

# **Appendix 2D**

## **DBESP**

**Sunset Crossings Residential Project**

**Initial Study**

# **SUNSET CROSSING**

## **TENTATIVE TRACT MAP 38442**

CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, CALIFORNIA

### **DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION REPORT**

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### ACRONYMS AND ABBREVIATIONS

AF	Aquatic Feature
APN	assessor's parcel number
BMP	best management practice
BUOW	burrowing owl
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
CIRP	Inventory of Rare and Endangered Plants of California
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
DBESP	Determination of Biologically Equivalent or Superior Preservation
DCV	Design Capture Volume
GIS	Geographic Information System
I-215	Interstate 215
IPaC	Information for Planning and Consultation Project Planning Tool
MBTA	Migratory Bird Treaty Act
Michael Baker	Michael Baker International
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
project	Sunset Crossing Tentative Tract Map 38443
RCA	Western Riverside County Regional Conservation Authority
SR-60	State Route 60
SR-79	State Route 79
SSC	Species of Special Concern
TTM	Tentative Tract Map
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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### 1 EXECUTIVE SUMMARY

This report contains the findings of Michael Baker International's (Michael Baker) Determination of Biologically Equivalent or Superior Preservation (DBESP) for the proposed Sunset Crossing Tentative Tract Map (TTM) 38442 residential development project (project or project site) located in the City of Moreno Valley, Riverside County, California. The proposed project would develop 108 single-family detached residential units on an approximately 19.01-acre site. The project would impact resources classified as riparian/riverine under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). This DBESP describes the potential impacts and proposed mitigation measures to ensure the post-project functions and values are biological equivalent or superior, and in compliance with the MSHCP.

Michael Baker biologists conducted a field survey/habitat assessment on April 12, 2022. The field survey was conducted to characterize existing site conditions and assess the potential for special-status biological resources to occur within the project site and a 50-foot buffer (survey area) that could pose a constraint to implementation of the proposed project. Special attention was given to the presence of areas defined as riparian/riverine by the MSHCP and suitability of habitat for riparian-associated or MSHCP Planning species. The information and analysis provided in this document were extracted from the final Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis for the Sunset Crossing TTM 38442 Project (Appendix A; Michael Baker 2022).

Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is primarily comprised of disturbed land that is dominated by ruderal/weedy, and ornamental plant species.

A total of 0.22 acre of as riverine resources pursuant to Section 6.1.2 of the MSHCP occur within the project site. The project site lacks riparian habitat. Project implementation would result in 0.17 acre of permanent impacts and 0.04 acre of temporary impacts to riverine resources. Riverine resources within the project site do not provide suitable habitat for listed riparian-associated species as identified in Section 6.1.2 of the MSHCP, or for riparian-associated species that would benefit from preservation of the onsite riparian habitat. No vernal pools are present on the project site.

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Riverine resources on the project site do not provide suitable habitat for western yellow-billed cuckoo, southwestern willow flycatcher, least Bell’s vireo, or fairy shrimp. The only special-status species observed was Cooper’s hawk (*Accipiter cooperii*; Watchlist Species); however, no suitable nesting habitat is present and this species would only forage in the survey area. No special-status plant species were observed within the survey area during the field survey and the project does not occur within an MSHCP species survey area for plants, amphibians, or mammals. Based on the results of the field survey and a review of specific habitat preferences, distributions, and elevation ranges, Michael Baker determined that the project site does not provide suitable habitat for special-status species in Section 6.1.2 of the MSHCP or other MSHCP Planning species.

Standard best management practices (BMPs) identified in the MSHCP (Volume I, Appendix C) and in Appendix C of this report will be implemented and several avoidance and minimization measures will be implemented to address potential impacts to special-status biological resources. Additionally, compensatory mitigation measure will be implemented to ensure full replacement of biologically equivalent or superior riparian/riverine resources. The avoidance, minimization, and compensatory mitigation measures are summarized in Table 1.

Table 1 Summary of Avoidance, Minimization, and Compensatory Mitigation Measures

Resource	Avoidance/Minimization	Compensatory Mitigation
Riparian/Riverine	Not applicable	Purchase of credits for 0.63 acre (3:1) from Riverpark Mitigation Bank or the Riverside-Corona Resource Conservation District in lieu fee program. Refer to Section 3.3.1 for additional details.
Burrowing Owl	Preconstruction Burrowing Owl Survey- refer to Section 5.2.3.1 for details.	Not applicable
MSHCP Standard BMPs (Appendix C)	Appendix C of the MSHCP lists the Standard BMPs that would be required for the project.	Not applicable

Implementation of the avoidance and minimization measures and compensatory mitigation would ensure the project would be biologically equivalent or superior to existing conditions and the functions and values of the replacement would be biologically equivalent or superior.

## 2 INTRODUCTION

This report contains the findings of Michael Baker International’s (Michael Baker) Determination of Biologically Equivalent or Superior Preservation (DBESP) for the proposed Sunset Crossing Tentative Tract Map (TTM) 38442 (project or project site) located in the City of Moreno Valley, Riverside County, California. The information and analysis provided in this document were extracted from the final Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (Appendix A; Michael Baker 2022) report. This DBESP includes an evaluation of impacts to special-status biological resources that are specifically identified in the MSHCP as protected resources, including riparian/riverine habitat, riparian-dependent species, vernal pools, fairy shrimp habitat, narrow endemic plant species, criteria area plant species, and burrowing owls. Additionally, this term includes those plant and wildlife species that are Federally or State listed as threatened or endangered, proposed, or candidates; plant species that have been designated by the California Native Plant Society (CNPS) with a California Rare Plant Rank of 1 or 2; species that are designated as Fully Protected, Species of Special Concern, or Special Animals by the California Department of Fish and Wildlife (CDFW); and natural vegetation communities that are considered sensitive by the California Department of Fish and Wildlife and listed for analysis in the California Natural Diversity Database (CNDDDB).

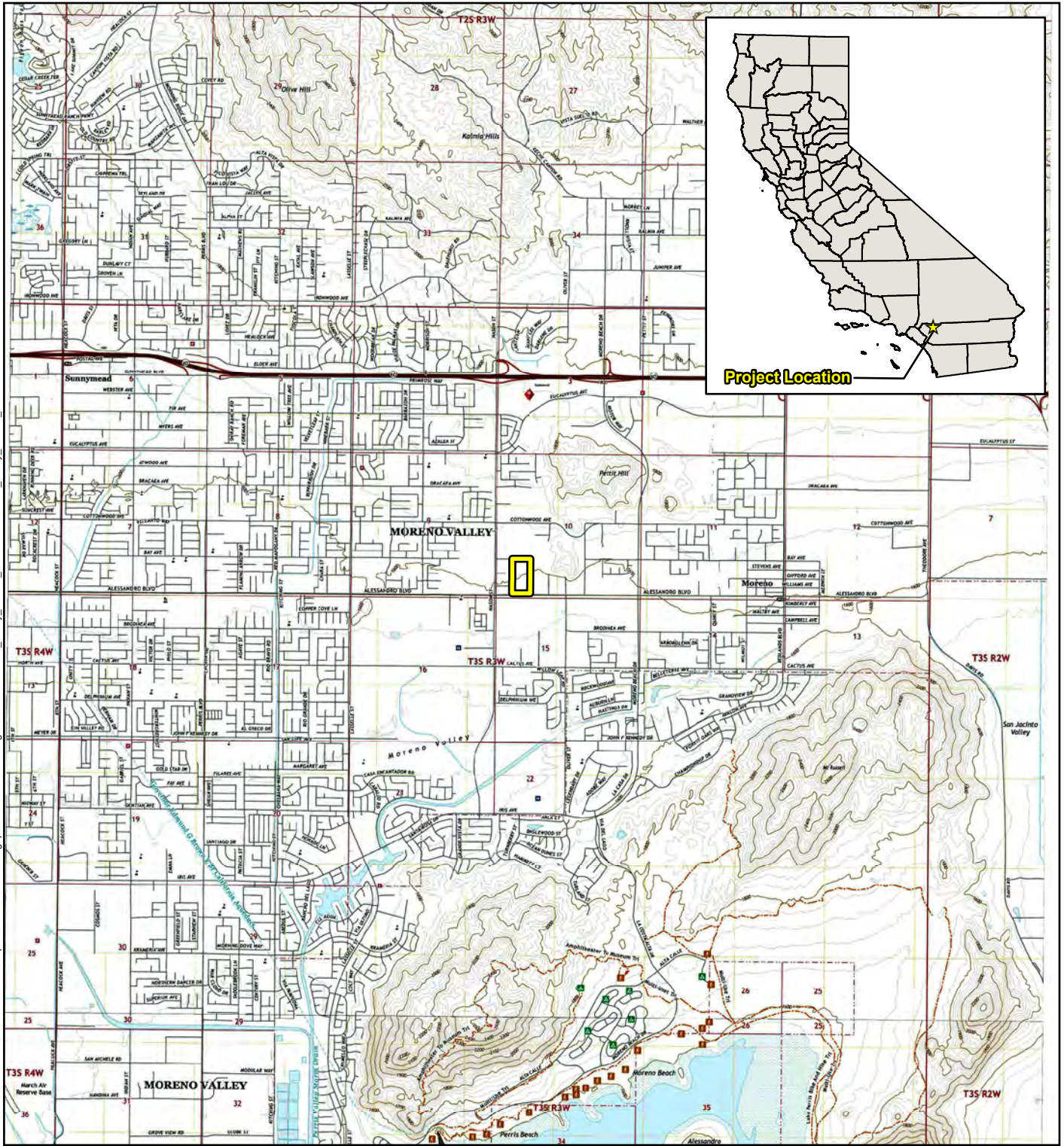
Based on the preliminary grading and utility plan prepared by Proactive Engineering Consultants in May 2022 (Proactive 2022), the project would impact resources classified as riparian/riverine under the MSHCP. This DBESP describes the project details, environmental setting, potential impacts, and proposed avoidance, minimization, and compensatory mitigation measures required for the project. The functions and values of the riparian/riverine resources (as well as other protected biological resources) were evaluated under pre- and post-project development scenarios, and relative to mitigation implementation. The analysis in the DBESP report demonstrates that the proposed mitigation is biologically equivalent or superior to the existing conditions on the project site if left undisturbed.

### 2.1 Project Area

The project site is located within the City of Moreno Valley, generally to the north of Perris Reservoir, east of Interstate 215 (I-215), south of State Route 60 (SR-60), and west of SR-79 (Figure 1, *Regional and Project Vicinity*). The project site is depicted in Section 10, Township 3



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**Legend**

 Project Site (19.10 acres)

Figure 1

South, Range 3 West, on the United States Geological Survey's (USGS) *Sunnymead, California* 7.5-minute quadrangle. Specifically, the project site is located north of Alessandro Boulevard, east of Nason Street, south of Cottonwood Avenue, and west of Oliver Street on assessor's parcel numbers (APN) 488-210-020 and 488-210-006 (Figure 2, *Project Site*).

### **2.2 Project Description**

The proposed project would develop 108 single-family detached residential one- and two-story units on an approximately 19.01-acre site. Site design plans are included in Appendix B. The development would include a 1.38-acre park and a 0.52-acre water quality basin located in the southeastern portion of the site. The development would be supported by internal private streets, sewer and water access, and the installation of right-of-way improvements including curb, gutter, sidewalks, and streetlights.

The project would be constructed to conform with Moreno Valley Municipal Code (City of Moreno Valley 2021) and the City's adopted design standards and guidelines, which include design standards related to building size, height, setback, and materials, as well as landscaping, signage, and other considerations.

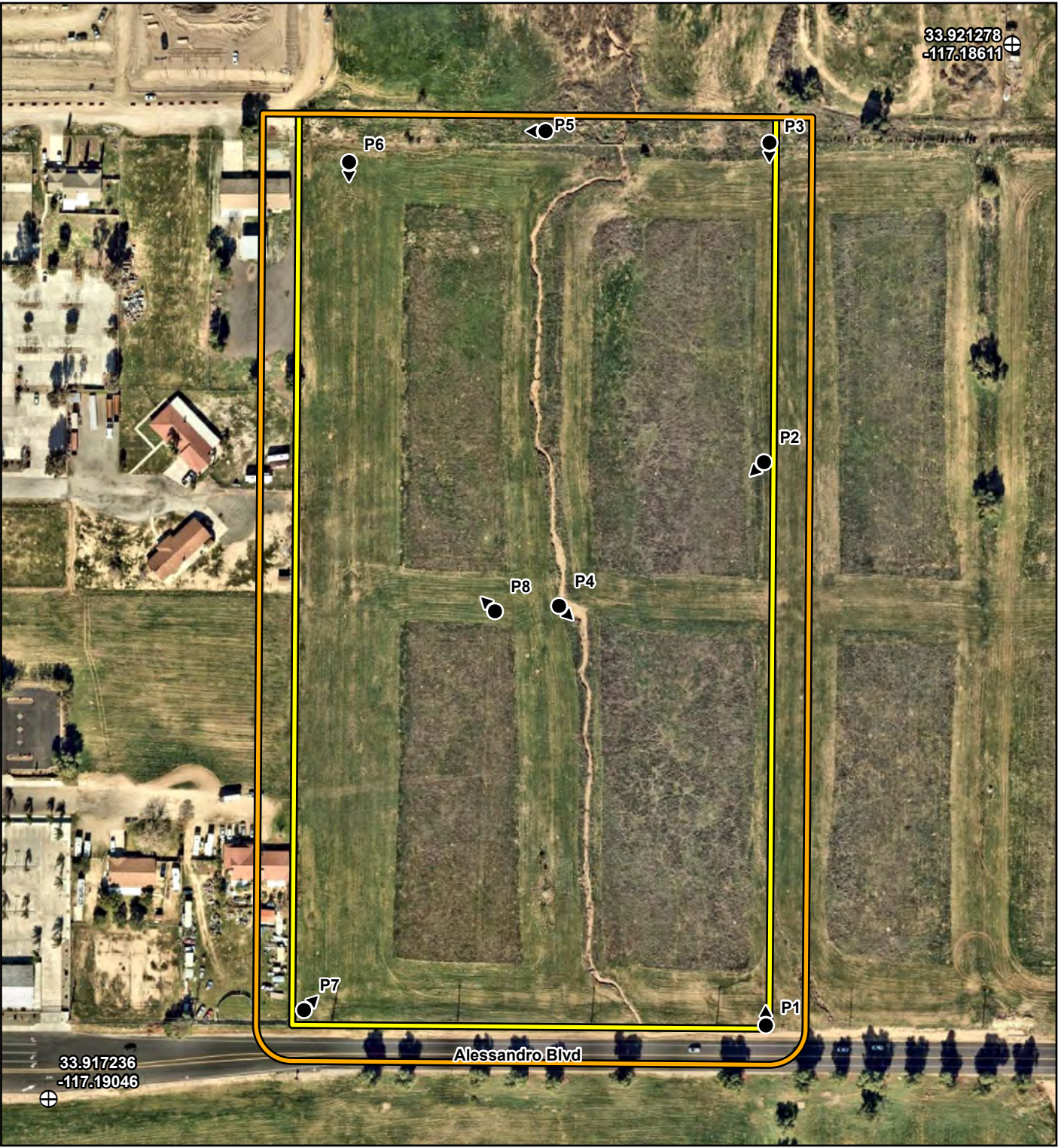
### **Access and Circulation**

Access to the project site would be provided by a full access intersection located along Alessandro Boulevard. All project access and circulation improvements would be designed and constructed consistent with City design and engineering standards.

### **Drainage**

In the developed condition, a proposed storm drain system would convey runoff from the proposed residential development to a detention/extended detention basin located in the southern portion of the project site (Appendix B). The basin would control outlet flows and provide runoff treatment and would have a bottom section that will be utilized as a BMP to treat the Design Capture Volume (DCV). Stormwater runoff would pond over a sand filter section to allow runoff to receive treatment. An outlet structure would be provided within the basin with orifice openings above the water quality water surface elevation to outlet 100-year storms to the proposed Line H in Street A. The outlet structure has been designed to decrease developed flows before discharging runoff to Line H.

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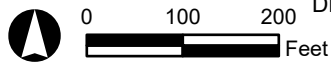
33.921273  
-117.18611

33.917236  
-117.19046

Alessandro Blvd

**Legend**

-  Project Site (19.10 acres)
-  Survey Area (22.84 acres)
-  Reference Point
-  Photograph Point and Direction



Source: Nearmap (01/2022)

SUNSET CROSSING TM 38442  
DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

**Project Site**

Figure 2

### **Landscaping**

Ornamental water-efficient landscaping, including a variety of trees, shrubs, vines and ground cover and would be installed throughout the project site. Planting materials would be selected in accordance with the Moreno Valley Municipal Code and the City's adopted design standards and guidelines.

### **Project Construction and Phasing**

Construction activities for the project would occur over 38 months and would begin in August 2023 with the opening for project occupancy in September 2026. Construction activities would occur in the following stages: site preparation, grading, building construction, architectural coating, and paving. Construction activities would be limited to the hours of 7:00 a.m. to 8:00 p.m. Monday through Friday, excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturday, unless written approval is obtained from the City building official or City engineer.

No offsite improvements or staging are anticipated for the project.

### **Why an Avoidance Alternative is Not Feasible**

The purpose of the project is to help meet affordable housing needs in the region by providing single-family residential units in the City of Moreno Valley. The project would be constructed to conform with the City's Municipal Code and adopted design guidelines that include design standards related to building size, height, setback, and materials, as well as landscaping, signage, and other considerations. To achieve the goal and objectives of the project, the entire approximately 19-acre parcel would require development, which would include dwelling units, paved streets, landscaping, and a water quality basin. Full avoidance of riparian/riverine resources on the project site would remove a significant portion of the proposed units making the project economically infeasible. Therefore, full avoidance of riparian/riverine resources would not be feasible. Unavoidable impacts to riparian/riverine resources on the project site will be mitigated to ensure there is no net loss of riparian/riverine resources and functionally equivalent resources affected by the project are preserved. Thus, an avoidance alternative is not feasible.

### 2.3 Existing Conditions

This section provides the environmental setting and site conditions observed during the field survey.

#### 2.3.1 Physical Environment

The survey area is located within a moderately developed portion of the City of Moreno Valley, at an elevation ranging from approximately 1,584 to 1,611 feet above mean sea level with generally flat topography throughout. Based on a review of Google Earth aerial imagery from 1985 to 2021, the project site has been routinely cleared of vegetation during weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. According to the *Custom Soil Resource Report for Western Riverside Area, California* (USDA 2022), the survey area is underlain by the following soil units: Greenfield sandy loam, 0 to 2 percent slopes (GyA), Hanford coarse sandy loam, 2 to 8 percent slopes (HcC), and Ramona sandy loam, 0 to 5 percent slopes, severely eroded (RaB3). Refer to Figure 3, *USDA Soils*, for a depiction of soil units that have been mapped within the survey area. In addition, representative site photographs of the survey area were taken during the April 2022 field survey and are available in Appendix A (MSHCP Consistency Analysis Report, Appendix B).

#### 2.3.2 Surrounding Land Uses

Land uses in the immediate vicinity of the survey area include vacant, residential uses, and commercial land uses. Vacant, undeveloped land is located to the north, south, and east of the survey area, while residential uses are located along the west, northwest, and northeast boundaries of the survey area. Additionally, commercial uses were currently being built along the northwest corner of the project boundary at the time of the field survey.

### 2.4 Vegetation Communities and Other Land Uses

Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. The survey area is primarily comprised of disturbed habitat that is dominated by ruderal/weedy and ornamental plant species. As such, native vegetation communities do not occur. This is consistent with the 2012 mapping of Disturbed/Developed land covers described in the RCA's online MSHCP Information Application (RCA 2018). In addition, developed areas were observed along the

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**Legend**

Project Site (19.10 acres)	GyA Greenfield sandy loam, 0 to 2 percent slopes	RaB3 Ramona sandy loam, 0 to 5 percent slopes, severely eroded
Survey Area (22.84 acres)	HcC Hanford coarse sandy loam, 2 to 8 percent slopes	
Reference Point		

northern boundary and along the eastern boundary of the survey area. These two land cover types are depicted on Figure 4, *Vegetation Communities and Other Land Uses*, and described in further detail below. A complete list of plant and animal species observed within the survey area during the field survey is in Appendix A (MSHCP Consistency Analysis, Appendix C).

### **2.4.1 Disturbed Habitat**

Disturbed habitat comprises approximately 19.10 acres of the project site and 21.17 acres of the entire survey area. Disturbed areas within the survey area do not comprise a natural plant community and instead consist of unpaved bare ground or areas that have been previously disked or tilled as part of routine weed abatement activities. Surface soils within these areas have been heavily disturbed/compacted as a result of anthropogenic disturbances and are either devoid of vegetation or support non-native, ruderal plant species or early successional plant species. Plant species observed in the disturbed areas include common fiddleneck (*Amsinckia intermedia*), wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), short-podded mustard (*Hirschfeldia incana*), and telegraph weed (*Heterotheca grandiflora*).

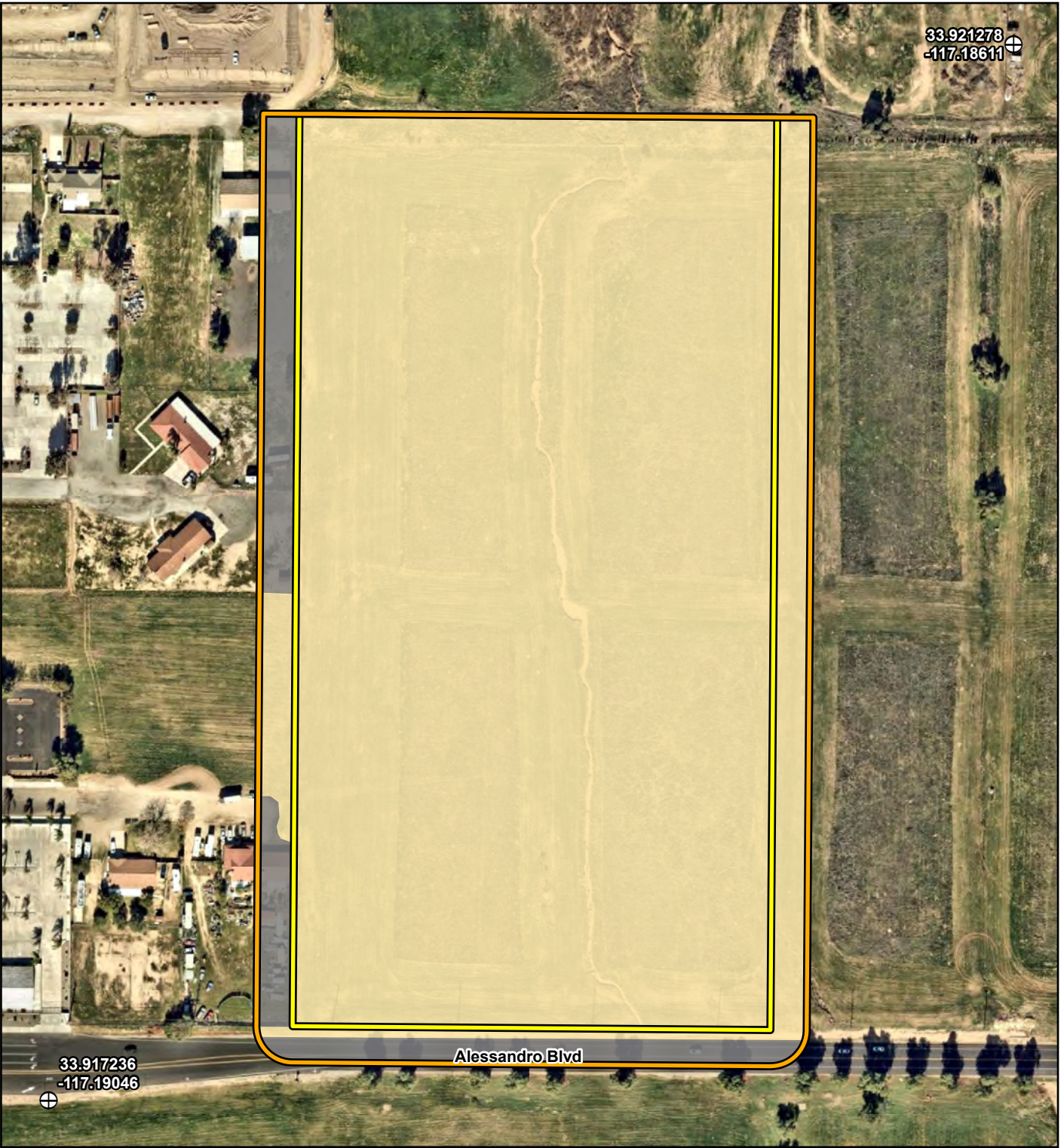
### **2.4.2 Developed**

Developed areas are not present in the project site, but make up approximately 1.67 acres of the survey area. They consist of areas that have been constructed upon or have been physically altered to a degree that native vegetation is no longer supported. Developed areas within the survey area include Alessandro Boulevard to the south.






## **2.5 Wildlife**

The survey area provides marginal foraging and nesting habitat for a variety of resident and migrant bird species that are adapted to a high degree of disturbance such as traffic, noise, and light pollution associated with the surrounding development. No special-status species were detected during project surveys. Twenty-six (26) bird species were detected during the field survey, some of which included house finch (*Haemorhous mexicanus*), California towhee (*Melospiza crissalis*), savannah sparrow (*Passerculus sandwichensis*), Say's phoebe (*Sayornis saya*), and western meadowlark (*Sturnella neglecta*). Additionally, five (5) mammal species, coyote (*Canis latrans*), domestic dog (*Canis lupus familiaris*), domestic cat (*Felis catus*), California ground squirrel (*Otospermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*) and one

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**Legend**

	Project Site (19.10 acres)		Disturbed (21.17 acres)
	Survey Area (22.84 acres)		Developed (1.67 acres)
	Reference Point		



(1) reptile species, western side-blotched lizard (*Uta stansburiana elegans*), were observed within the survey area during the field survey.

The project site does not provide suitable habitat or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish or provide suitable breeding habitat for amphibians.

### **3 RIPARIAN/RIVERINE MITIGATION (SECTION 6.1.2)**

This section describes the riparian/riverine resources, vernal pools, and protection of species associated with these resources as defined in Section 6.1.2 of the MSHCP. The project site was assessed for the following resources as defined in the MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools:

*Riparian/Riverine Areas* are lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or depend on soil moisture from nearby freshwater sources, or areas with freshwater flow during all portions of the year. These areas should contain biological functions and values that contribute to downstream habitat values for covered species inside the WRC MSHCP Conservation Area.

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

*Fairy Shrimp Habitat* is habitat that is suitable for Riverside fairy shrimp (*Streptocephalus woottoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), or Santa Rosa fairy shrimp (*Linderiella santarosae*). It also includes ephemeral pools created by tire ruts and stock ponds and/or features determined appropriate by a qualified biologist.

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

demonstrating characteristics as described above which are artificially created are not included in these definitions.

MSHCP Section 6.1.2 requires surveys, along with avoidance and minimization measures incorporated in accordance with the species-specific objectives, when riparian/riverine areas provide suitable habitat for riparian birds and/or fairy shrimp and a project would not avoid the areas. Based on the field survey, suitable riparian habitat not observed within the project site. Therefore, a discussion related to riparian birds (i.e., western yellow-billed cuckoo [*Coccyzus americanus occidentalis*], southwestern willow flycatcher [*Empidonax traillii extimus*], least Bell's vireo [*Vireo bellii pusillus*]) for the proposed project is not warranted.

### **3.1 Methods**

#### **3.1.1 Riparian/Riverine Resources**

Michael Baker biologists evaluated the project site and an additional 50-foot buffer for riparian/riverine resources on April 12, 2022. While in the field, delineators mapped the extent of riparian and riverine features on an aerial photograph at a scale of 1:1,440 (1 inch = 120 feet) using topographic contours and visible landmarks as guidelines. Data points were recorded in the field using a Garmin GPS Map 64 Global Positioning System (GPS) to identify specific widths and length of riparian and riverine features, photograph points, and other pertinent site characteristics. These data were then uploaded as shapefiles and confirmed/refined to ensure accuracy and consistency with hardcopy notes and aerial mapping completed in the field. Michael Baker then used ESRI ArcGIS Pro software to calculate the total acreage of riparia/riverine areas.

#### **3.1.2 Vernal Pools**

One of the factors for determining the presence of vernal pools would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. Prior to conducting the habitat assessment, a review of historical aerial photographs using Google Earth was conducted. In addition, a review of the USDA *Custom Soil Resource Report for Western Riverside Area, California*, was also conducted to determine the soil associations within the project site. The MSHCP lists two general classes of soils known to be associated with special-status plant species and presence of vernal pool habitat: clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with special-status species/vernal pool habitat within the MSHCP Plan Area include Bosanko, Auld, Altamont, and Porterville series

soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and the Salt Creek flood control channel. Other factors reviewed include drainage characteristics, land uses, vegetation, and hydrologic records. Surface layers of silty soils, presence of algal crusts, and surface cracking are examples of conditions surveyed for during the habitat evaluation. Vegetation within the survey area was also documented to determine whether vernal pool-associated plants are present.

### **3.1.3 Fairy Shrimp**

The project site was evaluated for potential suitable habitat for fairy shrimp following *Revised USFWS Survey Guidelines for Listed Large Branchiopods* (USFWS 2017) for ponding during the habitat assessment. In addition, a database search of the USGS Sunnymead, California 7.5-minute quadrangle was examined for fairy shrimp occurrence records. Many of the factors reviewed for vernal pool habitat evaluation were used to determine if sufficient ponding for fairy shrimp is occurring on the project site.

## **3.2 Results/Impacts**

### **3.2.1 Riparian/Riverine Resources**

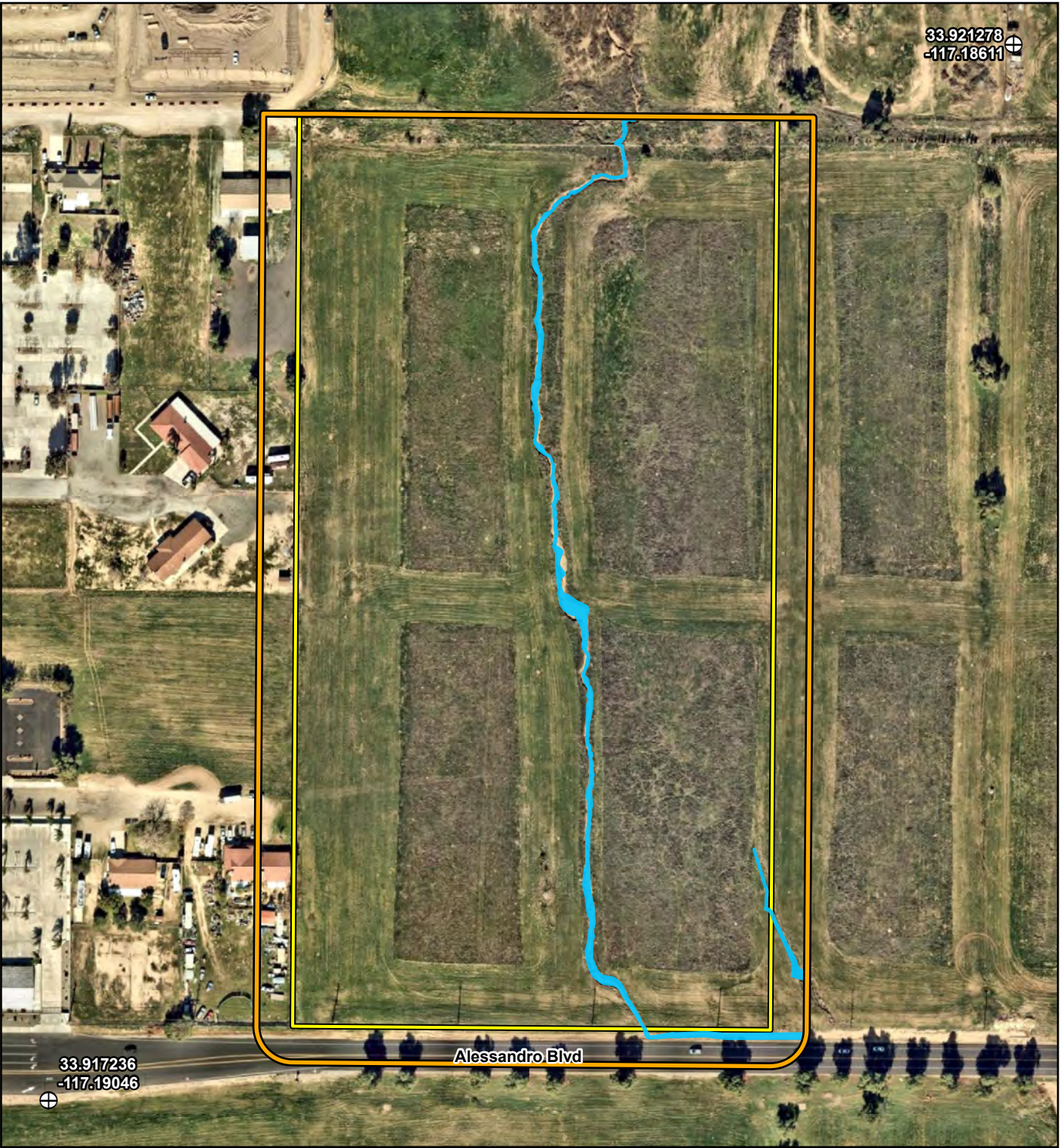
Two (2) ephemeral drainage features Aquatic Feature 1 (AF-1) and Aquatic Feature 2 (AF-2), were identified within the project site and survey area during the April 12, 2022 site visit. These drainage features qualify as riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP and are shown in Figure 5, *Riparian/Riverine Resources*. A description of each aquatic features is provided below.

#### **Aquatic Feature 1**

AF-1 collects/transportes municipal stormwater from the adjacent residential development and surrounding foothills north of the project site, entering the project site and survey area under a large concrete retaining wall that is located along the southern project site boundary. Flows appear to be conveyed beneath the retaining wall, likely via pipe or culvert; however, a significant amount of sediment deposition has occurred in the immediate vicinity of the retaining wall resulting in reduced visibility.

The onsite portions of AF-1 consist of an earthen channel which generally flows south/southwest through the project site for approximately 1,434 linear feet before draining into a roadside ditch

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**Legend**

- Project Site (19.10 acres)
- Survey Area (22.84 acres)
- Riverine (0.22 acre)
- Reference Point

Figure 5

which runs easterly along the northern side of Alessandro Boulevard (beyond the project site and within the survey area) for approximately 220 linear feet before exiting the eastern project site boundary and survey area, and then emptying into a small offsite concrete culvert approximately 300 feet east of the survey area. Flows from AF-1 are then conveyed onto the property south of Alessandro Boulevard via a concrete culvert where AF-1 then transitions to discontinuous unconfined/overland sheet flow which ultimately fans out and infiltrates offsite. Within the project site and survey area, AF-1 exhibited clear evidence of hydrology via the following indicators: a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving. The offsite upstream portion of AF-1 appears to be the feature that has been mapped by both National Wetlands Inventory and National Hydrography Dataset. No standing or flowing water was observed in association with the onsite portions of AF-1.

AF-1 exhibited vegetation comprised of upland disturbance-tolerant plant species consistent with the surrounding uplands; however, these species generally occurred in sparser patches within AF-1. Dominant species included cheeseweed (*Malva parviflora*), foxtail barley (*Hordeum murinum*), foxtail brome (*Bromus rubens*), red maids (*Calandrinia menziesii*), red stemmed filaree (*Erodium cicutarium*), riggut brome (*Bromus diandrus*), stinknet (*Oncosiphon piluliferum*), summer mustard (*Hirschfeldia incana*), tocalote (*Centaurea melitensis*), and wild radish (*Raphanus sativus*). Within the project site and survey area, AF-1 measures a total of approximately 1,664 linear feet.

### **Aquatic Feature 2**

AF-2 begins onsite as discontinuous overland sheet flow within the southeastern portion of the project site. AF-2 flows southeast and begins to incise just before exiting the southeastern project boundary and continuing into the survey area. AF-2 flows southeast for approximately 201 linear feet through the project site and survey area before exiting the survey area and ultimately draining into the roadside ditch portion of AF-1 located offsite. Within the project site and survey area, AF-2 exhibited clear evidence of hydrology via the following indicators: a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving. No standing or flowing water was observed in association with the onsite portions of AF-2.

AF-2 exhibited the same upland vegetation as AF-1 with a predominance of foxtail brome, riggut brome, and summer mustard and occasional patches of bare sandy soil. In addition, numerous

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fiddleneck (*Amsinckia menziesii*) and silver puffs (*Uropappus lindleyi*) were noted throughout the channel bottom.

**Impacts** – Total permanent impacts include 0.17 acre and total temporary impacts include 0.04 acre to riverine resources. No riparian habitat is present on the project site (Figure 5, *Riparian/Riverine Resources*). Table 2 summarizes the total amount of existing and impacted riparian/riverine resources within the survey area.

Table 2 Summary of Impacts to Riparian/Riverine Resources within the Survey Area

Riparian/Riverine Resource	Total within Survey Area	Impact Type (acre)	
		Permanent Impact	Temporary Impact
<b>RIVERINE</b>			
AF-1	0.21	0.17	0.03
AF-2	0.01	<0.001	0.01
Riverine (subtotal)	0.22	0.17	0.04
<b>RIPARIAN</b>			
AF-1	-	-	-
AF-2	-	-	-
Riparian (subtotal)	-	-	-
<b>TOTAL IMPACTS</b>	<b>0.22</b>	<b>0.17</b>	<b>0.04</b>

### 3.2.2 Vernal Pools

Based on the results of the vernal pool habitat assessment, no vernal pools occur within the project site. None of the soil classes (e.g., Bosanko, Auld, Altamont, and Porterville series and Traver-Domino Willows association) associated with vernal pool habitat occur within the project site. The mapped soils throughout the project site primarily consist of sandy loam textures and not the clay soil textures which are needed to form the impermeable restrictive duripan layer below the soils surface that occur in vernal and seasonal pools. In addition, no vernal pool-associated plants were identified during the survey. Therefore, no direct or indirect impacts are

expected to occur, and no further discussion related to the proposed project and vernal pools is warranted.

### **3.2.3 Fairy Shrimp**

Based on a literature review of the CNDDDB (CDFW 2022a), one species of fairy shrimp has been recorded in the USGS Sunnymead, California 7.5-minute quadrangle: Riverside fairy shrimp (*Streptocephalus woottoni*). Riverside fairy shrimp are restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, stock ponds, and other human modified depressions that are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May. In Riverside County, the species been found in pools formed over the following soils: Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils. According to the CNDDDB, there are two (2) occurrence records for Riverside fairy shrimp within the USGS Sunnymead, California 7.5-minute quadrangle. The closest CNDDDB occurrence was recorded in 1998, approximately 4-miles southwest of the project site in a complex of pools on March Air Force Base. *Streptocephalus* cysts were found during the dry-season survey in 1998; however, no mature Riverside fairy shrimp were detected during the 1997-1998 wet season. This occurrence record has been considered extirpated since 2009 (CDFW 2022a).

In addition, the Riverside fairy shrimp requires deeper, longer lasting pools and the site lacks the appropriate topographic relief for seasonal pools and heavy soils that retain surface water long enough for the species life cycle. Based on this information, it was determined that there is no suitable habitat for fairy shrimp within or adjacent to the project site and that fairy shrimp are not known to occur anywhere in close proximity to the site. Therefore, no direct or indirect impacts are expected to occur, and no further discussion related to fairy shrimp is warranted.

### **3.2.4 Riparian-Associated Species**

Riparian vegetation in the survey area was comprised of an isolated patch of mulefat associated with the ephemeral drainage AF-2. This isolated patch would not provide suitable nesting habitat for riparian-associated birds. There is no suitable habitat on the project site for aquatic species, such as amphibians or fish. No riparian-dependent species were documented during field studies. Appendix C of the MSHCP Habitat Assessment and Consistency Analysis (Appendix A of this report) includes a list of all species observed during the field studies.

**Non-Listed Riparian/Riverine Birds.** The only non-listed MSHCP riparian/riverine species observed during the field survey was Cooper's hawk (*Accipiter cooperii*). However, the project site does not provide suitable nesting habitat for this species. The project site does not provide suitable habitat for the following non-listed riparian/riverine-associated avian species and/or MSHCP avian planning species: American bittern (*Botaurus lentiginosus*), black-crowned night-heron (*Nycticorax nycticorax*), breeding black swift (*Cypseloides niger*), double-crested cormorant (*Phalacrocorax auritus*), downy woodpecker (*Picoides pubescens*), breeding Lincoln's sparrow (*Melospiza lincolni*), MacGillivray's warbler (*Geothlypis tolmiei*), Nashville warbler (*Leiostyris alpestris*), osprey (*Pandion haliaetus*), purple martin (*Progne subis*), tree swallow (*Tachycineta bicolor*), tricolored blackbird colonies (*Agelaius tricolor*), white-faced ibis (*Plegadis chihi*), white-tailed kite (*Elanus leucurus*), Wilson's warbler (*Cardellina pusilla*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). Onsite riparian/riverine areas do not provide suitable nesting habitat to support other riparian/riverine-dependent avian species listed in WRC MSHCP Section 6.1.2; thus, no impact would occur.

Riparian/riverine areas on the project site could potentially be used by foraging non-listed riparian birds, such as yellow warbler, which may migrate or disperse through the survey area. However, the riparian habitat on the project site is not contiguous to any other vegetated riparian areas making it a lower quality resource for riparian-dependent species. Therefore, preservation of riparian/riverine habitat on the site is not important for non-listed riparian/riverine bird species. **Additionally, because no equivalency analysis is required for non-listed riparian/riverine birds, these species are not addressed further in this document.**

**Amphibians.** Riparian/riverine habitat in the survey area is not suitable to support amphibians listed in Section 6.1.2 of the WRC MSHCP (arroyo toad [*Anaxyrus californicus*], southern mountain yellow-legged frog [*Rana muscosa*], California red-legged frog [*Rana draytonii*], coast range newt [*Taricha torosa*], and western spadefoot [*Spea hammondi*]) as being dependent on riparian/riverine resources or benefitting from these resources. **Amphibians are not addressed further in this document.**

**Reptiles.** The only reptile that is listed as benefitting from the preservation of riparian/riverine resources in MSHCP Section 6.1.2 is western pond turtle (*Emys marmorata*). The onsite riparian/riverine habitat in the survey area is not suitable for this species. **Reptiles are not addressed further in this document.**



**Fish.** There is no suitable habitat to support either Santa Ana sucker (*Catostomus santaanae*) or arroyo chub (*Gila orcuttii*), both of which are listed in MSHCP Section 6.1.2 species which are dependent on riparian/riverine resources or as a species that benefits from them, respectively. Focused surveys were not conducted, and these species are considered absent from the survey area. **Fish are not addressed further in this document.**

**Plants.** The survey area does not provide suitable habitat for any of the MSHCP Section 6.1.2 plant species which are dependent on riparian/riverine resources or as species that benefit from them, respectively. The MSHCP Section 6.1.2 plant species are Brand's phacelia (*Phacelia stellaris*), California Orcutt grass (*Orcuttia californica*), California black walnut, (*Juglans californica*), Coulter's matilija poppy (*Romneya coulteri*), Engelmann oak (*Quercus engelmannii*), Fish's milkwort (*Polygala cornuta* var. *fishiae*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), lemon lily (*Lilium parryi*), Mojave tarplant (*Deinandra mohavensis*), mud nama (*Nama stenocarpum*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), Orcutt's brodiaea (*Brodiaea orcuttii*), Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*), prostrate navarretia (*Navarretia prostrata*), San Diego button-celery (*Eryngium aristulatum* var. *parishii*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), San Miguel savory, Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), slender-horned spineflower (*Dodecahema leptoceras*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), spreading navarretia (*Navarretia fossalis*), thread-leaved brodiaea (*Brodiaea filifolia*), and vernal barley (*Hordeum intercedens*). In addition, there is no suitable habitat for any of the MSHCP planning species associated with riparian habitats: California muhly (*Muhlenbergia californica*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), little mousetail (*Myosurus minimus*), Parish's brittlescale, and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). **Section 6.1.2 riparian-riverine associated plants are not discussed further.**

### 3.3 Mitigation and Equivalency

#### *Riparian/Riverine Resources*

##### 3.3.1 *Direct Effects*

Two (2) drainage features were recorded within the survey area (AF-1 and AF-2). These drainage features qualify as riverine resources pursuant to Section 6.1.2 of the MSHCP. Permanent impacts total approximately 0.17 acre and temporary impacts total approximately on 0.04 acre of riverine areas associated with disturbed land covers.

The direct impacts of up to 0.21 acre would require replacement that is biologically equivalent or superior to that which is removed. Implementation of compensatory mitigation at no less than 3:1 for direct effects on riparian/riverine resources would provide equivalent preservation. Mitigation would consist of purchasing re-establishment or establishment credits within the Santa Jacinto Watershed through the Riverpark Mitigation Bank. Other offsite options for mitigation include the Riverside-Corona Regional Conservation District (RCRCD) In Lieu Fee (ILF) program, permittee-responsible mitigation, or other agency-approved mitigation provider.

The Riverpark Mitigation Bank would permanently preserve and manage aquatic resources that support a diversity of special-status plants and wildlife, and serves as compensatory mitigation area for WRC MSHCP riparian/riverine resources. Until the specific credits are identified and purchased, and depending on the specific types of credits available at that time, the ecological increases in functions and values through the Riverpark Mitigation Bank, RCRCD ILF, permittee-responsible mitigation, or other agency-approved mitigation provider can only be generalized. Once the project environmental document has been approved and the project permits for aquatic resources have been issued, the mitigation funding would be available, and the mitigation provider and specific credit type and location of the mitigation lands would be finalized. Mitigation purchase would occur prior to project construction impacts.

### **3.3.2**            *Indirect Effects*

Potential indirect effects on downstream riparian/riverine resources adjacent to the project footprint may be caused following construction activities. Indirect effects could lead to degradation of riparian habitat and water quality if water is present at the time of construction. The use of construction equipment at the edge of the project footprint could also damage riparian/riverine resources adjacent to the project footprint through increased dust, fire risk, and introduction of invasive plants, increased habitat degradation and edge effects on the species. However, these indirect impacts will be avoided and/or minimized with implementation of the BMPs identified in Appendix C.

## **4**            **NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)**

The project does not occur within a Narrow Endemic Plant species survey area.

### 5 ADDITIONAL SURVEY NEEDS (SECTION 6.3.2)

The proposed project is located within a mapped survey area for burrowing owl (*Athene cunicularia*; BUOW) (Michael Baker 2022). This species is further analyzed below. The project site does not occur within any other mapped survey areas (Criteria Area Plant Species, mammal, or amphibian). Therefore, these species are not discussed further.

#### 5.1 Burrowing Owl

The BUOW is currently designated as a CDFW Species of Special Concern (SSC) and is a fully covered species under the MSHCP. The BUOW is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. BUOWs use a wide variety of arid and semi-arid environments with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk, 1993; Dechant *et al.*, 1999). BUOWs are dependent upon the presence of burrowing mammals (e.g., California ground squirrels [*Otospermophilus beecheyi*], coyotes [*Canis latrans*], American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting. The presence or absence of mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. BUOWs may also burrow beneath rocks and debris or large, heavy objects such as concrete blocks or pads. They also require open vegetation allowing open line-of-sight of the surrounding habitat to forage as well as watch for predators.

##### 5.1.1 Methods

Michael Baker conducted focused BUOW surveys in April, May, and June 2022 following the Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area (RCA 2006). Surveys were conducted between April 12 and June 28, 2022 on the project site and in suitable habitat in the designated survey area within 500 feet.

##### 5.1.2 Results/Impacts

No BUOWs were detected by Michael Baker and the species was determined to be absent from the project site and its immediate vicinity (Michael Baker 2022 [Appendix E of the MSHCP Consistency Report]). Although BUOW were not observed during the focused surveys, the survey area contains suitable burrows that could become occupied by BUOWs prior to implementation

of the proposed project. Figure 6, *Burrowing Owl Survey Area*, shows the locations of suitable habitat that was surveyed within the survey area.

### **5.1.3 Mitigation and Equivalency**

#### **5.1.3.1 Direct Effects**

The 29.39 acres of suitable habitat that would be directly impacted by the proposed project would not contribute to the long-term conservation of BUOW. The project site does not occur within or adjacent to a conservation area within the City of Moreno Valley. In addition, there are rural residential properties around the project site, future residential development proposed to the south, and the existing lands are all classified as disturbed. Thus, the loss of these lands would not affect the long-term conservation of BUOW in the region.

Since no BUOW were found on the project site, effects on the regional BUOW population are not expected. However, because BUOW are highly mobile and could migrate to the project site at any time to burrow or forage, there is a potential for the BUOW to be present prior to construction of the project.

To ensure there are no direct effects on BUOW, a pre-construction clearance survey will be required to reconfirm the absence of BUOWs and maintain compliance with the MSHCP, MBTA, and CFGC. In accordance with the MSHCP survey protocol (RCA 2006), the pre-construction clearance survey would need to be conducted by a qualified biologist no more than 30 days prior to initiating any ground disturbing activities to avoid direct take of BUOWs. Once the survey is completed, the qualified biologist will prepare and submit a final report documenting the results of the clearance survey to the City of Moreno Valley for review and file. If no BUOWs or occupied burrows are detected, project activities may begin, and no additional avoidance or minimization measures would be required. However, if an occupied burrow is found within the project impact area during the pre-construction clearance survey, a BUOW avoidance and minimization plan will be prepared and submitted to the Wildlife Agencies (CDFW and USFWS) for approval prior to initiating project activities.

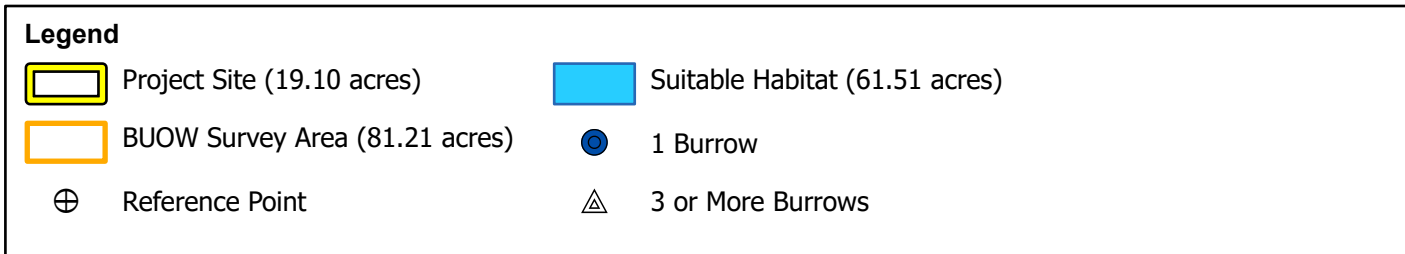
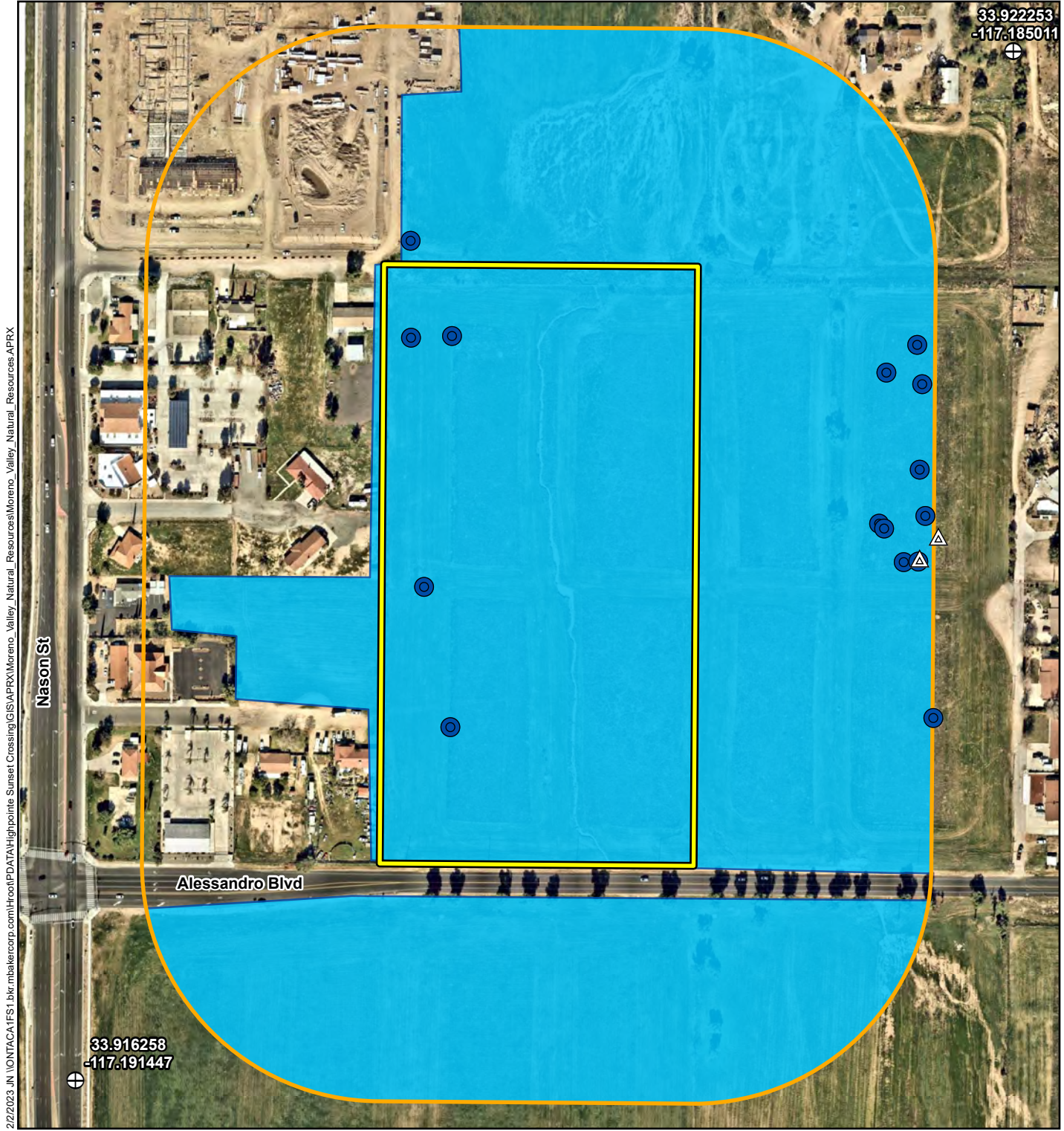


Figure 6

### 5.1.3.2 Indirect Effects

Potential indirect effects could occur if BUOW are occupying areas adjacent to the project site prior to project construction. However, the pre-construction clearance survey described in Section 5.2.3.1 would ensure indirect effects would not occur.

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**APPENDIX A**  
**HABITAT ASSESSMENT AND WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT**  
**CONSERVATION PLAN CONSISTENCY ANALYSIS**



# **SUNSET CROSSING**

## **TENTATIVE TRACT MAP 38442**

CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, CALIFORNIA

### **HABITAT ASSESSMENT AND WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS**

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November 2022

JN 184659

# SUNSET CROSSING

## TENTATIVE TRACT MAP 38442

CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, CALIFORNIA

### HABITAT ASSESSMENT AND WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



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Ryan Winkleman  
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November 2022  
JN 184659

# Executive Summary

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This report contains the findings of Michael Baker International’s (Michael Baker) habitat assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed Sunset Crossing Tentative Tract Map (TTM) 38442 (project or project site) located in the City of Moreno Valley, Riverside County, California. Michael Baker biologists conducted a field survey/habitat assessment on April 12, 2022. The field survey was conducted to characterize existing site conditions and assess the potential for special-status<sup>1</sup> biological resources to occur within the project site and a 50-foot buffer (survey area) that could pose a constraint to implementation of the proposed project.

According to the Western Riverside County Regional Conservation Authority’s (RCA) online MSHCP Information Application, the survey area is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or Public/Quasi-Public Lands identified by the MSHCP. However, the survey area is located within a designated survey area for burrowing owl (*Athene cunicularia* [BUOW]) according to the RCA’s online MSHCP Information Application.

The survey area is located within a partially developed portion of the City of Moreno Valley, east of Nason Street and north of Alessandro Boulevard. Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur, and the survey area is primarily comprised of disturbed land that is dominated by ruderal/weedy, and ornamental plant species.

There were no special-status plant species observed within the survey area during the field survey and all special-status plant species identified during the literature review and records search are not expected to occur within the survey area based on existing site conditions and a review of specific-specific habitat preferences, occurrence records, known distributions, and elevation ranges.

One (1) special-status wildlife species that was observed during the field survey included: Cooper’s hawk (*Accipiter cooperii*; a State Watch List [WL] species). Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the survey area has a low potential to support burrowing owl (*Athene cunicularia* [BUOW]; a State Species of Special Concern [SSC]), California horned lark (*Eremophila alpestris actia*; a State WL species), western mastiff bat (*Eumops perotis californicus*; a State SSC), and western yellow bat (*Lasiurus xanthinus*; a State SSC). All remaining special-status wildlife species identified during the literature review and records search are not expected to occur within the survey area.

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<sup>1</sup> As used in this report, “special-status” refers to species that are either federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List; State/locally rare vegetation communities; or species covered under the Western Riverside County Multiple Species Habitat Conservation Plan.

Due to the presence of suitable foraging habitat for BUOW, focused surveys were conducted to confirm the presence/absence of BUOW within the project site and a species-specific 500-foot buffer and analyze potential impacts that could occur as a result of the proposed project. Focused surveys were conducted by a qualified biologist during the 2022 breeding season (March 1 to August 31) in accordance with *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan* (RCA 2006). No BUOWs or sign were found during the focused surveys and the species is presumed absent.

Two (2) drainage features (Aquatic Feature 1 [AF-1] and Aquatic Feature 2 [AF-2]) occur within the survey area and fall under the regulatory authority of the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW). Based on a review of the conceptual site plan, approximately 0.22 acre of impacts to RWQCB jurisdiction (non-wetland waters of the State) are anticipated, comprised of 0.17 acre of permanent impacts within the project site and 0.05 acre of temporary impacts within the survey area, as well as a total of 0.22 acre of impacts to CDFW jurisdiction, consisting of 0.17 acre of permanent impacts and 0.05 acre of temporary impacts to vegetated streambed, and no impacts to associated riparian habitat. Therefore, it is anticipated that the project applicant would need to obtain the following regulatory permits prior to impacts occurring within jurisdictional areas: 1) Waste Discharge Requirement from the RWQCB, and 2) Section 1602 Streambed Alteration Agreement from CDFW.

AF-1 and AF-2 would qualify as riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP; a total of approximately 0.22 acre of riverine habitat occurs within the project site. There is no riparian habitat present. Riverine resources within the survey area do not provide suitable habitat for western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), or fairy shrimp, nor is vernal pool habitat present.

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**ACRONYMS AND ABBREVIATIONS**

AF	Aquatic Feature
AMM	Avoidance and Minimization Measure
APN	assessor’s parcel number
BMPs	best management practices
BUOW	burrowing owl
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
CIRP	Inventory of Rare and Endangered Plants of California
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	federal Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
FESA	federal Endangered Species Act
GIS	Geographic Information System
I	Interstate
IPaC	Information for Planning and Consultation Project Planning Tool
MBTA	Migratory Bird Treaty Act
Michael Baker	Michael Baker International
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
P/QP	Public/Quasi-Public Lands
project	Sunset Crossing Tentative Tract Map 38442
RCA	Western Riverside County Regional Conservation Authority
RWQCB	Regional Water Quality Control Board
SKR	Stephens’ Kangaroo Rat
SKR HCP	Stephens’ Kangaroo Rat Habitat Conservation Plan
SR	State Route
SSC	Species of Special Concern
TTM	Tentative Tract Map
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WL	Watch List
WotS	waters of the State
WoUS	waters of the U.S.



# Section 1 Introduction

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This report contains the findings of Michael Baker International’s (Michael Baker) habitat assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed Sunset Crossing Tentative Tract Map (TTM) 38442 (project or project site) located in the City of Moreno Valley, Riverside County, California. Michael Baker biologists conducted a field survey/habitat assessment on April 12, 2022. The field surveys were conducted to characterize existing site conditions and assess the potential for special-status<sup>2</sup> biological resources to occur within the project site and a 50-foot buffer (survey area) that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the habitat within the project site and its potential to support special-status biological resources that were identified by the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database RareFind 5 (CNDDDB; CDFW 2022a), the CNDDDB Biogeographic Information and Observation System (CDFW 2022b), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CIRP; CNPS 2022), the United State Fish and Wildlife Service (USFWS) Information for Planning and Consultation Project Planning Tool (IPaC; USFWS 2022a), the Western Riverside County Regional Conservation Authority’s (RCA) online MSHCP Information Application, and other databases as potentially occurring in the vicinity of the project site.

## 1.1 PROJECT LOCATION

The project site is located within the City of Moreno Valley, generally to the north of Perris Reservoir, east of Interstate 215 (I-215), south of State Route 60 (SR-60), and west of SR-79 (refer to Figure 1, *Regional and Project Vicinity*). The project site is depicted in Section 10, Township 3 South, Range 3 West, on the United States Geological Survey’s (USGS) *Sunnymead, California* 7.5-minute quadrangle. Specifically, the project site is located north of Alessandro Boulevard, south of Bay Avenue, west of Marion Road, and east of Nason Street on assessor’s parcel numbers (APN) 488-210-020 and 488-210-006 (refer to Figure 2, *Project Site*).

## 1.2 PROJECT DESCRIPTION

The proposed project includes the development of up to 108 residential units, a water basin, a park, and road construction on 19.10 acres (refer to Appendix A, *Proposed Site Plan*).

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<sup>2</sup> As used in this report, “special-status” refers to species that are either federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List; State/locally rare vegetation communities; or species covered under the Western Riverside County Multiple Species Habitat Conservation Plan.

**Figure 1: Regional and Project Vicinity**

**Figure 2: Project Site**

## Section 2 Methodology

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Prior to conducting the field survey, Michael Baker conducted thorough literature reviews and records searches to determine which special-status biological resources have the potential to occur on or within the general vicinity of the survey area. A general habitat assessment or field survey was conducted in order to document existing biological conditions and determine the potential for special-status plant and wildlife species to occur within the survey area.

### 2.1 LITERATURE REVIEW

Prior to conducting the field survey, literature reviews and records searches were conducted within a 5-mile radius for special-status biological resources potentially occurring on or within the vicinity of the survey area. Previous special-status plant and wildlife species occurrence records within the USGS *El Casco*, *Perris*, *Riverside East*, *Steele Peak*, and *Sunnymead*, California 7.5-minute quadrangles were determined through a query of the CNDDDB (CDFW 2022a) and CIRP (CNPS 2022), and for the project region through a review of the IPaC (USFWS 2022a).

The current regulatory/conservation statuses of special-status plant and wildlife species were verified through lists and resources provided by the CDFW, specifically the *Special Animals List* (CDFW 2022c), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2022d), *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2022e), and *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2022f). USFWS-designated Critical Habitat for species listed under the federal Endangered Species Act (FESA) was reviewed online via the Environmental Conservation Online System: Threatened and Endangered Species Active Critical Habitat Report (USFWS 2022b). In addition, Michael Baker reviewed previously prepared reports, survey results, and literature, as available, detailing the biological resources previously observed on or within the vicinity of the survey area to understand existing site conditions, confirm previous species observations, and note the extent of any disturbances, if present, that have occurred within the survey area that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status species, as well as the following resources:

- Calflora Database (Calflora 2022)
- Google Earth Pro Historical Aerial Imagery from 1985 to 2021 (Google, Inc. 2021)
- Species Accounts provided by Birds of the World (Billerman et. al 2020)
- Cornell Lab of Ornithology's eBird Database (eBird 2022)
- *Custom Soil Resource Report for Western Riverside Area, California* (United States Department of Agriculture [USDA] 2022)
- National Wetlands Inventory Mapper (USFWS 2022c)

Refer to Section 6 for a complete list of technical references that were reviewed by Michael Baker throughout the course of the habitat assessment.

## 2.2 FIELD SURVEY

Michael Baker biologists Ryan Winkleman and Lauren Mapes inventoried and evaluated the extent and conditions of the vegetation communities found within the boundaries of the survey area and confirmed existing conditions within the survey area on April 12, 2022. Michael Baker biologists did not encounter any access restrictions and were able to survey the entire survey area. Refer to Table 1 below for a summary of the survey date, timing, surveyors, and weather conditions.

**Table 1: Survey Date, Time, Surveyors, and Weather Conditions**

Date	Time (start / finish)	Surveyors	Weather Conditions	
			Temperature (°F) (start / finish)	Wind Speed (mph) (start / finish)
April 12, 2022	1000 / 1030	Ryan Winkleman, Lauren Mapes	66 sunny / 67 sunny	2 – 7

According to the RCA’s online MSHCP Information Application, the survey area is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or Public/Quasi-Public (P/QP) Lands identified by the MSHCP. Additionally, the survey area is located within a designated survey area for burrowing owl (*Athene cunicularia* [BUOW]).

Vegetation communities preliminarily identified on aerial photographs during the literature review were verified in the field by walking meandering transects through the vegetation communities and along boundaries between vegetation communities. Naturally vegetated areas typically have a higher potential to support special-status plant and wildlife species than areas that are highly disturbed or developed, which usually have lower quality and/or reduced amounts of habitat for wildlife. All plant and wildlife species observed during the habitat assessment, as well as dominant plant species within each vegetation community, were recorded in a field notebook, as described below. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, and the overall condition of on-site vegetation communities were recorded.

## 2.3 VEGETATION COMMUNITIES

Vegetation communities occurring within the survey area were delineated on an aerial photograph during the field survey and later digitized using GIS ArcView software to quantify the area of each vegetation community in acres. Vegetation communities were classified in accordance with the vegetation communities provided in *A Manual of California Vegetation* (Sawyer et al. 2009) and cross referenced with the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and the 2012 Western Riverside Vegetation Map for the purposes of evaluating the presence or absence of special-status vegetation communities identified in the CNDDDB records search, which uses the Holland vegetation system.

## 2.4 PLANTS

Plant species observed during the habitat assessment were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unfamiliar plants were photographed in the field and identified later using taxonomic guides. Plant nomenclature used in this report follows the *Jepson eFlora* (Jepson Flora Project 2022) and scientific names are provided immediately following common names of plant species (first reference only).

## 2.5 WILDLIFE

Wildlife species detected during the habitat assessment by sight, calls, tracks, scat, burrows, nests, or other types of sign were recorded in a field notebook. Field guides used to assist with identification of species during the habitat assessment included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna, and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are generally well standardized, scientific names are provided immediately following common names of wildlife species in this report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Union's *Checklist of North American Birds* (Chesser et al. 2019), nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding* (Crother 2017), and nomenclature for mammals follows the *Bats of the United States and Canada* (Harvey et al. 2011) and *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

## Section 3 Results and Discussion

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### 3.1 EXISTING CONDITIONS

#### 3.1.1 TOPOGRAPHY AND SOILS

The survey area is located within a moderately developed portion of the City of Moreno Valley, at an elevation of approximately 1,584 to 1,611 feet above mean sea level with generally flat topography throughout. Based on a review of Google Earth aerial imagery from 1985 to 2021, the survey area has been routinely cleared as a result of routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. According to the *Custom Soil Resource Report for Western Riverside Area, California* (USDA 2022), the survey area is underlain by the following soil units: Greenfield sandy loam, 0 to 2 percent slopes (GyA), Hanford coarse sandy loam, 2 to 8 percent slopes (HcC), and Ramona sandy loam, 0 to 5 percent slopes, severely eroded (RaB3). Refer to Figure 3, *USDA Soils*, for a depiction of soil units that have been mapped within the survey area. In addition, please refer to Appendix B for representative photographs of the survey area taken during the field survey.

#### 3.1.2 SURROUNDING LAND USES

Land uses in the immediate vicinity of the survey area include vacant, residential, and commercial land uses. Vacant, undeveloped land is located to the north, south and east of the survey area, while residential uses are located along the west, northwest, and northeast boundaries of the survey area. Additionally, commercial uses were currently being built near the northwest corner of the project boundary at the time of the field survey.

### 3.2 VEGETATION COMMUNITIES AND OTHER LAND USES

Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is primarily comprised of disturbed habitat that is dominated by ruderal/weedy and ornamental plant species. In addition, developed areas were also observed along the northern boundary and along the eastern boundary of the survey area. These land cover types are depicted on Figure 4, *Vegetation Communities and Other Land Uses*, and described in further detail below. Additionally, refer to Appendix C, *Plant and Wildlife Species Observed List*, for a complete list of plant species observed within the survey area during the field survey.

#### 3.2.1 DISTURBED HABITAT

Disturbed habitat comprises approximately 19.10 acres of the project site and 21.17 acres of the entire survey area. Disturbed areas within the survey area do not comprise a natural plant community and instead consist of unpaved bare ground or areas that have been previously disked or tilled as part of routine weed

**Figure 3: USDA Soils**



**Figure 4:      Vegetation Communities and Other Land Uses**

abatement activities. Surface soils within these areas have been heavily disturbed/compacted as a result of anthropogenic disturbances and are either devoid of vegetation or support non-native, ruderal plant species or early successional plant species. Plant species observed in the disturbed areas include common fiddleneck (*Amsinckia intermedia*), wild oat (*Avena fatua*), riggut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), short-podded mustard (*Hirschfeldia incana*), and telegraphweed (*Heterotheca grandiflora*).

### **3.2.2 DEVELOPED**

Developed areas are not present within the project site but make up approximately 1.67 acres of the entire survey area. They consist of areas that have been constructed upon or have been physically altered to a degree that native vegetation is no longer supported. Developed areas within the survey area include Alessandro Boulevard to the south.

## **3.3 WILDLIFE**

Natural vegetation communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a general discussion of common wildlife species that were detected during the field survey or that are expected to occur based on existing site conditions. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Refer to Appendix C for a complete list of wildlife species observed during the field survey.

### **3.3.1 FISH**

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish were observed in the survey area during the field survey. Therefore, no fish are expected to occur within the survey area.

### **3.3.2 AMPHIBIANS**

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable breeding habitat for amphibians were observed within the survey area. Therefore, no amphibian species are expected to occur.

### **3.3.3 REPTILES**

One (1) reptile was observed within the survey area during the field survey, western side-blotched lizard (*Uta stansburiana elegans*). Since the survey area is primarily disturbed, it is expected to provide suitable habitat for a limited number of reptilian species that are acclimated to edge or urban environments. Reptilian species that may be present within the survey area include Great Basin fence lizard (*Sceloporus occidentalis longipes*) and San Diego alligator lizard (*Elgaria multicarinata webbia*).

### 3.3.4 BIRDS

The survey area provides marginal foraging and nesting habitat for a variety of resident and migrant bird species that are adapted to a high degree of disturbance such as traffic, noise, and light pollution associated with the surrounding development. Twenty-six (26) bird species were detected during the field survey, some of which included house finch (*Haemorrhous mexicanus*), California towhee (*Melozone crissalis*), savannah sparrow (*Passerculus sandwichensis*), Say’s phoebe (*Sayornis saya*) and western meadowlark (*Sturnella neglecta*). Refer to Appendix C for a complete list of bird species observed during the field survey.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGF)<sup>3</sup>. To maintain compliance with the MBTA and CFGF, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct and indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered “take” and is potentially punishable by fines and/or imprisonment. The survey area provides marginal nesting habitat for year-round and seasonal avian residents as well as migrating songbirds that could occur in the area. Additionally, the survey area provides nesting habitat for avian species that nest on the open ground (e.g., killdeer [*Charadrius vociferus*], western meadowlark). No nests were observed within the survey area during the field survey.

### 3.3.5 MAMMALS

Five (5) mammal species were observed during the field survey, coyote (*Canis latrans*), domestic dog (*Canis lupus familiaris*), domestic cat (*Felis catus*), California ground squirrel (*Otospermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*). The survey area and surrounding area provide suitable habitat for additional mammalian species adapted to living in edge or urban environments. However, the routine weed abatement and surrounding development limits the potential for mammalian species to occur. Other common mammalian species that may occur within the survey area include opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*). Bats occur throughout most of southern California and may use the survey area as foraging habitat although it is heavily disturbed. However, there is no roosting habitat present on the project site or in the 50-foot survey area.

## 3.4 WILDLIFE CONNECTIVITY

Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to

<sup>3</sup> Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the CFGF or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA, as amended (16 U.S.C. § 703 *et seq.*).

broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

The survey area is located within a moderately developed area of Moreno Valley but has undeveloped, vacant land around it, particularly to the north and south that could function as something of a movement corridor for mammals. However, surrounding roads and development have fragmented the connection between the survey area and surrounding open space and naturally occurring vegetation communities. The disturbed landscape of the survey area and absence of vegetation for cover most likely precludes the movement of wildlife through the survey area. Further, elevated noise levels, vehicle traffic, lighting, and human presence associated with Nason Street, Alessandro Boulevard, Cottonwood Avenue, and surrounding residential development all decrease the suitability of the survey area to be used as a wildlife movement corridor or linkage.

### 3.5 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDDB, CIRP, and IPaC were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities in the USGS *El Casco*, *Perris*, *Riverside East*, *Steele Peak*, and *Sunnymead*, California 7.5-minute quadrangles. The field survey was conducted to assess the conditions of the habitat(s) within the boundaries of the survey area to determine if the existing vegetation communities, at the time of the field survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potentials for special-status species to occur within the survey area were determined based on the reported locations in the CNDDDB and CIRP and the following:

- **Present:** the species was observed or detected within the survey area during the field survey.
- **High:** Occurrence records (within 20 years) indicate that the species has been known to occur on or within one mile of the survey area and the site is within the normal expected range of this species. Intact, suitable habitat preferred by this species occurs within the survey area and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).
- **Moderate:** Occurrence records (within 20 years) indicate that the species has been known to occur within one mile of the survey area and the site is within the normal expected range of this species. There is suitable habitat within the survey area, but the site is ecologically isolated from any local known extant populations or sightings.
- **Low:** Occurrence records (within 20 years) indicate that the species has been known to occur within five miles of the survey area, but the site is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the survey area.
- **Not Expected:** There are no occurrence records of the species occurring within five miles of the survey area, there is no suitable habitat within the survey area, and/or the survey area is outside of the normal expected range for the species.

The CNDDDB, CIRP, and IPaC searches identified forty (40) special-status plant species and forty-three (43) special-status wildlife species as having been previously recorded within the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles. In addition, three (3) special-status vegetation communities were identified in the literature search results. Special-status plant and wildlife species were evaluated for their potential to occur within the survey area based on habitat preferences, availability and quality of suitable habitat, and known distributions. Special-status biological resources identified during the literature review as having the potential to occur within the vicinity of the survey area are presented in *Table D-1: Potentially Occurring Special-Status Biological Resources*, provided in Appendix D.

### 3.5.1 SPECIAL-STATUS PLANT SPECIES

Forty (40) special-status plant species have been recorded in the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles by the CNDDDB, CIRP, and IPaC (refer to Appendix D). No special-status plant species were observed within the survey area during the field survey. The survey area is primarily comprised of disturbed/ruderal non-native herbs and grasses, and disturbance-tolerant native wildflowers. Vegetation that is present primarily consists of common wild oat, ripgut brome, short-podded mustard, and horehound (*Marrubium vulgare*). Additionally, the routine weed abatement within the survey area and surrounding developed land uses have reduced the potential for the survey area to provide suitable habitat for special-status plant species. Based on existing site conditions and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the special-status plant species identified by the CNDDDB, CIRP, and IPaC are not expected to occur within the survey area.

### 3.5.2 SPECIAL-STATUS WILDLIFE SPECIES

Forty-three (43) special-status wildlife species have been recorded in the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles by the CNDDDB (refer to Appendix D). One (1) special-status wildlife species was observed during the field survey: Cooper's hawk (*Accipiter cooperii*; a State Watch List [WL] species). One individual Cooper's hawk was observed foraging across the survey area. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the survey area has a low potential to support BUOW (a State Species of Special Concern [SSC]), California horned lark (*Eremophila alpestris actia*; a State WL species), western mastiff bat (*Eumops perotis californicus*; a State SSC), and western yellow bat (*Lasiurus xanthinus*; a State SSC). All remaining special-status wildlife species identified by the CNDDDB database are not expected to occur within the survey area.

Due to regional significance in western Riverside County and the presence of a known population in the project vicinity (CDFW 2022a), the potential occurrence of Stephens' kangaroo rat (*Dipodomys stephensi* [SKR]) is described in further detail below. In addition, the potential occurrence of BUOW is described in further detail in Section 4.6.3.

### *Stephens' Kangaroo Rat*

The SKR is 1 of 19 subspecies of the kangaroo rat (genus *Dipodomys*) that comprise a distinct group of rodents from the family Heteromyidae. SKR is federally listed as endangered, and State listed as threatened. SKR occurs in western Riverside County, existing in fragmented populations due to the urban landscape. The northern end of SKR's range in western Riverside County extends into southwestern San Bernardino County and the southern end extends into northern San Diego County. Preferred habitats include open grasslands and sparse coastal sage scrub approximately 180 to 4,101 feet above mean sea level. SKR prefers open habitats with less than 50% protective cover with soft, well-drained sandy substrates for building burrows. This species is nocturnal and solitary, spending little time above ground.

Separate from the MSHCP, USFWS and CDFW issued the Riverside County Habitat Conservation Agency a Section 10(a) Permit and CFGC Section 2081 Management Authorization in 1996 establishing the Long-Term Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). Based on a review of the SKR HCP, the survey area is located outside the boundaries of the SKR HCP and associated Core Reserves; the San Jacinto Core Reserve is located approximately 2.5 miles to the southeast of the survey area.

According to the CNDDDB, there are eight (8) occurrence records for SKR within the USGS *Sunnymead, California* 7.5-minute quadrangle (CDFW 2022a). The closest, extant occurrence record was recorded in 1989 in Moreno Valley, approximately 0.5-mile northeast of the survey area, and the undeveloped areas surrounding the northern side of Perris Reservoir, approximately 2 miles from the survey area, are known to support a well-established SKR population (CDFW 2022a).

Suitable sparse coastal sage scrub and open grassland habitat with sandy soils preferred by this species for burrowing are not present within the survey area. The survey area is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring. Further, ongoing weed abatement on-site further reduces the suitability of the survey area to support SKR. Although the survey area is approximately 2 miles from a well-established population to the north of Perris Reservoir, the site is separated by extensive development, primarily residential, and as a result combined with the lack of suitable on-site habitat the survey area is not expected to support SKR.

### **3.5.3 SPECIAL-STATUS VEGETATION COMMUNITIES**

Three (3) special-status vegetation communities have been reported in the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles by the CNDDDB: Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, and Southern Sycamore Alder Riparian Woodland. No special-status vegetation communities were observed within the survey area during the field survey.

### 3.6 CRITICAL HABITAT

Under the definition used by the FESA, “Critical Habitat” refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated as Critical Habitat if they contain one or more of the physical or biological features that are essential to that species’ conservation and if the occupied areas are inadequate to ensure the species’ recovery. If a project may result in take or adverse modification to a species’ designated Critical Habitat and the project has a federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a federal nexus include those that occur on federal lands, require federal permits (e.g., federal Clean Water Act [CWA] Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA. The survey area is not located within any federally designated Critical Habitat (refer to Figure 5, *Critical Habitat*).

### 3.7 STATE AND FEDERAL JURISDICTIONAL AREAS

There are three agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The United States Army Corps of Engineers (USACE) Regulatory Branch regulates discharge of dredged or fill material into waters of the U.S. (WoUS) pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (RWQCB) regulates discharges to waters of the State (WotS), including wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*; and the CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq.* of the CFGC.

two (2) drainage features were documented within the boundaries of the survey area as follows: Aquatic Feature 1 (AF-1) and Aquatic Feature 2 (AF-2). Neither feature qualified as a wetland. Refer to Table 2 and the following sections for a summary of jurisdictional features documented within the survey area.

**Table 2: Jurisdictional Resources**

Aquatic Feature	Class of Aquatic Feature	Linear Feet	Acreage within Project Site				Acreage within Survey Area			
			RWQCB		CDFW		RWQCB		CDFW	
			Non-Wetland WotS	Wetland WotS	Streambed	Riparian	Non-Wetland WotS	Wetland WotS	Streambed	Riparian
AF-1	Non-Wetland	1,434	0.17	0.00	0.17	0.00	0.03	0.00	0.03	0.00
AF-2	Non-Wetland	201	< 0.01	0.00	< 0.01	0.00	0.01	0.00	0.01	0.00
<b>TOTAL ACREAGE*</b>		<b>1,635</b>	<b>0.17</b>	<b>0.00</b>	<b>0.17</b>	<b>&lt;0.01</b>	<b>0.05</b>	<b>0.00</b>	<b>0.05</b>	<b>0.00</b>

\*Total may not equal to sum due to rounding.

**Figure 5: Critical Habitat**



### **3.7.1 UNITED STATES ARMY CORPS OF ENGINEERS**

The USACE regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. No USACE jurisdiction occurs in association with the project site, as neither AF-1 nor AF-2 exhibit any downstream surface connection (significant nexus) to a Relatively Permanent Water or a Traditionally Navigable Water.

### **3.7.2 REGIONAL WATER QUALITY CONTROL BOARD**

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Act. Based on a review of the conceptual site plan, approximately 0.22 acre of impacts to RWQCB jurisdiction (non-wetland WotS) are anticipated, comprised of 0.17 acre of permanent impacts within the project site, and 0.05 acre of temporary impacts within the survey area. Therefore, it would be necessary for the project proponent to obtain a Waste Discharge Requirement from the RWQCB prior to impacts occurring within RWQCB jurisdictional areas.

### **3.7.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq.* of the CFGC. Based on a review of the conceptual site plan, a total of 0.22 acre of impacts to CDFW jurisdiction are anticipated. Anticipated impacts consist of 0.17 acre of permanent impacts and 0.05 acre of temporary impacts to vegetated streambed, with no impacts to any associated riparian habitat, which is not present. Therefore, it would be necessary for the project proponent to obtain a Section 1602 Streambed Alteration Agreement from the CDFW prior to impacts occurring within CDFW jurisdictional areas.

## Section 4 MSHCP Consistency Analysis

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This section contains the findings of Michael Baker’s MSHCP consistency analysis for the proposed project. The purpose of this consistency analysis is to summarize the biological data for the proposed project and to document the project’s consistency with the goals and objectives of the MSHCP. This analysis is focused on the project site. According to the RCA’s online MSHCP Information Application, the project site is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP (refer to Figure 6, *MSHCP Conservation Areas*). However, the project site is located within designated survey area for BUOW according to the RCA’s online MSHCP Information Application.

### 4.1 PROJECT INTRODUCTION AND SETTING

#### 4.1.1 PROJECT AREA

The project site consists of APN 488-210-020 and 488-210-006 which is approximately 19.10 acres. As previously stated, according to the RCA’s online MSHCP Information Application, the project site is located within a designated survey area for BUOW and is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP.

#### 4.1.2 PROJECT DESCRIPTION

The proposed project includes the development of up to 108 residential units, a water basin, a park, and road construction on 19.10 acres (refer to Appendix A, *Proposed Site Plan*).

#### 4.1.3 COVERED ROADS

The proposed project does not include the construction of, or improvements to, any Covered Roads referenced in Section 7 of the MSHCP. Therefore, a discussion related to the proposed project and Covered Roads is not warranted.

#### 4.1.4 GENERAL SETTING

The project site is located within a moderately developed portion of the City of Moreno Valley, east of Alessandro Boulevard and Nason Street intersection. Natural habitats within the project site have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. The topography of the project site is generally flat. Land uses in the immediate vicinity of the project site include vacant, residential, and commercial land uses. Vacant, undeveloped land is located to the north, south, and east of the project site, while residential uses are located along the west, northwest, and northeast boundaries of the site. Additionally, commercial uses were currently being built along the western boundary at the time of the field survey.

**Figure 6: MSHCP Conservation Areas**

## 4.2 RESERVE ASSEMBLY ANALYSIS

According to the RCA's online MSHCP Information Application, the project site is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP (refer to Figure 6, *MSHCP Conservation Areas*). Therefore, a Reserve Assembly discussion related to the proposed project is not warranted.

### 4.2.1 PUBLIC/QUASI-PUBLIC LANDS ANALYSIS

According to the RCA's online MSHCP Information Application, the project site is not located within any P/QP lands identified by the MSHCP. Therefore, a discussion related to P/QP lands and the proposed project is not warranted.

## 4.3 VEGETATION MAPPING

As stated in Section 6.3.1 of the MSHCP, project-level vegetation mapping may be required for projects that meet certain criteria to assess whether conservation is required. Michael Baker conducted a review of the 2012 vegetation layer presented in the RCA's online MSHCP Information Application and aerial photography to understand existing site conditions and extent of any disturbances that have occurred on the project site. In addition, a field survey was conducted in order to document the extent and condition of the vegetation communities occurring within the boundaries of the project site.

Vegetation communities occurring within the project site were delineated on an aerial photograph during the field surveys and later digitized using the GIS ArcView software to quantify the area of each vegetation community in acres. Vegetation communities occurring within the project site were classified in accordance with the vegetation descriptions provided in the *Manual of California Vegetation* (Sawyer *et al.*, 2009) and cross referenced with the vegetation communities described in the MSHCP and the 2012 vegetation layer presented in the RCA's online MSHCP Information Application.

Based on the results of the field survey, natural habitats within the project site have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The project site is primarily comprised of disturbed and developed land that is dominated by ruderal/weedy, low-growing plant species and ornamental plant species (refer to Figure 4, *Vegetation Communities and Other Land Uses*). Based on the 2012 vegetation layer presented in the RCA's online MSHCP Information Application, the entire project site was mapped as developed/disturbed land. Refer to Table 3 below for a summary of the vegetation communities and land cover types within the project site and 50-foot survey area.

**Table 3: Vegetation Communities and Land Cover Types**

Vegetation Community/Land Cover	Project Site	Survey Area	Total
Disturbed Habitat	19.10	2.07	21.17
Developed	0.00	1.67	1.67
<b>TOTAL ACREAGE*</b>	<b>19.10</b>	<b>21.74</b>	<b>22.84</b>

\*Total may not equal to sum due to rounding.

## **4.4 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE RESOURCES AND VERNAL POOLS**

### **4.4.1 RIPARIAN/RIVERINE**

As defined under Section 6.1.2 of the MSHCP, riparian/riverine resources are areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a wide variety of listed or special-status water-dependent fish, amphibian, avian, and plant species.

As documented in the *Delineation of State and Federal Jurisdictional Waters* (Michael Baker 2022), two (2) drainage features were recorded within the survey area (AF-1 and AF-2). These drainage features qualify as riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP and total approximately 0.17 acre of riverine habitat within the project site (0.22 acre within the entire survey area); no riparian habitat is present (refer to Figure 7, *Riparian/Riverine Resources*). AF-1 and AF-2 are ephemeral and only flow in direct response to precipitation. If impacts to riverine resources cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report would need to be prepared and submitted to the RCA and Wildlife Agencies (USFWS and CDFW) for review and approval prior to implementation of the proposed project.

### **4.4.2 VERNAL POOLS**

One of the factors for determining the presence of vernal pools would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. Prior to conducting the habitat assessment, a review of historical aerial photographs using Google Earth was conducted. In addition, a review of the USDA *Custom Soil Resource Report for Western Riverside Area, California*, was also conducted to determine the soil associations within the project site. The MSHCP lists two general classes of soils known to be associated with special-status plant species and presence of vernal pool habitat; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with special-status species/vernal pool habitat within the MSHCP Plan Area include Bosanko, Auld, Altamont, and Porterville series soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and the Salt Creek flood control channel.

**Figure 7: Riparian/Riverine Resources**

Based on a review of the *Custom Soil Resource Report for Western Riverside Area, California* (USDA 2022), none of the soil classes (e.g., Bosanko, Auld, Altamont, and Porterville series and Traver-Domino Willows association) known to be associated with vernal pool habitat occur within the project site. The mapped soils throughout the project site primarily consist of sandy loam textures and not the clay soil textures which are needed to form the impermeable restrictive duripan layer below the soils surface. Therefore, no direct or indirect impacts are expected to occur, and no further discussion related to the proposed project and vernal pools is warranted.

#### 4.4.3 FAIRY SHRIMP

One species of fairy shrimp has been recorded in the USGS *Sunnymead, California 7.5-minute quadrangle*: Riverside fairy shrimp (*Streptocephalus woottoni*). Riverside fairy shrimp are restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, stock ponds, and other human modified depressions that are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May. In Riverside County, the species been found in pools formed over the following soils: Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils. According to the CNDDDB, there are two (2) occurrence records for Riverside fairy shrimp within the USGS *Sunnymead, California 7.5-minute quadrangle*. The closest occurrence (Occurrence Number 27) was recorded in 1998, approximately 4-miles southwest of the project site in a complex of pools on March Airforce Base; Riverside fairy shrimp cysts were found during dry-season survey in 1998 and there were no mature Riverside fairy shrimp during the wet season. However, this occurrence record is now considered extirpated since 2009 (CDFW 2022a).

Based on the results of the vernal pool habitat assessment in the previous section 4.4.2, no vernal pools occur within the project site. In addition, the project site is separated from the closest extant occurrence record for Riverside fairy shrimp (Occurrence Number 27) by residential and commercial development, and highly trafficked roadways. Based on this information, it was determined that there is no suitable habitat for fairy shrimp within or adjacent to the project site and that fairy shrimp are not known to occur anywhere in close proximity to the site. Therefore, no direct or indirect impacts are expected to occur, and no further discussion related to the proposed project and fairy shrimp is warranted.

#### 4.4.4 RIPARIAN BIRDS

Based on the field survey, riparian/riverine resources were not observed within the project site. Therefore, a discussion related to riparian birds (i.e., western yellow-billed cuckoo [*Coccyzus americanus occidentalis*], southwestern willow flycatcher [*Empidonax traillii extimus*], least Bell's vireo [*Vireo bellii pusillus*]) and the proposed project is not warranted.

## 4.5 PROTECTION OF NARROW ENDEMIC PLANT SPECIES

According to the RCA's online MSHCP Information Application and Figure 6-1 of the MSHCP, the proposed project is not located within a designated survey area for Narrow Endemic Plant Species. Therefore, a discussion related to Narrow Endemic Plant Species and the proposed project is not warranted.

## 4.6 ADDITIONAL SURVEY NEEDS AND PROCEDURES

### 4.6.1 CRITERIA AREA PLANT SPECIES

Based on a desktop review of the RCA's online MSHCP Information Application and Figure 6-2 of the MSHCP, the proposed project is not located within a designated survey area for Criteria Area plant species. Therefore, a discussion related to the proposed project and any associated Criteria Area plant species is not warranted.

### 4.6.2 AMPHIBIANS

Based on a desktop review of the RCA's online MSHCP Information Application and Figure 6-3 of the MSHCP, the proposed project is not located within a designated survey area for amphibians. Therefore, a discussion related to the proposed project and MSHCP amphibian species is not warranted.

### 4.6.3 BURROWING OWL

According to the RCA's online MSHCP Information Application and Figure 6-4 of the MSHCP, the proposed project is located within a mapped survey area for BUOW.

### Literature Review and Habitat Assessment Results

The BUOW is currently designated as a State SSC and is a fully covered species under the MSHCP. The BUOW is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. BUOWs use a wide variety of arid and semi-arid environments with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk, 1993; Dechant et al., 1999). BUOWs are dependent upon the presence of burrowing mammals (e.g., California ground squirrels, coyotes, American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting. The presence or absence of mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. BUOWs may also burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing open line-of-sight of the surrounding habitat to forage as well as watch for predators.

According to the CNDDDB, there are two (2) occurrence records for BUOW within the USGS *Sunnymead*,



California 7.5-minute quadrangle. The closest extant occurrence (Occurrence Number 65) was recorded in 1980, approximately 2.25 miles south of the project site, where a colony of owls was observed at the Perris Reservoir Recreation Area (CDFW 2022a). Additionally, another occurrence (Occurrence Number 439) approximately 4 miles to the southwest of the project site; has seen continual BUOW use since 1991, with the most being in 2007 (CDFW 2022a). In addition, there are dozens of records of this species in the eBird database, within and just outside of a 5-mile radius from the project site (eBird 2022).

Michael Baker biologists surveyed 100% of the project site during the field survey and no BUOWs, sign (i.e., pellets, feathers, castings, or whitewash), occupied burrows, or remnant burrows were observed. Although no BUOWs, sign, occupied burrows, or remnant burrows were observed during the field survey, the project site is sparsely vegetated with a variety of low-growing plant species that allow for open line-of-sight and foraging opportunities for BUOW. In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*, if BUOW habitat occurs on-site, both focused surveys and pre-construction clearance surveys are required (RCA 2006).

### **Focused Burrowing Owl Surveys**

Michael Baker conducted focused burrowing owl surveys in April, May, and June 2022 following the MSHCP survey protocol, *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (RCA 2006). Surveys were conducted between April 12 and June 28, 2022 on the project site and in suitable habitat in the designated BUOW survey area within 500 feet. Although suitable burrows were found within the survey area, no burrowing owls were detected by Michael Baker and the species was determined to be absent from the project site and its immediate vicinity (refer to Appendix E, *Focused Burrowing Owl Survey Report*).

### **Additional Survey and Mitigation Requirements**

Although burrowing owls were not observed during the focused surveys, the survey area contains suitable burrows and habitat that could become occupied by burrowing owls prior to implementation of the proposed project. Therefore, a pre-construction clearance survey would be required to reconfirm the absence of BUOW within the project impact area and maintain compliance with the MSHCP, MBTA, and CFGC. In accordance with the MSHCP, the pre-construction clearance survey would need to be conducted by a qualified biologist no more than 30 days prior to initiating any ground disturbing activities to avoid direct take of BUOWs. Once the survey is completed, the qualified biologist should prepare and submit a final report documenting the results of the clearance survey to the City of Moreno Valley for review and file. If no BUOWs or occupied burrows are detected, project activities may begin, and no additional avoidance or minimization measures would be required. However, if an occupied burrow is found within the project impact area during the clearance survey, a DBESP report outlining specific avoidance, minimization, and compensatory mitigation methods that will be implemented to avoid impacts to BUOW would need to be prepared and submitted to the Wildlife Agencies (CDFW and USFWS) for approval prior to initiating project activities.

#### 4.6.4 MAMMALS

The proposed project is not located within a mapped survey area for mammal species according to the RCA's online MSHCP Information Application and Figure 6-5 of the MSHCP. Therefore, a discussion related to the proposed project and MSHCP mammal species is not warranted.

### 4.7 INFORMATION ON OTHER SPECIES

#### 4.7.1 DELHI SANDS FLOWER-LOVING FLY

According to the RCA's online MSHCP Information Application and the *Custom Soil Resource Report for Western Riverside Area, California* (USDA 2022), the project site is not underlain by and does not fall within an area containing Delhi Sand soils. Therefore, no direct or indirect impacts are expected to occur, and no further discussion related to the proposed project and the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) is warranted.

#### 4.7.2 SPECIES NOT ADEQUATELY CONSERVED

As described in Section 2.1.4 of the MSHCP, of the one hundred and forty-six (146) Covered Species addressed in the MSHCP, one-hundred and eighteen (118) species are considered to be adequately conserved. The remaining twenty-eight (28) Covered Species will be considered to be adequately conserved when certain conservation requirements are met as identified in the species-specific conservation objectives listed in Table 9-3 of the MSHCP. Based on the current status of covered species not adequately conserved presented in Table 9-3, the Monitoring Program has collected sufficient data in 2019 to confirm that beautiful hulsea (*Hulsea vestita* ssp. *callicarpha*), Coulter's matilija poppy (*Romneya coulteri*), Fish's milkwort (*Polygala cornuta* var. *fishiae*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), peninsular spine flower (*Chorizanthe leptotheca*), Plummer's mariposa lily (*Calochortus plummerae*), rainbow manzanita (*Arctostaphylos rainbowensis*), and small-flowered microseris (*Microseris douglasii* var. *platycarpha*) met the requirements listed in Table 9-3 of the MSHCP.

None of the species listed in Table 9-3 of the MSHCP were observed within the project site during the field survey. All remaining species listed in Table 9-3 of the MSHCP are not expected to occur within the project site based on existing site conditions and a review of specific habitat requirements, occurrence records, and known distributions.

### 4.8 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE

The urban/wildlands interface guidelines presented in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with new development in proximity to MSHCP Conservation Areas. The project site is not located adjacent to any Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands

identified by the MSHCP. Therefore, a discussion related to the proposed project and the urban/wildlands interface guidelines presented in Section 6.1.4 of the MSHCP is not warranted.

## **4.9 STANDARD BEST MANAGEMENT PRACTICES**

In accordance with Appendix C of the MSHCP, the following standard best management practices (BMPs) should be implemented to reduce project-related impacts:

- A qualified biologist should present to project personnel (including temporary, contractors, and subcontractors) a worker environmental awareness program prior to the initiation of grading activities. Project personnel should be advised on any special-status wildlife species of concern, the steps to avoid impacts to the species and the potential penalties for taking such species. At a minimum, the program should include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, legal protection afforded to these species, penalties for violations of federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote continued successful occupation of the project area. Color photographs of the listed species should be included in the program and be shown to personnel. Following the program, the photographs should be posted in the contractor and resident engineer office and remain through the duration of the project. The contractor, resident engineer, and the qualified biologist should be responsible for ensuring that personnel are aware of the listed species. If additional personnel are added to the project after initiation, they should receive instruction prior to working on the project.
- In order to avoid or minimize impacts to water quality, a construction Storm Water Pollution Prevention Plan and Soil Erosion and Sedimentation Plan should be developed to minimize erosion and identify specific pollution prevention measures that would eliminate or control potential point and non-point pollution sources on-site during and following the project's construction phase. The project design should incorporate permanent erosion control elements to ensure that storm water runoff does not cause soil erosion. In addition, erosion control measures should be applied to all exposed areas during construction. Erosion control measures may include the trapping of sediments within the construction area by placing barriers, such as straw bales, at the perimeter of downstream drainage points or by construction of temporary detention basins. Other methods of minimizing erosion impacts include hydromulching and limiting the amount and length of exposure of graded soil.
- Disturbance related to the project should be minimized to the maximum extent possible. Project site access should also be limited to existing disturbed roads and access routes.
- Prior to construction, highly visible barriers (e.g., orange construction fencing) should be clearly defined and installed around the perimeter of the project impact area and access routes.
- In order to avoid impacts to nesting birds, any native vegetation removal or tree (native or exotic) trimming activities should occur outside of the nesting bird season (February 1 – August 31). If

avoidance of the nesting bird season is not feasible, a pre-construction nesting bird clearance survey should be conducted by a qualified biologist no more than three days prior to the start of any vegetation removal or ground disturbing activities to maintain compliance with the MBTA and CFGC and ensure that impacts to nesting birds do not occur. The qualified biologist should survey all suitable nesting habitat within the project impact area, including areas within a biologically defensible buffer distance surrounding the project impact area, for the presence of nesting birds and should provide documentation of the surveys and findings to the City of Moreno Valley for review prior to initiating project activities. If no active bird nests are detected, project-related activities may begin. If an active nest is found, the bird should be identified to species and the approximate distance from the closest work site to the active nest should be estimated and the qualified biologist should establish a “no-disturbance” buffer around the active nest. The distance of the “no-disturbance” buffer may be increased or decreased according to the judgement of the qualified biologist depending on the level of activity and species (i.e., listed, sensitive). In addition, the qualified biologist should periodically monitor any active bird nests to determine if project-related activities occurring outside the ‘no disturbance’ buffer disturb the birds and if the buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project-related activities within the ‘no disturbance’ buffer may occur.

- All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities should occur in developed or previously disturbed upland areas so as to prevent the runoff from any spills from entering waters of the U.S., waters of the State, or riparian/riverine resources. All construction equipment should be operated in a manner to prevent accidental damage to nearby preserved areas and any project-related spills of hazardous materials should be immediately reported to appropriate entities.
- Silt fence barriers should be installed around water courses to prevent accidental deposition of fill material in these areas. And brush, loose soils, or other similar debris materials should be stockpiled in developed or disturbed upland areas.
- A qualified biologist should monitor construction for the duration of the project to ensure that BMPs and other avoidance and minimization measures are properly implemented.
- Removal of native vegetation should be minimized to the maximum extent possible.
- Removal of exotic species that prey upon or displace target species of concern should be removed from the project work area, if possible.
- Trash, construction refuse (e.g., broken equipment parts, cables, etc.), and food items should be contained in closed containers and removed daily.

## Section 5      Conclusions and Recommendations

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The survey area is located within a moderately developed portion of the City of Moreno Valley, north of Alessandro Boulevard, south of Bay Avenue, west of Marion Road, and east of Nason Street. Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is primarily comprised of disturbed land that is dominated by ruderal/weedy, and ornamental plant species.

No special-status plant species were observed within the survey area during the field survey. Based on the results of the field survey and a review of specific habitat preferences, distributions, and elevation ranges, Michael Baker determined that all special-status plant species identified by the CNDDDB, CIRP, and IPaC either have a low potential or are not expected to occur within the survey area.

Cooper's hawk was the only special-status wildlife species observed during the field survey. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the survey area has a low potential to support BUOW (a State SSC), California horned lark (a State WL species), western mastiff bat (a State SSC), and western yellow bat (a State SSC). Additionally, although not observed or expected to occur, because the survey area is an undeveloped open space, bats may still forage over it if an insect prey base is present and there are some potential roosting trees across Alessandro Boulevard to the south of the survey area. All remaining special-status wildlife species identified during the literature review and records search are not expected to occur within the survey area.

In addition to the standard BMPs identified in Section 4.9 above, it is recommended that the following Avoidance and Minimization Measures (AMMs) be implemented to avoid and/or minimize potential impacts to special-status biological resources:

AMM BIO-1: If project-related activities are to be initiated during the nesting season (February 1 to August 31), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than three (3) days prior to the start of any vegetation removal or ground disturbing activities. The qualified biologist shall survey all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. If no active bird nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization measures shall be required. If an active bird nest is found, the species shall be identified, and a "no-disturbance" buffer shall be established around the active nest. The size of the "no-disturbance" buffer shall be increased or decreased based on the judgment of the qualified biologist and level of activity and sensitivity of the species. The qualified biologist shall periodically monitor any active bird nests to determine if project-related activities occurring outside the "no-disturbance" buffer disturb the birds and if the buffer

shall be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the “no-disturbance” buffer may occur following an additional survey by the qualified biologist to search for any new bird nests in the restricted area.

AMM BIO-2: No less than 60 days prior to initiating project activities, a qualified bat biologist shall conduct a bat roosting habitat suitability assessment of any vegetation that may be removed, altered, or indirectly impacted by the project activities. Any locations identified as having potentially suitable bat roosting habitat by the qualified approved bat biologist shall be subject to additional nighttime surveys (bat surveys) during the summer months (i.e., June through August) to determine the numbers and bat species using the roost(s). The information collected during these additional bat surveys shall be used by the qualified bat biologist to develop species-specific measures to minimize impacts to roosting bats should bats be detected using the site. The bat surveys shall be conducted by the qualified bat biologist using an appropriate combination of visual inspection, sampling, exit counts, and acoustic surveys. The results of the pre-construction bat surveys shall be submitted to CDFW for review no less than 30 days prior to the initiation of project activities.

If the presence of bats within the project is confirmed, avoidance and minimization measures, including the designation of buffers based upon the particular bat species found and phased removal of trees, shall be developed and submitted to CDFW for review and approval. If the site supports maternity roosts, the project applicant shall avoid disturbing those areas during the breeding season.

If the site supports a maternity roost(s) or special-status species, the project applicant shall contact CDFW and conduct an impact assessment prior to commencing project activities to assist in the development of minimization and mitigation measures. The project applicant shall compensate for impacts and losses to maternity roosts and/or special-status bat habitat through a mitigation strategy approved by CDFW.

AMM BIO-3: A pre-construction clearance survey would be required to reconfirm the absence of BUOW within the project impact area and maintain compliance with the MSHCP, MBTA, and CFGC. In accordance with the MSHCP, the pre-construction clearance survey would need to be conducted by a qualified biologist no more than 30 days prior to initiating any ground disturbing activities to avoid direct take of BUOWs. Once the survey is completed, the qualified biologist should prepare and submit a final report documenting the results of the clearance survey to the City of Moreno Valley for review and file. If no BUOWs or occupied burrows are detected, project activities may begin, and no additional avoidance or minimization measures would be required. However, if an occupied burrow is found within the project impact area during the clearance survey, a DBESP report outlining specific avoidance, minimization, and compensatory mitigation methods that will be

implemented to avoid impacts to BUOW would need to be prepared and submitted to the Wildlife Agencies (CDFW and USFWS) for approval prior to initiating project activities.

No evidence of hydrology or vernal pool indicator plant species were observed during the field survey. Based on a review of the *Custom Soil Resource Report for Western Riverside Area, California* (USDA 2022), none of the soil classes (e.g., Bosanko, Auld, Altamont, and Porterville series and Traver-Domino Willows association) known to be associated with vernal pool habitat occur within the survey area. The mapped soils throughout the survey area primarily consist of sandy loam textures and not the clay soil textures which are needed to form the impermeable restrictive duripan layer below the soils surface. Therefore, no direct or indirect impacts are expected to occur to vernal pools.

Based on the results of the vernal pool habitat assessment, no vernal pools are expected to occur within the survey area. In addition, the survey area is separated from extant populations of Riverside fairy shrimp known to occur in the surrounding area by residential and commercial development, I-215, and other highly trafficked roadways. Therefore, no direct or indirect impacts are expected to occur to Riverside fairy shrimp.

Two (2) drainage features (AF-1 and AF-2) occur within the survey area and would fall under regulatory authority of the RWQCB and CDFW. Based on a review of the conceptual site plan, approximately 0.22 acre of impacts to RWQCB jurisdiction (non-wetland WotS) are anticipated, comprised of 0.17 acre of permanent impacts within the project site and 0.05 acre of temporary impacts within the survey area, as well as a total of 0.22 acre of impacts to CDFW jurisdiction consisting of 0.17 acre of permanent impacts and 0.05 acre of temporary impacts to vegetated streambed. No riparian habitat is present within the project site or survey area. It is anticipated that the project proponent would need to obtain the following regulatory permits prior to impacts occurring within jurisdictional areas: 1) Waste Discharge Requirement from the RWQCB, and 2) Section 1602 Streambed Alteration Agreement from CDFW.

AF-1 and AF-2 would qualify as riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP; a total of approximately 0.17 acre of riverine habitat occurs within the project site. Riparian habitat is not present and Riverine resources within the survey area do not provide suitable habitat for western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, or fairy shrimp, and vernal pools are not present. If impacts to riverine resources cannot be avoided, a DBESP report would need to be prepared and submitted to the RCA and Wildlife Agencies (USFWS and CDFW) for review and approval prior to implementation of the proposed project.

## Section 6      References

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**Appendix A Proposed Site Plan**

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## **Appendix B Site Photographs**

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# **Appendix C Plant and Wildlife Species Observed List**

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# **Appendix D Potentially Occurring Special-Status Biological Resources**

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# **Appendix E Focused Burrowing Owl Survey Report**

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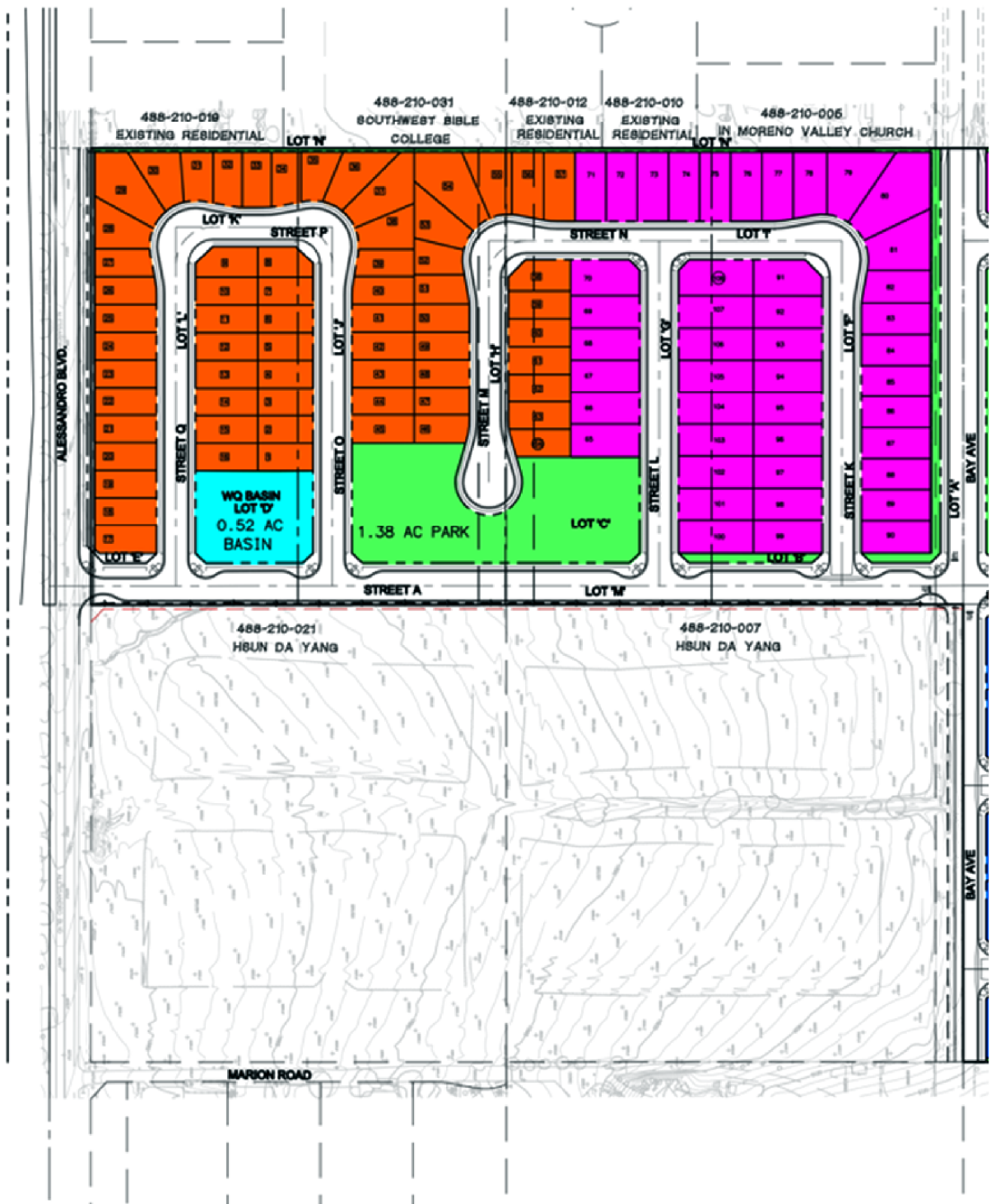
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**APPENDIX B  
SITE DESIGN PLANS**



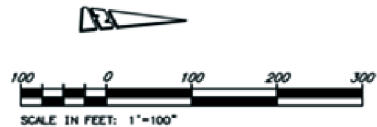
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488-280-002  
EAST VALLEY PLAZA



**TRACT 38442 (SOUTH OF BAY) LEGEND & LOT COUNT**

LOT SIZE	MIN LOT AREA	# OF LOTS
40'x80'	3200 SF	64
45x100'	4500 SF	44
		<b>TOTAL - 108</b>
OPEN SPACE	N/A	5
WQ BASIN	N/A	1

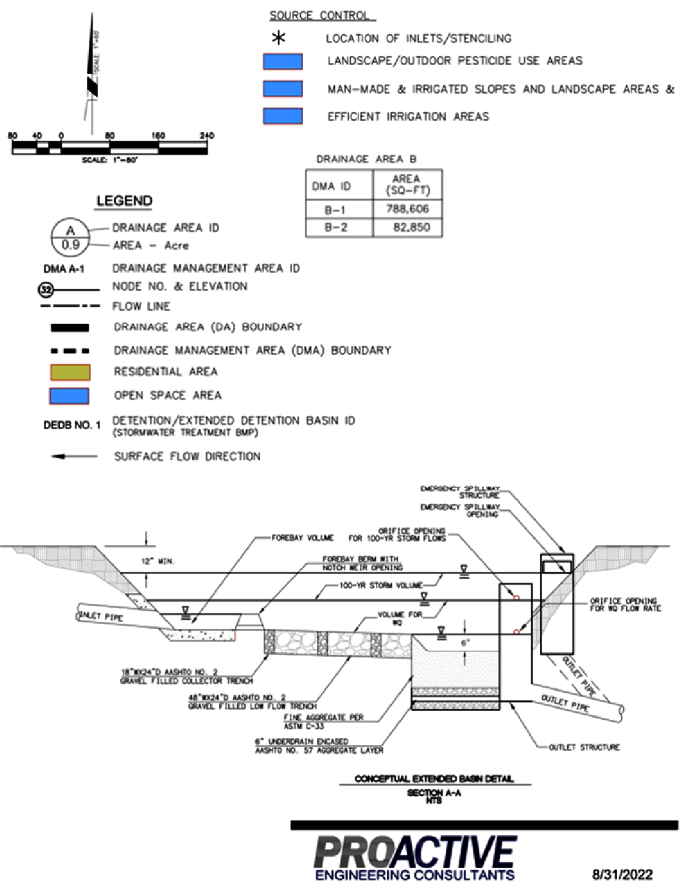
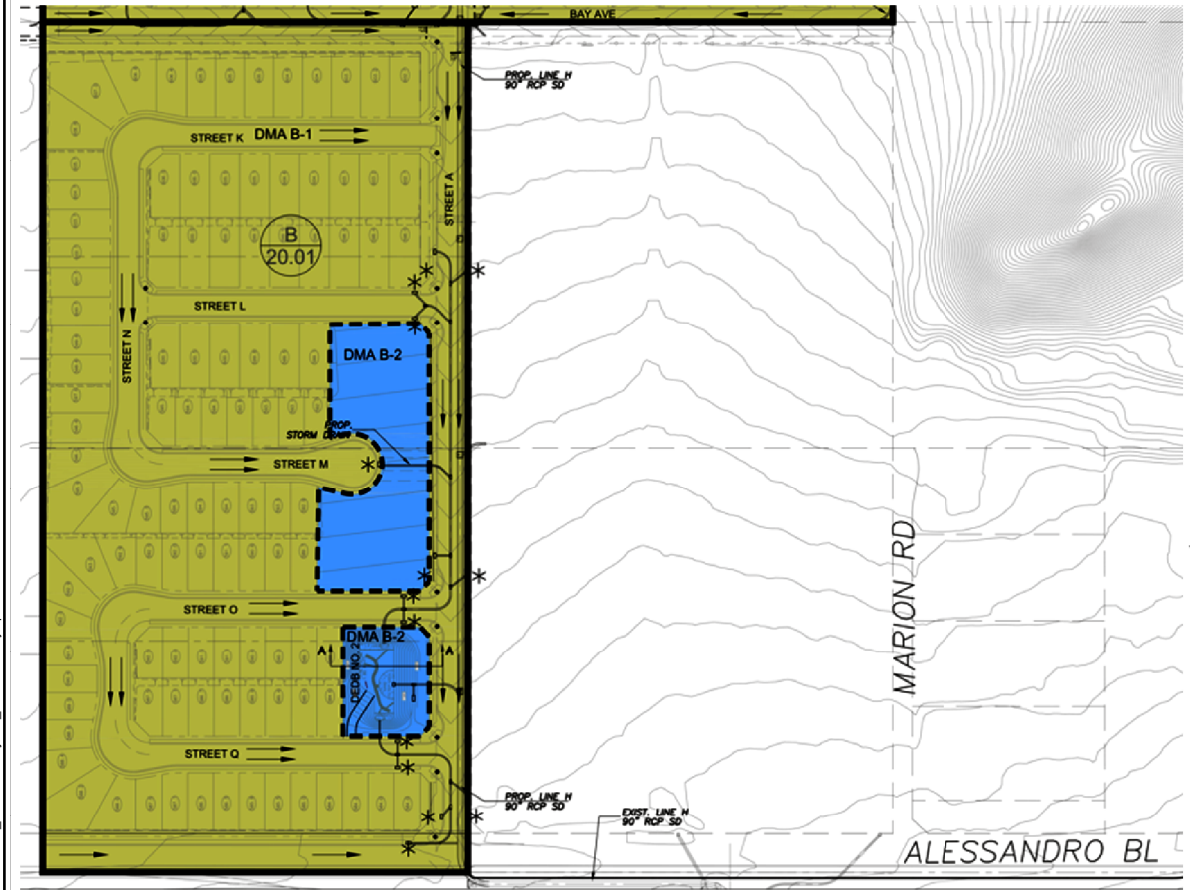


**PROACTIVE**  
ENGINEERING CONSULTANTS

AUGUST 2022

SUNSET CROSSINGS TTM 38442  
Determination of Biologically Equivalent or Superior Preservation  
**Conceptual Site Plan**

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**APPENDIX C**  
**MSHCP BEST MANAGEMENT PRACTICES**

## **APPENDIX C            MSHCP STANDARD BEST MANAGEMENT PRACTICES**

In accordance with Appendix C of the Western Riverside County MSHCP, the following standard best management practices should be implemented to reduce project-related impacts:

- A qualified biologist should present to project personnel (including temporary, contractors, and subcontractors) a worker environmental awareness program prior to the initiation of grading activities. Project personnel should be advised on any special-status wildlife species of concern, the steps to avoid impacts to the species and the potential penalties for taking such species. At a minimum, the program should include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, legal protection afforded to these species, penalties for violations of federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote continued successful occupation of the project area. Color photographs of the listed species should be included in the program and be shown to personnel. Following the program, the photographs should be posted in the contractor and resident engineer office and remain through the duration of the project. The contractor, resident engineer, and the qualified biologist should be responsible for ensuring that personnel are aware of the listed species. If additional personnel are added to the project after initiation, they should receive instruction prior to working on the project.
- In order to avoid or minimize impacts to water quality, a construction Storm Water Pollution Prevention Plan and Soil Erosion and Sedimentation Plan should be developed to minimize erosion and identify specific pollution prevention measures that would eliminate or control potential point and non-point pollution sources on-site during and following the project's construction phase. The project design should incorporate permanent erosion control elements to ensure that storm water runoff does not cause soil erosion. In addition, erosion control measures should be applied to all exposed areas during construction. Erosion control measures may include the trapping of sediments within the construction area by placing barriers, such as straw bales, at the perimeter of downstream drainage points or by construction of temporary detention basins. Other methods of minimizing erosion impacts include hydro-mulching and limiting the amount and length of exposure of graded soil.
- Disturbance related to the project should be minimized to the maximum extent possible. Project site access should also be limited to existing disturbed roads and access routes.
- Prior to construction, highly visible barriers (e.g., orange construction fencing) should be clearly defined and installed around the perimeter of the project impact area and access routes.

- In order to avoid impacts to nesting birds, any native vegetation removal or tree (native or exotic) trimming activities should occur outside of the nesting bird season (February 1 – August 31). If avoidance of the nesting bird season is not feasible, a pre-construction nesting bird clearance survey should be conducted by a qualified biologist no more than three days prior to the start of any vegetation removal or ground disturbing activities to maintain compliance with the MBTA and CFGC and ensure that impacts to nesting birds do not occur. The qualified biologist should survey all suitable nesting habitat within the project impact area, including areas within a biologically defensible buffer distance surrounding the project impact area, for the presence of nesting birds and should provide documentation of the surveys and findings to the City of Menifee for review prior to initiating project activities. If no active bird nests are detected, project-related activities may begin. If an active nest is found, the bird should be identified to species and the approximate distance from the closest work site to the active nest should be estimated and the qualified biologist should establish a “no-disturbance” buffer around the active nest. The distance of the “no-disturbance” buffer may be increased or decreased according to the judgement of the qualified biologist depending on the level of activity and species (i.e., listed, sensitive). In addition, the qualified biologist should periodically monitor any active bird nests to determine if project-related activities occurring outside the ‘no disturbance” buffer disturb the birds and if the buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project-related activities within the ‘no disturbance” buffer may occur.
- All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities should occur in developed or previously disturbed upland areas so as to prevent the runoff from any spills from entering waters of the U.S., waters of the State, or riparian/riverine resources. All construction equipment should be operated in a manner to prevent accidental damage to nearby preserved areas and any project-related spills of hazardous materials should be immediately reported to appropriate entities.
- Silt fence barriers should be installed around water courses to prevent accidental deposition of fill material in these areas. And brush, loose soils, or other similar debris materials should be stockpiled in developed or disturbed upland areas.
- A qualified biologist should monitor construction for the duration of the project to ensure that BMPs and other avoidance and minimization measures are properly implemented.
- Removal of native vegetation should be minimized to the maximum extent possible.
- Removal of exotic species that prey upon or displace target species of concern should be removed from the project work area, if possible.
- Trash, construction refuse (e.g., broken equipment parts, cables, etc.), and food items should be contained in closed containers and removed daily.