# Appendix 2D

# DBESP

**Sunset Crossings Residential Project**

**Initial Study**

# SUNSET CROSSING

# TENTATIVE TRACT MAP 38443

CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, CALIFORNIA

**DETERMINATION OF BIOLOGICALLY EQUIVALENT OR**

**SUPERIOR PRESERVATION REPORT**

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[redacted]ary 2022; revised September

JN 184659

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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* |
| *CNDDB* | *California Natural Diversity Database* |
| *DBESP* | *Determination of Biologically Equivalent or Superior Preservation* |
| *DCV* | *Design Capture Volume* |
| *GIS* | *Geographic Information System* |
| *I-215* | *Interstate 215* |
| *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* |

## 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) 38443 residential development project (project or project site) located in the City of Moreno Valley, Riverside County, California. The proposed project would develop 134 single-family detached residential units on an approximately 28.34-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 and a field verification on June 16, 2023. 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 0.76 acre of riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP occur within the project site. Of this, permanent impacts would occur on 0.64 acre riverine and 0.01 acre riparian habitat, whereas temporary impacts would occur on 0.10 acre riverine and 0.01 acre riparian habitat. Riparian/riverine resources within the survey area do not provide suitable habitat for listed riparian-associated species in Section 6.1.2, or for riparian-associated species that would benefit from preservation of the onsite riparian habitat. No vernal pools are present on the project site.

Riparian/riverine resources on the project site area 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 1.95 acre (3:1) from Riverpark Mitigation Bank, Barry Jones Mitigation Bank, the Riverside-Corona Resource Conservation District in lieu fee program, or other permittee-responsible/ agency approved mitigation provider. 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** | **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) 38443 (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 (CNDDB).

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 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 Bay Avenue, south of Cottonwood Avenue, west of Marion Road, and east of Nason Street on assessor's parcel numbers (APN) 488-190-027, 488-190-005, and 488-190-028 (Figure 2, *Project Site*).

## 2.2 Project Description

The proposed project would develop 134 single-family detached residential one- and two-story units on an approximately 28.34-acre site. Site design plans are included in Appendix B. The development would include a 1.45-acre park located in the southern portion of the site and a water quality basin. 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.

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 Best Management Practice (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.

### 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.


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**Legend**

Project Site (29.39 acres)

SUNSET CROSSING TTM 38443

DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

# Regional and Project Vicinity

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0 0.5 1 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: *Perris and Sunnymead, California (2021)*

Figure 1


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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Photograph Point and Direction

Michael Baker INTERNATIONAL

0 125 250 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

# Project Site

Figure 2

**Project Construction and Phasing**

Construction activities for the project would occur over 38 months and would begin in 2023 with the opening for project occupancy in 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 28-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.

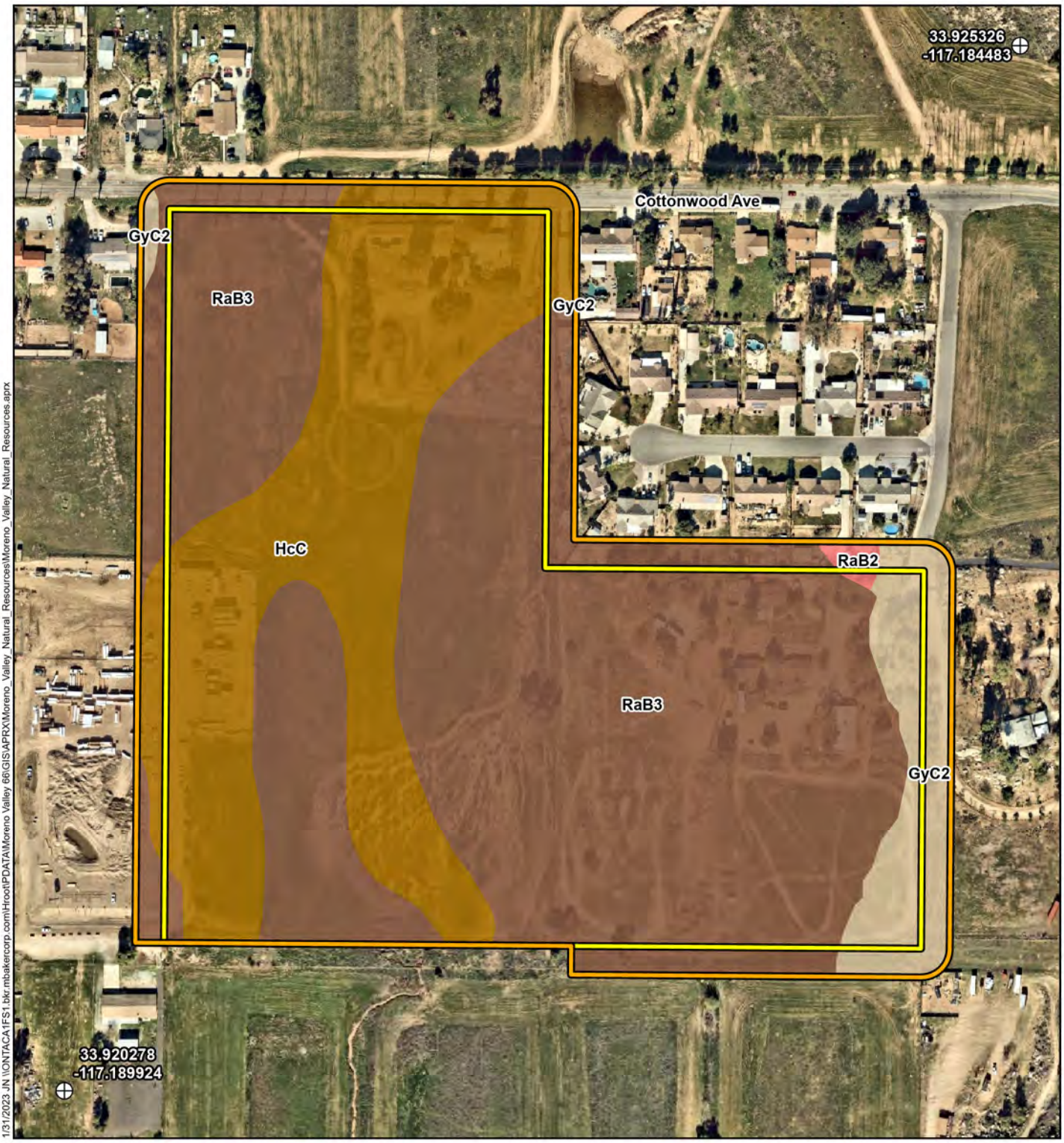
## 2.3 Existing Conditions

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 1,611 to 1,644 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, 2 to 8 percent slopes, eroded (GyC2), Hanford coarse sandy loam, 2 to 8 percent slopes (HcC), Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2), 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).

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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- GyC2 — Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC — Hanford coarse sandy loam, 2 to 8 percent slopes
- RaB2 — Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 — Ramona sandy loam, 0 to 5 percent slopes, severely eroded

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0 125 250 Feet

Source: Nearmap (01/2022), USDA (2019)

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DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

# USDA Soils

Figure 3

### *2.3.2 Surrounding Land Uses*

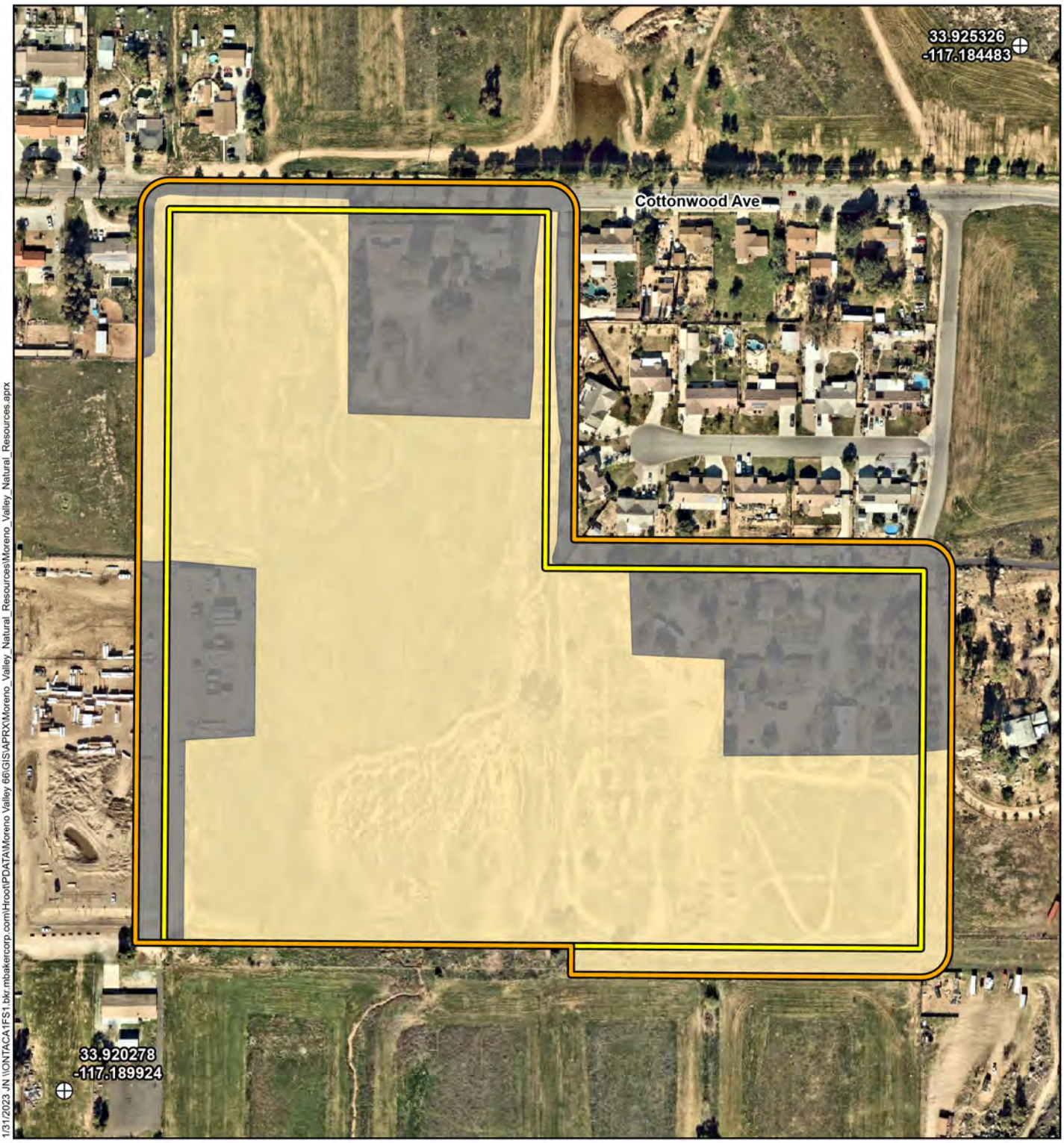
Land uses in the immediate vicinity of the survey area include vacant, residential uses, and office and commercial land uses. Vacant, undeveloped land is located to the north, south, and east of the survey area, while residential uses are located along the west, northwest, and northeast boundaries of the site. Additionally, commercial uses were currently being built along the western 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 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 22.26 acres of the project site. 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*). In addition, some individual mulefat (*Baccharis salicifolia*) occurs along the northwest boundary of the survey area.

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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Disturbed (24.40 acres)
- Developed (10.27 acres)

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0 125 250 Feet

Source: Nearmap (01/2022)

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# Vegetation Communities and Other Land Uses

Figure 4

### *2.4.2 Developed*

Developed areas make up approximately 7.13 acres of the project site. 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 two previous residential houses, one in the northeast corner and the other along the eastern boundary of the survey area. In addition, a small portion of the western side of the survey area was being actively used for a construction yard for a commercial development along the project's western boundary at the time of the field survey.

## 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 April 2022 field survey, some of which included house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), savannah sparrow (*Passerculus sandwichensis*), Say's phoebe (*Sayornis saya*), and western meadowlark (*Sturnella neglecta*). Additionally, one (1) mammal species, California ground squirrel (*Otospermophilus beecheyi*), and one (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 was 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 and a field verification was conducted on June 16,

2023. 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 an iPad with ArcGIS Fieldmaps application and a Trimble Catalyst GNSS receiver for submeter accuracy to identify specific limits of riparian and riverine features, photograph points, and document 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. A field verification of the riparian-riverine resources associated with AF-1 was conducted on June 16, 2023. 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**

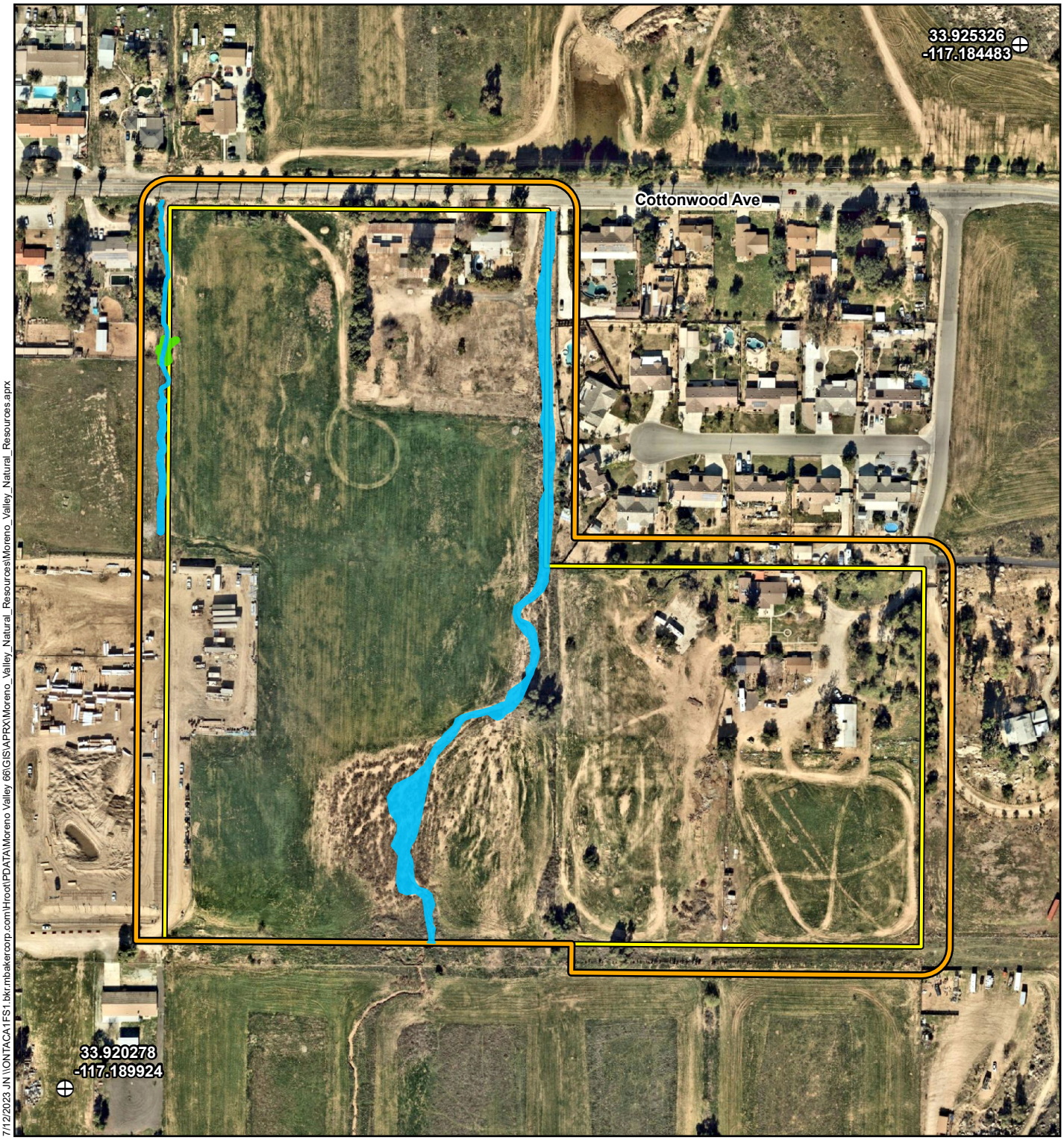
AF-1 collects/transports municipal stormwater from the adjacent residential development and surrounding foothills north of the project site, undergrounds beneath Cottonwood Avenue, and discharges into the northeastern corner of the project site and survey area via a corrugated concrete pipe culvert with concrete wingwalls. 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. Flows drain south into a riprap-lined flood control channel which is confined by residential development on both banks. Approximately 360 linear feet downstream, AF-1 begins to transition from the riprap-lined flood control channel to an incised earthen channel. A small culvert with concrete wingwalls is located on the eastern bank in this transitional area. At the time of the site visit, the culvert was obstructed by sediment resulting in a small erosional rill. A minimal amount of saturated soil and surface water were noted in the immediate location of the obstructed culvert and rill on the eastern bank, but not within the main channel bed or the surrounding banks. No other standing or flowing water was observed in association with AF-1.

AF-1 continues south for approximately 180 linear feet and then begins to meander southwest towards the southern project boundary where it is no longer constrained by residential development on either bank. A large concrete retaining wall is located along the southern project site boundary and flows appear to be conveyed beneath this retaining wall, likely via a

pipe or culvert; however, a significant amount of sediment deposition has occurred in the immediate vicinity of the retaining wall which reduces visibility.

Additionally, a large debris-filled non-jurisdictional erosional rill occurs immediately northwest of where AF-1 flows beneath the retaining wall and exits the project site and survey area. AF-1 exhibited clear evidence of hydrology, such as a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving.

Upon review of historic aerial imagery (Google Earth and HistoricAerials.com), the southern half of the channel appears to have migrated west by over 200 feet since 2011. Soils adjacent to either side of the channel consist of a sandy alluvium and were historically deposited by drainage flows. Higher volumes of water during the 2023 rainy season produced stronger flows resulting in the channel becoming more deeply incised than what was observed in 2022. The active floodplain was used to delineate the limits of riparian/riverine for the project because it is associated with the current "flows [that are present] for all or a portion of the year". The riprap-lined and soft-bottomed portions of AF-1 exhibited similar vegetation comprised of upland disturbance-tolerant non-native plant species consistent with the surrounding uplands; however, these species generally occurred in sparser patches within AF-1. Dominant species included foxtail barley (*Hordeum murinum*), foxtail brome (*Bromus rubens*), red stemmed filaree (*Erodium cicutarium*), ripgut brome, sagebrush combseed (*Pectocarya linearis*), stinknet (*Oncosiphon piluliferum*), and summer mustard (*Hirschfeldia incana*). Additionally, a small amount of hydrophytic vegetation comprised of tall flatsedge (*Cyperus eragrostis*) and willowherb (*Epilobium ciliatum*) was observed in association with the obstructed culvert on the eastern bank. The large tree in the middle of the property and visible on the aerial imagery was no longer present on the project site during the 2023 site visit. Therefore, vegetated areas outside of the current active floodplain are not considered riparian/riverine. Within the project site and survey area, AF-1 measures a total of approximately 1,444 linear feet.

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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Riparian (0.02 acres)
- Riverine (0.74 acres)

Michael Baker INTERNATIONAL

0 125 250 Feet

Source: Nearmap (01/2022)

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# Riparian/Riverine Resources

Figure 5

**Aquatic Feature 2**

AF-2 originates offsite as an ephemeral drainage which drains stormwater and other surface flows from the surrounding residential developments and foothills north of the project site; flows are conveyed south via a corrugated metal pipe underneath Cottonwood Avenue and enter the northwestern portion of the project site and survey area via a corrugated metal pipe with broken concrete wingwalls. AF-2 flows south for approximately 611 linear feet as an unmaintained ephemeral earthen drainage before transitioning to discontinuous unconfined/overland sheet flow which ultimately fans out and infiltrates on the northwestern portion of the project site. No standing or flowing surface water was observed within the AF-2 during the field survey. However, evidence of an OHWM ranging from 5 to 10 feet in width was observed via a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving.

AF-2 exhibited the same upland vegetation as AF-1 with a predominance of ripgut brome and summer mustard and occasional patches of bare sandy soil. A patch of Peruvian pepper trees (*Schinus molle*) occurs in the northern portion of AF-2 in association with the residential development immediately to the west. Additionally, a small patch of mature mulefat occurs approximately 230 feet downstream of where AF-2 enters the project site and survey area.

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 |
| **RIVERINE** | | | |
| **AF-1** | **0.64** | **0.64*** | **0.00** |
| **AF-2** | **0.10** | **<0.001** | **0.10** |
| **Riverine (subtotal)** | **0.74** | **0.64** | **0.10** |
| **RIPARIAN** | | | |
| **AF-1** | **0.00** | **0.00** | **0.00** |
| **AF-2** | **0.02** | **0.01** | **0.01** |
| **Riparian (subtotal)** | **0.02** | **0.01** | **0.01** |
| **TOTAL IMPACTS** | | **0.65** | **0.11** |

* Permanent impacts include both direct and indirect effects. Since the project boundary bisects the length of the north half of AF-1, it is anticipated that the direct impact to the portion of the channel within the project site boundary would indirectly affect the remainder of the channel just outside of the project site boundary. Therefore, it is anticipated that the direct and indirect effect on the entirety of AF-1 would be considered a permanent impact.

### *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 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 CNDDB (CDFW 2022b), 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 CNDDB, there are two (2) occurrence records for Riverside fairy shrimp within the USGS Sunnymead, California 7.5-minute quadrangle. The closest CNDDB 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 2022b).

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 lincolnii*), MacGillivray's warbler (*Geothlypis tolmiei*), Nashville warbler (*Leiothlypis ruficapilla*), 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 calif*ornicus], southern mountain yellow-legged frog [*Rana muscosa*], California red-legged frog [*Rana draytonii*], coast range newt [*Taricha torosa*], and western spadefoot [*Spea hammondii]*) 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 riparian/riverine resources pursuant to Section 6.1.2 of the MSHCP and total approximately 0.64 acre of riverine habitat within the project site and 0.01 acre of riparian vegetation within the unconfined/overland sheet flow, and then ultimately fans out and infiltrates offsite. A new school has been developed south of AF-2, and there are no riparian/riverine resources downstream of AF-2 that would be affected.  project site associated

with disturbed and developed land covers. AF-1 continues offsite to the south and eventually conveys flows 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 on the northwestern portion of the project site.

The permanent impacts on up to 0.1.95 acres 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, the Barry Jones mitigation bank, 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, the Barry Jones mitigation bank, RCRCD ILF program, 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 would consist of a purchase of re-establishment or establishment credits and would occur prior to project construction impacts. If the RCRCD ILFP is selected to fulfill mitigation, an equivalency analysis report, and habitat monitoring and management plan (HMMP) would be prepared and submitted to the Wildlife Agencies prior to construction activities. The equivalency analysis will document the biological lift and the functions and values provided by the mitigation site and the HMMP would describe the offsite compensatory mitigation and identifies the establishment and re-establishment performance criteria for the proposed mitigation. The long-term funding mechanism for post-restoration habitat maintenance and land management entity will also be identified and approved by the Wildlife Agencies prior to the start of construction.

### *3.3.2 Indirect Effects*

A portion of AF-1 occurs just east and outside of the project limits. The direct effects on the drainage identified above would result in an indirect effect to the portion of AF-1 that occurs just outside of the project limits. This indirect effect would be considered a permanent impact on AF-1, thus the entire channel is considered permanent impacted (refer to Section 3.3.1, above).

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 site 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 2023). 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

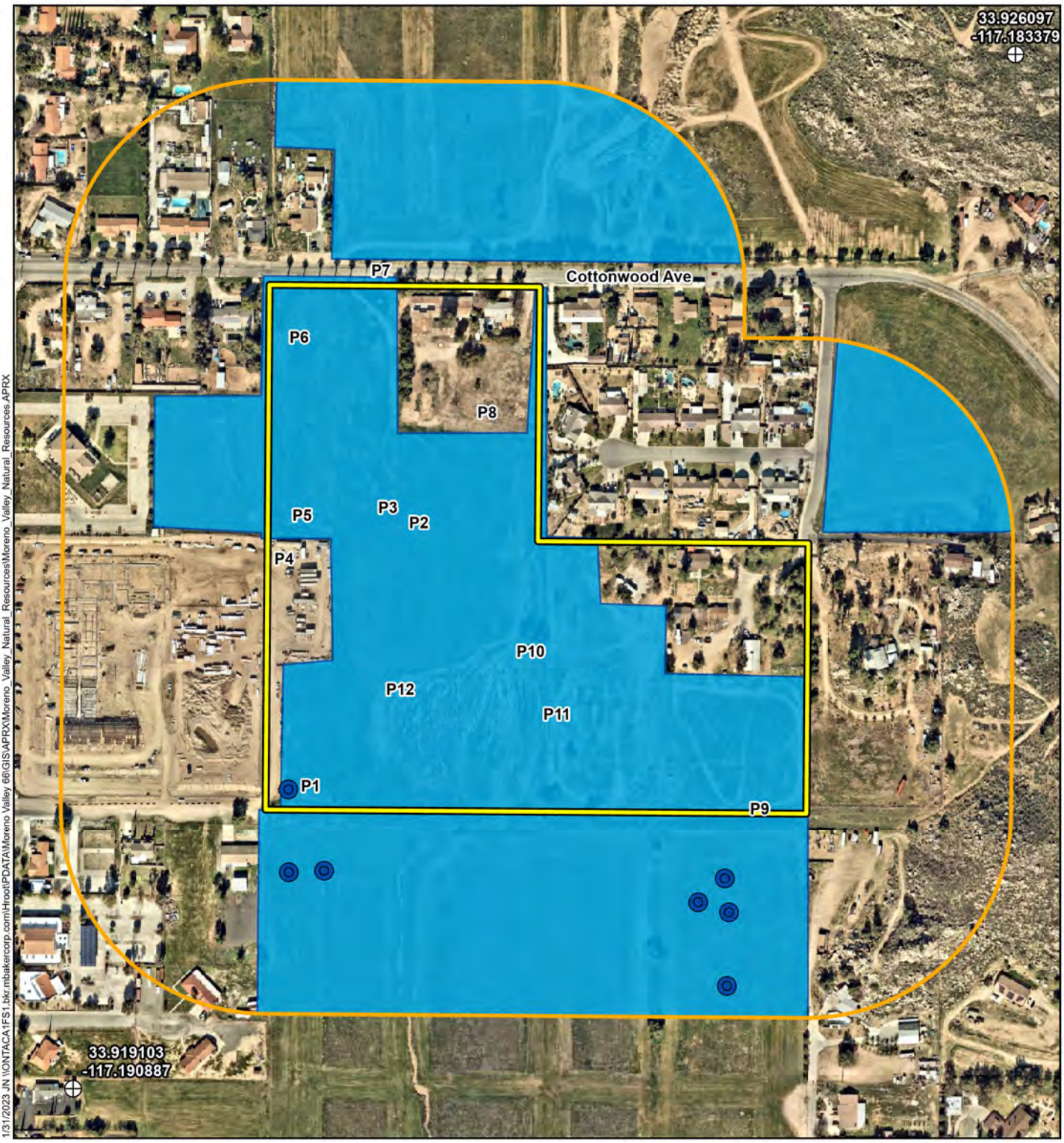
(*Otospermophilus beecheyi*], coyotes [Canis latrans], American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting. The presence or absence of mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been found 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.




**Legend**

- Project Site (29.39 acres)
- Survey Area (105.88 acres)
- Reference Point
- Suitable Habitat (53.21 acres)
- 1 Burrow

Michael Baker INTERNATIONAL

0 175 350 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

# Survey Area

Figure 6

### *5.1.3 Mitigation and Equivalency*

#### *5.1.3.1 Direct Effects*

The 28.34 acres 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.

#### *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 38443

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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February 2023; revised July 2023
JN 184659

# SUNSET CROSSING
# TENTATIVE TRACT MAP 38443

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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Senior Biologist
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Senior Biologist
Natural Resources



November 2022; Revised July 2023
JN 184659

# Executive Summary

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) 38443 (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[1] 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 (RCA 2018), 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 (RCA 2018).

The survey area is located within a partially developed portion of the City of Moreno Valley, east of Nason Street and north of Bay Avenue. 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 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.

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

[1] 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.

a qualified biologists 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 would fall under potential regulatory authority of the U.S. Army Corps of Engineers, 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 0.47 acre of impacts to potential USACE/RWQCB jurisdiction (non-wetland waters of the U.S/waters of the State) are anticipated, comprised of 0.37 acre of permanent impacts within the project site and 0.10 acre of temporary impacts within the survey area, as well as a total of 0.74 acre of impacts to potential CDFW jurisdiction, consisting of 0.64 acre of permanent impacts and 0.10 acre of temporary impacts to vegetated streambed, and 0.01 acre of permanent impacts and 0.01 acre of temporary 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) Nationwide Permit from the U.S. Army Corp of Engineer 2) Waste Discharge Requirement from the RWQCB, and 3) 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 0.74 acre of riverine habitat and 0.02 acre of riparian habitat occur within the project site. Riparian/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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**APPENDICES**

## 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 |
| CNDDB | 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 |
| project | Sunset Crossing Tentative Tract Map 38443 |
| 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 |
| WoS | waters of the State |
| WoUS | waters of the U.S. |

# Section 1 Introduction

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) 38443 (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[2] 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 survey area 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 (CNDDB; CDFW 2022a), the CNDDB 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 (RCA 2018), and other databases as potentially occurring in the vicinity of the survey area.

## 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 Bay Avenue, south of Cottonwood Avenue, west of Marion Road, and east of Nason Street on assessor's parcel numbers (APN) 488-190-027, 488-190-005, and 488-190-028 (refer to Figure 2, *Project Site*).

## 1.2 PROJECT DESCRIPTION

The proposed project includes the development of up to 133 residential units, a water basin, a park, and road construction on 29.39 acres (refer to Appendix A, *Proposed Site Plan*).

[2] 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


10/25/2022 JN \\ONTACA1FS1.bkr.mbakercorp.com\Hroot\PDATA\Moreno Valley 66\GIS\APRX\Moreno_Valley_Natural_Resources\Moreno_Valley_Natural_Resources.aprx

**Legend**

Project Site (29.39 acres)

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: *Perris and Sunnymead, California (2021)*

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

# Regional and Project Vicinity

Figure 1


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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Photograph Point and Direction

Michael Baker INTERNATIONAL

0 125 250 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

# Project Site

Figure 2

# Section 2 Methodology

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 CNDDB (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 project site and a 50-foot buffer (survey area) and confirmed existing conditions within the survey area on April 12, 2022. Michael Baker biologists were not able to survey the entire survey area due to access restrictions associated with the private residential properties along the project's northeast and eastern boundary, as well as a temporary construction yard along a portion of the project's western boundary. However, these areas were observed with binoculars from within the project site. 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 | 0830 / 1000 | Ryan Winkleman, Lauren Mapes | 63 sunny / 66 sunny | 1 – 3 |

According to the RCA's online MSHCP Information Application (RCA 2018), 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. However, 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 CNDDB 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

## 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 1,611 to 1,644 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 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, 2 to 8 percent slopes, eroded (GyC2), Hanford coarse sandy loam, 2 to 8 percent slopes (HcC), Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2), 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

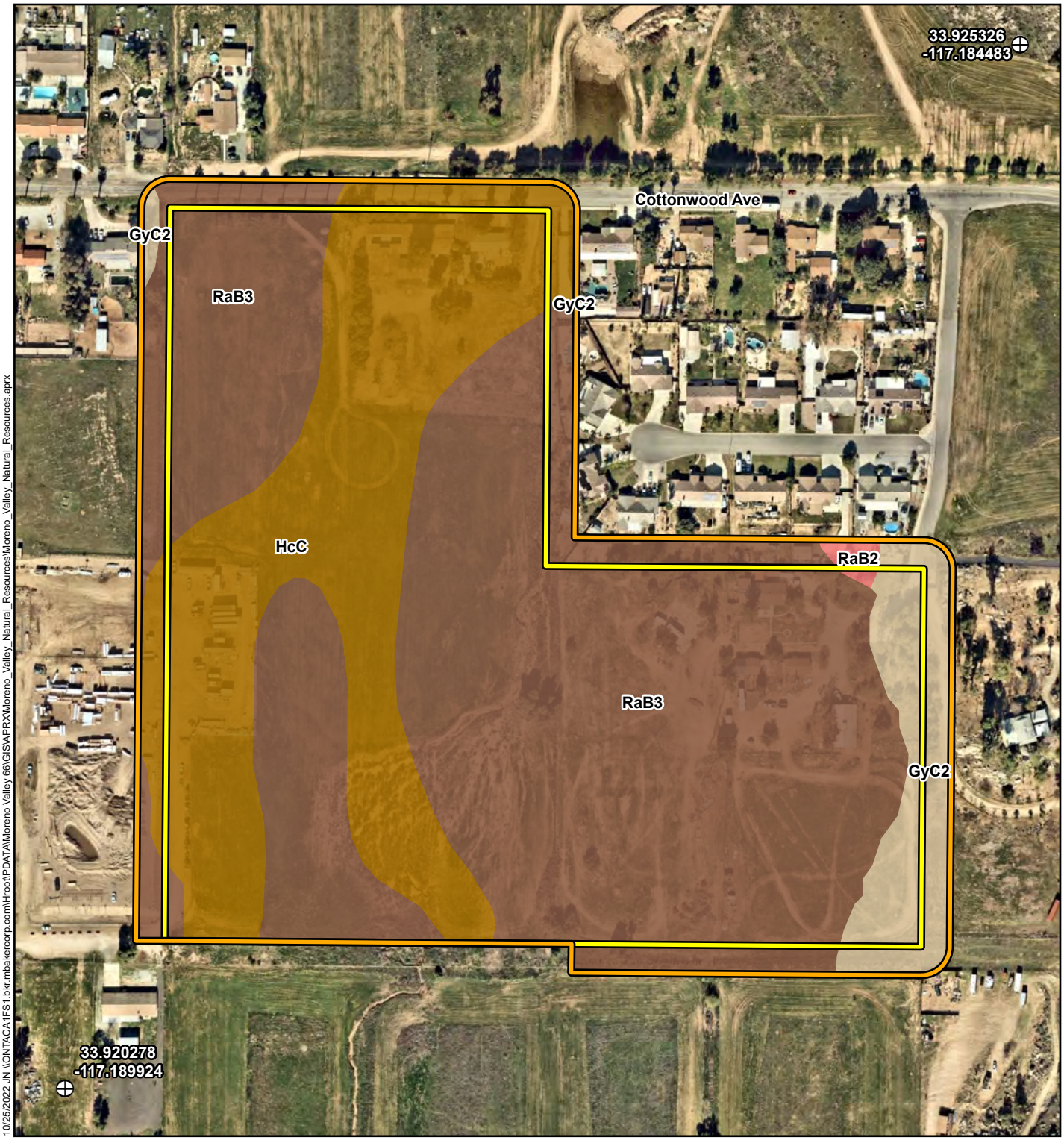
Land uses in the immediate vicinity of the survey area include vacant, residential, and commercial land uses. Vacant, undeveloped land is located to the north, south, and east of the survey area, while residential uses are located along the west, northwest, and northeast boundaries of the site. Additionally, commercial uses were currently being built along the western 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 22.26 acres of the project site and 24.40 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

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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- GyC2 — Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC — Hanford coarse sandy loam, 2 to 8 percent slopes
- RaB2 — Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 — Ramona sandy loam, 0 to 5 percent slopes, severely eroded

Michael Baker INTERNATIONAL

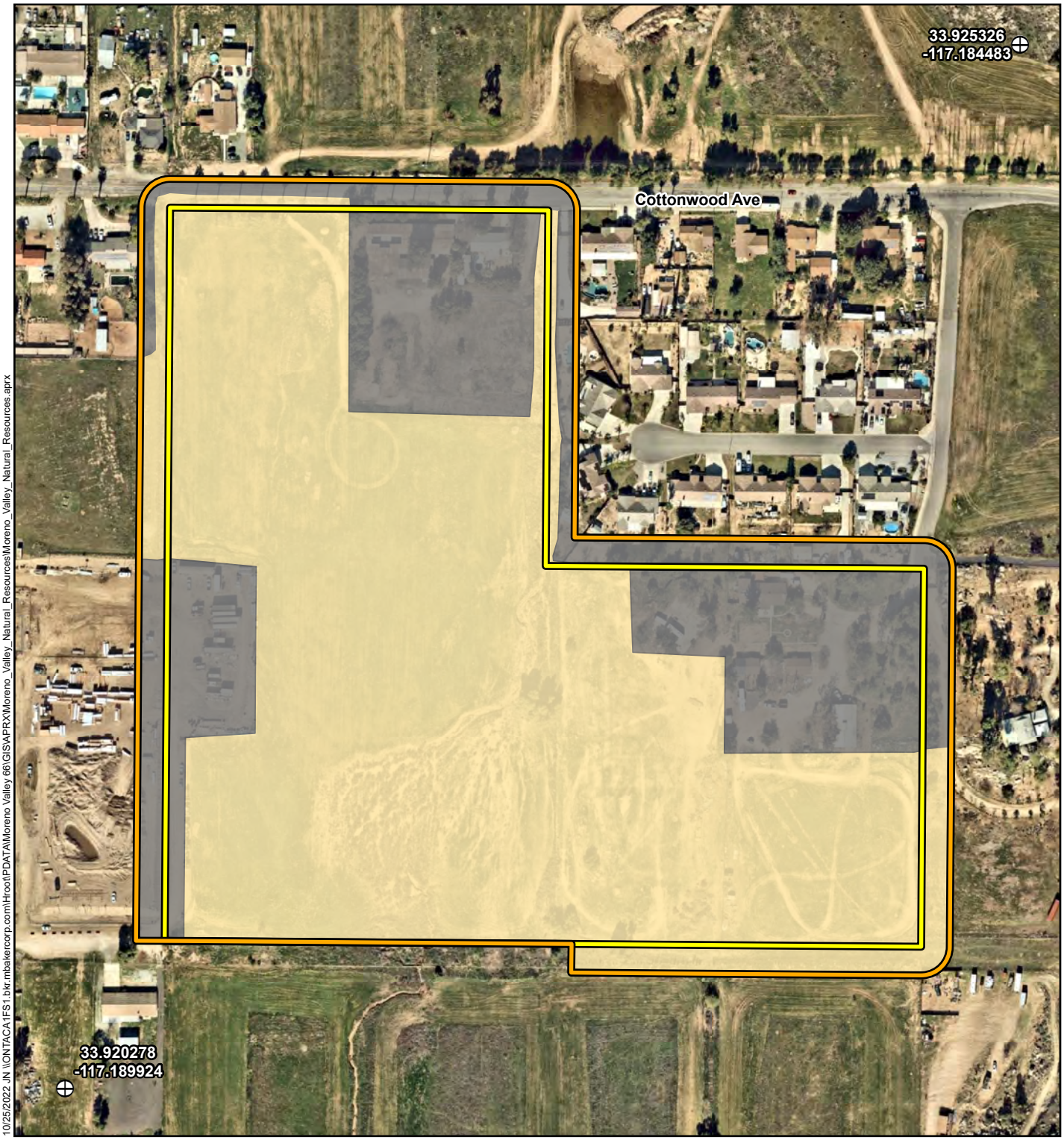
0 125 250 Feet

Source: Nearmap (01/2022), USDA (2019)

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

# USDA Soils

Figure 3




10/25/2022 JN \\ONTACA1FS1.bkr.mbakercorp.com\Hroot\PDATA\Moreno Valley 66\GIS\APRX\Moreno_Valley_Natural_Resources\Moreno_Valley_Natural_Resources.aprx

**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Disturbed (24.40 acres)
- Developed (10.27 acres)

Michael Baker INTERNATIONAL

0 125 250 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

## Vegetation Communities and Other Land Uses

Figure 4

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*). In addition, some individual mulefat (*Baccharis salicifolia*) occurs along the northwest boundary of the survey area.

### 3.2.2 DEVELOPED

Developed areas make up approximately 7.13 acres of the project site and 10.27 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 two previous residential houses, one in the northeast corner and the other along the eastern boundary of the survey area. In addition, a small portion of the western side of the survey area was being actively used for a construction yard for a commercial development along the project's western boundary at the time of the field survey (refer to Appendix B, *Site Photographs*). Remnant residential and residential and business buildings in the northeast corner of the project site that were abandoned sometime between June 23, 2021 and April 12, 2022 were observed during the survey occurring in April 2022. In August 2022, those abandoned buildings were demolished by the previous landowner prior to the purchase by the current project proponent, Highpointe Communities.

## 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 webbii*).

### 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 (*Haemorhous 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 (CFGC)[3]. To maintain compliance with the MBTA and CFGC, 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

One (1) mammal species was observed during the field survey: California ground squirrel (*Otospermophilus beecheyi*). 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 coyote (*Canis latrans*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), desert cottontail (*Sylvilagus audubonii*), and raccoon (*Procyon lotor*). Bats occur throughout most of southern California and may use the survey area

[3] Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the CFGC 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.*).

as foraging habitat although it is heavily disturbed. The presence of Mexican fan palms (*Washingtonia robusta*), Fremont cottonwood (*Populus fremontii*) and other large trees may provide roosting habitat for bats. There were abandoned remnant residential and business buildings in the northeast corner of the project site at the time of the site survey. Bats have been known to occur in the area and are known to occupy these types of remnant building structures. However, these buildings were demolished in August 2022 by the previous landowner prior to the purchase by the current project proponent, Highpointe Communities and therefore no longer support bat habitat.

## 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 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 CNDDB, 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 CNDDB 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 CNDDB, 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 CNDDB, 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. 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 CNDDB, CIRP, and IPaC databases 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 CNDDB (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 CNDDB 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; RCA 1996). 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 CNDDB, 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 0.25-mile northeast of the survey area. The undeveloped areas surrounding the northern side of Perris Reservoir, approximately 2 miles from the survey area, are also 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 preclude 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 CNDDB: 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 LOCAL POLICIES AND ORDINANCES

### 3.6.1 CITY OF MORENO VALLEY MUNICIPAL CODE

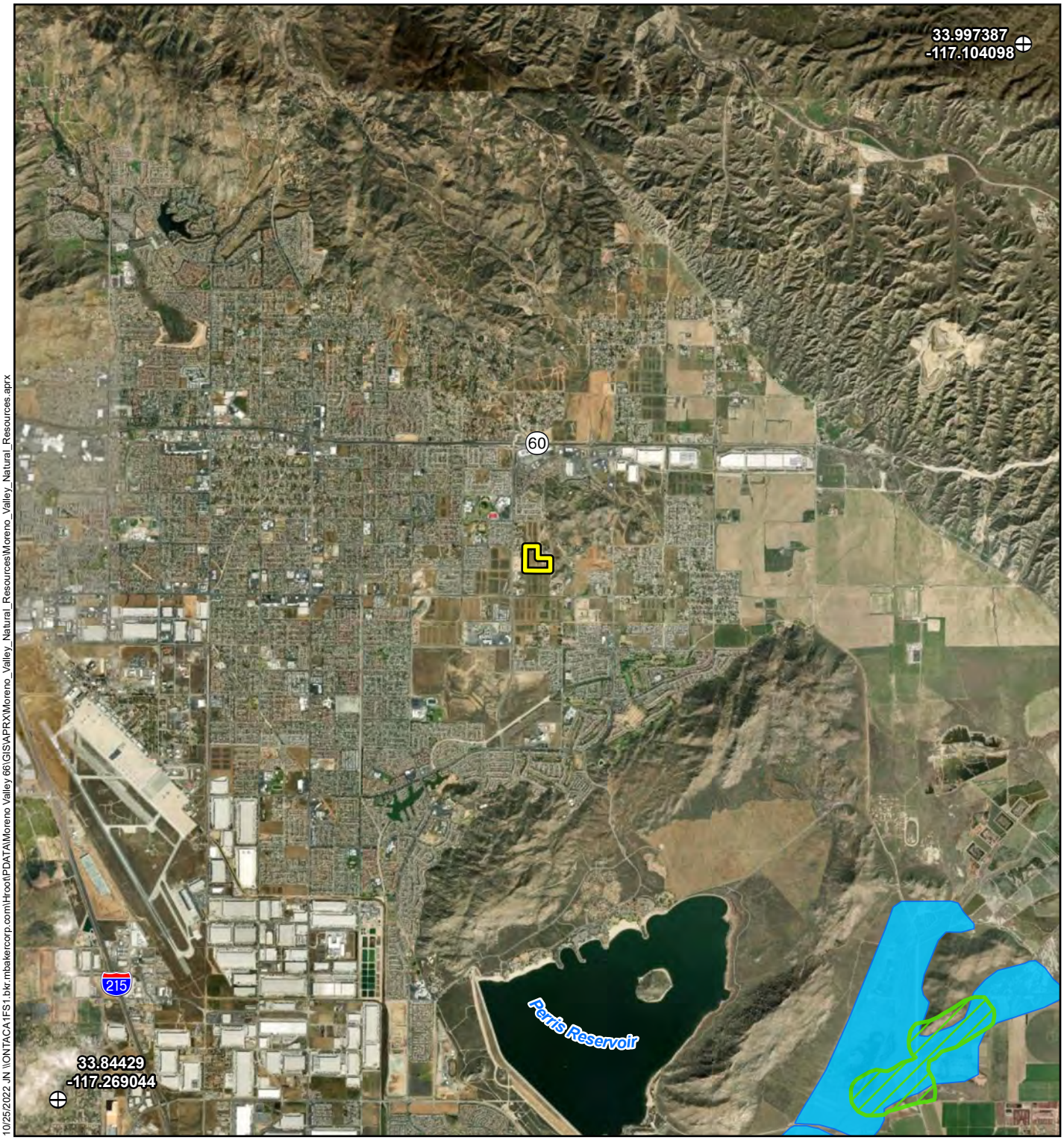
The City of Moreno Valley's Municipal Code addresses tree removal on all land uses, for all projects, in all districts requiring City approval. The Moreno Valley Municipal Code addresses requirements for preservation and protection of heritage trees within the City located on both private and public property. Under Title 9 Chapter 9.17 of the Moreno Valley Municipal Code, the City has identified two tree species as "heritage trees." The olive trees (*Olea europaea*) located near the northwestern corner of the site qualify as heritage trees according to the definition in Chapter 9.17.030, which states that heritage trees include any tree which "defines the historical and cultural character of the city including older Palm and Olive trees, and/or any tree designated as such by official action." In addition, some of the trees surrounding abandoned residences that were demolished in August 2022 may qualify as "heritage trees" according to the definition in Chapter 9.17.030, which states that heritage trees include any tree which "is fifteen (15) inch diameter measured twenty-four (24) inches above ground level or that have reached a height of fifteen (15) feet or greater." Under Chapter 9.17.030 of the Moreno Valley Municipal Code, the removal of heritage trees requires the review of the ecological historical preservation board.

It is Michael Baker's determination that there are trees within the survey area that potentially fit the City of Moreno Valley's definition of heritage trees. Michael Baker recommends that an arborist conduct a tree survey on-site to determine which trees, if any, qualify as heritage trees.

## 3.7 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*).

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**Legend**

- Project Site (29.39 acres)
- Reference Point
- Spreading navarretia (*Navarretia fossalis*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)

Michael Baker INTERNATIONAL

0 3,750 7,500 Feet

Source: Nearmap (01/2022), USFWS (06/2022)

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

# Critical Habitat

Figure 5

## 3.8 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 (WoS), 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.

As documented in the *Delineation of State and Federal Jurisdictional Waters* (Michael Baker 2022), 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 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | USFWS/RWQCB** | | CDFW** | | USFWS/RWQCB** | | CDFW** | |
| | | | Non-Wetland WoUS/WoS | Wetland WoUS/WoS | Streambed | Riparian | Non-Wetland WoUS/WoS | Wetland WoUS/WoS | Streambed | Riparian |
| AF-1 | Non-Wetland | 1,444 | 0.37 | 0.00 | 0.64 | 0.00 | 0.37 | 0.00 | 0.64 | 0.00 |
| AF-2 | Non-Wetland | 611 | < 0.001 | 0.00 | < 0.001 | 0.01 | 0.10 | 0.00 | 0.10 | 0.02 |
| **TOTAL*** | | **2,055** | **0.37** | **0.00** | **0.64** | **0.01** | **0.47** | **0.00** | **0.74** | **0.02** |

*Total may not equal to sum due to rounding.

**All resources are considered potentially jurisdictional until they have been reviewed by the respective regulating authority.

### 3.8.1 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. Based on a review of the conceptual plan, approximately 0.37 acre of impacts to potentially jurisdictional USACE (non-wetland WoUS) are anticipated, comprised of 0.27 acre of permanent impacts within the project site, and 0.10 acre of temporary impacts within the survey area. Therefore, the project proponent would provide notification for the use of a Nationwide Permit prior to impacts within potentially USACE jurisdictional areas.

### 3.8.2 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 0.37 acre of

impacts to RWQCB jurisdiction (non-wetland WoS) are anticipated, comprised of 0.27 acre of permanent impacts within the project site, and 0.10 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.

### 3.8.3 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 0.76 acre of impacts to CDFW jurisdiction are anticipated. Anticipated impacts consist of 0.64 acre of permanent impacts and 0.10 acre of temporary impacts to vegetated streambed, and 0.01 acre of permanent impacts and 0.01 acre of temporary impacts to associated riparian. 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

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 (RCA 2018), 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 a designated survey area for BUOW according to the RCA's online MSHCP Information Application (RCA 2018).

## 4.1 PROJECT INTRODUCTION AND SETTING

### 4.1.1 PROJECT AREA

The project site consists of APN 488-190-027, 488-190-005, and 488-190-028 which is approximately 29.39 acres. As previously stated, according to the RCA's online MSHCP Information Application (RCA 2018), 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

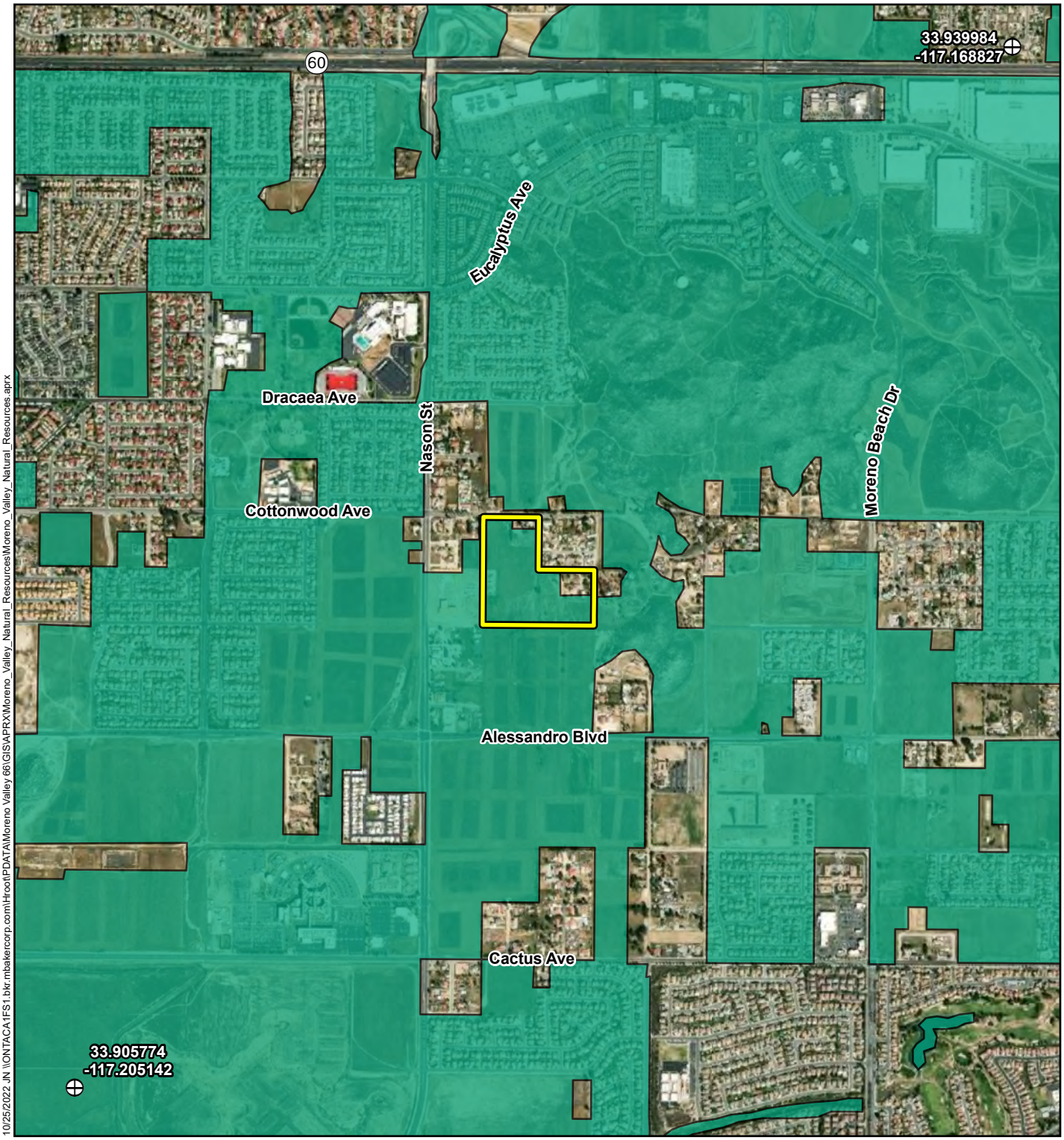
The proposed project includes the development of up to 133 residential units, a water basin, a park, and road construction on 29.39 acres (refer to Appendix A, *Proposed Site Plan*).

### 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.

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**Legend**

- Project Site (29.39 acres)
- Burrowing Owl Survey Area
- Reference Point

Michael Baker INTERNATIONAL

0 850 1,700 Feet

Source: Nearmap (01/2022), WRCRCA (04/2022)

SUNSET CROSSING TTM 38443
HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS

# MSHCP Conservation Areas

Figure 6

## 4.2 RESERVE ASSEMBLY ANALYSIS

According to the RCA's online MSHCP Information Application (RCA 2018), 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 (RCA 2018), 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 (RCA 2018). 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 (RCA 2018).

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 (RCA 2018). 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 (Acres)**

| Vegetation Community/Land Cover | Project Site | Survey Area | Total |
|---|---|---|---|
| Disturbed Habitat | 22.26 | 2.14 | 24.40 |
| Developed | 7.13 | 3.14 | 10.27 |
| **TOTAL** | **29.39** | **5.28** | **34.67** |

*Total may not equal to sum due to rounding.

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

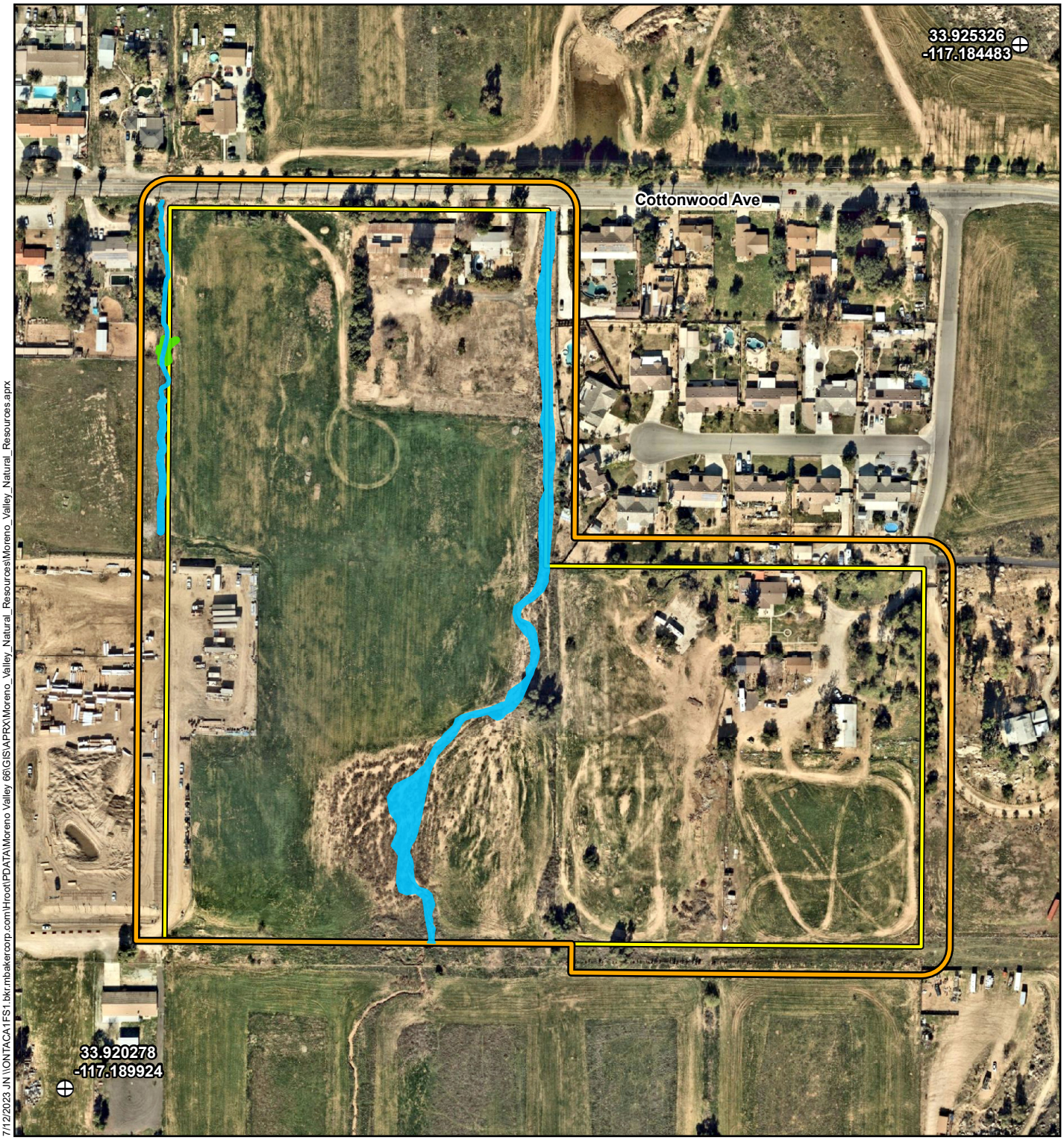
### 4.4.1 RIPARIAN/RIVERINE

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 2023), 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 0.74 acre of riverine habitat within the project site and the survey area) and 0.01 acre of riparian vegetation within the project site (0.02 acre within the entire survey area) consisting primarily of mulefat (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 riparian/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

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**Legend**

- Project Site (29.39 acres)
- Survey Area (34.66 acres)
- Reference Point
- Riparian (0.02 acres)
- Riverine (0.74 acres)

Michael Baker INTERNATIONAL

0 125 250 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

# Riparian/Riverine Resources

Figure 7

located along floodplain areas of the San Jacinto River and the Salt Creek flood control channel.

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 CNDDB, 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 suitable for riparian birds 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.

# 4.1 PROTECTION OF NARROW ENDEMIC PLANT SPECIES

According to the RCA's online MSHCP Information Application (RCA 2018) 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.

# 4.2 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 (RCA 2018) 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 (RCA 2018) 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 (RCA 2018) 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 CNDDB, 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 recent update 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. No BUOWs, sign (i.e., pellets, feathers, castings, or whitewash), occupied burrows, or remnant burrows were observed. However, 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 BUOW 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 survey area within 500 feet. Although suitable burrows were found within the survey area, no BUOWs 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 BUOWs were not observed during the focused surveys, the survey area contains suitable burrows and habitat that could become occupied by BUOWs prior to implementation of the proposed project. Therefore, a pre-construction clearance survey would 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 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 pre-construction clearance survey, a BUOW avoidance and minimization plan and Determination of Biologically Equivalent or Superior Preservation analysis 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 (RCA 2018) and Figure 6-5 of the MSHCP. Therefore, a discussion related to the proposed project and MSHCP mammal species is not warranted.

## 4.3 INFORMATION ON OTHER SPECIES

### 4.7.1 DELHI SANDS FLOWER-LOVING FLY

According to the RCA's online MSHCP Information Application (RCA 2018) 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.

## 4.4 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.

## 4.5 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

The survey area is located within a moderately developed portion of the City of Moreno Valley, north of Bay Avenue, south of Cottonwood 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 CNDDB, 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 within the survey area, because the survey area is an undeveloped open space, bats may still forage over it if an insect prey base is present, particularly because there is also roosting habitat on-site. 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 0.37 acre of impacts to RWQCB jurisdiction (non-wetland WoS) are anticipated, comprised of 0.27 acre of permanent impacts within the project site and 0.10 acre of temporary impacts within the survey area, as well as a total of 0.39 acre of impacts to CDFW jurisdiction consisting of 0.27 acre of permanent impacts and 0.10 acre of temporary impacts to vegetated streambed, and <0.01 acre of permanent impacts and 0.02 acre of temporary impacts to associated riparian.. 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 0.37 acre of riverine habitat and 0.02 acre of riparian habitat occur within the project site. Riparian/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 riparian/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.

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# Appendix A Proposed Site Plan


TRACT 38442 (SOUTH OF BAY) LEGEND & LOT COUNT

| | LOT SIZE | MIN LOT AREA | # OF LOTS |
|---|---|---|---|
| | 40'x80' | 3200 SF | 64 |
| | 45x100' | 4500 SF | 44 |
| | | TOTAL - | 108 |
| | OPEN SPACE | N/A | 4 |
| | WQ BASIN | N/A | 1 |

TRACT 38443 (NORTH OF BAY) LEGEND & LOT COUNT

| | LOT SIZE | MIN LOT AREA | # OF LOTS |
|---|---|---|---|
| | 45x100' | 4500 SF | 52 |
| | 60'x100' | 6000 SF | 81 |
| | | TOTAL - | 133 |
| | OPEN SPACE | N/A | 7 |
| | WQ BASIN | N/A | 1 |

PROJECT TOTAL - 241

100 0 100 200 300
SCALE IN FEET: 1"=100'

# SUNSET RIDGE
## TR 38442 AND 38443 SITE PLAN EXHIBIT

PROACTIVE ENGINEERING CONSULTANTS

MAY 18, 2022

# Appendix B Site Photographs

**Photograph 1:** Standing in the southwest portion of the project site, facing north overlooking disturbed habitat and an unrelated temporary construction yard within the site.

**Photograph 2:** Standing on the southern boundary of the project site, facing east overlooking a swale separating Sunset Crossing TTM 38442 and Sunset Crossing TTM 38443.

**Photograph 3:** Standing in the center of the project site, facing southeast overlooking disturbed habitat.

**Photograph 4:** Standing along the western boundary of the construction yard, facing north overlooking disturbed habitat.

**Photograph 5:** Standing in the northwest corner of the project site, facing south overlooking disturbed habitat and an unrelated temporary construction yard within the site.

**Photograph 6:** Standing on the northern boundary of the project site, facing south overlooking disturbed habitat and ornamental trees bordering an abandoned property.

**Photograph 7:** Standing in the center of the project site, facing north overlooking disturbed habitat and an abandoned property.

**Photograph 8:** Standing in the northeast corner, facing south at a potential jurisdictional feature.

**Photograph 9:** Standing near the southern center of the project site, facing north overlooking disturbed habitat.

**Photograph 10:** Standing near the southeast corner of the project site, facing north overlooking developed and disturbed habitat.

**Photograph 11:** View south along he edge of the riparian/riverine on the floodplain.

**Photograph 12:** View south along drainage (riparian/riverine) and active floodplain

# Appendix C Plant and Wildlife Species Observed List

## Table C-1: Plant and Wildlife Species Observed List

| *Scientific Name** | Common Name | Cal-IPC Rating** | Special-Status Rank*** |
|---|---|---|---|
| **Plants** | | | |
| *Amaranthus* sp. | amaranth | | |
| *Acacia* sp. | acacia | | |
| *Ambrosia acanthicarpa* | flatspine bur ragweed | | |
| *Ambrosia artemisiifolia** | annual ragweed | | |
| *Amsinckia intermedia* | common fiddleneck | | |
| *Avena fatua** | common wild oat | Moderate | |
| *Baccharis salicifolia* | mulefat | | |
| *Brachypodium distachyon** | purple false brome | Moderate | |
| *Bromus diandrus** | great brome | Moderate | |
| *Bromus hordeaceus** | bull grass | Limited | |
| *Bromus madritensis** | red brome | High | |
| *Bromus* sp. | brome | | |
| *Centaurea* sp.* | star-thistle | Watch, Moderate, High | |
| *Chenopodium album** | lamb's quarter | | |
| *Croton californicus* | California croton | | |
| *Cupressus sempervirens** | Italian cedar | | |
| *Datura wrightii* | jimsonweed | | |
| *Encelia farinosa* | brittlebush | | |
| *Erodium cicutarium** | redstem filaree | Limited | |
| *Heterotheca grandiflora* | telegraphweed | | |
| *Hirschfeldia incana** | shortpod mustard | Moderate | |
| *Hordeum* sp. | barley | | |
| *Jacaranda mimosifolia** | blue jacaranda | | |
| *Lactuca serriola** | prickly lettuce | | |
| *Lamarckia aurea** | goldentop grass | | |
| *Malva parviflora** | cheeseweed | | |
| *Marrubium vulgare** | horehound | Limited | |
| *Melilotus officinalis** | yellow sweetclover | | |
| *Nicotiana glauca** | tree tobacco | Moderate | |
| *Olea europaea** | olive tree | Limited | |
| *Oncosiphon pilulifer** | stinknet | High | |
| *Pectocarya* sp. | combseed | | |
| *Plagiobothrys* sp. | popcornflower | | |
| *Polypogon monspeliensis** | annual beard-grass | Limited | |
| *Populus* sp. | cottonwood | | |
| *Rumex crispus** | curly dock | Limited | |
| *Salsola tragus** | Russian thistle | Limited | |
| *Schinus molle** | Peruvian pepper tree | Limited | |
| *Schismus barbatus** | common Mediterranean grass | Limited | |
| *Sisymbrium irio** | London rocket | Limited | |

## Table C-1: Plant and Wildlife Species Observed List

| *Scientific Name** | Common Name | Cal-IPC Rating** | Special-Status Rank*** |
|---|---|---|---|
| *Sonchus* sp.* | thistle | | |
| *Carpobrotus edulis** | iceplant | High | |
| *Washingtonia robusta** | Mexican fan palm | Moderate | |
| **Reptiles** | | | |
| *Uta stansburiana elegans* | western side-blotched lizard | | |
| **Birds** | | | |
| *Accipiter cooperii* | Cooper's hawk | | WL |
| *Aeronautes saxatalis* | white throated swift | | |
| *Agelaius phoeniceus* | red-winged blackbird | | |
| *Anthus rubescens* | American pipit | | |
| *Calypte anna* | Anna's hummingbird | | |
| *Columba livia** | rock pigeon | | |
| *Corvus brachyrhynchos* | American crow | | |
| *Spinus lawrencei* | Lawrence's goldfinch | | |
| *Haemorhous mexicanus* | house finch | | |
| *Icterus bullockii* | Bullock's oriole | | |
| *Icterus cucullatus* | hooded oriole | | |
| *Melozone crissalis* | California towhee | | |
| *Mimus polyglottos* | northern mockingbird | | |
| *Passer domesticus** | house sparrow | | |
| *Passerculus sandwichensis* | savannah sparrow | | |
| *Petrochelidon pyrrhonota* | cliff swallow | | |
| *Pheucticus melanocephalus* | black-headed grosbeak | | |
| *Psaltriparus minimus* | American bushtit | | |
| *Sayornis nigricans* | black phoebe | | |
| *Sayornis saya* | Say's phoebe | | |
| *Spinus psaltria* | lesser goldfinch | | |
| *Streptopelia decaocto** | Eurasian collared-dove | | |
| *Sturnella neglecta* | western meadowlark | | |
| *Tyrannus vociferans* | Cassin's kingbird | | |
| *Zenaida macroura* | mourning dove | | |
| *Zonotrichia leucophrys* | white-crowned sparrow | | |
| **Mammals** | | | |
| *Otospermophilus beecheyi* | California ground squirrel | | |

* **Non-native species**

** **California Invasive Plant Council (Cal-IPC) Ratings**

High These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Watch These species have been assessed as posing a high risk of becoming invasive in the future in California.

*** **Special-Status Rank**

**California Department of Fish and Wildlife (CDFW)**

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

# Appendix D Potentially Occurring Special-Status Biological Resources

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| **SPECIAL-STATUS WILDLIFE SPECIES** | | | | | |
| ***Accipiter cooperii*** Cooper's hawk | WL G5 S4 | Yearlong resident of California. Generally, found in forested areas up to 3,000 feet above mean sea level (amsl) in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season. | Yes | Yes | **Present:** Species was observed within the boundaries of the project site. |
| ***Agelaius tricolor*** tricolored blackbird | ST SSC G1G2 S1S2 | Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, protected nesting substrate freshwater marsh dominated by cattails (Typha spp.), willows (Salix spp.), and bulrushes (Schoenoplectus spp.), and either flooded or thorny/spiny vegetation and suitable foraging space providing adequate insect prey. | Yes | No | **Not Expected:** There is minimal to no suitable habitat preferred by this species within the project site. Additionally, there is no riparian scrub habitats nearby that this species would forage or breed in. |
| ***Aimophila ruficeps canescens*** southern California rufous-crowned sparrow | WL G5T3 S3 | Yearlong resident that is typically found between 3,000 and 6,000 feet amsl. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats. | Yes | No | **Not Expected:** Suitable coastal sage scrub and chaparral habitats preferred by this species for foraging and nesting are not present within the project site. Further, the project site is outside of known elevation ranges for this species. |
| ***Anniella stebbinsi*** Southern California legless lizard | SSC G3 S3 | Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport. | No | No | **Not Expected:** Suitable habitats consisting of coastal sand dunes, sandy wash and alluvial fans are not present within the project site. The project site primarily consists of disturbed habitat due to past agricultural operations and continual weed abatement activities resulting in heavily disturbed and compacted surface soils. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Arizona elegans occidentalis*** California glossy snake | SSC G5T2 S2 | Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing. | No | No | **Not Expected:** Suitable arid scrub, rocky wash, grassland, and chaparral habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Artemisiospiza belli belli*** Bell's sage sparrow | WL G5T2T3 S3 | This species has a wide, but sparse distribution in western Riverside County, specifically within the "Riverside lowlands, San Jacinto Foothills, Santa Ana Mountains, and Desert Transition Bioregions. Yearlong resident on the coastal side of southern California mountains. Breeds in coastal sage scrub and chaparral habitats from February to August. They require semi-open habitats with evenly spaced shrubs one to two meters high. Occurs in chaparral dominated by fairly dense stands of chamise (*Adenostoma fasciculatum*). | Yes | No | **Not Expected:** Suitable coastal sage scrub and chaparral habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Asio otus*** long-eared owl | SSC G5 S3? | Nests in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands. Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas. | No | No | **Not Expected:** Suitable woodland habitats preferred by this species for nesting are not present within the project site. |
| ***Aspidoscelis hyperythra*** orange-throated whiptail | WL G5 S2S3 | Uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties. Also occurs in southwestern San Bernardino County near Colton. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral. | Yes | No | **Not Expected:** Despite there been an observed sighting within 0.25-mile northeast of the project (CDFW 2022a) site, however there is no suitable coastal chaparral/semi-arid brushy habitats preferred by this species within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Aspidoscelis tigris stejnegeri*** coastal whiptail | SSC G5T5 S3 | This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Ranges south into Baja California. Found in a variety of ecosystems, primarily hot and dry open areas with sparse vegetation in chaparral, woodland, and riparian areas. Associated with rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations. | Yes | No | **Not Expected:** Suitable, sparsely vegetated chaparral, woodland, riparian habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Athene cunicularia*** burrowing owl | SSC G4 S3 | Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation. | Yes (c) | No | **Low (Foraging):** The project site provides marginal foraging habitat for this species. The closest extant occurrence (Occurrence Number 439) was recorded in 2007, approximately 3.25 mi southwest of the project site; there was 6 adults observed and 2 juvenile on March Air Force Base (CDFW 2022a). Protocol surveys conducted in spring 2022 were negative. |
| ***Aquila chrysaetos*** golden eagle | FP WL G5 S3 | Yearlong resident of California. Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat. | Yes | No | **Not Expected:** Although the project site provides marginal foraging habitat for this species, the closest extant occurrence (Occurrence Number 302) was recorded in 1980 and over 9 miles northeast of the project site. |
| ***Branchinecta lynchi*** vernal pool fairy shrimp | FT G3 S3 | Endemic to California and only found in vernal pools. Vernal pool habitats form in depressions above an impervious substrate layer, or claypan/duripan. This species does not occur in riverine, marine, or other permanent bodies of water. When the temporary pools dry, offspring persist in suspended development as desiccation-resistant embryos (commonly called cysts) in the pool substrate until the return of winter rains and appropriate temperatures allow some of the cysts to hatch. | Yes | No | **Not Expected:** Suitable vernal pool habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. Additionally, federally designated Critical Habitat for this species is not present within the project site. |
| ***Buteo regalis*** ferruginous hawk | WL G4 S3S4 | Common winter resident of grasslands and agricultural areas in southwestern California. Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. This species does not breed in California. | Yes | No | **Not Expected:** Suitable grassland habitats and agricultural areas preferred by this species for foraging are not present within the project site. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Chaetodipus fallax fallax*** northwestern San Diego pocket mouse | SSC G5T3T4 S3S4 | Found terrestrially in a wide variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Open habitat on the Pacific slope from southwestern San Bernardino County to northwestern Baja California. Habitat types include coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil to dig burrows. | Yes | No | **Not Expected:** Suitable chaparral and coastal sage scrub habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Coccyzus americanus occidentalis*** western yellow-billed cuckoo | FT SE G5T2T3 S1 | Uncommon summer resident where its breeding distribution is restricted to isolated sites in the Sacramento, Armargosa, Kern, Santa Ana, and Colorado River valleys. The species requires large patches of multi-layered riparian forest, with cottonwoods and willows. The presence of standing or flowing surface water under the riparian canopy is also preferred. Mesquite (Prosopis spp.) groves may also be used, but usually only when cottonwood-willow habitat is unavailable. | Yes (a) | No | **Not Expected:** Although there are possible jurisdictional features within the project site, these features do not contain the extensive riparian habitat that this species requires. |
| ***Crotalus ruber*** red-diamond rattlesnake | SSC G4 S3 | Found in southwestern California, from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California. It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet amsl), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, boulders associated coastal sage scrub, oak/pine woodlands, and desert slope scrub associations; however, chamise and red shank (*Adenostoma sparsifolium*) associations may offer better structural habitat for refuges and food resources for this species than other habitats. | Yes | No | **Not Expected:** Suitable habitats with heavy brush and large rocks/boulders preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Danaus plexippus*** monarch butterfly | SC G4T2T3 S2S3 | Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. | No | No | **Not Expected:** The survey area does not provide suitable habitat for this species. Based on maps of known wintering roosts for this species, there are no known roosts in this area (Xerces Society 2022). |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Dipodomys merriami parvus*** San Bernardino kangaroo rat | FE CSE SSC G5T1 S1 | Primarily found in Riversidean alluvial fan sage scrub (RAFSS) and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidean upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidean alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows. | Yes (c) | No | **Not Expected:** Suitable RAFSS habitat preferred by this species is not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Dipodomys stephensi*** Stephens' kangaroo rat | FT ST G2 S2 | Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil. | Yes | No | **Not Expected:** The project site has open habitats with less than 50% cover but is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Elanus leucurus*** white-tailed kite | FP G5 S3S4 | Yearlong resident along the coastal ranges and valleys of California. Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole (*Microtus californicus*). Nests in tall (20 to 50 feet) coast live oaks (*Quercus agrifolia*). | Yes | No | **Not Expected:** Suitable open grassland, wetland, oak woodland, and savannah-like habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Empidonax trailli extimus*** southwestern willow flycatcher | FE SE G5T2 S1 | Uncommon summer resident in southern California primarily found in lower elevation riparian habitats occurring along streams or in meadows. The structure of suitable breeding habitat typically consists of a dense mid-story and understory and can also include a dense canopy. Nest sites are generally located near surface water or saturated soils. The presence of surface water, swampy conditions, standing or flowing water under the riparian canopy are preferred. | Yes | No | **Not Expected:** Suitable riparian habitat consisting of thickets of willows along a stream course preferred by this species for foraging and nesting is not present within the project site. |
| ***Emys marmorata*** western pond turtle | SSC G3G4 S3 | Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet amsl. | Yes | No | **Not Expected:** Suitable habitats preferred by this species for foraging and nesting are not present within the project site. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Eremophila alpestris actia*** California horned lark | WL G5T4Q S4 | Yearlong resident of California. This subspecies is typically found in coastal regions. Breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Nests on the open ground. | Yes | No | **Low (Foraging and Nesting):** The project site provides marginal foraging and nesting habitat for this species. There is a known occurrence (Occurrence 35) 1 mile southwest of the project site (CDFW 2022a). |
| ***Eumops perotis californicus*** western mastiff bat | SSC G5T4 S3S4 | Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas. | No | No | **Low (Foraging):** There are suitable grasslands preferred by this species for foraging within the project site. However, the species is not expected to roost within the project site due to the lack of high cliff roosts. There was an observed occurrence (Occurrence 80) in 1990 within 0.75 mi southwest of the project site, where two females were observed and collected (CDFW 2022a). |
| ***Euphydryas editha quino*** quino checkerspot butterfly | FE G5T1T2 S1S2 | Occupies a variety of habitat types that support California plantain (*Plantago erecta*), the species primary larval host plant, including grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Can also be found in desert canyons and washes at the lower edge of chaparral habitats. | Yes | No | **Not Expected:** The species' primary larval host plant California plantain was not observed within the project site during the field survey. Additionally, suitable habitats preferred by this species are not present within the project site. |
| ***Haliaeetus leucocephalus*** bald eagle | SE G5 S3 | Locally uncommon yearlong resident of southern California. Typically prefer areas near large water bodies such as sea coasts, coastal estuaries and inland lakes and rivers, in many areas, these birds are found within two miles of a water source. Most populations, specifically those in northern regions, migrate to southern, milder climates annually. Generally, these birds nest in the canopy of tall, coniferous trees, surrounded by smaller trees. They have been reported nesting on the ground, on cliffs, on cellular phone towers, on electrical poles and in artificial nesting towers. | Yes | No | **Not Expected:** Suitable habitats preferred by this species for foraging and nesting are not present within the project site. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Icteria virens*** yellow-breasted chat | SSC G5 S3 | Summer resident of California. Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Breeding habitat within southern California primarily consists of dense, wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. It winters south the Central America. Found at elevations ranging from 820 to 2,625 feet amsl. | Yes | No | **Not Expected:** Suitable dense riparian woodland habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Lanius ludovicianus*** loggerhead shrike | SSC G4 S4 | Yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover including open-canopied valley foothill hardwood, riparian, pinyon-juniper desert riparian, creosote bush scrub, and Joshua tree woodland. Requires suitable perches including trees, posts, fences, utility lines, or other perches. Nests in branches up to 14 feet above the ground frequently in a shrub with thorns or with tangled branching habitats. | Yes | No | **Not Expected:** Suitable habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Lasiurus xanthinus*** western yellow bat | SSC G5 S3 | Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging. | No | No | **Low:** Although there are palm trees in the general project vicinity where this species could roost, there is minimal **s**uitable habitats for foraging due to the lack of surface water. There was an observed occurrence (Occurrence 53) in 1992 within 0.75 mi southwest of the project site, where there was a male and female observed and collected (CDFW 2022a). |
| ***Laterallus jamaicensis coturniculus*** California black rail | FT G3T1 S1 | Suitable habitat generally includes salt marshes, freshwater marshes, and wet meadows. Typical associated vegetation includes pickle weed (Salicornia virginica) in salt marshes and bulrushes in less saline habitats. | No | No | **Not Expected:** The project site does not contain any of the water features this species prefers. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Neotoma lepida intermedia*** San Diego desert woodrat | SSC G5T3T4 S3S4 | Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Woodrats often are associated with cholla cactus which they use for water and dens or boulders and boulder piles. The most common natural habitats for records are chaparral, coastal sage scrub (including RSS and Diegan coastal sage scrub) and grassland. | Yes | No | **Not Expected:** Suitable chaparral, coastal sage scrub, and grassland habitats with rock outcroppings, boulders, cacti preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Nyctinomops femorosaccus*** pocketed free-tailed bat | SSC G5 S3 | Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree (Yucca brevifolia) woodland, and palm oasis habitats. Prefers rocky desert areas with high cliffs or rock outcrops, which are used as roosting sites. | No | No | **Not Expected:** Suitable habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Onychomys torridus ramona*** southern grasshopper mouse | SSC G5T3 S3 | Common in arid desert habitats of the Mojave and southern Central Valley of California. Known elevation range is generally below 3,000 feet amsl. Little is known about habitat requirements; however, it is commonly found in scrub habitats with friable soils for digging in desert areas. It is believed that alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert habitats, including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. | No | No | **Not Expected:** Suitable scrub habitats with friable soils preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Perognathus longimembris brevinasus*** Los Angeles pocket mouse | SSC G5T1T2 S1S2 | Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead. | Yes (c) | No | **Not Expected:** Suitable grassland and coastal scrub habitats with fine, sandy soils preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Phrynosoma blainvillii*** coast horned lizard | SSC G3G4 S4 | Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. Its elevational range extends up to 4,000 feet in the Sierra Nevada foothills and up to 6,000 feet in the mountains of southern California. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g. fire, floods, unimproved roads, grazing lands, and fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge. | Yes | No | **Not Expected:** Suitable annual grassland, coastal scrub habitats, chaparral, oak woodland, riparian woodland, and coniferous forest habitats with fine, sandy soils preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Plegadis chihi*** white-faced ibis | WL G5 S3S4 | Locally rare resident/migrant in southern California. Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetland. | Yes | No | **Not Expected:** Suitable wetland and wet meadow habitats preferred by this species for foraging and nesting are not present within or adjacent to the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Polioptila californica californica*** coastal California gnatcatcher | FT SSC G4G5T2Q S2 | Yearlong resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet amsl in coastal regions and below 1,500 feet amsl inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation. | Yes | No | **Not Expected:** Suitable coastal sage scrub habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Salvadora hexalepis virgultea*** coast patch-nosed snake | SSC G5T4 S2S3 | Occurs in brushy vegetation including coastal scrub and chaparral from the coast to the mountains. Takes refuge in existing small mammal burrows. | No | No | **Not Expected:** Suitable coastal scrub and chaparral habitats preferred by this species for foraging and nesting are not present within the project site. |
| ***Setophaga petechia*** yellow warbler | SSC G5 S3S4 | Present in California from April through September. Nests in riparian areas dominated by willows, cottonwoods, California sycamores, or alders (Alnus spp.) or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses. | Yes | No | **Not Expected:** Suitable riparian habitats preferred by this species for foraging and nesting are not present within or adjacent to the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Spea hammondii*** western spadefoot | SSC G3 S3 | Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools which do not contain American bullfrogs (*Lithobates catesbeianus*), predatory fish, or crayfish are necessary for breeding. Estivates in upland habitats adjacent to potential breeding sites in burrows approximating 3 feet in depth. | Yes | No | **Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Streptocephalus woottoni*** Riverside fairy shrimp | FE G1G2 S1S2 | Restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions. Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter, or spring rains, and may persist through May. Endemic to western Riverside, Orange, and San Diego Counties in tectonic swales/earth slump basins in grassland and coastal sage scrub. 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. All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. | Yes (a) | No | **Not Expected:** Suitable vernal pool habitats preferred by this species are not present within the project site. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Taxidea taxus*** American badger | SSC G5 S3 | Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. Require dry, friable, often sandy soil to dig burrows for cover, food storage, and giving birth. Occasionally found in riparian zones and open chaparral with less than 50% plant cover. | No | No | **Not Expected:** Suitable habitats and friable sandy soils preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past agricultural operations and continual weed abatement activities resulting in heavily disturbed and compacted surface soils. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Vireo bellii pusillus*** least Bell's vireo | FE SE SSC G5T2 S2 | Summer resident in southern California. Breeding habitat generally consists of dense, low, shrubby vegetation in riparian areas, and mesquite brushlands, often near water in arid regions. Early successional cottonwood-willow riparian groves are preferred for nesting. The most critical structural component of nesting habitat in California is a dense shrub layer that is 2 to 10 feet (0.6 to 3.0 meters) above ground. The presence of water, including ponded surface water or moist soil conditions, may also be a key component for nesting habitat. | Yes (a) | No | **Not Expected:** Suitable riparian habitat along a stream course/water preferred by this species for foraging and nesting is not present within the project site. |
| **SPECIAL-STATUS PLANT SPECIES** | | | | | |
| ***Abronia villosa var. aurita*** chaparral sand-verbena | 1B.1 G5T2? S2 | Annual herb. Grows in sandy soils within chaparral, coastal scrub, and desert dune habitats. Found in elevations ranging from 245 to 5250 feet amsl. Blooming period is (January) March through September. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Allium marvinii*** yucaipa onion | 1B.2 G1 S1 | Perennial bulbiferous herb. Grows in clay and openings within chaparral habitats. Found in elevations ranging from 2495 to 3495 feet amsl. Blooming period is April through May. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring Further, the project site is outside of known elevation ranges for this species. |
| ***Allium munzii*** Munz's onion | FE ST 1B.1 G1 S1 | Perennial bulbiferous herb. Grows in mesic, clay soils within chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland habitats. Found at elevations ranging from 974 to 3,510 feet amsl. Blooming period is March through May. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. Additionally, federally designated Critical Habitat for this species is not present within the project site. |
| ***Ambrosia pumila*** San Diego ambrosia | FE 1B.1 G1 S1 | Perennial rhizomatous herb. Occurs on sandy loam or clay soils (often in disturbed areas) and sometimes alkaline soils. Habitats include chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Grows in elevation ranging from 66 to 1,362 feet amsl. Blooming period is from April to October. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Arenaria paludicola*** marsh sandwort | FE<br>CE<br>1B.1<br>G1<br>S1 | Perennial stoloniferous herb. Found on sandy, openings within marshes and swamps (freshwater or brackish). Found at elevations ranging from 12 to 558 feet amsl. Blooming period is May thruogh August. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Artemisia palmeri*** San Diego sagewort | 4.2<br>G3?<br>S3? | Perennial deciduous herb. Found on sandy, mesic soils within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland habitats. Found at elevations ranging from 49 to 3,002 feet amsl. Blooming period is from (February) May to September. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Astragalus pachypus var. jaegeri*** Jaeger's milk-vetch | 1B.1<br>G4T1<br>S1 | Perennial shrub. Gows in chaparral cismontane woodland, coastal scrub, valley and foothill grassland habitats and sometimes in rocky and sandy soils. Found at elevations ranging from 1,200 to 3,200 feet amsl. Blooming period is December through June. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Atriplex corona9ta var. notatior*** San Jacinto Valley crownscale | FE<br>1B.1<br>G4T1<br>S1 | Annual herb. Occurs on alkaline soils within playas, valley and foothill grassland (mesic), and vernal pool habitats. Grows in elevations ranging from 456 to 1,640 feet amsl. Blooming period is from April to August. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |
| ***Atriplex parishii*** Parish's brittlescale | 1B.1<br>G1<br>G2<br>S1 | Annual herb. Blooms June through October. Usually found on drying alkali flats with fine soils in vernal pools, chenopod scrub, wet meadows, and playas. Known elevations range from 15 to 4,660 feet amsl. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |
| ***Atriplex serenana var. davidsonii*** Davidson's saltscale | 1B.2<br>G5T1<br>S1 | Annual herb. Occurs on alkaline soils within coastal bluff scrub and coastal scrub habitats. Grows in elevations ranging from 33 to 656 feet amsl. Blooming period is from April to October. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring Further, the project site is outside of known elevation ranges for this species. |
| ***Berberis nevinii*** Nevin's barberry | FE<br>CE<br>1B.1<br>G1<br>S1 | Perennial evergreen shrub. Occurs on sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Found at elevations ranging from 899 to 2,707 feet amsl. Blooming period is (February) March through June. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Brodiaea filifolia*** thread-leaved brodiaea | FT<br>SE<br>1B.1<br>G2<br>S2 | Perennial bulbiferous herb. Often found on clay soils within chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. Found at elevations ranging from 82 to 3,675 feet amsl. Blooming period is March through June. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. Additionally, federally designated Critical Habitat for this species is not present within the project site. |
| ***Calochortus plummerae*** Plummer's mariposa-lily | 4.2<br>G4<br>S4 | Perennial bulbiferous herb. Occurs in mesic soils within chaparral, lower montane coniferous forest, and meadows and seeps. Grows in elevations ranging from 2,329 to 7,841 feet amsl. Blooming period is April through July. | Yes (e) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Caulanthus simulans*** Payson's jewelflower | 4.2<br>G4<br>S4 | Annual herb. Occurs on sandy, granitic soils in chaparral and coastal scrub habitats. Found at elevations ranging from 295 to 7,218 feet amsl. Blooming period is (February) March through May (June). | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Centromadia pungens* ssp. *laevis*** smooth tarplant | 1B.1<br>G3G4T2<br>S2 | Annual herb. Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley/foothill grassland habitats. Grows in elevation from 0 to 2,100 feet amsl. Blooming period is April through September. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Chloropyron maritimum ssp. maritimum*** salt marsh bird's-beak | FE<br>CE<br>1B.2<br>G4?T1<br>S2 | Annual herb (hemiparasitic). Occurs on coastal dunes and marshes and swamps (coastal salt). Found at elevations ranging from 0 to 98 feet amsl. Blooming period is May through October (November). | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Chorizanthe leptotheca*** Peninsular spineflower | 4.2<br>G3<br>S3 | Annual herb. Occurs on alluvial, granitic soils within chaparral, coastal scrub, and lower montane coniferous forest habitats. Found at elevations ranging from 984 to 6,233 feet amsl. Blooming period is May through August. | Yes (e) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Chorizanthe parryi* var. *parryi*** Parry's spineflower | 1B.1<br>G3T2<br>S2 | Annual herb. Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet amsl. Blooming period is April through June. | Yes (e) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Chorizanthe polygonoides* var. *longispina*** long-spined spineflower | 1B.2 G5T3 S3 | Annual herb. Occurs on clay soils within chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Found at elevations ranging from 98 to 5,020 feet amsl. Blooming period is April through July. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Chorizanthe xanti var. leucotheca*** white-bracted spineflower | 1B.2 G4T3 S3 | Annual herb. Occurs on sandy or gravelly soils in coastal sage scrub (alluvial fans), Mojavean desert scrub, and pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 3,937 feet amsl. Blooming period is from April to June. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Convolvulus simulans*** small-flowered morning-glory | 4.2 G4 S4 | Annual herb. Found on wet clay and serpentine ridges within chaparral, coastal scrub, and valley and foothill grassland. Found at elevations ranging from 100 to 2820 feet amsl. Blooming period is March through July. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Deinandra paniculata*** paniculate tarplant | 4.2 G4 S4 | Annual herb. Occurs in coastal scrub, vernal pools, and valley/foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet amsl. Blooming period is April through November. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Diplacus clevelandii*** Cleveland's bush monkeyflower | 4.2 G4 S4 | Perennial rhizomatous herb. Grows in chaparral, cismontane woodland, and lower montane coniferous forest habitats often within disturbed and open areas, gabbroic, and rocky soils. Found at elevations ranging from 1,475 to 6,560 feet amsl. Blooming period is April through July. | Yes (f) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Eriastrum densifolium ssp. sanctorum*** Santa Ana River Woolly-star | FE SE 1B.1 G4T1 S1 | Perennial herb. Grows on sandy or gravelly soils within chaparral and coastal scrub (alluvial fan) habitats. Found at elevations ranging from 298 to 2,001 feet amsl. Blooming period is from April to September. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Harpagonella palmeri*** Palmer's grapplinghook | 4.2 G4 S3 | Annual herb. Occurs on clay soils within open grassy areas within chaparral, coastal scrub, and valley and foothill grassland habitats. Found at elevations ranging from 66 to 3,133 feet amsl. Blooming period is March through May. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to rout.ine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Hordeum intercedens*** vernal barley | 3.2 G3G4 S3S4 | Annual herb. Habitat includes coastal dunes, coastal scrub, vernal pools, and valley/foothill grassland. Grows in elevations ranging from 16 to 3,281 feet amsl. Blooming period is from March to June. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | **Special-Status Rank*** | **Habitat Preferences and Distribution Affinities** | **Covered by MSHCP**** | **Observed On-site** | **Potential to Occur** |
|---|---|---|---|---|---|
| ***Juglans californica*** southern California black walnut | 4.2 G4 S4 | Perennial deciduous tree. Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet amsl. Blooming period is March through August. | Yes | No | **Not Expected:** This species was not observed during the field survey. The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Lasthenia glabrata* ssp. *coulteri*** Coulter's goldfields | 1B.1 G4T2 S2 | Annual herb. Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet amsl. Blooming period is February through June. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Lepidium virginicum* var. *robinsonii*** Robinson's pepper-grass | 4.3 G5T3 S3 | Annual herb. Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 66 to 4,396 feet amsl. Blooming period is January through July. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Myosurus minimus* ssp. *apus*** little mousetail | 3.1 G5T2Q S2 | Annual herb. Occurs on valley and foothill grassland and vernal pools (alkaline). Found at elevations ranging from 66 to 2,100 feet amsl. Blooming period is March through June. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Nama stenocarpa*** mud nama | 2B.2 G4G5 S1S2 | Annual/perennial herb. Grows in marsh and swamp habitats like margins and riverbanks. Found at elevations ranging from 15 to 1,640 feet amsl. Blooming period is January through July. | Yes (d) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Navarretia fossalis*** spreading navarretia | FT 1B.1 G2 S2 | Annual herb. Habitats include chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. Grows in elevation ranging from 98 to 2,149 feet amsl. Blooming period is April through June. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Phacelia stellaris*** Brand's star phacelia | 1B.1 G1 S1 | Annual herb. Grows in coastal dune and coastal scrub habitats. Found at elevations ranging from 5 to 1,310 feet amsl. Blooming period is March through June. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring Further, the project site is outside of known elevation ranges for this species. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| ***Quercus engelmannii*** Engelmann oak | 4.2 G3 S3 | Perennial deciduous tree. Grows in chaparral, cismontane woodland, riparian woodland, valley and foothill grassland habitats. Found at elevations ranging from 165 to 4,265 feet amsl. Blooming period is March through June. | Yes | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring |
| ***Romneya coulteri*** Coulter's matilija poppy | 4.2 G4 S4 | Perennial rhizomatous herb. Habitats include chaparral and coastal scrub. Grows at elevations ranging from 66 to 3,937 feet amsl. Blooming period is from March to July. | Yes (e) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |
| ***Senecio aphanactis*** chaparral ragwort | 2B.2 G3 S2 | Annual herb. Grows on alkaline soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 49 to 2,625 feet amsl. Blooming period is January through April (May). | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Symphyotrichum defoliatum*** San Bernardino aster | 1B.2 G2 S2 | Perennial rhizomatous herb. Occurs near ditches, streams, and springs within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, marshes, and valley/foothill grassland. Grows in elevations ranging from 0 to 6,700 feet amsl. Blooming period is from July to November. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring. |
| ***Texosporium sancti-jacobi*** woven-spored lichen | 3 G3 S2 | Lichen. Found in open sites within chaparral. Typically found on soil, small mammal pellets, dead twigs, and on Selaginella. In California, this species is typically associated with Adenostoma fasciculatum, Eriogonum, and Selaginella. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |
| ***Tortula californica*** California screw moss | 1B.2 G2G3 S2? | Moss. Found on sandy soils within chenopod scrub and valley and foothill grassland habitats. Found at elevations ranging from 33 to 4,790 feet amsl. This species does not have a blooming period. | No | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |
| ***Trichocoronis wrightii var. wrightii*** Wright's trichocoronis | 2B.1 G4T3 S1 | Annual herb. Found on alkaline soils within meadows and seeps, marshes and swamps, riparian forest, and vernal pool habitats. Grows in elevations ranging from 16 to 1,427 feet amsl. Blooming period is from May to September. | Yes (b) | No | **Not Expected:** The project site is comprised of disturbed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils that likely preclude this species from occurring due to lack of preferred habitat. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| ***Scientific Name*** Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| **SPECIAL-STATUS VEGETATION COMMUNITIES** | | | | | |
| **CNDDB/Holland (1986)**<br>Southern Coast Live Oak Riparian Forest<br>**MCV (1995)**<br>Coast Live Oak Series<br>**NVCS (2009)**<br>*Quercus agrifolia* Woodland Alliance | G5<br>S4 | Found at elevations ranging from sea level to 3,937 feet amsl in alluvial terraces, canyon bottoms, stream banks, slopes, and flats, Soils are deep, sandy or loamy with high organic matter. Coast live oak is a dominant or co-dominant in the tree canopy with bigleaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), madrono (*Arbutus menziesii*), southern California black walnut, California sycamore, Fremont cottonwood, blue oak (*Quercus douglasii*), Engelmann oak (*Quercus engelmannii*), California black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*), arroyo willow (*Salix lasiolepis*), and California bay (*Umbellularia californica*). Trees are less than 98 feet tall; canopy is open to continuous. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy. | - | No | **Absent:** This vegetation community does not occur within the project site. |
| **CNDDB/Holland (1986)**<br>Southern Cottonwood Willow Riparian Forest<br>**MCV (1995)**<br>Fremont Cottonwood Series<br>**NVCS (2009)**<br>*Populus fremontii* Forest Alliance | G4<br>S3.2 | Found at elevations ranging from sea level to 7,874 feet amsl on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood is a dominant or co-dominant in the tree canopy with box elder, desert baccharis (*Baccharis sergiloides*), Oregon ash (*Fraxinus latifolia*), northern California black walnut (*Juglans hindsii*), California sycamore, coast live oak, narrowleaf willow (*Salix exigua*), Goodding's willow (*Salix goodingii*), polished willow (*Salix laevigata*), arroyo willow, pacific willow (*Salix lasiandra* ssp. *lasiandra*), and yellow willow (*Salix lutea*). Trees and less than 25 meters tall; canopy is continuous to open. Shrub layer is intermittent to open. Herbaceous layer is variable. | - | No | **Absent:** This vegetation community does not occur within the project site. |

## Table D-1: Potentially Occurring Special-Status Biological Resources

| *Scientific Name* Common Name | Special-Status Rank* | Habitat Preferences and Distribution Affinities | Covered by MSHCP** | Observed On-site | Potential to Occur |
|---|---|---|---|---|---|
| **CNDDB/Holland (1986)** Southern Sycamore Alder Riparian Woodland **MCV (1995)** California Sycamore Series **NVCS (2009)** Platanus racemosa Woodland Alliance | G4 S4 | Found at elevations ranging from sea level to 7,874 feet amsl in gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding. Soils are rocky or cobbly alluvium with permanent moisture at depth. California sycamore is a dominant or co-dominant in the tree canopy with white alder, southern California black walnut, Fremont cottonwood, coast live oak, valley oak, narrowleaf willow, Gooding's willow, polished willow, arroyo willow, yellow willow, Peruvian pepper tree (Schinus mole), and California bay. | - | No | **Absent:** This vegetation community does not occur within the project site. |

* **U.S. Fish and Wildlife Service (USFWS)**

FE Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

FT Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**California Department of Fish and Wildlife (CDFW)**

SE Endangered – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST Threatened – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required under the California Endangered Species Act.

CSE Candidate State Endangered – The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.

FP Fully Protected – any native species or subspecies of bird, mammal, fish, amphibian, or reptile that were determined by the State of California to be rare or face possible extinction.

SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria: is extirpated from California or, in the case of birds, in its primary seasonal or breeding role; is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

**California Native Plant Society (CNPS) California Rare Plant Rank**

1B Plants rare, threatened, or endangered in California and elsewhere.

3 Plant that lack the necessary information to assign them to one of the other ranks or to reject them.

4 Plants of limited distribution – Watch List.

**Threat Ranks**

.1 Seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat).

.2 Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).

.3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

**NatureServe Conservation Status Rank**

The Global Rank (G#) reflects the overall condition and imperilment of a species throughout its global range. The Infraspecific Taxon Rank (T#) reflects the global situation of just the subspecies or variety. The State Rank (S#) reflects the condition and imperilment of an element throughout its range within California. (G#Q) reflects that the element is very rare but there are taxonomic questions associated with it; the calculated G rank is qualified by adding a Q after the G#). Adding a ? to a rank expresses uncertainty about the rank.

G1/T1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2/T2 Imperiled— At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3/T3 Vulnerable— At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4/T4 Apparently Secure— Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5/T5 Secure – Common; widespread and abundant.

S1 Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.

S2 Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or State.

S3 Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**** Western Riverside County Multiple Species Habitat Conservation Plan**

Yes – Fully Covered.

No – Not Covered.

Yes (a) – May require additional surveys pursuant to Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*.

Yes (b) – May require additional surveys pursuant to Section 6.1.3, *Protection of Narrow Endemic Plant Species*.

Yes (c) – May require additional surveys pursuant to Section 6.3.2, *Additional Survey Needs and Procedures*.

# Appendix E Focused Burrowing Owl Survey Report

Michael Baker INTERNATIONAL

We Make a Difference

November 2, 2022 JN 184659

**HIGHPOINTE COMMUNITIES**
Attn: Ross Yamaguchi
530 Technology Dr, #100
Irvine, California 92618

**SUBJECT: Results of Focused Burrowing Owl (*Athene cunicularia*) Surveys for Sunset Crossing TTM 38443 – City of Moreno Valley, Riverside County, California**

Dear Mr. Yamaguchi:

This report contains the findings of Michael Baker International's (Michael Baker) focused burrowing owl (*Athene cunicularia*; [BUOW]) surveys conducted during the 2022 breeding season for Sunset Crossing TTM 38443 (project) located in the City of Moreno Valley, Riverside County, California. Based on the results of Michael Baker's initial review of California Natural Diversity Database RareFind 5 (CDFW 2022) occurrence records, the project site is located within an area that is or was previously known to be occupied by BUOW and likely provides suitable nesting and foraging habitat. As such, focused BUOW surveys were conducted in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006). The focused BUOW surveys were conducted on four (4) separate days during the 2022 breeding season to document the presence/absence of BUOW within the project site and areas of suitable habitat within 500 feet (survey area).

**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*, in Attachment A). 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 Bay Avenue, east of Nason Street, south of Cottonwood Avenue, and west of Marion Road, on assessor's parcel numbers (APN) 488-190-027, 488-190-005, and 488-190-028.

**Project Description**

The proposed project includes the development of up to 133 residential units, a water basin, a park, and road construction on 29.39 acres.



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**Background**

*Burrowing Owl*

The BUOW is a grassland specialist distributed throughout western North America, where it is known to occupy a wide variety of arid and semi-arid open areas within shrub, desert, and grassland environments. The California Department of Fish and Wildlife (CDFW) currently lists the BUOW as a California Species of Special Concern. BUOWs require large open, sparsely vegetated areas, on rolling or level terrain with an abundance of fossorial mammal burrows (> 4 inches in diameter). In addition, BUOWs require low-growing vegetation allowing line-of-sight of the surrounding habitat to forage as well as watch for predators. BUOWs are dependent upon the presence of burrowing mammals (e.g., California ground squirrel [*Otospermophilus beecheyi*], coyote [*Canis latrans*], American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting (Haug et al. 1993). The presence or absence of fossorial mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been observed digging their own burrows in soft, friable soil and have been observed utilizing man-made cavities such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Additionally, BUOWs may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Adult BUOWs are small owls (approximately 7.5 to 9.8 inches) with long legs and short tails that are speckled brown and white, with yellow eyes and a yellow bill. A bold white throat and eyebrows are also typical distinguishing features for BUOWs. Juvenile BUOWs are usually less mottled than adults, with buffy-yellow underparts. BUOWs have crepuscular (dawn and dusk) hunting habits but are often observed perched in or near the burrow entrance during the day. One burrow is typically selected for use as the main nest burrow, however, BUOWs also utilize satellite burrows that are often located within the immediate vicinity of the main nest burrow. BUOWs prey upon invertebrates and small vertebrates through the low growing vegetation which allows for foraging visibility (Thomsen 1971). They typically forage in short-grass, mowed, or overgrazed pasture, golf courses and airports (Thomsen 1971). Based on the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012), the BUOW breeding season in California extends from February 1 through August 31. BUOWs in California may migrate southerly, but often remain in their breeding area during the non-breeding months. The BUOW was once abundant and widely distributed within southern California, but it has declined precipitously in counties such as Los Angeles, Orange, San Diego, Riverside, and San Bernardino.

*Regulatory Framework*

The BUOW is a resident and migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA reflects agreements made between the U.S., England, Mexico, the former Soviet Union, and Japan to protect all of North America's migratory bird populations. The MBTA protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and collection. The other prohibitions (i.e., capture, pursue, hunt, and kill) of the MBTA are inapplicable to nests. The regulatory definition of take, as defined in Title 50 Code of Federal Regulations (C.F.R.) Part 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect. Only the verb "collect" applies to nests. It is illegal to collect, possess, and by any means transfer possession of any migratory bird nest. The MBTA prohibits the

destruction of a nest when it contains birds or eggs, and no possession shall occur during the destruction (U.S. Fish and Wildlife Service 2017). Certain exceptions to this prohibition are included in Title 50 C.F.R. Section 21. Pursuant to Section 3513 of the California Fish and Game Code (CFGC), CDFW enforces the MBTA consistent with rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Additionally, BUOW is protected under Sections 3503, 3503.3, 3511, and 3513 of the CFGC which prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). Section 3503.5 of the CFGC protects birds in the orders Falconiformes or Strigiformes (birds of prey, such as hawks and owls, including BUOWs) which makes it unlawful to take, possess, or destroy their nest or eggs.

The *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) offers long-term assurances for conservation of this species in exchange for biologically appropriate levels of incidental take and/or habitat loss as defined in the approved plan. California's Natural Community Conservation Plan (NCCP) Act (CFGC §2800 *et seq*.) governs such plans at the state level, and was designed to conserve species, natural communities, ecosystems, and ecological processes across a jurisdiction or a collection of jurisdictions. Complementary Habitat Conservation Plans (HCPs) are governed by the federal endangered Species Act (7 U.S.C. § 136, 16 U.S.C.§ 1531 *et seq*.). Regional conservation plans (and certain other landscape-level conservation and management plans) may provide conservation for unlisted as well as listed species. Because the geographic scope of NCCPs and HCPs may span many hundreds of thousands of acres, these planning tools have the potential to play a significant role in conservation of BUOWs.

BUOWs have been included as one of the one hundred and forty-six (146) focal species covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The objectives for BUOWs within the MSHCP are to maintain and ensure the conservation of occupied burrows on current conserved lands, decrease harmful effects to BUOWs, and identify and implement monitoring and management to sustain the BUOW population within the MSHCP. BUOWs can be found in a variety of habitats within the MSHCP, predominantly on open land, including grassland, agriculture (e.g., dry-land farming and grazing areas), playa, and sparse coastal sage scrub and desert scrub habitats. Within the MSHCP, BUOWs are narrowly distributed at relatively few locations where suitable habitat is present.

**Methodology**

As documented in the *Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis* (Michael Baker 2022), the project site is located within a designated survey area for BUOW as identified in the MSHCP and also provides suitable habitat and foraging opportunities for BUOW. As such, focused BUOW surveys were conducted by qualified biologists Lauren Mapes, Ryan Winkleman, April Nakagawa, and Tom Millington on four (4) separate days during the 2022 breeding season: April 12, May 31, June 14, and June 28, 2022. Please refer to Table 1 below for a summary of the survey dates, timing, surveyors, and weather conditions for each of the surveys.

**Table 1: Survey Dates, Timing, Surveyors, and Weather Conditions**

| Date | Time (start / finish) | Surveyors | Temperature (°F) (start / finish) | Average Wind Speed (mph) |
|---|---|---|---|---|
| April 12, 2022 | 0750 / 0830 | LM, RW | 63 sunny / 67 sunny | 0 – 3 |
| May 31, 2022 | 0815 / 0930 | LM, AN | 71 sunny / 76 sunny | 0 – 4 |
| June 14, 2022 | 0800 / 0845 | LM, AN, TM | 73 sunny / 73 sunny | 0 – 2 |
| June 28, 2022 | 0800 / 0850 | LM, AN | 80 sunny / 84 sunny | 0 – 2 |
| *RW = Ryan Winkleman, LM = Lauren Mapes, TM = Tom Millington, AN = April Nakagawa | | | | |

The BUOW focused surveys were conducted during the 2022 breeding season (February 1 through August 31) in accordance with the survey guidelines and protocols provided in the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006). Areas providing suitable habitat for BUOWs within the survey area were surveyed for suitable, occupied, and remnant burrows consisting of natural and non-natural substrates (refer to Figure 2, *Survey Area*, in Attachment A). Survey transects were conducted at 10-meter (approximately 33 feet) intervals to ensure 100% visual coverage of all areas in suitable habitat, as applicable based on-site topography, and access. Binoculars were used to scan areas that were inaccessible due to lack of right-of-entry to observe and identify distant birds; identify any suitable, occupied, and remnant burrows consisting of natural and non-natural substrates; and search for any activity around suitable BUOW habitat. Methods to detect the presence of BUOWs included direct observation, aural detection, and signs of presence (i.e., pellets, white wash, feathers, or prey remains). The location of all suitable habitat, potential burrows, sign, and BUOWs observed within the survey area were recorded and mapped with a hand-held Global Positioning System (GPS) unit. Surveys were not conducted during rain, high winds, dense fog, or high temperatures. All BUOW focused surveys were conducted between morning civil twilight and 1000 hours.

## Results

### *Existing Conditions*

After a review of Google Earth historic imagery and results from the field survey, it was determined that the survey area is comprised of developed land and areas of disturbed habitat and bare ground which consist of heavily disturbed/compacted soils. Google Earth historic imagery from 1985 through 2021 also shows that the survey area has continually been exposed to disturbances due to routine weed abatement activities (i.e., disking, tilling) throughout the undeveloped portions of the survey area and that these activities have eliminated any natural vegetation communities. Vacant land is present in patches to the north, south, and east of the survey area. Residential land use is located along the west, northwest, and northeast boundary of the survey area. Additionally, commercial uses were currently being built along the western boundary of the project site at the time of the surveys. Please refer to Attachment B for representative photographs taken throughout the survey area.

### *Regional Context*

According to the CNDDB, there are twenty-two (22) occurrence records for burrowing owl within the USGS *El Casco, Perris, Riverside East, Steele Peak,* and *Sunnymead, California* 7.5-minute quadrangles, which constitute the quadrangles within a 5-mile radius of the survey area. 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 2022). 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 recent update being in 2007 (CDFW 2022). 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).

*Focused Survey Results*

No BUOWs or BUOW sign (i.e., pellets, white wash, feathers, or prey remains) were observed during any of the four (4) focused surveys. Suitable foraging habitat and line of site opportunities were observed throughout the survey area, as well as suitable burrows (> 4 inches in diameter) capable of providing roosting and nesting opportunities for BUOW. Most burrows observed were located within the southern portions of the 500-foot buffer area and consisted of small mammal burrows < 4 inches in diameter (refer to Figure 2, *Survey Area*, in Appendix A). The existing telephone poles, light posts, fencing, and residential and commercial land use that occur within the survey area decrease the likelihood that BUOWs would occur as these features provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on BUOWs. Further, between the third and fourth survey an unknown entity conducted disking/weed abatement activities on-site, which removed much of the non-native vegetation that was present during the first three surveys.

Common bird species detected during the focused surveys included common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), Say's phoebe (*Sayornis saya*), western meadowlark (*Sturnella neglecta*), and white-crowned sparrow (*Zonotrichia leucophrys*). Please refer to Attachment C for a complete list of wildlife species observed during the surveys.

**Conclusions and Recommendations**

No BUOWs, BUOW sign, occupied BUOW burrows, or remnant BUOW burrows were observed on or within the vicinity of the survey area. Therefore, project-related activities are not expected to result in any direct or indirect impacts to BUOWs or occupied BUOW burrows on or within the vicinity of the survey area.

Although BUOWs were not observed during the focused surveys, the survey area does contain suitable foraging and nesting habitat for BUOW. Due to the presence of suitable foraging habitat for BUOW and the proximity of the survey area to existing occurrence records for BUOW, in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006), one (1) pre-construction clearance survey should be conducted no more than thirty (30) days prior to any ground disturbing activities to avoid direct take of BUOWs. The clearance survey shall be conducted by a qualified biologist and cover all suitable habitat within the project impact area, including adjacent suitable habitat within a 500-foot buffer (as accessible). Following completion of the clearance survey, the qualified biologist shall prepare and submit a final report documenting the methods and results of the survey. If no BUOWs or occupied burrows are detected, project activities may begin, and no additional avoidance and minimization measures would be required. If an occupied burrow is found within the project impact area during pre-construction clearance surveys, a BUOW exclusion plan shall be

prepared and submitted to the RCA and Wildlife Agencies (USFWS and CDFW) for approval prior to initiating project activities that includes proposed mitigation for direct and permanent impacts to nesting, occupied, and satellite burrows and/or BUOW habitat.

Please do not hesitate to contact me at (949) 246-7004 or tommillington@mbakerintl.com or Ryan Winkleman at (949) 533-0918 or ryan.winkleman@mbakerintl.com should you have any questions or require further information.

Sincerely,

Tom Millington
Senior Biologist

Ryan Winkleman
Senior Biologist

Attachments:

A. *Project Figures*
B. *Site Photographs*
C. *Wildlife Species Observed List*
D. *References*

**Attachment A**

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Project Figures


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**Legend**

Project Site (29.39 acres)

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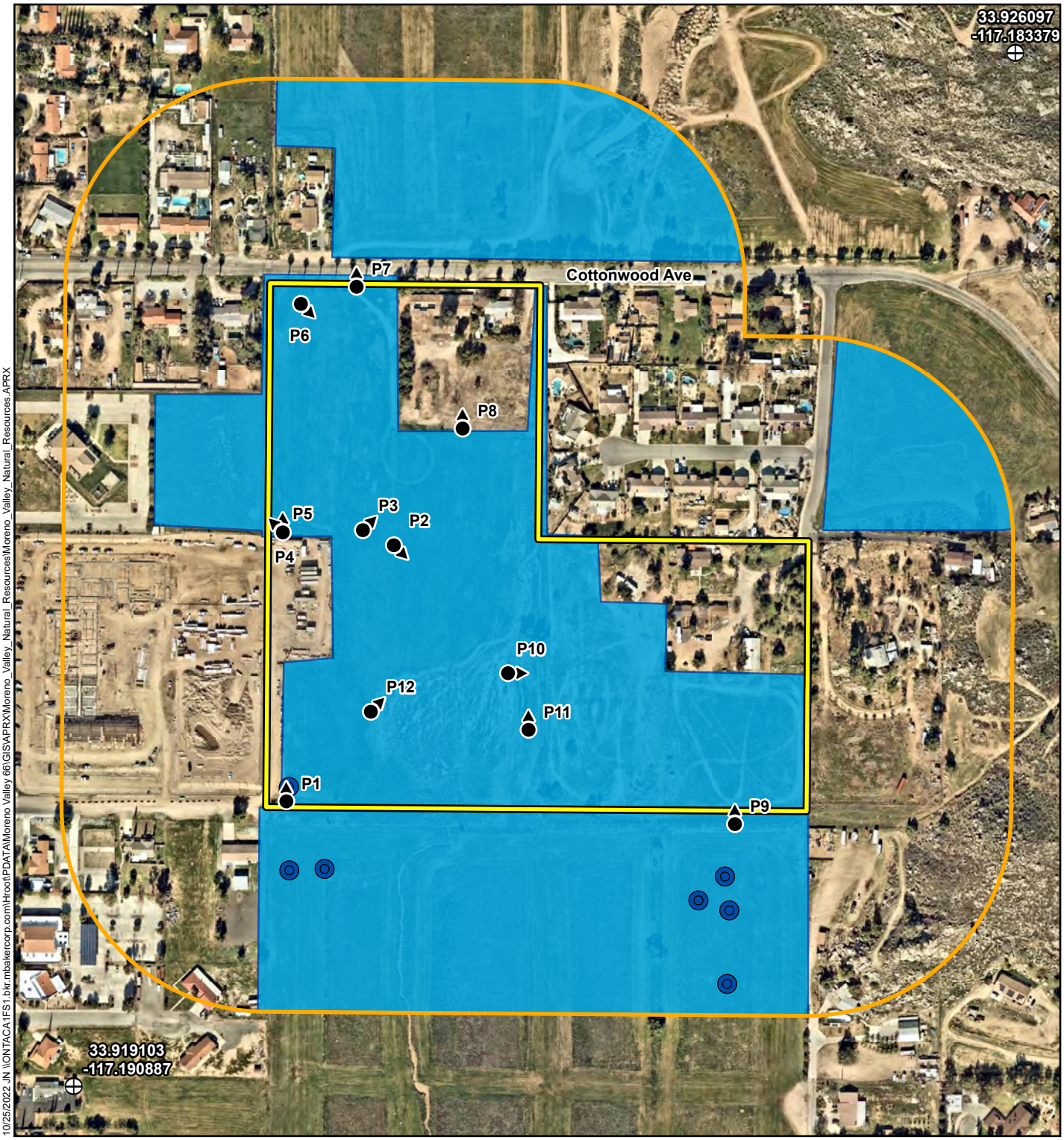
0 0.5 1 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: *Perris and Sunnymead, California (2021)*

SUNSET CROSSING TTM 38443
FOCUSED BURROWING OWL SURVEY REPORT

# Regional and Project Vicinity

Figure 1

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**Legend**

- Project Site (29.39 acres)
- Survey Area (105.88 acres)
- Reference Point
- Suitable Habitat (53.21 acres)
- 1 Burrow
- Photograph Point and Direction

Michael Baker INTERNATIONAL

0 175 350 Feet

Source: Nearmap (01/2022)

SUNSET CROSSING TTM 38443
FOCUSED BURROWING OWL SURVEY REPORT

# Survey Area

Figure 2

**Attachment B**

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Site Photographs

**Photograph 1:** Standing in the southwest corner of the project site, facing north overlooking open suitable habitat for burrowing owl (BUOW).

**Photograph 2:** Standing west of the center of the project site, facing southeast overlooking open suitable habitat for BUOW.

**Photograph 3:** Standing west of the center of the project site, facing north overlooking open suitable habitat for BUOW.

**Photograph 4:** Standing near the central-western boundary of the project site, facing northwest overlooking the survey buffer with open suitable habitat for BUOW.

**Photograph 5:** Standing near the central-western boundary of the project site, facing north overlooking open suitable habitat for BUOW.

**Photograph 6:** Standing in the northwest corner of the project site, facing southeast overlooking open suitable habitat for BUOW.

**Photograph 7:** Standing at the northern project boundary, facing north. The foreground and survey buffer in the background provide open suitable habitat for BUOW.

**Photograph 8:** Standing near the northeastern corner of the project site, facing north at an abandoned property within the project site.

**Photograph 9:** Standing in the southeast corner of the project site, facing north overlooking disturbed land suitable for BUOW.

**Photograph 10:** Standing near the center of the project site, facing east overlooking suitable habitat for BUOW that was disked between surveys.

**Photograph 11:** Standing south of the center of the project site, facing north overlooking suitable habitat for BUOW that was mowed between surveys.

**Photograph 12:** Standing near the southwest corner of the project site, facing northeast overlooking suitable habitat for BUOW that was disked between surveys.

**Attachment C**

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Wildlife Species Observed List

## Table C-1: Wildlife Species Observed List

| *Scientific Name** | Common Name | Special-Status Rank** |
|---|---|---|
| **Reptiles** | | |
| *Uta stansburiana elegans* | western side-blotched lizard | |
| **Birds** | | |
| *Accipiter cooperii* | Cooper's hawk | WL |
| *Aeronautes saxatalis* | white throated swift | |
| *Agelaius phoeniceus* | red-winged blackbird | |
| *Anthus rubescens* | American pipit | |
| *Calypte anna* | Anna's hummingbird | |
| *Columba livia** | rock pigeon | |
| *Corvus brachyrhynchos* | American crow | |
| *Spinus lawrencei* | Lawrence's goldfinch | |
| *Haemorhous mexicanus* | house finch | |
| *Icterus bullockii* | Bullock's oriole | |
| *Icterus cucullatus* | hooded oriole | |
| *Melozone crissalis* | California towhee | |
| *Mimus polyglottos* | northern mockingbird | |
| *Passer domesticus** | house sparrow | |
| *Passerculus sandwichensis* | savannah sparrow | |
| *Petrochelidon pyrrhonota* | cliff swallow | |
| *Pheucticus melanocephalus* | black-headed grosbeak | |
| *Psaltriparus minimus* | bushtit | |
| *Sayornis nigricans* | black phoebe | |
| *Sayornis saya* | Say's phoebe | |
| *Spinus psaltria* | lesser goldfinch | |
| *Streptopelia decaocto** | Eurasian collared-dove | |
| *Sturnella neglecta* | western meadowlark | |
| *Tyrannus vociferans* | Cassin's kingbird | |
| *Zenaida macroura* | mourning dove | |
| *Zonotrichia leucophrys* | white-crowned sparrow | |
| **Mammals** | | |
| *Otospermophilus beecheyi* | California ground squirrel | |

* **Non-native species**

** **Special-Status Rank**

**California Department of Fish and Wildlife (CDFW)**

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

**Attachment D**

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**APPENDIX B**
**SITE DESIGN PLANS**


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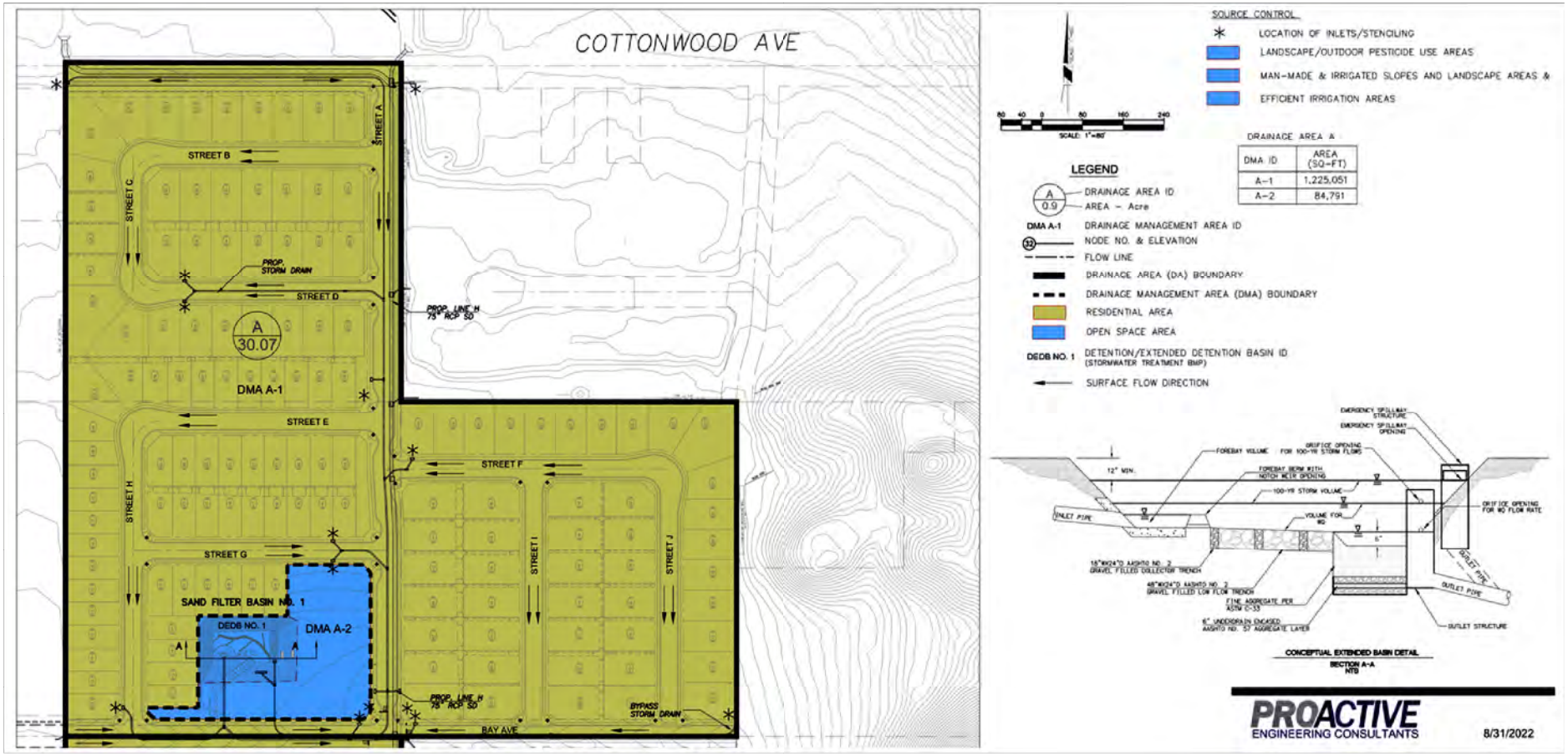


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Michael Baker INTERNATIONAL

SUNSET CROSSINGS TTM 38443

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WQMP Site Plan

**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.