediately south of the Alberhill Conservation Area and 1,000-feet east of the Cleveland National Forest boundary. The site is relatively flat, and the canyon walls slope steeply on the north and the south of the Project site. The active floodplain occurs at the base of the canyon where the Project site is located and this area would be considered unvegetated riverine areas per the MSHCP. The dirt road is largely in upland areas outside of the riverine areas of the creek and crosses the creek at two sections. Damaged concrete from previous Arizona crossings (totaling approximately 0.03 acres) destroyed by heavy flows remains in the creek and make the road impassible by vehicle at these three locations.

South Environmental mapped the plant communities and land cover types on the Project site and within a 300-foot buffer (attached **Figure 3 – Project Site Plant Communities and Cover Types**). There are five plant communities and one land cover type on the Project site, and acres of each are summarized in **Table 1 – Summary of Existing Plant Communities on the Project Site** below. Of the 2.56 acre Project area, a total of 0.98-acre of the impact area is considered MSHCP Riverine or Riparian areas.

Table 1 - Summary of Existing Plant Communities on the Project Site

Community or Cover Type	Acres	Acres that are MSHCP Riverine or Riparian
Chaparral	0.15	0.00
Coast Live Oak Woodland	0.43	0.31
Disturbed/Developed	1.10	0.38
Riparian Forest	0.19	0.19
Riversidean Alluvial Fan Sage Scrub	0.08	0.08
Riversidean Sage Scrub	0.61	0.02
Total	**2.56**	**0.98**

Source: South Environmental, Equivalency Analysis, August 29, 2022.
Refer to Figure 3 – Project Site Plant Communities and Cover Types

- **Chaparral** is found on 0.15-acre of the Project site south of the dirt access road near Dale Court. Chaparral also occurs on the north-facing slopes south of the Project site. This

community is dominated by thick-leaved yerba santa (*Eriodictyon crassifolium*), laurel sumac (*Malosma laurina*), nightshade (*Solanum* spp.), and deerweed (*Acmispon glaber*) near the Project site, and a variety of other species are found on the slopes south of the Project site: scrub oak (*Quercus berberidifolia*), hollyleaf cherry (*Prunus ilicifolia*), sugar bush (*Rhus ovata*), blue elderberry (*Sambucus cerulea*), and tree tobacco (*Nicotiana glauca*).

- **Coast live oak woodland** is found on 0.43-acre of the Project site on the western third and surrounding the creek. This community is dominated by coast live oak (*Quercus agrifolia*) and has western sycamore (*Platanus racemosa*), toyon (*Heteromeles arbutifolia*), thick-leaved yerba santa, blue elderberry, laurel sumac, hollyleaf redberry (*Rhamnus ilicifolia*), sugar bush, deerwed, California buckwheat (*Eriogonum fasciculatum*), mulefat (*Baccharis salicifolia*), chamise (*Adenostoma fasciculatum*), coffee fern (*Pellaea andromedifolia*), giant wild rye (*Elymus condensatus*), chaparral bush mallow (*Malacothamnus fasciculatus*), and nightshade. This is a mature woodland with a mostly-closed canopy of oaks and a mixture of shrubs in a dense understory in upland areas, and a more sparse understory of mulefat and other riparian and alluvial species in the woodland in the active floodplain of the creek.
- **Disturbed and developed** areas occur on 1.10-acres of the Project site. These areas include the existing dirt access road and damaged Arizona crossings, as well as portions of the reservoir development and the entrance at Dale Court. This is the most abundance cover type found on the Project site.
- **Riparian forest** occurs on 0.19-acre of the Project site surrounding the access road on the north edge of the first creek crossing on the eastern portion of the Project site. This community is dominated by mature western sycamore and has laurel sumac, California sagebrush (*Artemisia californica*), Russian thistle (*Salsola tragus*), blue elderberry, deerweed, thick-leaved yerba santa, brittlebush (*Encelia farinosa*), and chaparral bush mallow. This community forms a loose canopy and has a dense understory of shrubs.
- **Riversidean alluvial fan sage scrub (RAFSS)** occurs on 0.08-acre of the Project site within the areas where the access road crosses the active floodplain of the creek. This community typically has sparse vegetation with small shrubs such as scale broom (*Lepidospartum squamatum*), thick-leaved yerba santa, brittlebush, deerweed, California sagebrush, chaparral yucca (*Hesperoyucca whipplei*), and a variety of ruderal species in the disturbed portions, including tamarisk (*Tamarix ramosissima*), striped treasureflower (*Gazania linearis*), shortpod mustard (*Hirschfeldia encana*), two-color rabbit tobacco (*Pseudognaphalium biolettii*), and wild Canterbury bells (*Phacelia minor*). There is a smaller portion of this community near the oak woodland within the active floodplain that has a minor amount of sapling Fremont's cottonwood (*Populus fremontii*) and willow (*Salix* spp.).
- **Riversidean sage scrub (RSS)** occurs on 0.61-acre of the Project site primarily on the north side of the creek and on the south-facing slopes north of the Project site. This community is dominated by thick-leaved yerba santa near the streambed, and has scrub oak, brittlebush, deerweed, chaparral yucca, laurel sumac, and California buckwheat. This community is mature, and the shrubs have some separation with less density and smaller size than the chaparral shrubs.

According to the California Natural Diversity Database (CNDDB) sensitive riparian communities occur on the Project site and this is indicated by the riparian forest and RAFFS that were mapped during the survey. These are both considered sensitive due to the rarity of these communities, the high number of species that are obligates of these communities, and the relatively high biological value due to the dynamic community of plants and animals that occur in riparian and alluvial areas. Oak woodlands are also known to be very diverse natural communities with high biological value that have a lot of microhabitats capable of supporting many species (Douglas Tallamy 2008).

The MSHCP Covered Species (Plants and Animals) related to this Subunit of the MSHCP are the following Planning species: Bell's sage sparrow (*Artemisiospiza belli*), coastal California gnatcatcher, Cooper's hawk (*Accipiter cooperii*), downy woodpecker (*Picoides pubescens*), white-tailed kite (*Elanus leucurus*), Quino checkerspot butterfly (*Euphydrayas editha quino*), bobcat (*Lynx rufus*), mountain lion (*Puma concolor*), Munz's onion (*Allium munzii*), and San Diego ambrosia (*Ambrosia chenopodiifolia*).

None of these MSHCP Covered species have been confirmed to occur there during recent surveys. Biological issues and considerations in this subunit that are pertinent to the project site include preservation of sage scrub habitat for coastal California gnatcatcher, conservation of wetlands, maintain habitat connectivity with open spaces and maintain core and habitat linkages for Quino checkerspot butterfly.

The Project site is within the Multi-Species Habitat Conservation Plan (MSHCP) Narrow Endemic Plant and Criteria Area Survey Area for thread-leaved brodiaea (*Brodiaea filifolia*), Davidson's saltscale (*Atriplex serenana*), Parish's brittlescale (*Atriplex parishii*), smooth tarplant (*Centromadia pungens*), round-leaved filaree (*Erodium macrophyllum*), Coulter's goldfields (*Lasthenia glabratat* ssp. *coulteri*), little mousetail (*Myosurus minimus* ssp. *apus*), heart-leaved pitcher sage (*Lepechinia cardiophylla*), Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia chenopodiifolia*), slender-horned spineflower (*Dodecahema leptoceras*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), San Miguel savory (*Clinopodium chandleri*), Hammitt's clay-cress (*Sibaropsis hammittii*), and Wrights's trichocoronis (*Trichocorois wrightii*). The2022 survey results from South Environmental found no narrow endemic, criteria species, or area plan species present in the Project survey area. This is consistent with the findings of the 2019 Pre-Construction Survey Results from Osprey Environmental Associates (Osprey 2019).

The Project site is also within the western burrowing owl (*Athene cunicularia hypugaea*) survey area and within the range of the coastal California gnatcatcher (*Poliptila californica californica*) and the Quino checkerspot butterfly (*Euphydryas Editha quino*), which both have potential to occur on the site. Protocol surveys for coastal California gnatcatcher were conducted in March – April 2022 by Cadre Environmental and results were negative. Surveys for Quino checkerspot butterfly were completed by mid-May 2022 by Osprey Environmental Associates. No evidence of Quino were observed during these surveys. Lastly, surveys for burrowing owl by South Environmental between April and July 2022 have been completed and found no owl sign, nor owls, in the project survey area.

While not necessarily consistent with the current vegetation habitats and existing conditions on the Project Site, the MSHCP is based on 1994 vegetation mapping which was used to evaluate not only the habitat loss/gain that would occur from the MSHCP, but also was the basis for the impacts to Covered Species which was used in the MSHCP analysis. The Rough Step process (see Section 6.7 of the MSHCP) is intended to be an accounting of the progress for habitat Conservation gains versus the habitat loss due to development within the MSHCP Plan Area. The Rough Step accounting is based on the 1994 vegetation mapping. Per the RCA's request, the mapped 1994 vegetation layers for the Project area are shown on **Figure 4 – RCA MSHCP 1994 Vegetation Map**. According to this 1994 vegetation mapping, the Project site is made up of Disturbed Land, Riversidean Alluvial Fan Sage Scrub and Chaparral, as shown below in **Table 2 – Rice Canyon Project Site with 1994 Vegetation Mapping**.

Table 2 - Rice Canyon Project Site with 1994 Vegetation Mapping

Vegetation Type	MSHCP Description	Acreage
Residential/Urban/Exotic	Developed or Disturbed Land	0.28
Riversidean Alluvial Fan Sage Scrub	Riversidean Alluvial Fan Sage Scrub	1.39
Chaparral	Chaparral	0.89
	Total Area :	2.56

Notes: Refer to Figure 4 – RCA MSHCP 1994 Vegetation Map

4 Proposed Replacement Lands

The Replacement Parcel (APN 363-190-013) which is owned by EVMWD includes 5.2-acres of the San Jacinto River between Lake Elsinore to the west and Canyon Lake to the east on the Lake Elsinore 7.5-minute quad in Section 10 of Township 06 South and Range 04 West (attached **Figure 1** and **Figure 5 – Replacement Parcel Vicinity**). The Replacement Parcel is located in Cell 4745 of the MSHCP in the Sedco Hills Subunit of the Elsinore Area Plan. The Replacement Parcel is north of Railroad Canyon Road and south of Old Newport Road within a maintained streambed with boulders and riprap bank on the south and a dirt and natural bank on the north. The Replacement Parcel is undeveloped native habitat and is entirely developed or disturbed outside of the streambed to the north where there are houses and Railroad Canyon Road forms the southern boundary.

The Replacement Parcel includes 5.2-acres of dense woodlands almost entirely within the streambed of the San Jacinto River located upstream from the Lake Elsinore State Recreation Area and downstream from Canyon Lake. The streambed is approximately 200-feet wide and has permanent water with emergent wetland vegetation in portions, indicating that the area is a forested wetland and other portions are potentially perennial and intermittent streambed. The parcel is undeveloped except that the streambed is maintained on the south side where a rip-rap/boulder slope defines the southern bank.

As shown on attached **Figure 6 – Replacement Parcel Plant Communities** and in **Table 3 – Summary of Existing Plant Communities on the Replacement Parcel** below, a mature southern cottonwood willow riparian forest occurs throughout the Replacement Parcel except for a small (0.1-acre) portion of non-native grasses in the northwest corner. The riparian forest is dominated by 40-60 feet tall Fremont's cottonwood trees that form a nearly continuous canopy throughout the parcel. Mature black willow (*Salix goodingii*) also occurs throughout. The understory is dynamic and at low points there is standing water with emergent wetlands dominated by cattail (*Typha* spp.) and willows, and in areas outside the standing water there were sapling cottonwood and willows as well as coyote brush (*Baccharis pilularis*), California sagebrush, California buckwheat, and the occasional Mexican fan palm (*Washingtonia robusta*). Overall, there was little disturbance and very few non-native species.

As shown below in Table 3, all of the vegetation and habitat on the Replacement Parcel is considered riparian/riverine per the MSHCP.

Table 3 – Summary of Existing Plant Communities on the Replacement Parcel

Community or Cover Type	Acres	Acres that are Riverine or Riparian	Acres Proposed for Mitigation	Acres Proposed for Mitigation that are Riverine or Riparian
Southern Cottonwood-Willow Riparian Forest	5.10	5.10	2.60	2.60
Non-Native Grassland	0.10	0	0	0
Total	**5.20**	**5.10**	**2.60**	**2.60**

Source: South Environmental, Equivalency Analysis, August 29, 2022.
Refer to Figure 6 – Mitigation Parcel Plant Communities.

The MSHCP Covered Species that have been identified as Planning Species for this Subunit that have the potential to occur on the Replacement Parcel include least Bell's vireo (*Vireo pusillus bellii*), western pond turtle (*Actinemys marmorata*) and bobcat. According to the CNDDB, least Bell's vireo is known to occur on the Replacement Parcel and based on the habitats present it is very likely that western pond turtle occurs on the site as well. Biological issues and considerations in this Subunit related to the Replacement Parcel include conservation of wetlands, habitat linkages for bobcat and western pond turtle, and conservation of habitat for raptors.

While not relevant to the current vegetation habitats and conditions on the Replacement Parcel, the MSHCP is based on 1994 vegetation mapping which was used to evaluate not only the habitat loss/gain that would occur from the MSHCP, but also was the basis for the impacts to Covered Species which was used in the MSHCP analysis. The Rough Step process (see Section 6.7 of the MSHCP) is intended to be an accounting of the progress for habitat Conservation gains versus the habitat loss due to development within the MSHCP Plan Area. The Rough Step accounting is based on the 1994 vegetation mapping. Per the RCA's request, the mapped 1994 vegetation layers for the Replacement Parcel are shown on **Figure 4**. As shown in **Table 4** – **Proposed Replacement Parcel with 1994 Vegetation Mapping**, the 1994 vegetation mapping shows Disturbed Land, Riparian Scrub, Woodland, Forest and Coastal Sage Scrub on the Replacement Site.

Table 4 - Proposed Replacement Parcel with 1994 Vegetation Mapping

Vegetation Type	MSHCP Description	Acreage
Residential/Urban/Exotic	Developed or Disturbed Land	0.35
Riparian Forest	Riparian Scrub, Woodland, Forest	1.70
Riversidean Sage Scrub	Coastal Sage Scrub	0.55
	Total Area :	2.60

Notes: Refer to Figure 4 – RCA MSHCP 1994 Vegetation Map

5 Equivalency Analysis

South Environmental prepared an assessment of both the Project impact footprint as outlined above in Section 3 as well as for the Replacement parcel as outlined in Section 4 above. The following is the equivalency analysis of the proposed replacement land "swap" that needs to take place between the RCA and EVMWD in order for EVMWD to have access and ability to repair and maintain a 40-foot wide area along the access road and conduit pipeline for the Rice Canyon Reservoir.

The Replacement Parcel is located in Cell 4745 in the northwestern corner of this Cell. Cell 4745 is approximately 160 acres, and the Criteria for this Cell focuses the range of conservation efforts to be

70% to 80% of this Cell focusing in the north and eastern portion of the Cell. To date, as depicted on **Figure 7 – Replacement Parcel MSHCP Reserve Interface**, there is approximately 108 acres Conserved in Cell 4745 in the north and eastern portion of the Cell. In order to meet the maximum range, another approximately 17 acres would be needed to meet the Cell Criteria. With the Conservation of the 2.60-acres of the Replacement Parcel in the northern portion of the Cell 4745, the RCA would be able to further accomplish the Cell 4745 Criteria goals. Conservation of the 2.60 acres also meets the Cell Criteria goals of conserving riparian forest associated with the San Jacinto River and does provide connection to Cell 4648 to the north.

EVMWD proposes to convey 2.60-acres of the 5.2-acre Replacement Parcel to the RCA in order to compensate for the loss of habitat associated with the Project. The Project includes 2.56-acres of impacts in Rice Canyon, and a total of 0.98-acre of those impacts would be to Riverine or Riparian areas. However, 1.10-acres (43%) of the Project impact area is already developed or disturbed, including an existing dirt access road and three damaged concrete Arizona crossings. Any part of this 1.10-acre "developed/disturbed" area that is within the streambed area is considered riverine per Section 6.1.2 of the MSHCP. The concrete Arizona crossings are approximately 500 square feet each in size, for a total of 1,500 square feet (0.03 acre). The remainder of the access road not covered by the Arizona crossing concrete has been and will be routinely accessed by vehicles. Based on the current biological analyses conducted by South Environmental, a total of 1.46-acres (57%) of the Project site would occur in native habitats, including sensitive RAFSS (0.08-acre, 3%) and riparian forest (0.19-acre, 7%). An additional 0.43-acre (17%) of the impacts would be to coast live oak woodlands associated with the creek. A total of 0.61-acre (24%) of impacts would be to RSS and the final 0.15-acre (6%) of impacts is to chaparral. No special-status species have been identified in the Project vicinity previously, but native habitats surrounding the Project site are of high biological value due to the low level of disturbance and prevalence of native plants. Oak woodlands, riparian areas, and streams such as those found on the Project site are areas of particularly high biological diversity and value, and the upland RSS and chaparral are also of high value to species that inhabitant those communities. The canyon is a valuable wildlife movement corridor and habitat linkage that has upstream connection to the Cleveland National Forest and is immediately south of the Alberhill Conservation Area, both of which have vast expanses of protected native habitats contiguous with the Project site.

Following completion of the Project, the native habitats on the Project site would largely remain intact because the Project is linear, and impacts would only occur to a narrow 40-foot corridor that is already disturbed. Wildlife movement corridors and habitat linkages to the protected areas of Cleveland National Forest upstream and to the Alberhill Conservation Area north of the Project would also remain intact, and the flow of the creek and alluvial action would not be altered by the Arizona crossing per the design features. EVMWD is committed to avoidance of special-status species wherever possible, and focused surveys for rare plants, coastal California gnatcatcher, burrowing owls, and Quino checkerspot butterfly are ongoing to determine their presence. If these species are identified on the site EVMWD would devise a mitigation, monitoring, and reporting plan to avoid direct or indirect impacts to these species. In addition, the Project will seek permits for potential impacts to jurisdictional resources (Rice Canyon Creek) and water quality from the installation and operation of the three Arizona crossings. The permit measures will include mitigation and Best Management Practices (BMPs) that will reduce and/or eliminate impacts to the creek and the water quality. Therefore, overall impacts of the Project would be the permanent loss of 1.46-acres of native habitats and 1.10-acres of disturbed areas. The Project would avoid impacts to special-status species (if any are determined to be present) and mitigate the potential effects to jurisdictional resources and water quality through consultation and permitting with the appropriate resource agencies.

The Replacement Parcel is a pristine southern cottonwood willow riparian forest within the San Jacinto River and is of very high biological value throughout the entire parcel, including the 2.60-acres proposed

for conservation (attached **Figure 7 and Figure 8 – MSHCP Overview**). This portion was selected because the streambed and riparian corridor is the widest at this location and includes the largest amount of streambed and ponded areas. The entire area proposed for conservation is also considered Riparian/ Riverine habitat. The Replacement Parcel is undisturbed and has a variety of wetlands, uplands, and dense riparian forest areas that provide a diversity of microhabitats that can support species such as amphibians, fish, and riparian obligates such as the federally threatened least Bell's vireo. Special-status lizards also are known to occur in this area based on CNDDB records, and numerous other special-status species occur in the surrounding areas and have the potential to occur on the parcel. The presence of a perennial water source is of very high biological value to aquatic and riparian obligates and is an important habitat characteristic for species such as bats and insects. The 2.60-acres of the Replacement Parcel proposed for conservation are contiguous and includes the widest area of the River on the parcel. The parcel is also of high biological value considering its position within the river between Lake Elsinore and Canyon Lake that provides opportunities for wildlife movement and habitat linkages within an area that is experiencing rapid urbanization. Based on the analysis above, the mitigation parcel, including the area proposed for conservation, is of very high biological value.

South Environmental believes that the value of the 2.60-acres of conservation lands consisting entirely of Riparian or Riverine habitat at the Replacement Parcel is biologically superior to that of the value on the 2.56-acres of the Project site because the Project site is already disturbed. The existing access road has diminished the quality of habitat on the Project site, and the Replacement Parcel is undisturbed. The Project site impacts would be to 0.98-acre of Riparian/Riverine habitat and the conserved lands would equal 2.60 acres of Riparian or Riverine habitat. Considering both the Project site and the Replacement Parcel are of high biological value and support native and sensitive resources typical of the region, the proposed 2.60-acres of conservation lands on the Replacement Parcel are, at a minimum, equivalent in biological value to the 2.56-acres of impacted area on the Rice Canyon Project site. However, the lack of disturbance at the Replacement Parcel, the known presence of listed species, and the importance of the site for wildlife movement and habitat linkages between Canyon Lake and Lake Elsinore in a rapidly urbanizing area indicates that the mitigation parcel is a superior value biologically to that of the areas impacted by the Project.

Lastly, the 1994 vegetation layers show that the habitat types on the Project site are not the same as the vegetation layers shown for the Replacement site. However, as described above, although the 1994 mapping shows the Project site as Riversidean Alluvial Fan Sage Scrub and Chaparral, even in 1994 when the vegetation mapping was conducted, the access road used by the District for access to the tank site was there and being used and devoid of habitat. The 1994 vegetation mapping was done at a very large scale, and was not precise enough to account for the existing tank and access road. The Replacement Parcel represents high quality riparian woodland vegetation adjacent to existing Conservation Land.

Enclosures:

(1) Equivalency Analysis Report prepared by South Environmental, August 29, 2022.
(2) Shapefiles

Source: ESRI USA Topo Maps and World Topo Map 2022

EVMWD Rice Canyon Project

Figure 1. Project Location

Rice Canyon Project Site (2.56-Acres)

Replacement Parcel (5.2-acres)

0 3,000 6,000 Feet

Scale: 1:70,000

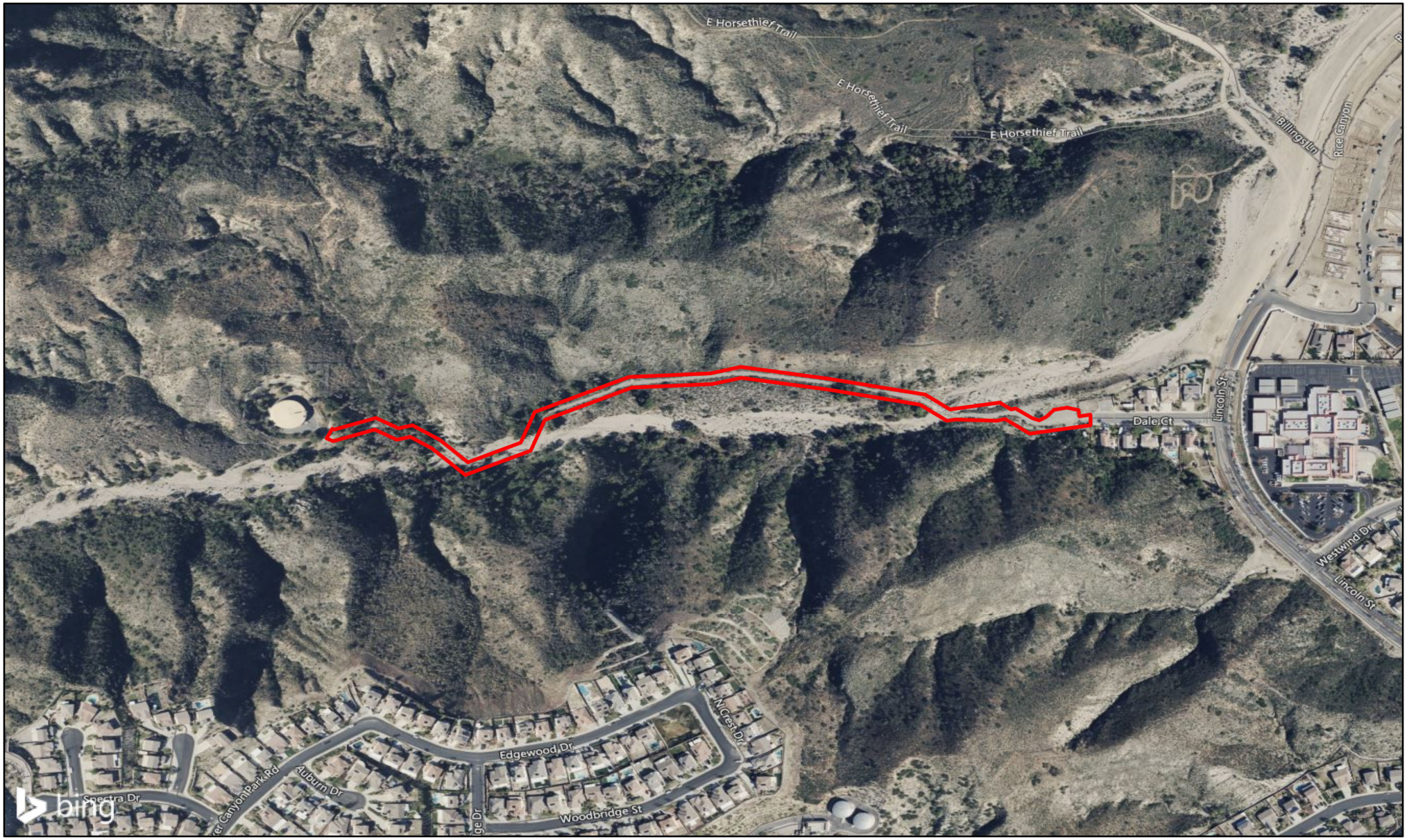
N

Project Site is within the City of Lake Elsinore, California, in Riverside County on the USGS Alberhill 7.5-minute quadrangle map in Sections 28 and 33 of Township 05 South and Range 05 West

Replacement Parcel is within the City of Lake Elsinore, California, in Riverside County on the USGS Lake Elsinore 7.5-minute quadrangle map in Section10 of Township 06 South and Range 04 West

Center Coordinate (Decimal Degrees):
Project Site Latitude: 33.698366N, Longitude: -117.407709W
Replacement Parcel Latitude: 33.6627462N, -117.2906050W

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap April 2022

EVMWD Rice Canyon Project

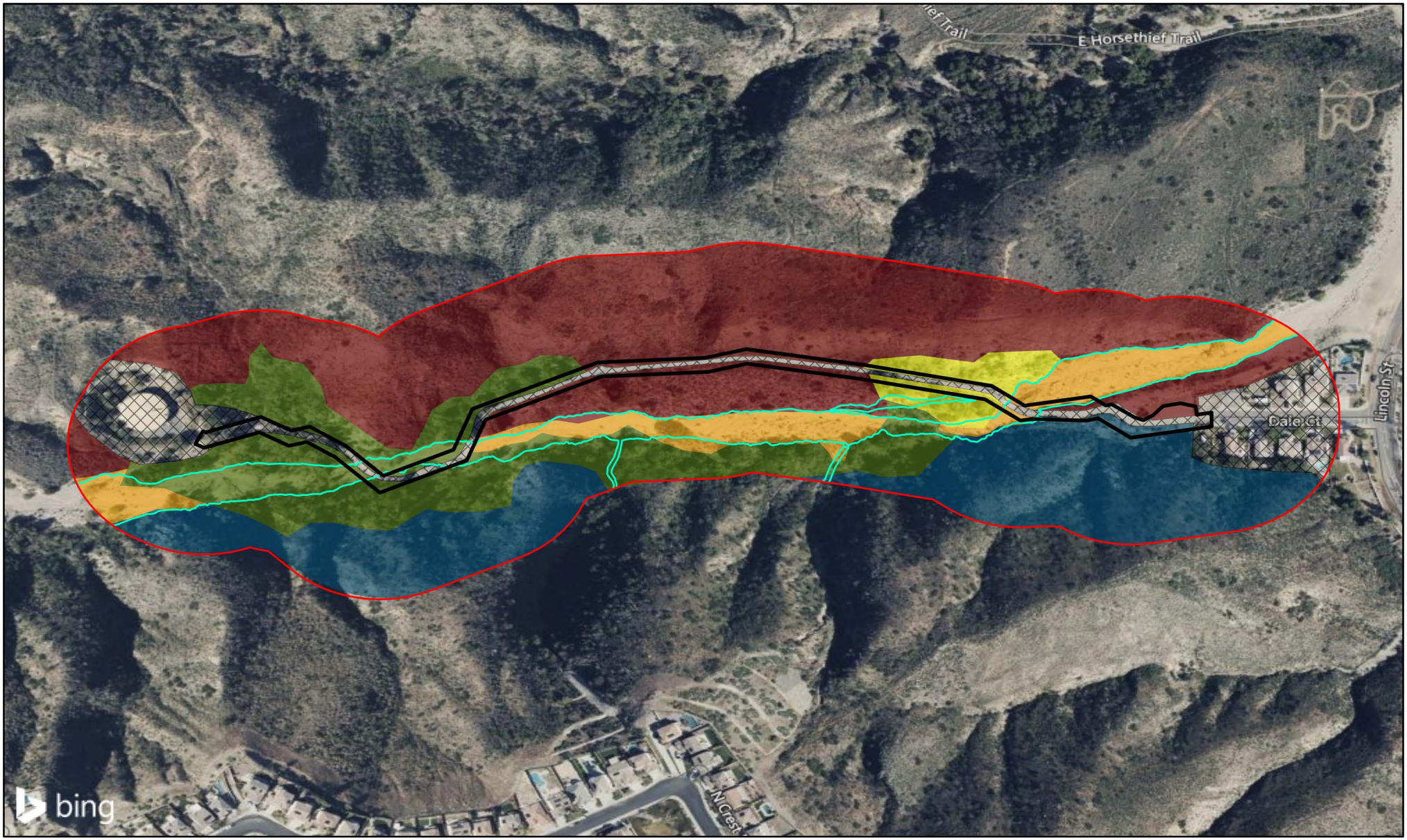
Figure 2. Project Site Vicinity

0 300 600 Feet

N

Rice Canyon Project Site (2.56-acres)

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap August 2022

EVMWD Rice Canyon Project

Figure 3. Project Site Plant Communities and Cover Types

Rice Canyon Streambed

Rice Canyon Project Site (2.56-acres)

Study Area (300-ft buffer)

Plant Communities

Chaparral

Coast Live Oak Woodland

Disturbed/Developed

Riparian Forest

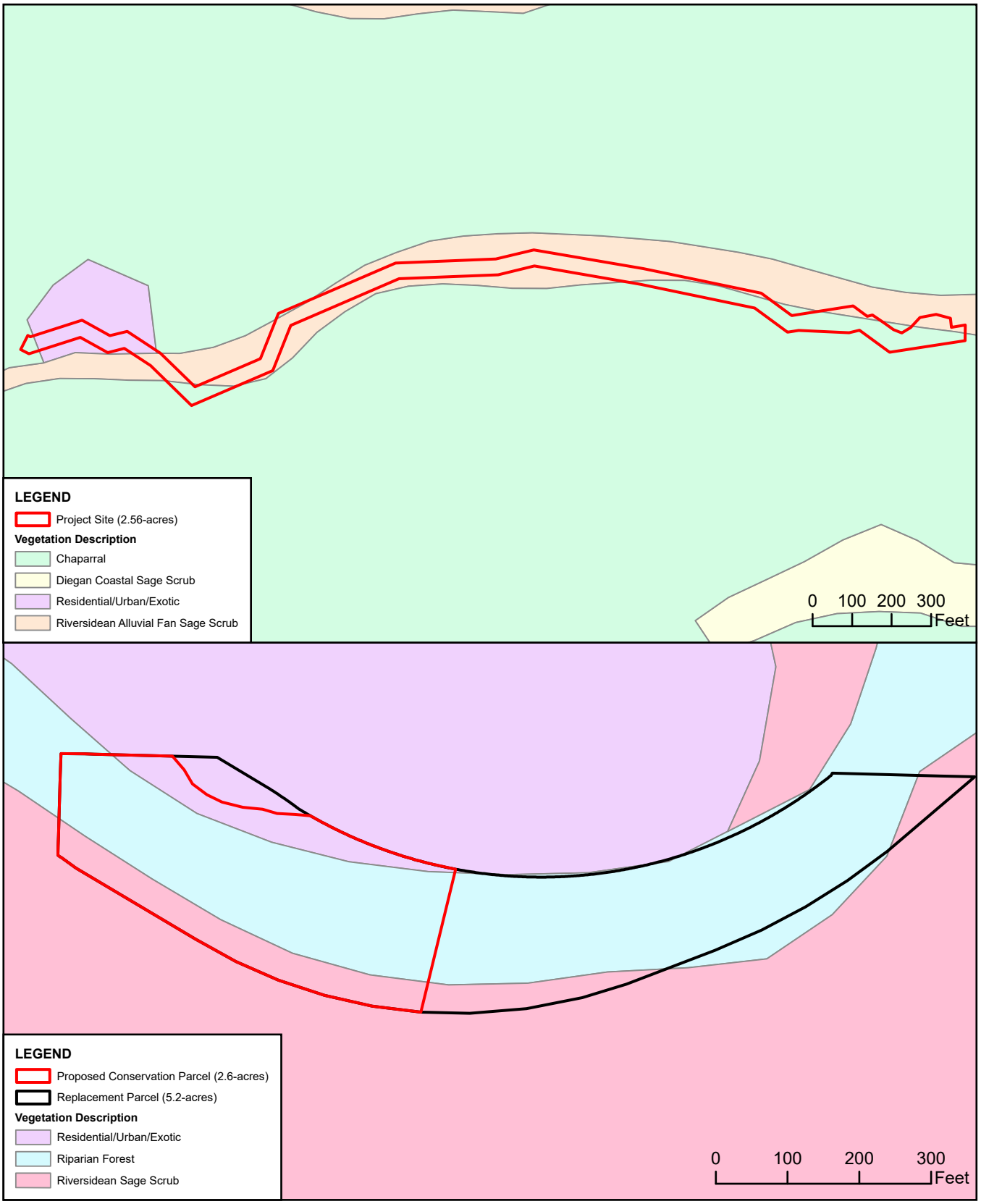
Riversidean Alluvial Fan Sage Scrub

Riversidean Sage Scrub

0 225 450 Feet

N

SOUTH ENVIRONMENTAL



H:\2021\21-0272\GIS\veg_1994\veg_1994.aprx; Map created 30 Sep 2022

Sources: Riverside Co. MSHCP RCA vegetation, 1994; Riverside Co. GIS, 2020.

Figure 4 - RCA MSHCP 1994 Vegetation Map

Rice Canyon Equivalency Analysis

ALBERT A. WEBB ASSOCIATES

Source: BING Aerial Basemap April 2022

EVMWD Rice Canyon Project

Figure 5. Replacement Parcel Vicinity

0 345 690 Feet

N

Replacement Parcel (5.2-acres)

SOUTH ENVIRONMENTAL

Source: BING Aerial Basemap April 2022

EVMWD Rice Canyon Project

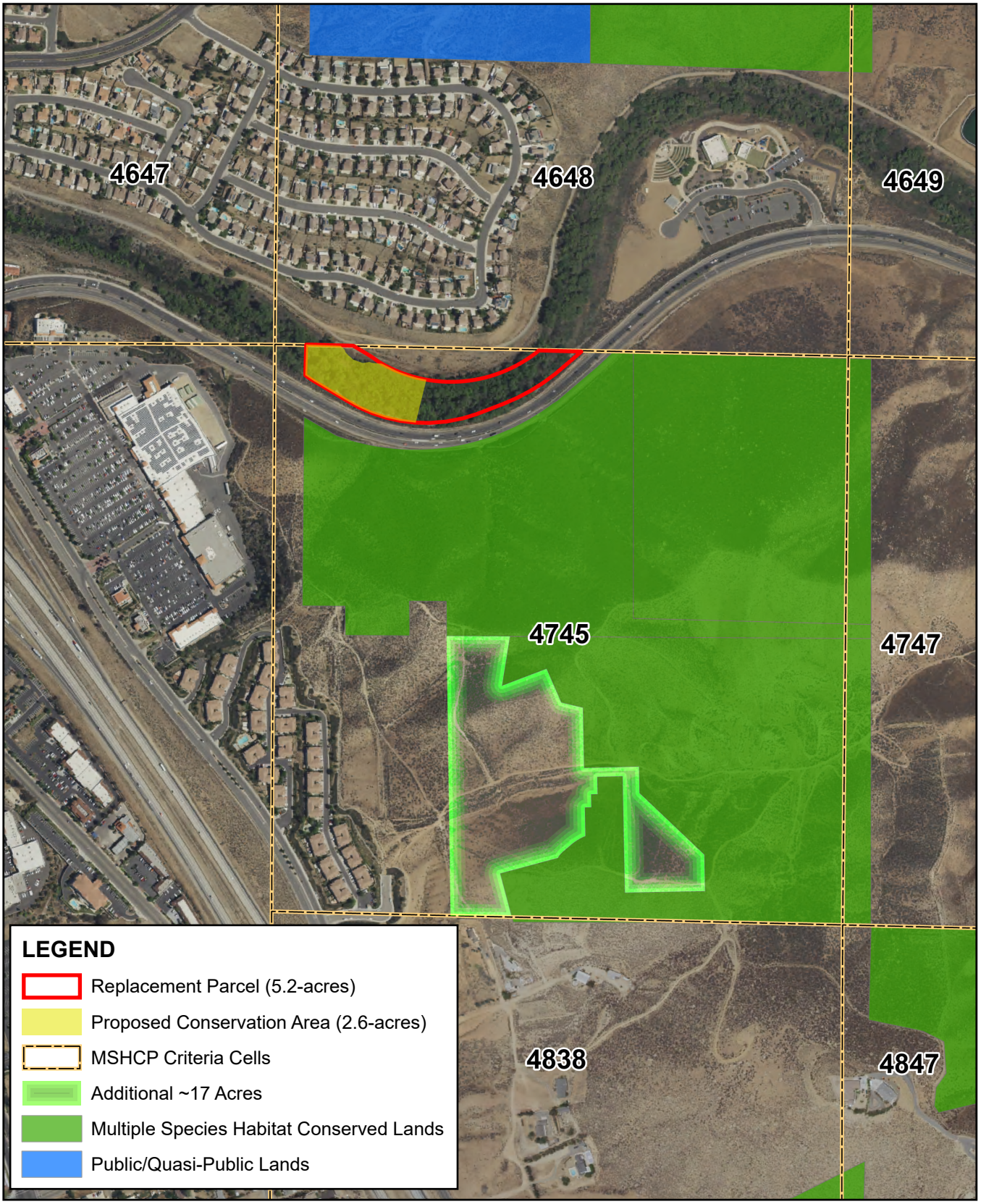
Figure 6. Replacement Parcel Plant Communities

0 80 160 Feet

N

- Replacement Parcel (5.2-acres)
- Proposed Conservation Area (2.6-acres)
- Non-Native Grassland
- Southern Cottonwood Willow Riparian

SOUTH ENVIRONMENTAL



H:\2021\21-0272\GIS\conservation_Working\conservation_Working.aprx; Map created 24 May 2022

Sources: Riverside Co. MSHCP, approved June 2003; Riverside Co. GIS, 2020; USDA NAIP, 2016.

0 500 1,000 1,500 Feet

Figure 7. Replacement Parcel MSHCP Reserve Interface

EVMWD Rice Canyon Project

ALBERT A. WEBB ASSOCIATES

WRC MSHCP

Project Site

Replacement Parcel

0 5 10 Miles

Project Site

4152 4153 4154 4155 4250 4251

E Horsethief Trail
Billings Ln
Rice Canyon
Running Deer Rd
Nectarine Way
Kiwi Way
Avocado Way
Mango Way
Dale Ct
Lincoln St
Forest View St
Edgewood Dr
Spectra Dr
Woodbridge St
Gateway Dr
Sandpiper Dr
Lantern Hill

0 500 1,000 US Feet

bing

Replacement Parcel (5.2-acres)
Rice Canyon Project Site (2.56-acres)
MSHCP Criteria Cells
Multiple Species Habitat Conserved Lands
RCA Conservation Easements
Public/Quasi-Public Lands
Policy Areas
WRCMSHCP Boundary

Figure 8. WRC MSHCP Overview

Sources:
-BING Aerial Basemap
-Riverside County Mapping Portal Data

SOUTH ENVIRONMENTAL

N

Replacement Parcel

4646 4647 4648 4649 4743 4745 4747

Canyon Ridge Dr
Ridgeview Dr
Indian Spring Rd
Summerhill Park
Old Newport Rd
Railroad Canyon Rd
Church Rd
Grape St
Auto Center Dr
Mission Trail
Oak Tree Dr

0 500 1,000 US Feet

bing

SOUTH ENVIRONMENTAL
1443 E. Washington Blvd., #288 Pasadena, California 91104 / www.southenvironmental.com

April 27, 2022 (updated August 29, 2022)

Stephanie Standerfer – Vice President
Albert A. Webb Associates
3788 McCray Street
Riverside, California 92506

RE: Equivalency Analysis for the Elsinore Valley Municipal Water District (EVMWD) Rice Canyon Reservoir Access Road and New Conduit Project, City of Lake Elsinore, California

Dear Stephanie:

This report includes an equivalency analysis conducted by South Environmental for the Elsinore Valley Municipal Water District (EVMWD) Rice Canyon Reservoir Access Road and New Conduit Project (project) in the City of Lake Elsinore, California. This report is written in compliance with Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project includes improvements to an access road through Rice Canyon riverine and riparian habitats and the purpose of the equivalency analysis is to perform a qualitative analysis of the biological value on a proposed mitigation site to determine that its preservation is biologically equivalent to the biological value of areas impacted by the project. Figures are in Attachment A and site photographs are in Attachment B.

The biological value of the project site and mitigation site were assessed based on a literature review and a field survey. The literature review included queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) online and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California online to identify any special-status plants, animals, and natural communities that have previously been recorded in the United States Geological Survey (USGS) Alberhill and Lake Elsinore 7.5″ quads that the project site and mitigation site are respectively located within, and the surrounding USGS 7.5″ quads. Other sources are referenced throughout the document and listing in the Bibliography. A field survey of the project site was conducted by South Environmental biologists Matthew South and Scott Altmann on February 9, 2022 and a field survey of the mitigation parcel was conducted by Matthew South on March 18, 2022 to assess which plants, natural

communities, and wildlife currently occupy the site, or have the potential to occur at the site or in the vicinity. An assessment of potential jurisdictional features was also completed during the survey.

Project Description

Location

The project site includes 2.56-acres located west of Dale Court in Lake Elsinore, California where a dirt access road extends west from Dale Court for approximately 2,500-feet and ends at an EVMWD water tank facility (attached Figure 1 and Figure 2). The project site is located on portions of five assessor's parcels (APNs 391-810-002, -003, and-004; 391-820-001; 391-820-003) on the Alberhill USGS 7.5-minute quad in Sections 28 and 33 of Township 05 South and Range 05 West. The project site is within Rice Canyon and the dirt road to be improved crosses through the creek at two locations. The areas surrounding the project site to the north, south, and west are undeveloped native habitats except for the existing water tank facilities at the west end of the project site. Houses occur to the east of the project site along Dale Court.

The mitigation parcel (APN: 363-190-013) includes 5.2-acres of the San Jacinto River between Lake Elsinore to the west and Canyon Lake to the east on the Lake Elsinore 7.5-minute quad in Section 10 of Township 06 South and Range 04 West (attached Figure 1 and Figure 3). The mitigation parcel is north of Railroad Canyon Road and south of Od Newport Road within a maintained streambed with boulders and riprap bank on the south and a dirt and natural bank on the north. The parcel is undeveloped native habitat and is entirely developed or disturbed outside of the streambed to the north where there are houses and Railroad Canyon Road forms the southern boundary.

Proposed Development

The EVMWD proposes to make improvements to Rice Canyon Reservoir Access Road that include widening the road to a width of 40-feet and creating two new Arizona crossings through Rice Canyon Creek for a total project footprint of 2.56-acres. The improvements to the road will allow access to maintenance equipment to repair a conduit at the reservoir, and the project includes the future operation and maintenance of the road to allow for continued access to the reservoir.

Western Riverside County MSHCP

As shown in attached Figure 4, the project site and mitigation parcel are within the Western Riverside County MSHCP Elsinore Area Plan.

The project site is within MSHCP Cell Numbers 4250 and 4251 and is not within a Cell Group. Cells 4250 and 4251 are in the Alberhill Subunit of the Elsinore Area Plan. Planning species in the Subunit that have the potential to occur on the project site include Bell's sage sparrow (*Artemisiospiza belli*), coastal California gnatcatcher, Cooper's hawk (*Accipiter cooperii*), downy woodpecker (*Picoides pubescens*), white-tailed kite (*Elanus leucurus*), Quino checkerspot butterfly (*Euphydrayas editha quino*), bobcat (*Lynx rufus*), mountain lion (*Puma concolor*), Munz's onion (*Allium munzii*), and San Diego ambrosia (*Ambrosia chenopodiifolia*). None of these species have been confirmed to occur there during recent surveys. Biological issues and considerations in this subunit that are pertinent to the project site include preservation of sage scrub habitat for coastal California gnatcatcher, conservation of wetlands, maintain habitat connectivity with open spaces and BLM lands, and maintain core and habitat linkages for Quino checkerspot butterfly.

The Mitigation Parcel is within MSHCP Cell Number 4745 and is not within a Cell Group. Cell 4745 is in the Sedco Hills Subunit of the Elsinore Area Plan. Planning species in the Subunit that have the potential to occur on the mitigation parcel include least Bell's vireo (*Vireo pusillus bellii*), western pond turtle (*Actinemys marmorata*), and bobcat. According to the CNDDB, least Bell's vireo is known to occur at the mitigation parcel and based on the habitats present it is very likely that western pond turtle occurs there. Biological issues and consideration in this subunit that are pertinent to the project site include conservation of wetlands, habitat linkages for bobcat and western pond turtle, and conservation of habitat for raptors.

Biological Setting

Project Site

The project site includes a dirt road that travels through a mosaic of upland and riparian/riverine habitats at the base of Rice Canyon and parallel to the creek. The creek is intermittent and is dry for large portions of the year, including during the survey. The project site is immediately south of the Alberhill Conservation Area and 1,000-feet east of the Cleveland National Forest. The site is relatively flat, and the canyon walls slope steeply on the north and the south of the project site. The active floodplain occurs at the base of the canyon where the project site is located. The dirt road is largely in upland areas outside of the creek and crosses the creek at two sections. Damaged concrete from previous Arizona crossings destroyed by heavy flows remains in the creek and make the road impassible by vehicle at these two locations.

South Environmental mapped the plant communities and land cover types on the project site and within a 300-foot buffer (attached Figure 4). There are five plant communities and one land

cover type on the project site, and acres of each is summarized in Table 1 below. A total of 0.98-acres of the impact areas is to Riverine or Riparian areas.

Table 1. Summary of Plant Communities on the Project Site

Community or Cover Type	Acres	Acres that are Riverine or Riparian
Chaparral	0.15	0.00
Coast Live Oak Woodland	0.43	0.31
Disturbed/Developed	1.10	0.38
Riparian Forest	0.19	0.19
Riversidean Alluvial Fan Sage Scrub	0.08	0.08
Riversidean Sage Scrub	0.61	0.02
Total	**2.56**	**0.98**

- **Chaparral** is found on 0.15-acre of the project site south of the dirt access road near Dale Court. Chaparral also occurs on the north-facing slopes south of the project site. This community is dominated by thick-leaved yerba santa (*Eriodictyon crassifolium*), laurel sumac (*Malosma laurina*), nightshade (*Solanum* spp.), and deerweed (*Acmispon glaber*) near the project site, and a variety of other species are found on the slopes south of the project site: scrub oak (*Quercus berberidifolia*), hollyleaf cherry (*Prunus ilicifolia*), sugar bush (*Rhus ovata*), blue elderberry (*Sambucus cerulea*), and tree tobacco (*Nicotiana glauca*).

- **Coast live oak woodland** is found on 0.43-acre of the project site on the western third and surrounding the creek. This community is dominated by coast live oak (*Quercus agrifolia*) and has western sycamore (*Platanus racemosa*), toyon (*Heteromeles arbutifolia*), thick-leaved yerba santa, blue elderberry, laurel sumac, hollyleaf redberry (*Rhamnus ilicifolia*), sugar bush, deerwed, California buckwheat (*Eriogonum fasciculatum*), mulefat (*Baccharis salicifolia*), chamise (*Adenostoma fasciculatum*), coffee fern (*Pellaea andromedifolia*), giant wild rye (*Elymus condensatus*), chaparral bush mallow (*Malacothamnus fasciculatus*), and nightshade. This is a mature woodland with a mostly-closed canopy of oaks and a mixture of shrubs in a dense understory in upland areas, and a more sparse understory of mulefat and other riparian and alluvial species in the woodland in the active floodplain of the creek.

- **Disturbed and developed** areas occur on 1.10-acres of the project site. These areas include the existing dirt access road and damaged Arizona crossings, as well as portions of the reservoir development and the entrance at Dale Court. This is the most abundance cover type found on the project site.

- **Riparian forest** occurs on 0.19-acre of the project site surrounding the access road on the north edge of the first creek crossing on the eastern portion of the project site. This community is dominated by mature western sycamore and has laurel sumac, California sagebrush (*Artemisia californica*), Russian thistle (*Salsola tragus*), blue elderberry, deerweed, thick-leaved yerba santa, brittlebush (*Encelia farinosa*), and chaparral bush mallow. This community forms a loose canopy and has a dense understory of shrubs.

- **Riversidean alluvial fan sage scrub (RAFSS)** occurs on 0.08-acre of the project site within the two areas where the access road crosses the active floodplain of the creek. This community typically has sparse vegetation with small shrubs such as scale broom (*Lepidospartum squamatum*), thick-leaved yerba santa, brittlebush, deerweed, California sagebrush, chaparral yucca (*Hesperoyucca whipplei*), and a variety of ruderal species in the disturbed portions, including tamarisk (*Tamarix ramosissima*), striped treasureflower (*Gazania linearis*), shortpod mustard (*Hirschfeldia encana*), two-color rabbit tobacco (*Pseudognaphalium biolettii*), and wild Canterbury bells (*Phacelia minor*). There is a smaller portion of this community near the oak woodland within the active floodplain that has a minor amount of sapling Fremont's cottonwood (*Populus fremontii*) and willow (*Salix* spp.).
- **Riversidean sage scrub (RSS)** occurs on 0.61-acre of the project site primarily on the north side of the creek and on the south-facing slopes north of the project site. This community is dominated by thick-leaved yerba santa near the streambed, and has scrub oak, brittlebush, deerweed, chaparral yucca, laurel sumac, and California buckwheat. This community is mature, and the shrubs have some separation with less density and smaller size than the chaparral shrubs.

According to the CNDDB sensitive riparian communities occur on the project site and this is indicated by the riparian forest and RAFFS that were mapped during the survey. These are both considered sensitive due to the rarity of these communities, the high number of species that are obligates of these communities, and the relatively high biological value due to the dynamic community of plants and animals that occur in riparian and alluvial areas. Oak woodlands are also known to be very diverse natural communities with high biological value that have a lot of microhabitats capable of supporting many species (Douglas Tallamy 2008).

No special status species are known to occur on the project site but it is within the MSHCP Narrow Endemic Plant and Criteria Area Survey Area for thread-leaved brodiaea (*Brodiaea filifolia*), Davidson's saltscale (*Atriplex serenana*), Parish's brittlescale (*Atriplex parishii*), smooth tarplant (*Centromadia pungens*), round-leaved filaree (*Erodium macrophyllum*), Coulter's goldfields (*Lasthenia glabratat* ssp. *coulteri*), little mousetail (*Myosurus minimus* ssp. *apus*), heart-leaved pitcher sage (*Lepechinia cardiophylla*), Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia chenopodiifolia*), slender-horned spineflower (*Dodecahema leptoceras*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), San Miguel savory (*Clinopodium chandleri*), Hammitt's clay-cress (*Sibaropsis hammittii*), and Wrights's trichocoronis (*Trichocorois wrightii*). However, preliminary survey results from South Environmental and Pre-Construction Survey Results form Osprey Environmental Associates (Osprey 2019) indicate that these species do not occur on the project site.

The project site is also within the western burrowing owl (*Athene cunicularia hypugaea*) survey area and within the range of the coastal California gnatcatcher (*Poliptila californica californica*) and the Quino checkerspot butterfly (*Euphydryas Editha quino*), which both have potential to occur on the site. Surveys are currently ongoing at the project site and these species are not currently known to use the project site.

Mitigation Site

The mitigation site includes 5.2-acres of dense woodlands almost entirely within the streambed of the San Jacinto River located just downstream from the Lake Elsinore State Recreation Area

and upstream from Canyon Lake. The streambed is approximately 200-feet wide and has permanent water with emergent wetland vegetation in portions, indicating that the area is a forested wetland and other portions are potentially perennial and intermittent streambed. The parcel is undeveloped except that the streambed is maintained on the south side where a rip-rap/boulder slope defines the southern bank.

As shown in attached Figure 5 and in Table 2 below, a mature **southern cottonwood willow riparian forest** occurs throughout the parcel except for a small (0.1-acre) portion of non-native grasses in the northwest corner. The riparian forest is dominated by 40-60 feet tall Fremont's cottonwood trees that form a nearly continuous canopy throughout the parcel. Mature black willow (*Salix goodingii*) also occurs throughout. The understory is dynamic and at low points there is standing water with emergent wetlands dominated by cattail (*Typha* spp.) and willows, and in areas outside the standing water there were sapling cottonwood and willows as well as coyote brush (*Baccharis pilularis*), California sagebrush, California buckwheat, and the occasional Mexican fan palm (*Washingtonia robusta*). Overall, there was little disturbance and very few non-native species.

Table 2. Summary of Plant Communities on the Mitigation Parcel

Community or Cover Type	Acres	Acres that are Riverine or Riparian	Acres Proposed for Mitigation	Acres Proposed for Mitigation that are Riverine or Riparian
Southern Cottonwood-Willow Riparian Forest	5.10	5.10	2.60	2.60
Non-Native Grassland	0.10	0	0	0
Total	**5.20**	**5.10**	**2.60**	**2.60**

According to the CNDDB the southern cottonwood willow riparian forest is considered a sensitive natural community and several special-status species are known to occur at the mitigation parcel: least Bell's vireo (*Vireo bellii pusillus*), coast horned lizard (*Phrynosoma blainvillii*), and orange-throated whiptail (*Aspidoscelis hyperythra*). Numerous others are known to occur in the adjacent areas, and several more would have the potential to occur at the site. The dynamic habitats on the mitigation parcel with permanent water, large trees, a dense and diverse understory provide multi-tiered microhabitats capable of supporting a large community of animals including amphibians, fish, and bats that require a permanent water source, as well as a host of riparian obligates such as the least Bell's vireo. The relatively undisturbed nature of the site indicates that the area has a very high biological value.

Equivalency Analysis

Part of the project design is to place 2.60-acres of the mitigation parcel under a conservation easement into perpetuity to compensate for the loss of habitat associated with the project (attached Figure 5). The project includes 2.56-acres of impacts in Rice Canyon, and a total of 0.93-acre of those impacts would be to Riverine or Riparian areas. However, 1.10-acres (43%) of the impact area is already developed or disturbed, including an existing dirt access road and two damaged Arizona crossings. A total of 1.46-acres (57%) of the project site would occur in native habitats, including sensitive RAFSS (0.08-acre, 3%) and riparian forest (0.19-acre, 7%). An additional 0.43-acre (17%) of the impacts would be to coast live oak woodlands associated with the creek. A total of 0.61-acres (24%) of impacts would be to RSS and the final 0.15-acre (6%) of impacts is to chaparral. No special-status species have been identified in the project vicinity previously, but native habitats surrounding the project site are of high biological value due to the low level of disturbance and prevalence of native plants. Oak woodlands, riparian areas, and streams such as those found on the project site are areas of particularly high biological diversity and value, and the upland RSS and chaparral are also of high value to species that inhabitant those communities. The canyon is a valuable wildlife movement corridor and habitat linkage that has upstream connection to the Cleveland National Forest and is immediately south of the Alberhill Conservation Area, both of which have vast expanses of protected native habitats contiguous with the project site.

Following the project, the native habitats on the project site would largely remain intact because the project is linear, and impacts would only occur to a narrow 40-foot corridor that is already disturbed. Wildlife movement corridors and habitat linkages to the protected areas of Cleveland National Forest upstream and to the Alberhill Conservation Area north of the project would also remain intact, and the flow of the creek and alluvial action would not be altered by the Arizona crossing per the design features. EVMWD is committed to full avoidance of special-status species, and focused surveys for rare plants, coastal California gnatcatcher, burrowing owls, and Quino checkerspot butterfly per the MSHCP are ongoing to determine the presence. If these species are identified on the site EVMWD would devise a mitigation, monitoring, and reporting plan to avoid direct or indirect impacts to these species. In addition, the project will seek permits for potential impacts to jurisdictional resources (Rice Canyon Creek) and water quality from the installation and operation of the two Arizona crossings. The permit measures will include mitigation and Best Management Practices (BMPs) that will reduce and/or eliminate impacts to the creek and the water quality. Therefore, overall impacts of the project would be the permanent loss of 1.46-acres of native habitats and 1.10-acres of disturbed areas. The project would avoid impacts to special-status species (if any are determined to be present) and mitigate the potential

effects to jurisdictional resources and water quality through consultation and permitting with the appropriate resource agencies.

The mitigation parcel is a pristine southern cottonwood willow riparian forest within the San Jacinto River and is of very high biological value throughout the entire parcel, including the 2.60-acres area proposed for conservation (attached Figure 5). This portion was selected because the streambed and riparian corridor is the widest at this location and includes the largest amount of streambed and ponded areas. The entire area proposed for conservation is Riparian or Riverine habitat. The parcel is undisturbed and has a variety of wetlands, uplands, and dense riparian forest areas that provide a diversity of microhabitats that can support species such as amphibians, fish, and riparian obligates such as the federally threatened least Bell's vireo. Special-status lizards also are known to occur in this area based on CNDDB records, and numerous other special-status species occur in the surrounding areas and have the potential to occur on the parcel. The presence of a perennial water source is of very high biological value to aquatic and riparian obligates and is an important habitat characteristic for species such as bats and insects. The 2.60-acres of the mitigation parcel proposed for conservation is contiguous and includes the widest area of the River on the parcel. The parcel is also of high biological value considering its position within the river between Lake Elsinore and Canyon Lake that provides opportunities for wildlife movement and habitat linkages within an area that is experiencing rapid urbanization. Based on the analysis above, the mitigation parcel, including the area proposed for conservation, is of very high biological value.

South Environmental believes that the value of the 2.60-acres of conservation lands consisting entirely of Riparian or Riverine habitat at the mitigation site is biologically superior to that of the value on the 2.56-acres of the project site because the project site is already disturbed. The existing access road has diminished the quality of habitat on the project site, and the mitigation site is undisturbed. The project site impacts would be to 0.98-acre of Riparian or Riverine habitat and the conserved lands would equal 2.60 acres of Riparian or Riverine Habitat. Considering both the project site and the mitigation parcel are of high biological value and support native and sensitive resources typical of the region, the proposed 2.60-acres of conservation lands on the mitigation parcel are, at a minimum, equivalent in biological value to the 2.56-acres of impacted areas on the Rice Canyon project site. However, the lack of disturbance at the mitigation site, the known presence of listed species, and the importance of the site for wildlife movement and habitat linkages between Canyon Lake and Lake Isabella in a rapidly urbanizing area indicates that the mitigation parcel is a superior value biologically to that of the areas impacted by the project.

If you have any questions regarding the information in this report, please contact Matthew South by email: msouth@southenvironmental.com or by mobile phone: 303.818-3632.

Sincerely,

Matthew R. South
Principal Biologist

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Tallamy, Douglas W. 2008. The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees.

List of Attachments

1. **Attachment A**. Figures
2. **Attachment B**. Photograph Exhibit

Attachment A:

Figures

Source: ESRI USA Topo Maps and World Topo Map 2022

EVMWD Rice Canyon Project

Figure 1. Project Location

Rice Canyon Project Site

Mitigation Parcel

0 3,000 6,000 Feet

Scale: 1:70,000

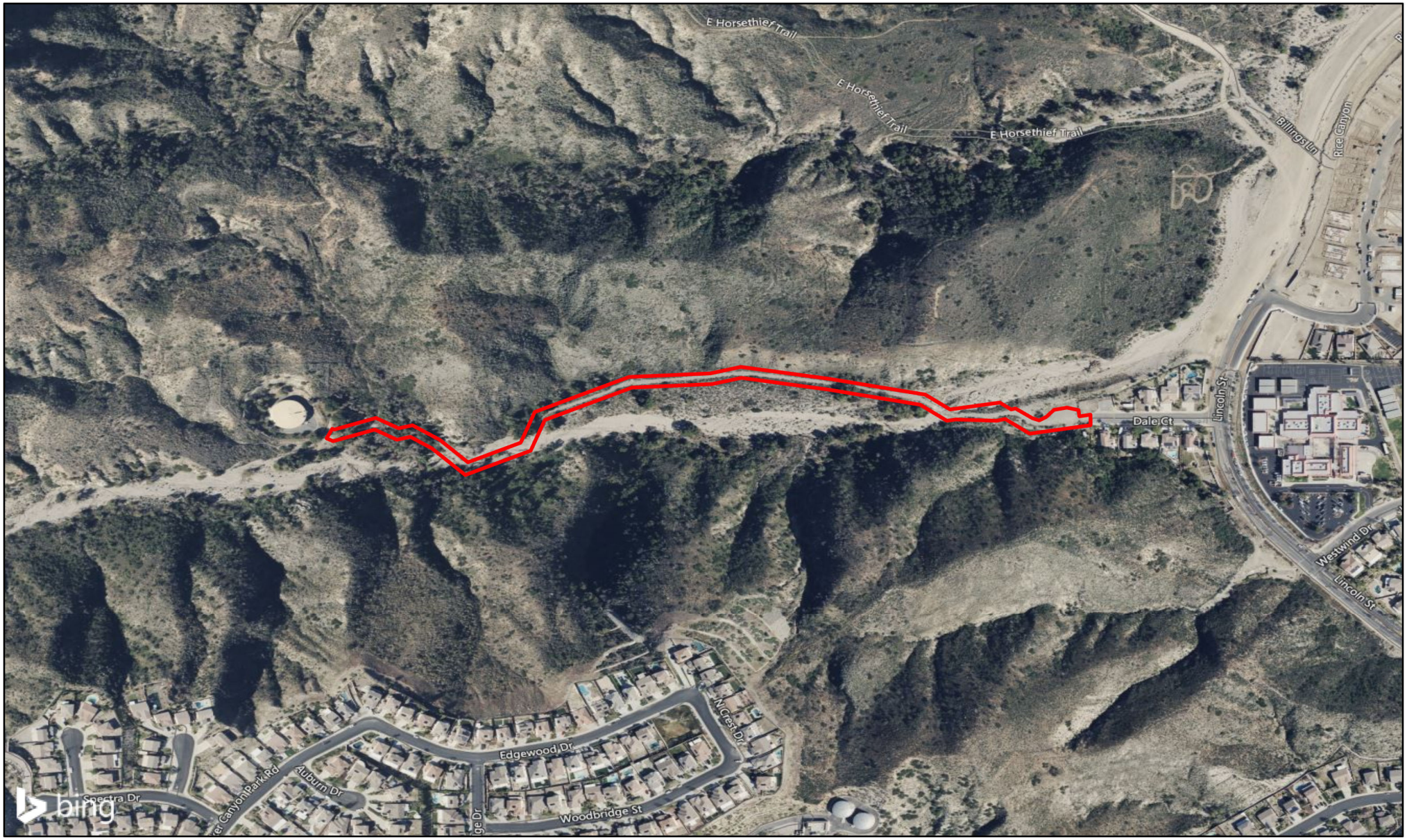
N

Project Site is within the City of Lake Elsinore, California, in Riverside County on the USGS Alberhill 7.5-minute quadrangle map in Sections 28 and 33 of Township 05 South and Range 05 West

Mitigation Parcel is within the City of Lake Elsinore, California, in Riverside County on the USGS Lake Elsinore 7.5-minute quadrangle map in Section10 of Township 06 South and Range 04 West

Center Coordinate (Decimal Degrees):
Project Site Latitude: 33.698366N, Longitude: -117.407709W
Mitigation Parcel Latitude: 33.6627462N, -117.2906050W

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap April 2022

EVMWD Rice Canyon Project

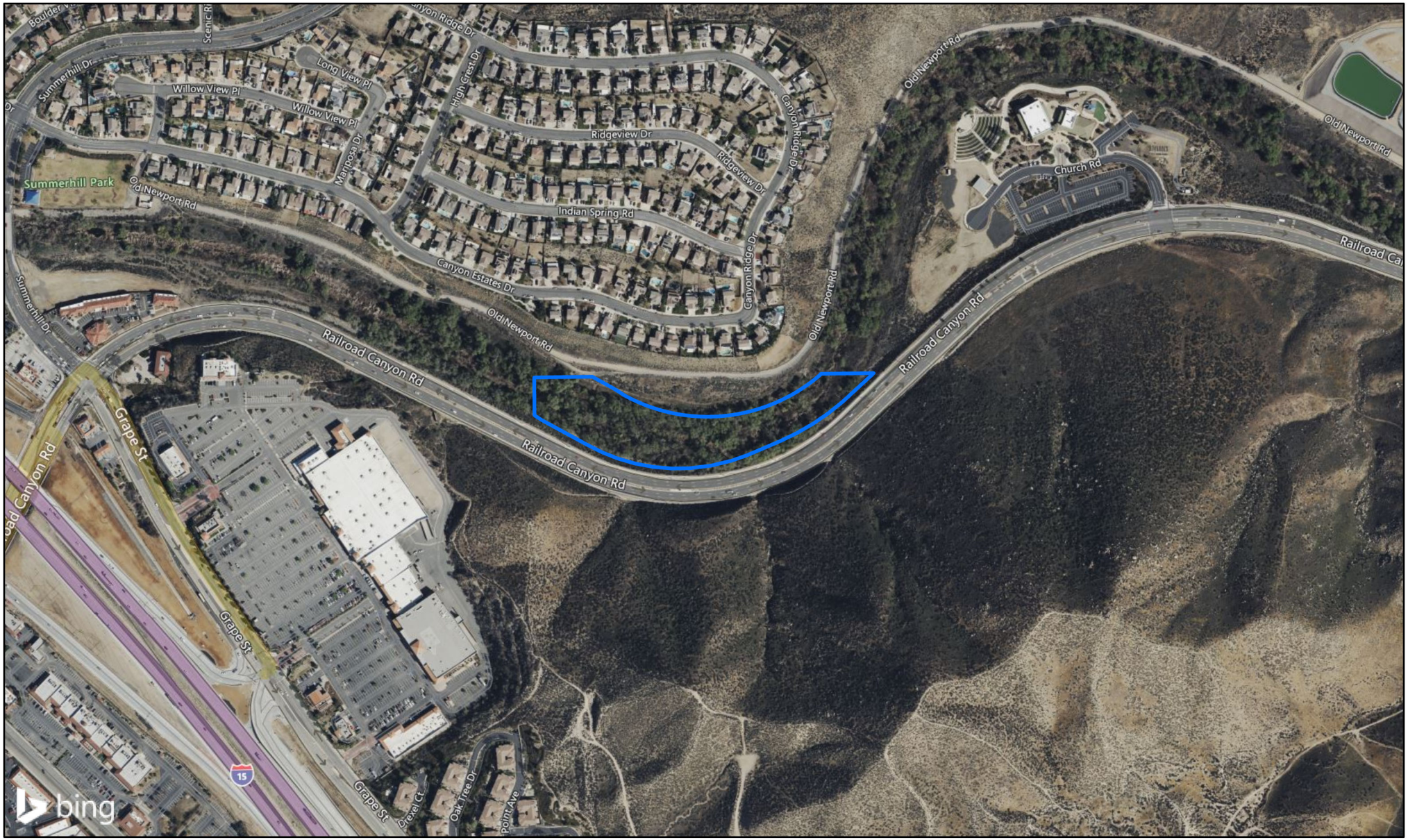
Figure 2. Project Site Vicinity

0 300 600 Feet

N

Rice Canyon Project Site

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap August 2022

EVMWD Rice Canyon Project

Figure 3. Mitigation Parcel Vicinity

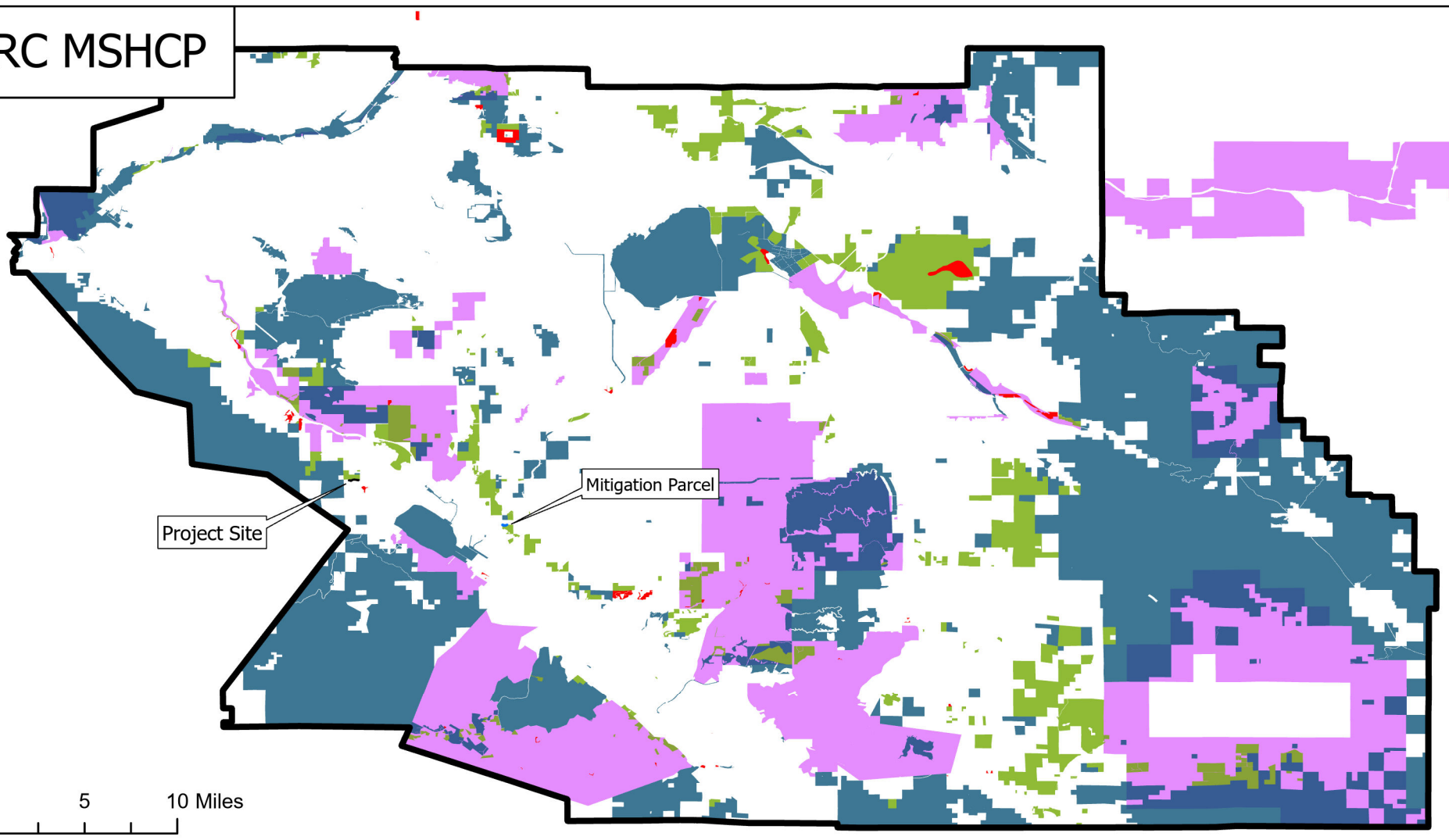
0 300 600 Feet

N

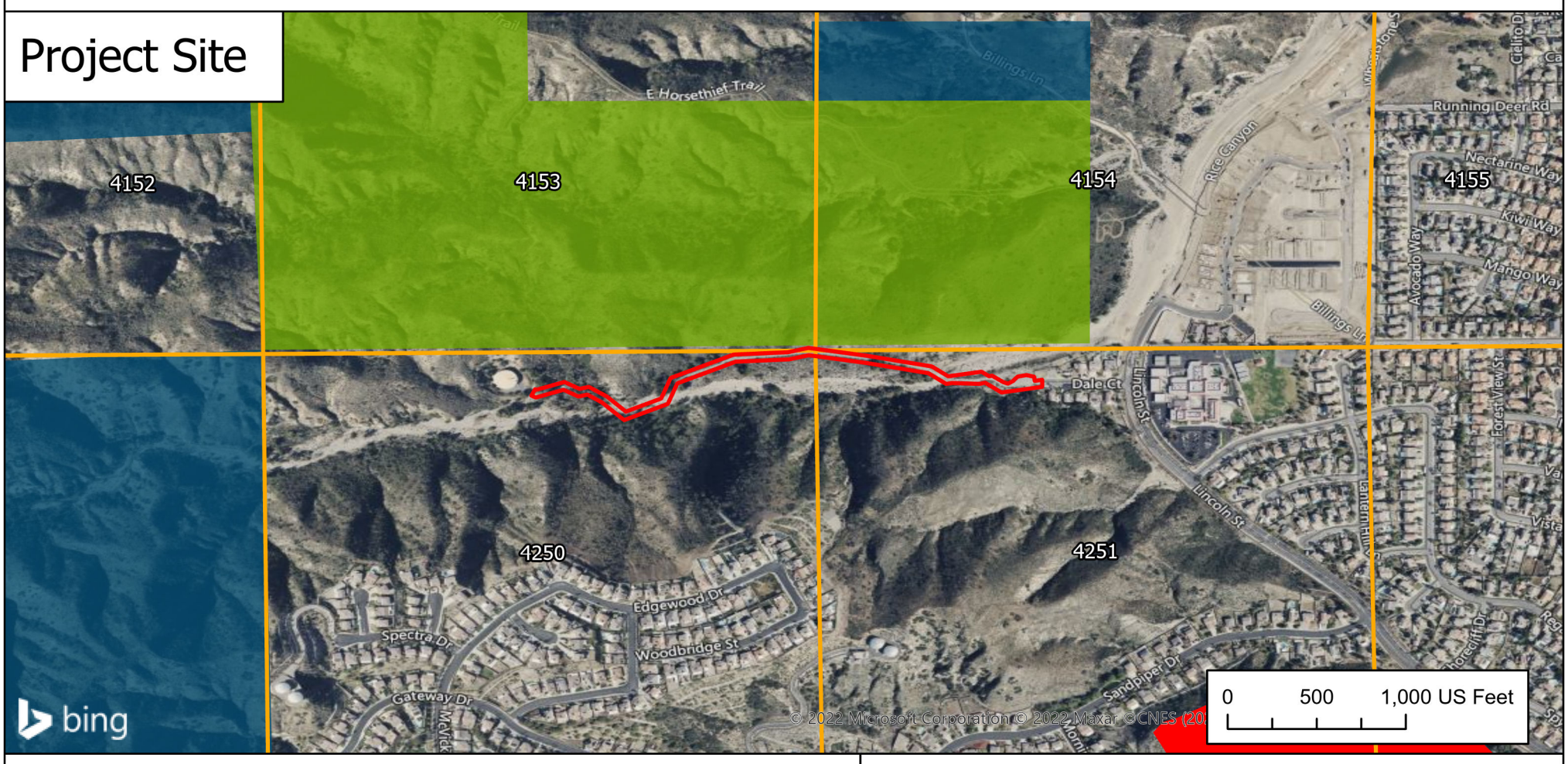
Mitigation Parcel

SOUTH ENVIRONMENTAL

WRC MSHCP



Project Site



- Mitigation Parcel (5.2-acres)
- Rice Canyon Project Site
- MSHCP Criteria Cells
- Multiple Species Habitat Conserved Lands
- RCA Conservation Easements
- Public/Quasi-Public Lands
- Policy Areas
- WRCMSHCP Boundary

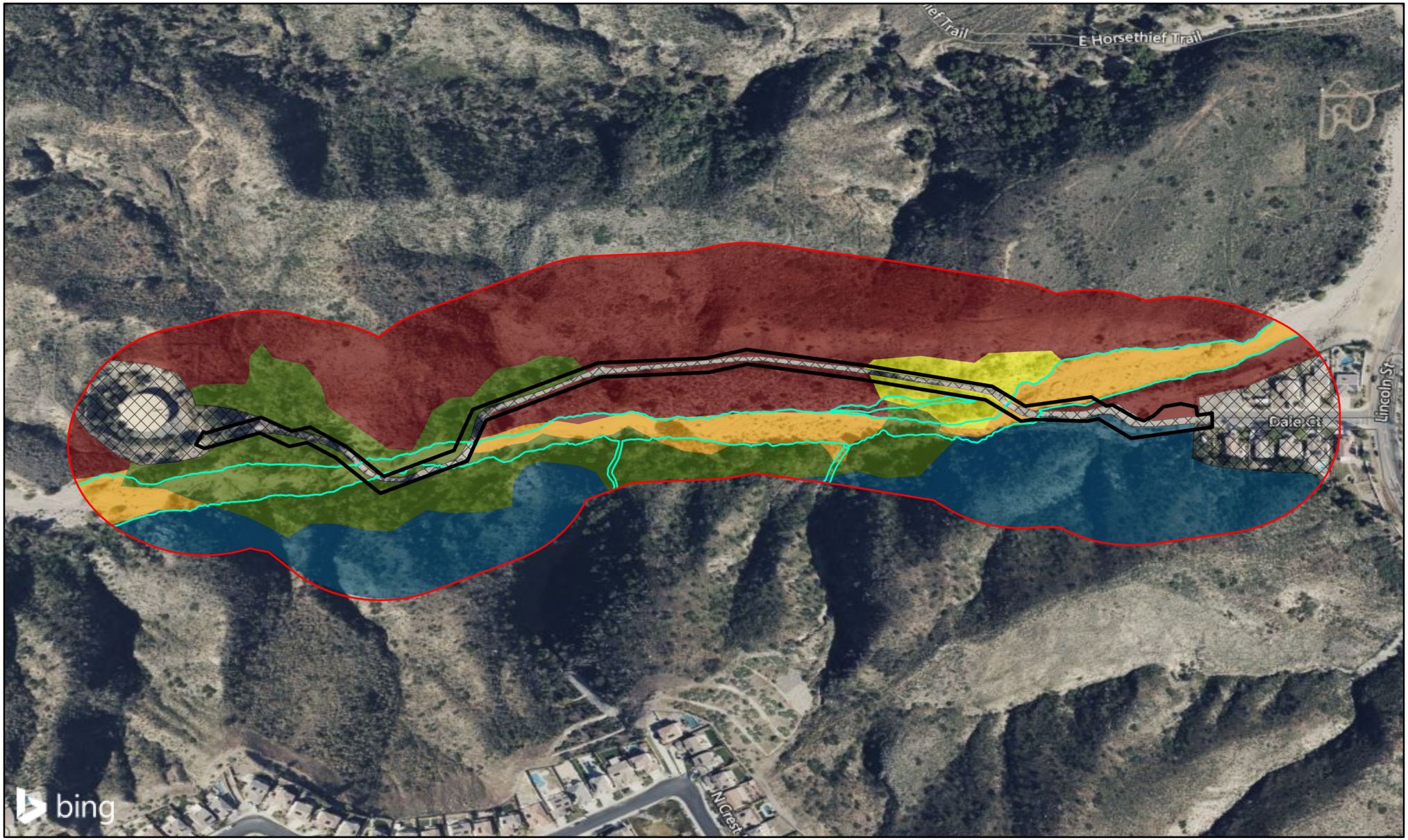
Figure 4. WRC MSHCP Overview

Sources:
-BING Aerial Basemap
-Riverside County Mapping Portal Data

SOUTH ENVIRONMENTAL

N

Mitigation Parcel



Source: BING Aerial Basemap August 2022

EVMWD Rice Canyon Project

Figure 5. Project Site Plant Communities and Cover Types

0 225 450 Feet

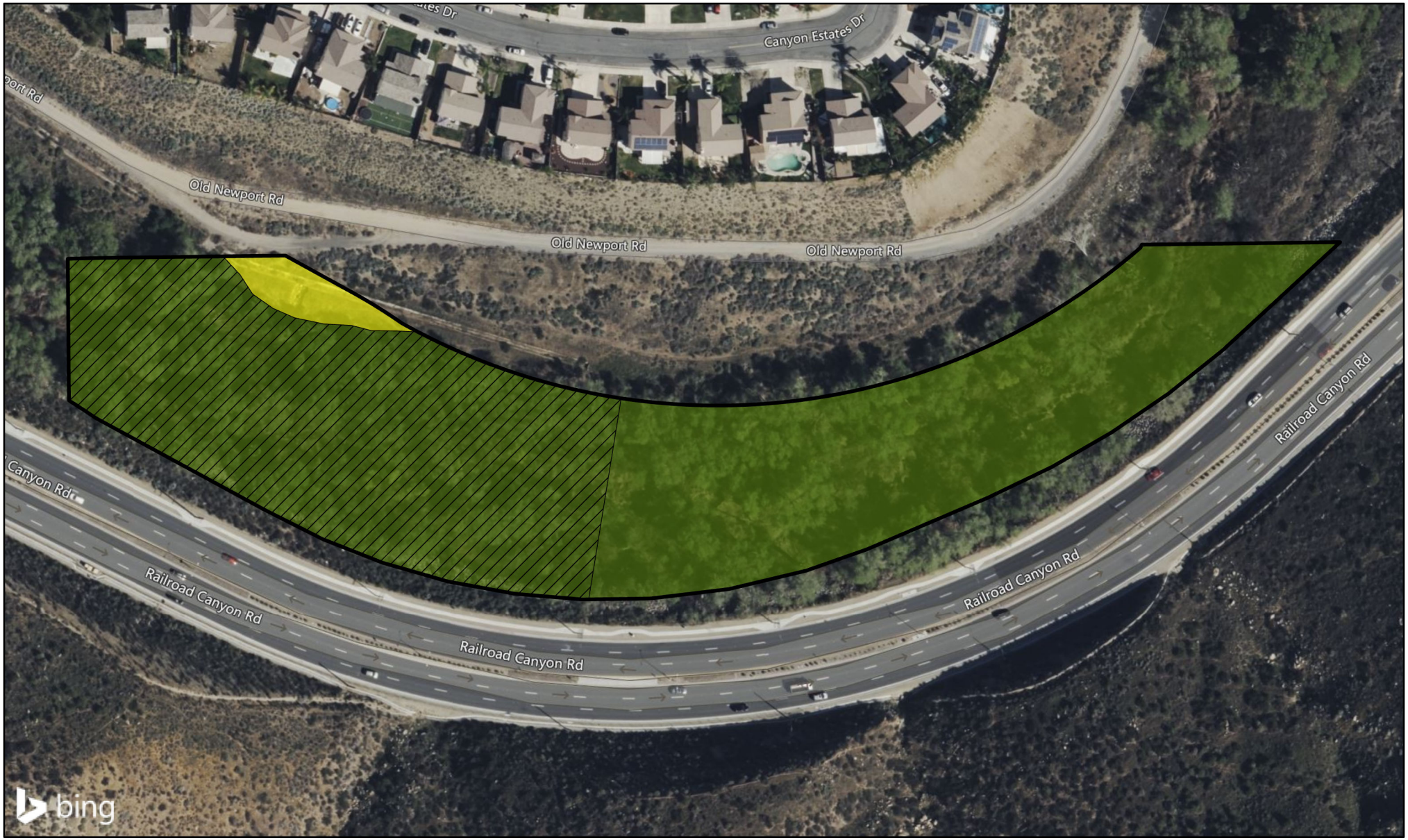
N

Rice Canyon Streambed
Rice Canyon Project Site
Study Area (300-ft buffer)

Plant Communities

Chaparral
Coast Live Oak Woodland
Disturbed/Developed
Riparian Forest
Riversidean Alluvial Fan Sage Scrub
Riversidean Sage Scrub

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap April 2022

EVMWD Rice Canyon Project

Figure 6. Mitigation Parcel Plant Communities

0 80 160 Feet

N

- Mitigation Parcel
- Proposed Conservation Area
- Non-Native Grassland
- Southern Cottonwood Willow Riparian

SOUTH ENVIRONMENTAL

Attachment B:

Photograph Exhibit

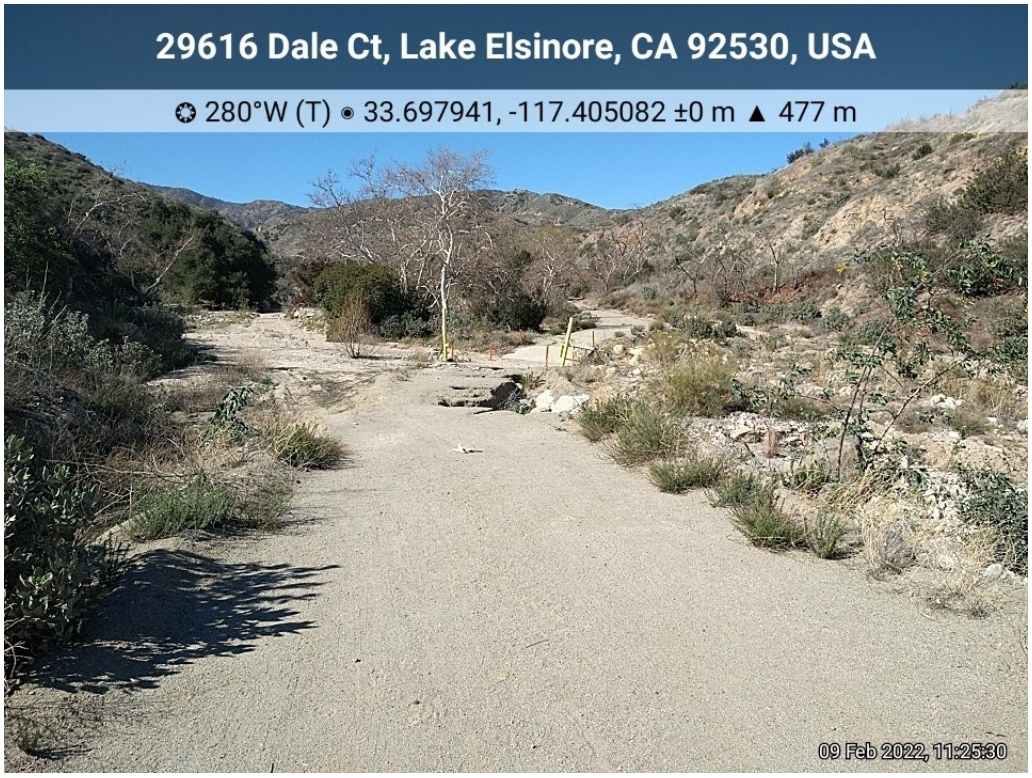


Image 1: View of the dirt access road and washed out creek crossing on the east end of the project site. RAFSS within floodplain and riparian forest on opposite side of the creek.

Image 2: View of second creek crossing on the west end of the project. Coast live oak woodlands and RAFSS visible, and existing dirt road in foreground.

Image 3: View of access road on project site along the creek.

Image 4: Overview of the mitigation parcel (forest in center of photo) taken from a slope to the north of the parcel.

Image 5: Depicts the cottonwood willow riparian forest on the mitigation site.

Image 6: Depicts willows and a cattail marsh in the dense understory of the forest on the mitigation parcel.

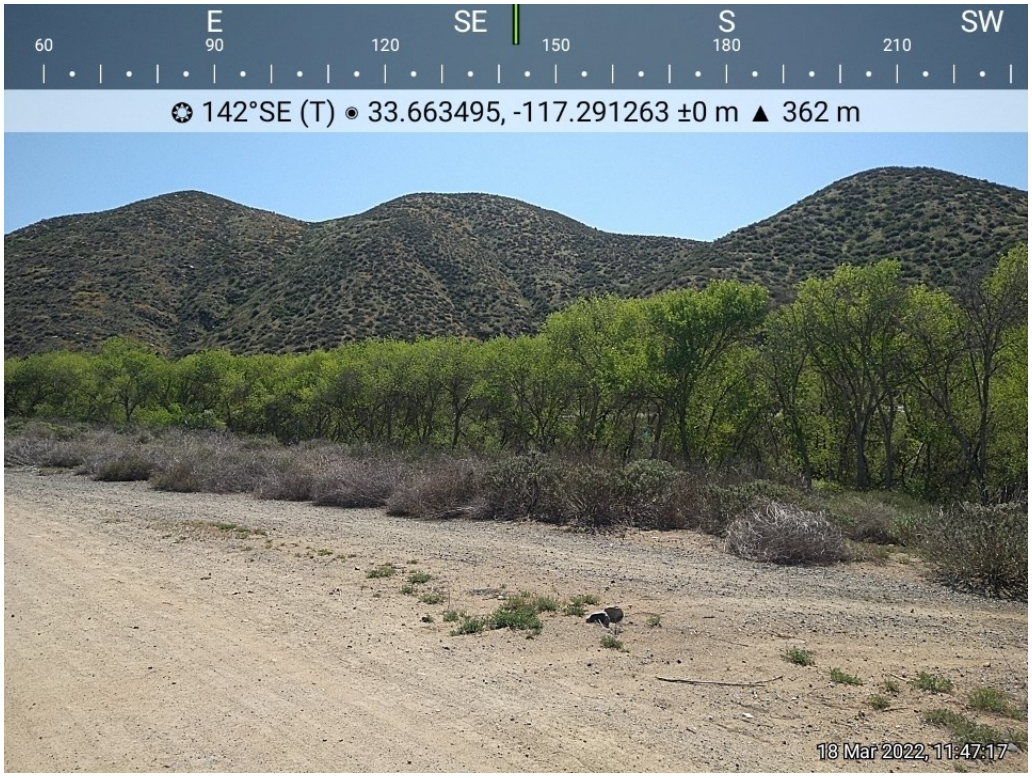


Image 7: Depicts the cottonwood willow riparian forest on the mitigation site.

Image 8: Depicts an emergent cattail marsh in the dense understory of the forest on the mitigation parcel.

Enclosure 2

See shapefiles provided electronically