



An Employee-Owned Company

December 30, 2022

Mr. Joseph Broadhead
Principal Water Resource Specialist
Eastern Municipal Water District
2270 Trumble Road
Perris, CA 92572

Reference: Biological Resources Survey for the Los Alamos Hills Water System Project (RECON Number 9878-9)

Dear Mr. Broadhead:

This letter details the results of a biological resources survey conducted for the Los Alamos Hills Water System Project (project). This biological constraints letter has been prepared to provide necessary information to the Eastern Municipal Water District (District) for environmental analysis of the project.

1.0 Introduction

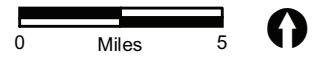
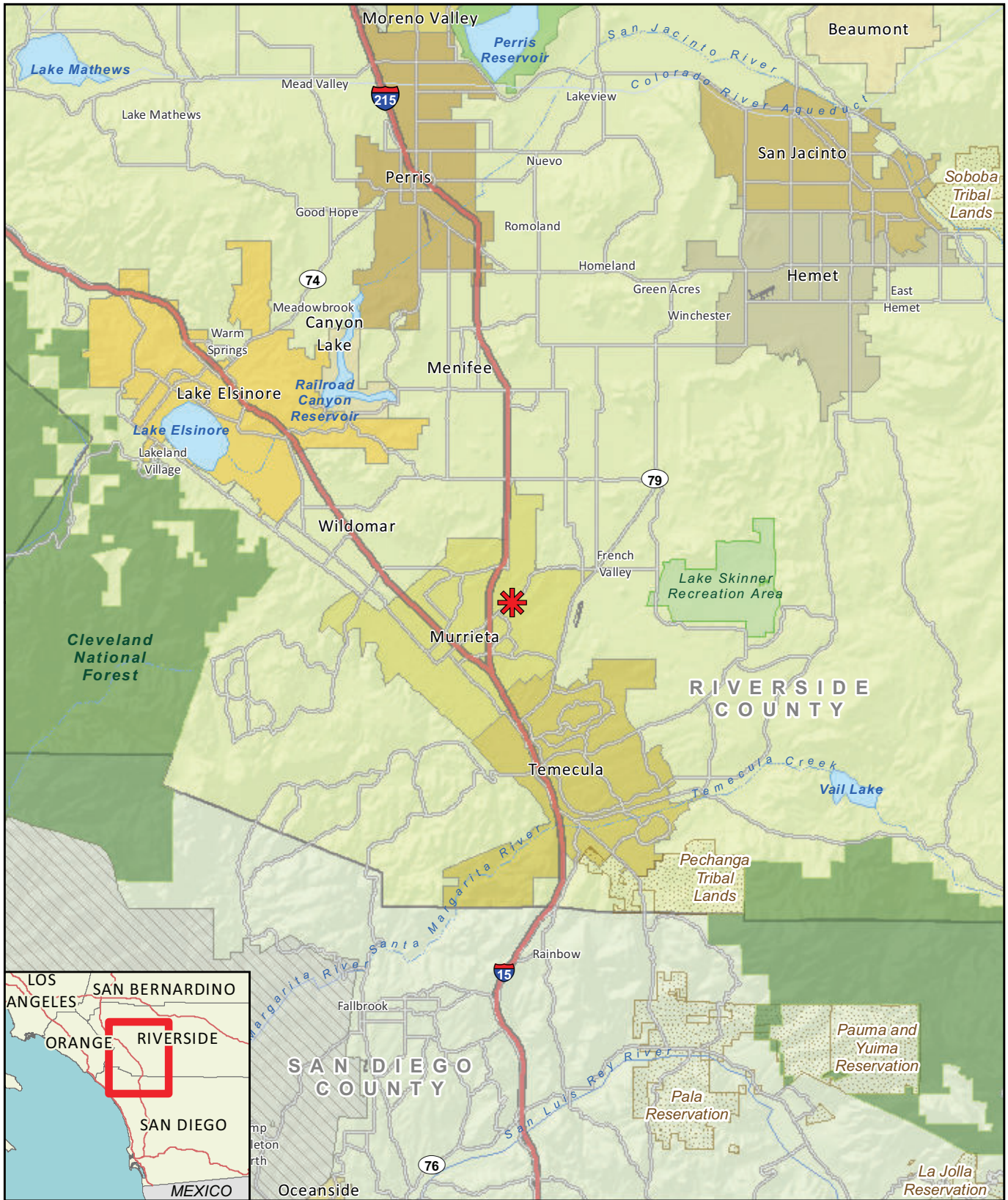
1.1 Project Location

The project is located in the city of Murrieta, California (Figures 1 through 3). Regional access to the project site is provided via Interstate 215, located approximately 0.45 mile to the east, and local access is provided via Interstate 215 south to east on Los Alamos Road. The project site is in the U.S. Geological Survey (USGS) Murrieta quadrangle, Township 7 South, Range 3 West (USGS 1979; see Figure 2). The project site is comprised of paved and unpaved ground, either bare or with existing and disturbed vegetation, within existing easements and rights-of-way along Los Alamos Road, Mason Avenue, Mary Place, Celia Road, and Ruth Ellen Way. The project site is generally bounded by a school and undeveloped lots to the north, residential development and open space to the south, residential development to the west, and undeveloped lots to the east.

1.2 Project Description

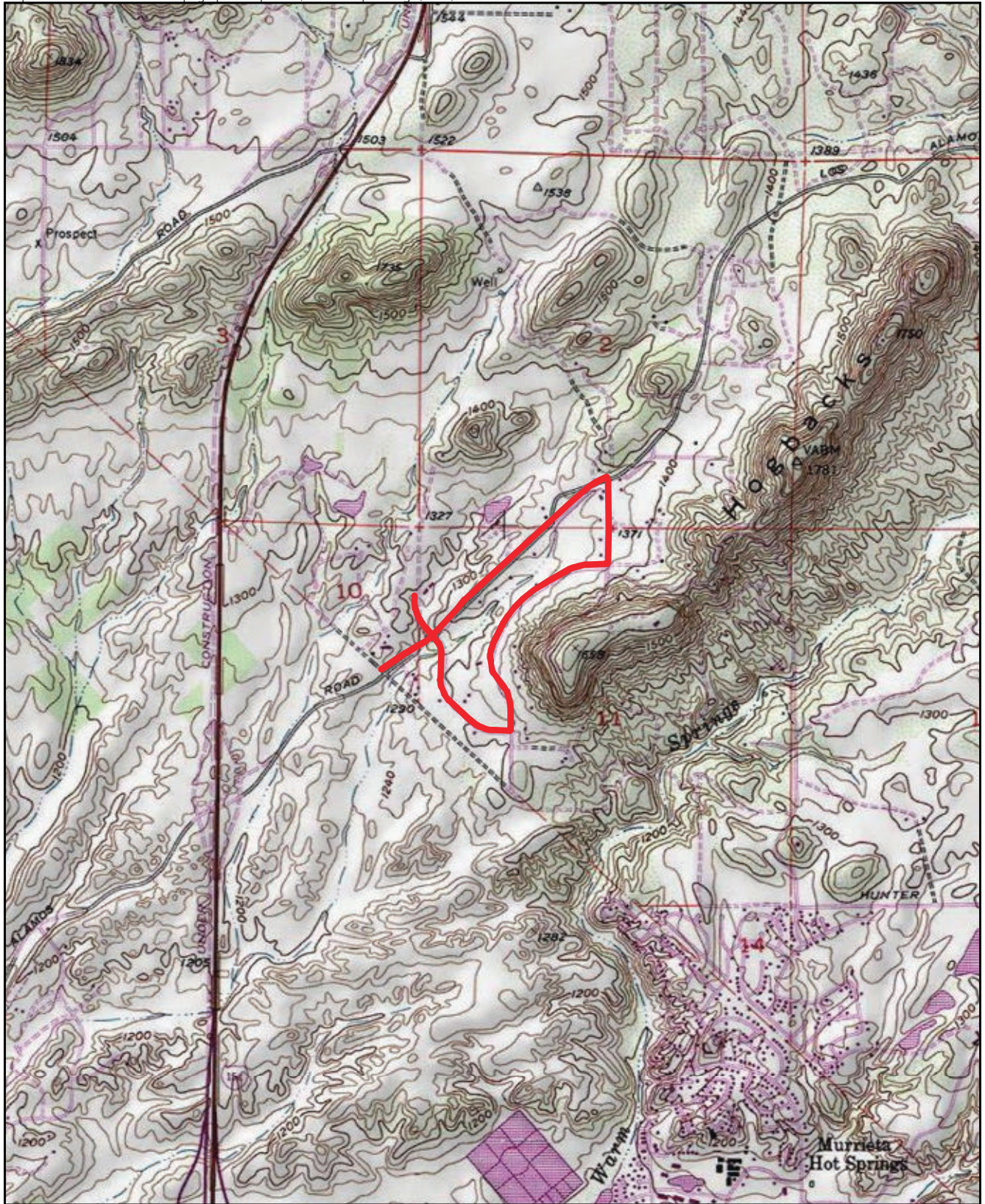
The project consists of the installation of a pipeline loop within existing city streets with diameters ranging from 8 to 12 inches. The total distance covered by the proposed Los Alamos Hills Water System loop pipeline is approximately 10,685 linear feet or approximately 2 miles. The following are the pipeline segments that make up the project:

- Los Alamos Road 12-inch pipe, Celia Road to Mason Avenue (approximately 3,350 linear feet)
- Celia Road 8-inch pipe, Mary Place to Mason Road (approximately 2,000 linear feet)
- Mason Road 8-inch pipe, Mary Place to Los Alamos Road (approximately 1,260 linear feet)
- Mary Place 8-inch pipe, Celia Road to Mason Avenue (approximately 3,400 linear feet)
- Ruth Ellen Way 12-inch pipe, Los Alamos Road to the northern property line of Rail Ranch Elementary School (approximately 675 linear feet)

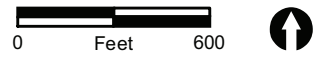


 Project Site

FIGURE 1
Regional Location



 Project Site



 Project Site

FIGURE 3
Project Site on Aerial Photograph

All pipeline segments and work areas are proposed within existing paved and unpaved roadways and roadsides, therefore avoiding direct impacts to sensitive biological resources. However, there is native upland and wetland vegetation adjacent to these roadways that may support sensitive species subject to indirect impacts of construction activities.

1.3 Regional Context

The project is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area (County of Riverside 2003; Figure 4). The MSHCP was designed to conserve approximately 500,000 acres of habitat, including 347,000 acres of existing conservation on public and quasi-public land and 153,000 acres of conservation on privately owned lands. Areas of privately owned lands considered for potential conservation are identified as Criteria Cells, which are intended to facilitate assessment of conservation potential under the MSHCP. In this way, the MSHCP directs future conservation efforts to occur within these Criteria Cells.

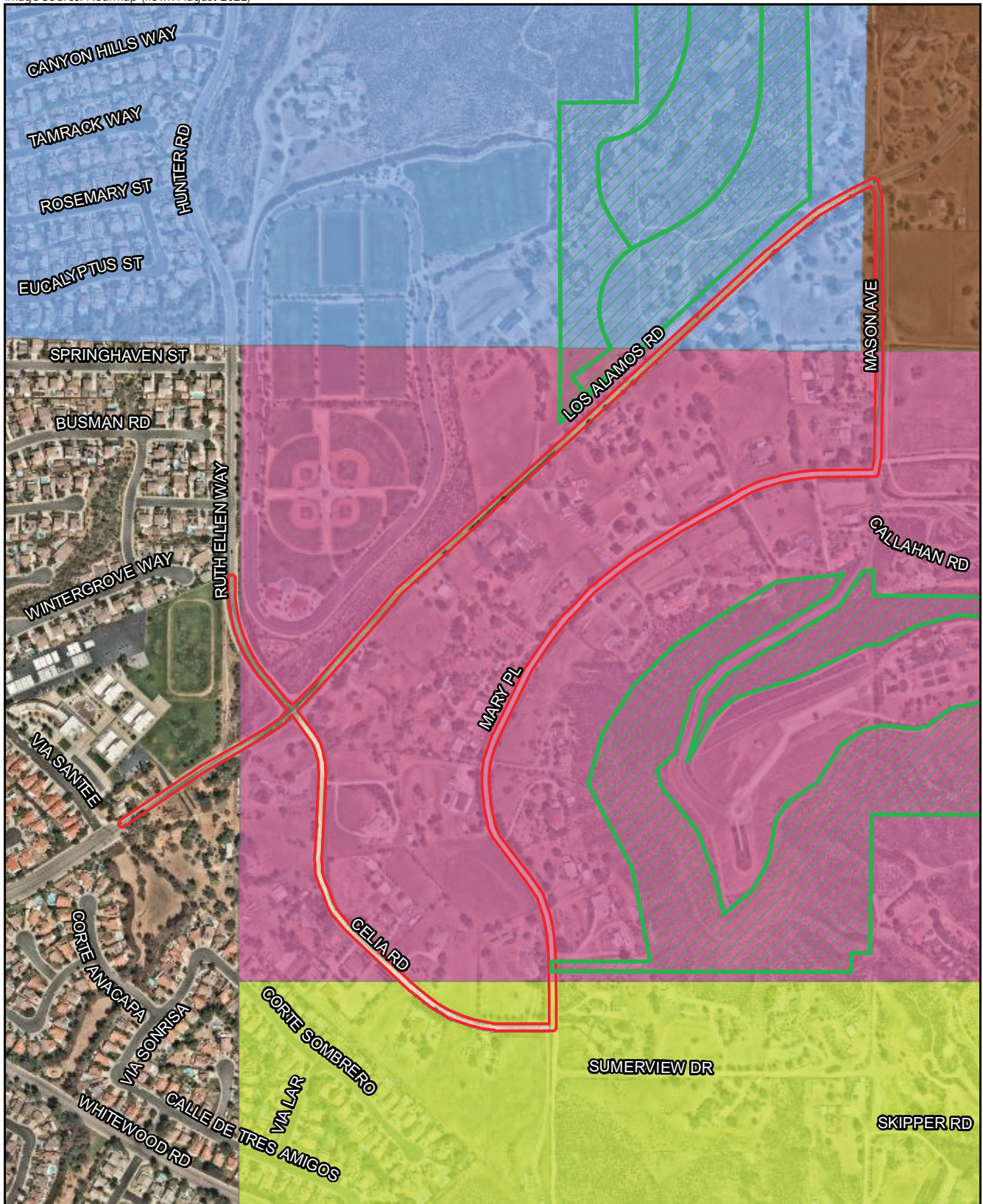
A portion of the project site is located within Criteria Cells in Subunit 5, French Valley/Lower Sedco Hills, identified by the MSHCP. The southernmost portion of Mary Place is located within Cell Group D of Cell 5977, the central and northern portions of Mary Place and the southern portion of Mason Avenue are located within Cell Group E of Cell 5873, and the northern portion of Mason Avenue is located within Cell Group F of Cell 5783. However, the project site is restricted to existing developed roadways within the criteria cells and does not contain biological resources meeting the conservation criteria presented in Table 3-16 of the MSHCP. The portions of the project site along Los Alamos Road, Ruth Ellen Way, and Celia Road are not located within a Cell Group. Additionally, the project site is located within the Narrow Endemic Plant Species Survey Area 4, the Criteria Area Species Survey Area, and the western burrowing owl (*Athene cunicularia hypugaea*) survey area identified in the MSHCP (County of Riverside 2003).







2.0 Methods

RECON Environmental, Inc. (RECON) biologists Cailin Lyons and Chelsea Poley conducted a general biological survey within the project site and surrounding 15-foot buffer (herein referred to as the survey area), on September 27, 2022. During the general biological survey, RECON biologists mapped vegetation communities, recorded vegetation and habitat characteristics, and noted wildlife and plant species apparent at the time of the survey. Vegetation communities were mapped in the field on a digital map of the survey area. Plants were visually identified in the field and wildlife species were identified visually with the aid of binoculars or based on identification of calls, scat, tracks, or burrows. Private property was surveyed with binoculars from public rights-of-way.

3.0 Background Research

Prior to conducting field surveys, RECON conducted a search of existing biological data for the project site, including a review of biological databases for sensitive plant and animal species reported within one mile of the project site, and a review of the project site's physical characteristics (e.g., location, elevation, soils/substrate, topography). Databases consulted included the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2022) and the U.S. Fish and Wildlife Service (USFWS) All Species Occurrences Database (USFWS 2022a). In addition, a review of the National Wetlands Inventory was conducted to identify any potential wetlands or water resources present in the vicinity of the project site (USFWS 2022b).



-  Project Site
-  MSHCP Additional Reserve Land
-  D
-  E
-  F
-  G

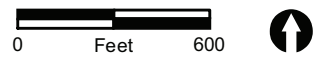


FIGURE 4
Project in Relation to MSHCP Area

Based on the database search, there are a number of sensitive species known within one mile of the project site. The project site consists entirely of urban/developed land and is primarily surrounded by development with small segments of scrub and woodland habitats. Thus, the potential for many species to occur is evaluated based on the habitat within the project site, as well as within land adjacent to the project site. Three sensitive wildlife species, coastal California gnatcatcher (*Poliopitila californica californica*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and Bell’s sage sparrow (*Artemisiospiza [=Amphispiza] belli belli*) were determined to have a low to moderate potential to occur adjacent to the project site. Additional plant and wildlife species that were evaluated based on the database review but are not expected or have low potential to occur based on the records search and habitat conditions are discussed in Attachments 1 and 2, respectively.

4.0 Existing Biological Resources

4.1 Vegetation Communities

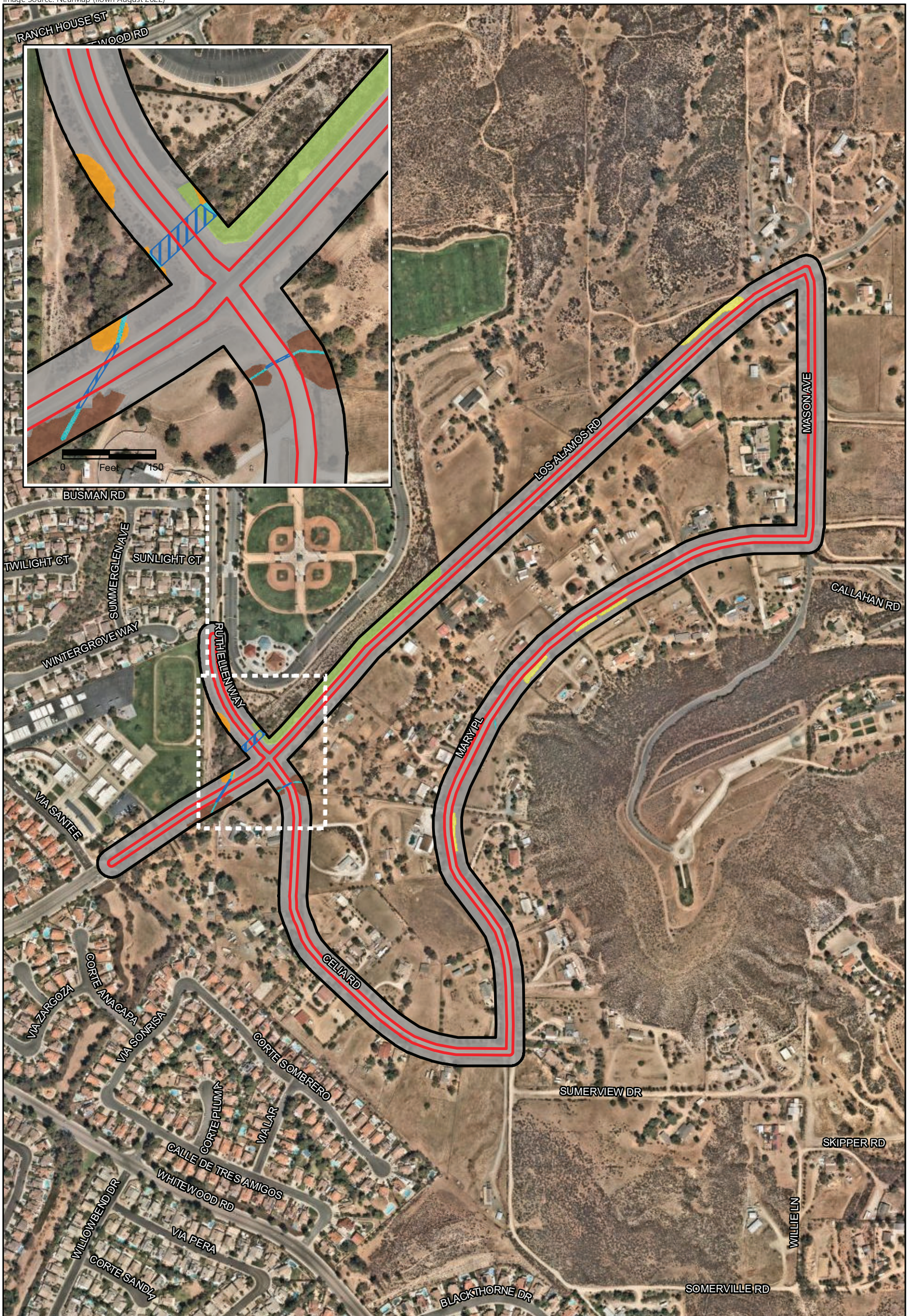
The project site supports only urban/developed. The buffer surrounding the project site supports six vegetation communities/land cover types: flat-topped buckwheat scrub, Riversidean sage scrub, southern riparian woodland, walnut woodland, non-vegetated channel, and urban/developed (Figure 5). The acreages of these vegetation communities and land cover types are listed in Table 1 and described below.

Table 1 Vegetation Communities and Land Cover Types within Survey Area (acres)		
Vegetation Communities	Project Site	Survey Area (Project Site Plus 50-foot Buffer)
Flat-topped Buckwheat Scrub	–	0.24
Riversidean Sage Scrub	–	1.02
Southern Riparian Woodland	–	0.10
Walnut Woodland	–	0.39
Non-vegetated Channel	–	0.03
Urban/developed	7.91	32.34
TOTAL	7.91	34.12

Urban/developed accounts for the entirety of the project site and the majority of the buffer surrounding the project site and occurs as various paved and unpaved roadways, private residences, and a manufactured ditch running along Los Alamos Road adjacent to the northeastern portion of the project site. Vegetation within urban/developed land consists of ornamental landscaping and a variety of non-native species, including riggut brome (*Bromus diandrus*), Peruvian petter tree (*Schinus molle*), and gum tree (*Eucalyptus* spp.).

Non-vegetated channel occurs as culverted drainage channels traveling under Ruth Ellen Way, Los Alamos Road, and Celia Road adjacent to the intersection of Ruth Ellen Way, Los Alamos Road, and Celia Road in the western portion of the project site. No water was flowing at the time of the survey and the channels appear to support either an ephemeral or intermittent flow regime.

Flat-topped buckwheat scrub is present in small linear patches (0.24 acre) along Los Alamos Road adjacent to the northeastern portion of the project site and along Mary Place adjacent to the southern portion of the project site. This vegetation community is comprised entirely of California buckwheat (*Eriogonum fasciculatum*) occurring primarily along fence line and appears to be regularly mowed for fuel management along the roadway.



- Project Site
- Survey Area
- Culverted Non-vegetated Channel

- Vegetation Communities and Land Cover Types**
- Flat-topped Buckwheat Scrub
 - Non-vegetated Channel

- Riversidean Sage Scrub
- Southern Riparian Woodland
- Walnut Woodland
- Urban/Developed

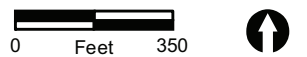


FIGURE 5
Existing Biological Resources

Riversidean sage scrub is found with moderate vegetation cover along Los Alamos Road adjacent to the northwestern portion of the project site. The Riversidean sage scrub occurs as an isolated patch that was planted on a graded slope based on historic aerials. The Riversidean sage scrub is dominated by native scrub species such as California buckwheat, coyote brush (*Baccharis pilularis*), brittlebush (*Encelia farinosa*), and coastal goldenbush (*Isocoma menziesii*).

Southern riparian woodland is found in small, isolated segments on either side of Ruth Ellen Way along Los Alamos Road adjacent to the western portion of the project site. This vegetation community is dominated by western sycamore (*Platanus racemosa*) and contains an understory dominated by mule fat (*Baccharis salicifolia*).

Walnut woodland is found in small, isolated segments on either side of Ruth Ellen Way and along Los Alamos Road adjacent to the western portion of the project site. This vegetation community is dominated by southern California black walnut (*Juglans californica*) with an understory of mule fat.

4.2 Sensitive Plant Species

No sensitive plants were observed within or adjacent to the project site during the biological survey. Sensitive plant species known to occur within one mile of the project site, based on a database review, are presented in Attachment 1.

4.3 Sensitive Wildlife Species

No sensitive wildlife was detected within or adjacent to the project site during the biological survey. Sensitive wildlife species known to occur within one mile of the project site, based on a database review, are presented in Attachment 2.

Coastal California Gnatcatcher. Coastal California gnatcatcher is federally listed as threatened, a CDFW species of special concern, and an MSHCP covered species. This species is generally found in mature coastal sage scrub habitat consisting of low shrub and sub-shrub species. This species has low to moderate potential to occur in suitable Riversidean sage scrub habitat adjacent to the project site, outside of the project impact area. Though the Riversidean sage scrub habitat adjacent to the project site consists of appropriate vegetation structure for nesting, the Riversidean sage scrub is limited to a small, isolated patch bounded by urban/developed land and lacks connectivity to open space areas.

Southern California Rufous-crowned Sparrow. Southern California rufous-crowned sparrow is a CDFW watch list species and an MSHCP covered species. This species is primarily found in coastal sage scrub, chaparral, and grassland habitats. This species has low to moderate potential to occur in suitable Riversidean sage scrub habitat adjacent to the project site, outside of the project impact area. Though the Riversidean sage scrub habitat adjacent to the project site consists of appropriate vegetation structure for nesting, the Riversidean sage scrub is limited to a small, isolated patch bounded by urban/developed land and lacks connectivity to open space areas.

Bell's Sage Sparrow. Bell's sage sparrow is a CDFW watch list species and an MSHCP covered species. This species is primarily found in sage scrub and low chaparral habitats. There is one record of this species within one mile of the project site. This species has low to moderate potential to occur in suitable Riversidean sage scrub habitat adjacent to the project site, outside of the project impact area. Though the Riversidean sage scrub habitat adjacent to the project site consists of appropriate vegetation structure for nesting, the Riversidean sage scrub is limited to a small, isolated patch bounded by urban/developed land and lacks connectivity to open space areas.

Migratory and Nesting Birds. The majority of the project site and adjacent habitat, including the scrub habitats, woodland habitats, and the non-native Peruvian pepper trees and gum trees found within the urban/developed land, has potential to support migratory and nesting bird species. Urban-adapted species in particular have been known to nest within ornamental vegetation or the eaves of houses or openings in structures. In addition, several ground nesting species have the potential to nest within the open areas found within the urban/developed land within and adjacent to the project site.

4.4 Aquatic Resources

No potentially jurisdictional wetlands, including riparian/riverine areas or vernal pools, were observed within the project site; however, potentially jurisdictional non-wetland waters occur adjacent to the project site within the culverted drainage channels traveling under Ruth Ellen Way, Los Alamos Road, and Celia Road. The culverted drainage channels would likely be considered waters of the U.S. under U.S. Army Corps of Engineers (USACE) jurisdiction and waters of the state under Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction.

4.5 Wildlife Movement Corridors and Nursery Sites

The project site is located on roadways and rights-of-way that are primarily surrounded by development and residential properties. Though habitats adjacent to the project site likely provides habitat for urban-adapted species and local wildlife movement, it is not anticipated that these habitats would constitute a significant regional corridor due to the project site's location in a developed area and lack of connectivity to off-site areas of open space. Also, the project site is unlikely to support wildlife nursery sites or large roosting or breeding colonies due to the developed nature of the project site.

4.6 MSHCP Consistency

The project site is located within the boundaries of the MSHCP (WRCRCA 2003). The MSHCP allocates responsibility for assembly and management of its Conservation Areas to local, state, and federal governments, as well as private and public entities engaged in construction that may impact MSHCP covered species. As lead agency, the District is not a participant in the MSHCP; however, due to the project's location within a Criteria Cell, the project has been evaluated for consistency with the MSHCP to demonstrate it would not prevent implementation of the plan's conservation goals and objectives as described in further detail below. The project is located in an existing developed roadway and no components of the project are within existing or proposed reserves defined by the MSHCP. Portions of the project site located on private property along Mary Place and Mason Avenue are located within existing criteria areas defined by the MSHCP. Portions of the project site are located within Cell Group D of Cell 5977, within Cell Group E of Cell 5873, and within Cell Group F of Cell 5783. Conservation described for Cell Groups D, E, and F is to contribute to the assembly of Proposed Core 2 and will focus on riparian scrub, woodland and forest habitat along Warm Springs Creek and adjacent chaparral, coastal sage scrub, and grassland habitat. The segments of the project site within Cell Groups D, E, and F are located outside of each cell group's focus area described for conservation. Furthermore, the project site is separated from the area described for conservation by Callahan Road and existing residential development to the east and Summerview Drive, Somerville Road, Willie Lane, and Skipper Drive and existing residential development to the southeast. Development of the project, which consists of a water system in a previously developed roadway, will not preclude the ability of MSHCP conservation goals to be reached in Cell Groups D, E, or F, nor is the project site located in an area that would cause indirect impacts to any conservation areas in the MSHCP. Therefore, the project is consistent with the reserve assembly goals of the MSHCP, as well as the guidelines pertaining to the urban/wildlife interface.

The presence of riparian/riverine areas and vernal pools as defined by the MSHCP was evaluated during the general biological survey conducted by RECON in 2022. No riparian areas or vernal pools occur within the project site. The project has been designed to avoid potential riverine areas associated with the culverted drainage that underlies Los Alamos Road, Celia Road, and Ruth Ellen Way. Thus, the project is consistent with the requirements for riparian/riverine areas and vernal pools contained in the MSHCP. The project also incorporates best management practices to ensure that construction-related runoff and pollutants do not enter adjacent riverine areas.

The project site is within an area designated in the MSHCP as a Narrow Endemic Plant Species Survey Area for Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The project site is also within an area designated in the MSHCP as a Criteria Area Species Survey Area for Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla* [= *Erodium macrophyllum*]), smooth tarplant (*Centromadia pungens* ssp. *laevis* [= *Hemizonia pungens* ssp. *laevis*]), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), little mousetail (*Myosurus minimus* [= *Myosurus minimus* ssp. *apus*]), and mud nama (*Nama stenocarpum*). Suitable habitat for these species were evaluated during the general biological survey conducted by RECON in 2022 and are not expected to occur within the developed roadway associated with the project site. San Diego ambrosia and mud nama require floodplain habitats, which are absent within the project site. Many stemmed dudleya requires Altamont, Auld, Bosanko, Claypit, or Porterville clay soils, which are absent within the project site. Spreading navarretia and California Orcutt grass are vernal pool endemic plants, and no suitable vernal pool habitat occurs on-site. Wright's trichocoronis occurs only in alkali floodplains along the San Jacinto River, which is located approximately 8.45 miles northwest of the project site. Moreover, no suitable alkali floodplains are present in or adjacent to the project site. Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, and little mousetail require alkali soils and are generally found in alkali vernal pools, alkali scrub, alkali grassland, alkali playa, and alkali floodplains, which are absent from the project site. Thread-leaved brodiaea occur in mudflat, vernal pool, mesic grassland, mixed native-nonnative grassland, and alkali grassland habitat, which are absent from the project site. Munz's onion and round-leaved filaree occur in open cismontane woodland and valley and foothill grassland with friable clay soils, which are absent from the project site.

The project site also falls within an area designated by the MSHCP as a survey area for burrowing owl. Suitable habitat for this species was evaluated during the general biological survey conducted by RECON in 2022. The project site is not anticipated to support this species due to the project site's location within an existing developed roadway, and lack of suitable burrows or burrow surrogates within or adjacent to the project site.

Furthermore, the project site does not fall within the MSHCP survey areas for amphibians, mammals, or Delhi Sands flower-loving fly and is not anticipated to result in any impacts to these species due to lack of suitable habitat.

5.0 Avoidance, Minimization, and Mitigation for Project Impacts

Project impacts to urban/developed land would be less than significant and would not require mitigation. The project would not impact any sensitive vegetation communities, sensitive plant species, wildlife movement corridors, or nursery sites; therefore, no mitigation would be required. Potential direct and/or indirect impacts to sensitive wildlife species and potentially jurisdictional aquatic resources would be addressed through the following avoidance, minimization, and mitigation measures below.

5.1 Vegetation Communities and Land Cover Types

The project would result in a total of up to 7.91 acres of direct impacts to urban/developed land (Figure 6). Impacts to urban/developed land are not considered significant as this land cover type is not considered sensitive. Thus, no mitigation is required for impacts to vegetation communities as a result of the project.

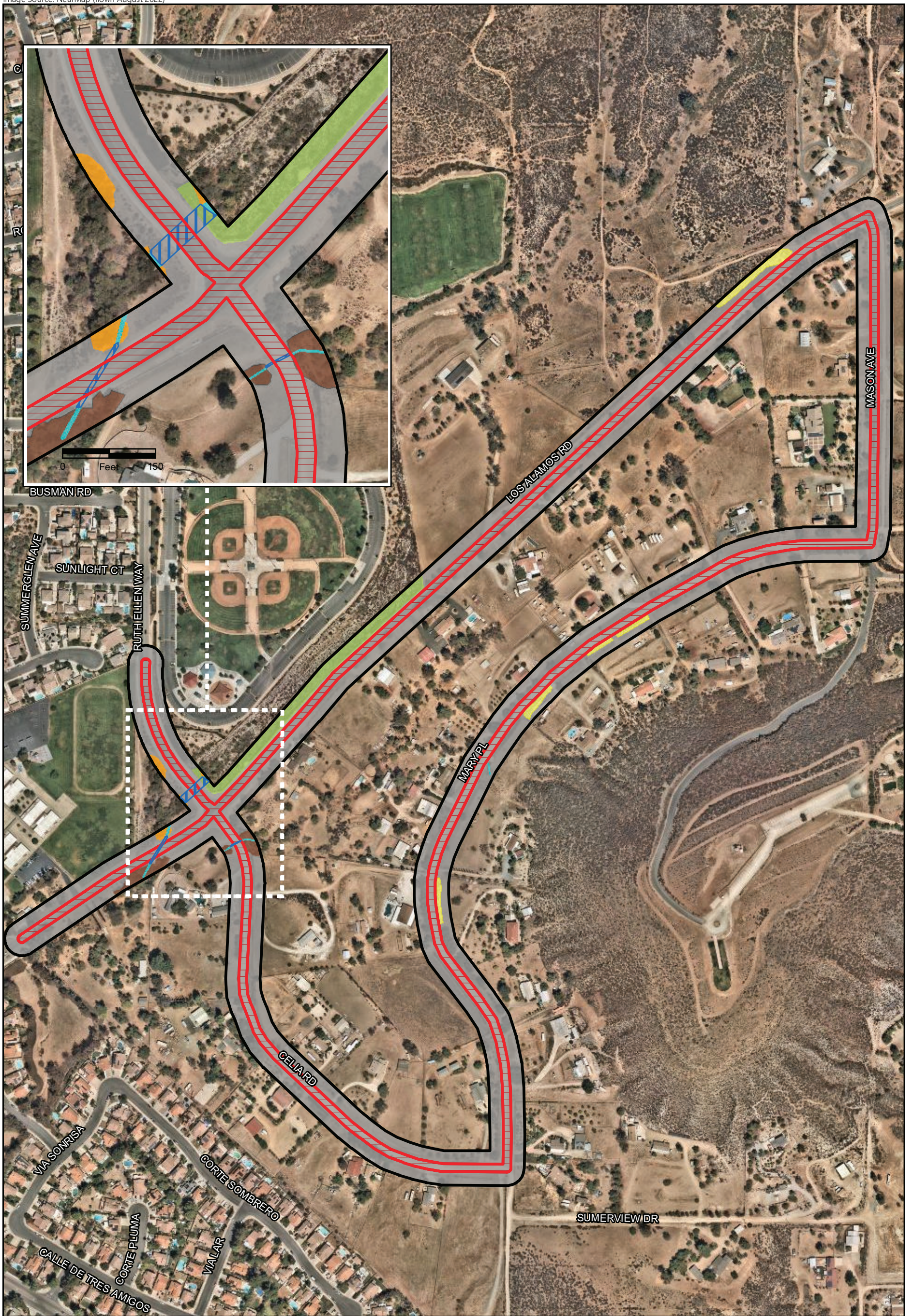
5.2 Sensitive Wildlife

Coastal California Gnatcatcher. This species has a low to moderate potential to occur adjacent to the project site. Should this species be present adjacent to the project site, direct impacts to coastal California gnatcatcher are not anticipated as the project would be limited to the developed roadway and the project would avoid removal of suitable Riversidean sage scrub habitat. However, due to the proximity of potentially suitable Riversidean sage scrub to work areas, indirect impacts as a result of construction noise during the breeding season (March 1 through August 15) could result if this species were to nest adjacent to the project site. Measures to avoid impacts to coastal California gnatcatcher are described below.

AMM-BIO-1: Coastal California Gnatcatcher

Project construction should be conducted outside the coastal California gnatcatcher breeding season, which is March 1 to August 15. If construction must take place during the coastal California gnatcatcher breeding season, a qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(A) Recovery Permit) shall survey Riversidean sage scrub adjacent to the project site for the presence of the coastal California gnatcatcher. Surveys for coastal California gnatcatcher shall be conducted pursuant to the protocol survey guidelines established by the USFWS within the breeding season prior to the commencement of any construction. If the protocol survey concludes that no coastal California gnatcatchers are present or all work is constructed outside of the breeding season (August 16 to February 28), no mitigation measures would be necessary. If coastal California gnatcatchers are present, then the following conditions must be met:

- a. Between March 1 and August 15, no construction activities shall occur within any portion of the project site where construction activities would result in noise levels exceeding 60 A-weighted decibels [dB(A)] hourly average (or ambient, whichever is higher) at the edge of occupied coastal California gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the District at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or
- b. At least two weeks prior to the commencement of construction activities during the breeding season, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average (or ambient, whichever is higher) at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed the noise threshold. If the noise attenuation techniques implemented are determined inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16); or



- Project Site
- Survey Area
- Project Impacts
- Culverted Non-vegetated Channel

- Vegetation Communities and Land Cover Types**
- Flat-topped Buckwheat Scrub
 - Non-vegetated Channel

- Riversidean Sage Scrub
- Southern Riparian Woodland
- Walnut Woodland
- Urban/Developed

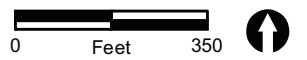


FIGURE 6
Impacts to Biological Resources

- c. Prior to construction during the breeding season, the District shall prepare an MSHCP Consistency Analysis for review by the Western Riverside County Regional Conservation Authority and obtain incidental take coverage for coastal California gnatcatcher via the Participating Special Entity process. The project would pay any necessary mitigation fees for impacts to 7.91 acres prior to construction.

Migratory and Nesting Birds. Direct impacts to nesting and migratory birds are not anticipated as the project is located within a developed roadway with existing vehicular traffic, and no vegetation removal would result from the project. However, indirect noise impacts may occur to migratory and nesting birds, including southern California rufous-crowned sparrow and Bell's sage sparrow, if they are nesting in the adjacent habitat should construction occur during the general avian breeding season (February 1 to September 15). These species are protected by the California Fish and Game Code Section 3503.5, and impacts to nesting individuals would need to be avoided. Measures to avoid impacts to nesting and migratory birds are described below.

AMM-BIO-2: Migratory and Nesting Birds

Construction should be conducted outside the nesting season, which is generally defined as January 15 to August 31. If construction must take place during the nesting season, a qualified biologist shall perform a pre-construction survey for nesting birds. The nesting bird survey shall occur no more than seven days prior to the start of construction. Additionally, raptors (birds of prey) are known to begin nest building in January or February. If construction 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 a qualified biologist until a qualified biologist has verified that the young have fledged or the nest has otherwise become inactive.

5.3 Aquatic Resources

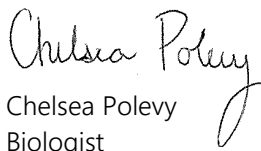
The project would avoid direct impacts to potentially jurisdictional non-wetland waters by avoiding the culverts underlying the roadways. However, the project has potential to result in indirect impacts to potential jurisdictional resources occurring adjacent to the project site. Measures to avoid indirect impacts to potential jurisdictional resources are described below.

AMM-BIO-3: Aquatic Resources

To avoid indirect impacts to potentially jurisdictional features, best management practices, such as the use of silt fences, fiber rolls, and/or gravel bags, should be implemented. No equipment maintenance or fueling should be performed within or near the non-vegetated channel where petroleum products or other pollutants from the equipment may enter this area.

If you have any questions or concerns about this project, please call me at (619) 308-9333 extension 198.

Sincerely,


Chelsea Polevy
Biologist

CAP:jg

cc: Gustavo Gomez, Eastern Municipal Water District

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NatureServe

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Riverside, County of

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ATTACHMENTS

ATTACHMENT 1

Sensitive Plant Species Observed or with the Potential to Occur

Attachment 1
Sensitive Plant Species Observed or with the Potential to Occur

Major Plant Group	Family	Scientific Name/Common Name	Federal Status	State Status	CNPS Rare Plant Rank	Western Riverside	Habitat Preference/Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Angiosperms: Monocots	Liliaceae / Lily Family	<i>Calochortus weedii</i> var. <i>intermedius</i> / intermediate mariposa lily			1B.2	MSHCP	Perennial herb (bulbiferous); chaparral, coastal scrub, valley and foothill grassland; calcareous; rocky; blooms May-July; elevation between 345 and 2,805 feet.	Unexpected	This species has no potential to occur within the developed roadway within the project site and has low potential to occur in flat-topped buckwheat scrub and riversidean sage scrub habitat adjacent to the project site, outside of the impact areas. One extant record exists for this species within one mile of the survey area.
Angiosperms: Monocots	Poaceae (Gramineae) / Grass Family	<i>Orcuttia californica</i> / California Orcutt grass	FE	SE	1B.1	NE, MSHCP, 6.1.3	Annual herb; vernal pools; blooms April-August; elevation 50-2,200 feet.	Unexpected	This species was not observed and is not expected to occur due to lack of suitable vernal pool habitat within or adjacent to the project site. One extant record exists for this species within one mile of the survey area.
Angiosperms: Eudicots	Polygonaceae / Buckwheat Family	<i>Chorizanthe parryi</i> var. <i>parryi</i> / Parry's spineflower, Parry's spine flower**			1B.1	MSHCP	Annual herb; chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; openings, rocky (sometimes), sandy (sometimes); blooms April-June; elevation between 900 and 4,000 feet.	Unexpected	This species has no potential to occur within the developed roadway within the project site. Though the Riversidean sage scrub adjacent to the project site contains suitable habitat for this species, it consists of a revegetation slope that was historically graded and therefore has a low potential to support this species. Three extant records exist for this species within one mile of the survey area.

**Attachment 1
Sensitive Plant Species Observed or with the Potential to Occur**

Major Plant Group	Family	Scientific Name/Common Name	Federal Status	State Status	CNPS Rare Plant Rank	Western Riverside	Habitat Preference/Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Angiosperms: Eudicots	Polygonaceae / Buckwheat Family	<i>Chorizanthe polygonoides</i> var. <i>longispina</i> / long-spined spineflower, long-spined spine flower**			1B.2	MSHCP	Annual herb; clay soils; openings in chaparral, coastal sage scrub, near vernal pools and montane meadows, April–July; elevation 100–5,000 feet.	Unexpected	This species has no potential to occur within the developed roadway within the project site. Though the Riversidean sage scrub adjacent to the project site contains suitable habitat for this species, it consists of a revegetation slope that was historically graded and therefore has a low potential to support this species. Five extant records exist for this species within one mile of the survey area.

NOTE: Scientific and common names were primarily derived from Jepson eFlora (Jepson Flora Project 2020). Common names denoted with ** are from Western Riverside County Regional Conservation Authority 2003. Federal and state listing status is based on California Department of Fish and Wildlife, Natural Diversity Database (CDFW) 2022a.

STATUS CODES

Federal Status

FE = Listed as endangered by the federal government

State Status

SE = Listed as endangered by the state of California

California Native Plant Society (CNPS): California Rare Plant Ranks (CRPR)

1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.

0.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).

0.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).

Western Riverside

MSHCP = Western Riverside County Multiple Species Habitat Conservation Plan covered species.

6.1.3 = Species subject to survey requirements and avoidance measures in Section 6.1.3, Protection of Narrow Endemic Plant Species.

NE = 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 Section 6.1.3 of the MSHCP.

ATTACHMENT 2

Sensitive Wildlife Species Occurring or with the Potential to Occur

Attachment 2

Sensitive Wildlife Species Occurring or with the Potential to Occur

Major Wildlife Group	Family	Scientific Name / Common Name	Federal Status	State Status	Western Riverside	Habitat Preference / Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Invertebrates	Nymphalidae / Brush-footed Butterflies	<i>Euphydryas editha quino</i> / Quino checkerspot	FE		MSHCP	Open, dry areas in foothills, mesas, lake margins. Larval host plant <i>Plantago erecta</i> . Adult emergence mid-January through April.	Unexpected	This species was not observed and has no potential to occur within the developed roadway. Furthermore, this species is not anticipated to occur adjacent to project site due to lack of suitable open, native habitats. The flat-topped buckwheat scrub occurs in a disturbed roadside that appears to have been repeatedly cleared for fuel management, and the Riversidean sage scrub consists of a small revegetation slope that is not anticipated to support larval host plants and bounded by urban/developed land and lack connectivity to open space areas with suitable habitats. Four extant records exist for this species within one mile of the survey area.
Amphibians	Pelobatidae / Spadefoot Toads	<i>Spea hammondi</i> / western spadefoot		SSC	MSHCP	Vernal pools, floodplains, and alkali flats within areas of open vegetation.	Unexpected	This species was not observed and is not expected to occur due to lack of suitable vernal pool, floodplain, and alkali flats habitat. One extant record exists for this species within one mile of the survey area.

Attachment 2

Sensitive Wildlife Species Occurring or with the Potential to Occur

Major Wildlife Group	Family	Scientific Name / Common Name	Federal Status	State Status	Western Riverside	Habitat Preference / Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Reptiles	Teiidae / Whiptail Lizards	<i>Aspidoscelis hyperythra beldingi</i> [= <i>Cnemidophorus hyperythrus</i>] / Belding's orange-throated whiptail		WL	MSHCP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	Unexpected	This species has no potential to occur within the project site and has low potential to occur in flat-topped buckwheat scrub and Riversidean sage scrub habitat adjacent to the project site, outside of the impact areas. The scrub habitat is limited to small, isolated patches bounded by urban/developed land and lacks connectivity to open space areas with suitable habitats. One extant record exists for this species within one mile of the survey area.
Birds	Strigidae / Typical Owls	<i>Athene cunicularia</i> / burrowing owl		SSC	MSHCP, 6.3.2	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.	Unexpected	No western burrowing owl individuals, potential burrows, or any sign of western burrowing owl activity were detected during the survey, and none are expected to nest within or immediately adjacent to the project site due to the extensive urban development associated with the roadways and private residences and lack of suitable burrows or burrow surrogates.

Attachment 2

Sensitive Wildlife Species Occurring or with the Potential to Occur

Major Wildlife Group	Family	Scientific Name / Common Name	Federal Status	State Status	Western Riverside	Habitat Preference / Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Birds	Vireonidae / Vireos	<i>Vireo bellii pusillus</i> / least Bell's vireo	FE	SCE	MSHCP, 6.1.2	Willow riparian woodlands. Summer resident.	Unexpected	This species has no potential to occur within the project site and has low potential to occur in southern riparian woodland habitat adjacent to the project site, outside of the impact areas. The southern riparian woodland is limited to small, isolated patches that are completely bounded by urban/developed land and lacks connectivity to suitable riparian habitat. Two extant records exist for this species approximately one mile east of the survey area, though are separated from the project vicinity by Interstate 215 and high-density residential development.
Mammals	Heteromyidae / Pocket Mice & Kangaroo Rats	<i>Chaetodipus fallax fallax</i> / northwestern San Diego pocket mouse		SSC	MSHCP	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.	Unexpected	This species has no potential to occur within the project site and has low potential to occur in flat-topped buckwheat scrub and Riversidean sage scrub habitat adjacent to the project site, outside of the impact areas. The scrub habitat is limited to small, isolated patches bounded by urban/developed land and lacks connectivity to open space areas with suitable habitats. One extant record exists for this species within one mile of the survey area.

Attachment 2
Sensitive Wildlife Species Occurring or with the Potential to Occur

Major Wildlife Group	Family	Scientific Name / Common Name	Federal Status	State Status	Western Riverside	Habitat Preference / Requirements	Potential to Occur On-Site	Basis for Determination of Occurrence Potential
Mammals	Heteromyidae / Pocket Mice & Kangaroo Rats	<i>Dipodomys stephensi</i> / Stephens' kangaroo rat	FT	SCT	MSHCP, SKRHCP	Grassland, open areas.	Unexpected	This species was not observed and is not expected to occur due to lack of suitable open grassland habitat within or adjacent to the project site. Two extant records exist for this species within one mile of the survey area.

I= Introduced species

NOTE: Zoological nomenclature for invertebrates is in accordance with the NatureServe 2021 and Evans 2008; for fish with NatureServe 2021; for reptiles and amphibians with Crother et. al (2017); for birds with Chesser et al. 2021; for mammals with Bradley et al. (2014), American Society of Mammalogists 2021. Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for species follows Nature Festivals of San Diego County 2002, Evans 2008, Jennings and Hayes 1994, Unitt 2004, Tremor et. al. 2017, and Western Bat Working Group 2017. Federal and state listing status is based on California Department of Fish and Wildlife, Natural Diversity Database (CDFW) 2022.

STATUS CODES

Federal Status

FE = Listed as endangered by the federal government

FT = Listed as threatened by the federal government

State Status

SCE = State candidate for listing as Endangered

SCT = State candidate for listing as Threatened

SSC = California Department of Fish and Wildlife species of special concern

WL = California Department of Fish and Wildlife watch list species

Western Riverside

MSHCP = Western Riverside County Multiple Species Habitat Conservation Plan covered species

6.1.2 = Species subject to survey requirements and avoidance and minimization measures in Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools of the MSHCP

6.3.2 = Species subject to survey requirements and avoidance measures in Section 6.3.2, Additional Survey Needs and Procedures of the MSHCP