

# MSHCP Determination of Biologically Equivalent or Superior Preservation

**Haun & Holland - TPM 37121 Project (APN 360-130-003)**

*City of Menifee, Western Riverside County, California*

## FINAL REPORT



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**April 2019**

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- B - Riverside County Environmental Programs Division – MSHCP Focused Burrowing Owl Survey Report Review (EPD Case Number ME00135), April 10<sup>th</sup> 2017.
- C - General MSHCP Habitat Assessment/Consistency Analysis for the 37.06 Acre Haun & Holland Project Site, City of Menifee, California, Cadre Environmental 2019.
- D - Jurisdictional Delineation, Haun and Holland Road Project TPM 37121, Albert A. Webb Associates 2019.

## 1.0 EXECUTIVE SUMMARY

The proposed Haun and Holland Road Tentative Parcel Map (TPM) 37121 project will require the construction of an offsite outfall structure within the Paloma Wash flood control channel (Western Riverside County Multiple Species Habitat Conservation Plan “MSHCP” section 6.1.2 riverine resource) located west of the project site (“Project Site”) and Haun Road. A total of 0.08-acre of impacts (0.04-acre permanent and 0.04-acre temporary) will occur within the Paloma Wash channel, an MSHCP section 6.1.2 riverine resource as a result of project initiation.

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset temporary and permanent impacts to 0.08-acre of MSHCP Section 6.1.2 riverine resources located within the Paloma Wash channel (disturbed habitat) by:

- 1) Restoring temporary impact area (0.04 acre) by hydroseeding with a native seed mix, and the applicant will perform exotic weed removal for a period of one year. The seed mix will consist of deer grass (*Muhlenbergia rigens*), foothill needlegrass (*Nassella lepida*), California brome grass (*Bromus carinatus*), Spanish clover (*Acmispon americanus*) and alkali barley (*Hordeum depressum*). The seed will be obtained from S & S Seeds, and;
- 2) Purchasing 0.08 acre of rehabilitation credits (2:1) at the Riverpark Mitigation Bank. If the River Park Mitigation Bank is not selling credits when the applicant will need to purchase them, then the applicant will provide for habitat restoration of native alkali habitat within the City of Hemet’s vernal pool complex located within Regional Conservation Authority (RCA) lands (APN’s 455-130-030, 455-130-036, and 455-130-046) at a higher ratio of 3:1.

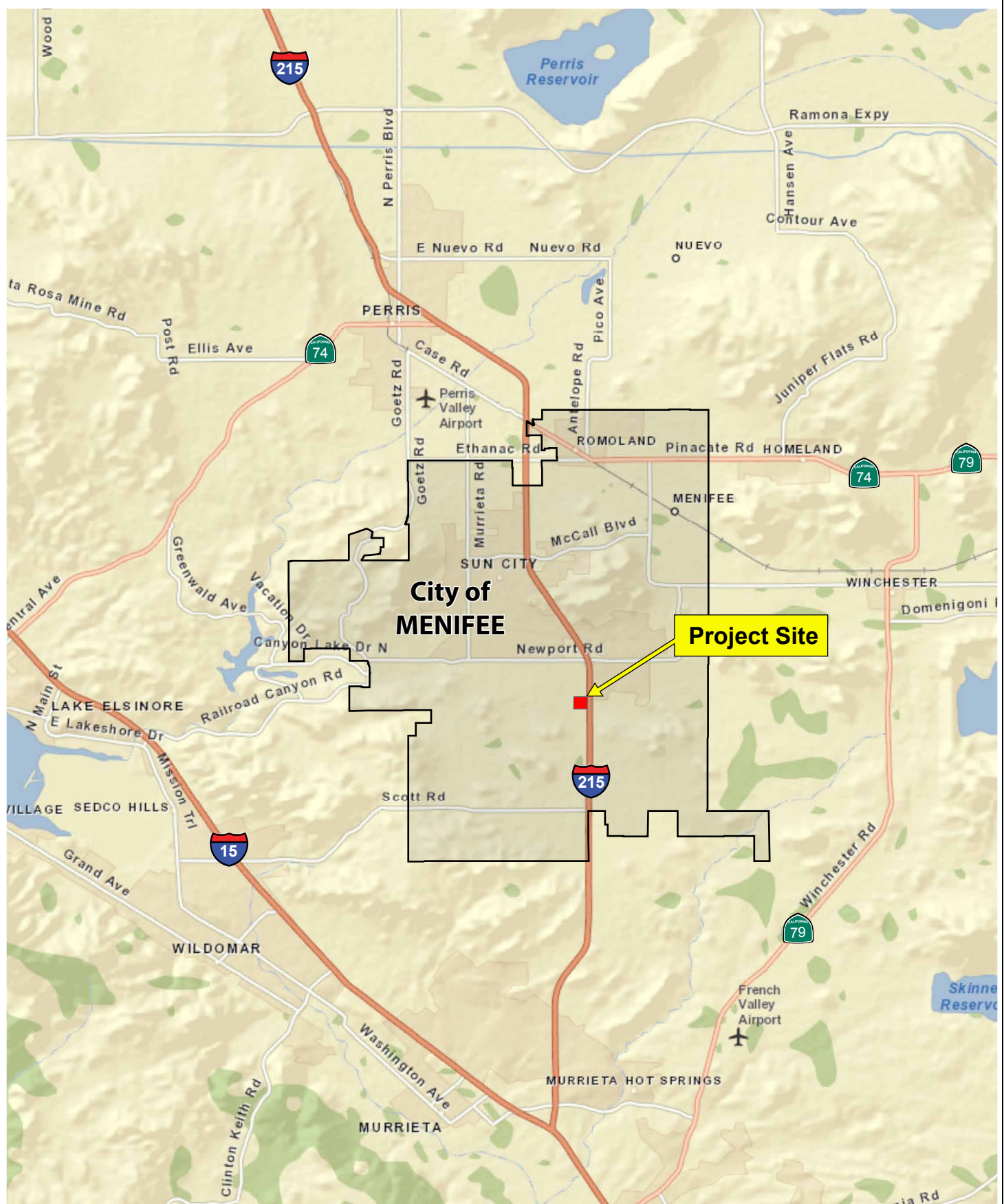
## 2.0 INTRODUCTION

This document presents the results of a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis conducted by Cadre Environmental for the 37.06-acre Haun & Holland Road project site including a 0.51-acre offsite study area as required under Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*, of the Western Riverside County MSHCP (MSHCP 2004).

### 2.1 Project Area

the Project Site is located within APN 360-130-003 extending west of State Route 215 and an existing Caltrans ditch, east of Haun Road and north of Holland Road. The offsite study area extends west of the Project Site across Haun Road and is partially located within the Paloma Wash channel (Figure 1, *Regional Location Map* and Figure 2, *Vicinity Map*). the Project Site and offsite study area are located within the Western Riverside County MSHCP Sun City/Menifee Valley Plan Area and are not located within an MHSCP Criteria Cell, Group, or Linkage Area.





APN 360-130-003

## Figure 1 - Regional Location Map

*Determination of Biologically Equivalent or Superior Preservation  
Haun & Holland Project Site TPM 37121*

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~~~~~ Offsite Study Area    
 ~~~~~ Proposed Offsite Storm Drain Facilities    
 - - - - - Caltrans Ditch

**Figure 2 - Vicinity Map**

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1 inch = 200 feet



## 2.2 Project Description

The proposed project includes a subdivision of the property into six (6) parcels for future independent commercial mixed-use developments. The project will also include the construction of a public access road and a storm drain system that includes a new offsite outlet structure extending into the west facing bank of the Paloma Wash flood control channel. The proposed project does not include any connections or other impacts to the Caltrans ditch located east of and adjacent to the Project Site.

## 2.3 Existing Conditions

Cadre Environmental biologist and Albert A. Webb Associates environmental analyst assessed the Project Site and offsite study area from 2016 - 2019 to qualitatively and quantitatively document baseline conditions. The following is a summary of the current biological conditions.

The generally flat Project Site is characterized as non-native grassland/ruderal and field croplands with an elevation ranging between 1,440 feet above mean sea level (AMSL) and 1,435 AMSL. The offsite study area located west of the Project Site includes the west facing slope of the Paloma Wash channel which is characterized as disturbed habitat as shown in Figure 3, *Biological Resources Map* and summarized in Table 1, *Vegetation Communities Acreage*. Representative photographs of the Project Site and offsite study area's natural resources were taken during the initial as well as updated field surveys (Figures 4 to 6, *Current Project Site and Offsite Study Area Photographs*).

**Table 1, Vegetation Communities Acreages**

| Vegetation Communities       | Project Site<br>(ac) | Offsite Study Area<br>(ac) | Total<br>(ac) |
|------------------------------|----------------------|----------------------------|---------------|
| Non-native grassland/ruderal | 21.38                | 0.01                       | 21.39         |
| Field Croplands              | 11.18                | 0.01                       | 11.19         |
| Disturbed                    | 3.90                 | 0.02                       | 3.92          |
| Developed                    | 0.34                 | 0.39                       | 0.73          |
| Agricultural Ditch           | 0.26                 | --                         | 0.26          |
| Paloma Wash Channel          | --                   | 0.08                       | 0.08          |
| <b>TOTAL</b>                 | <b>37.06</b>         | <b>0.51</b>                | <b>37.57</b>  |

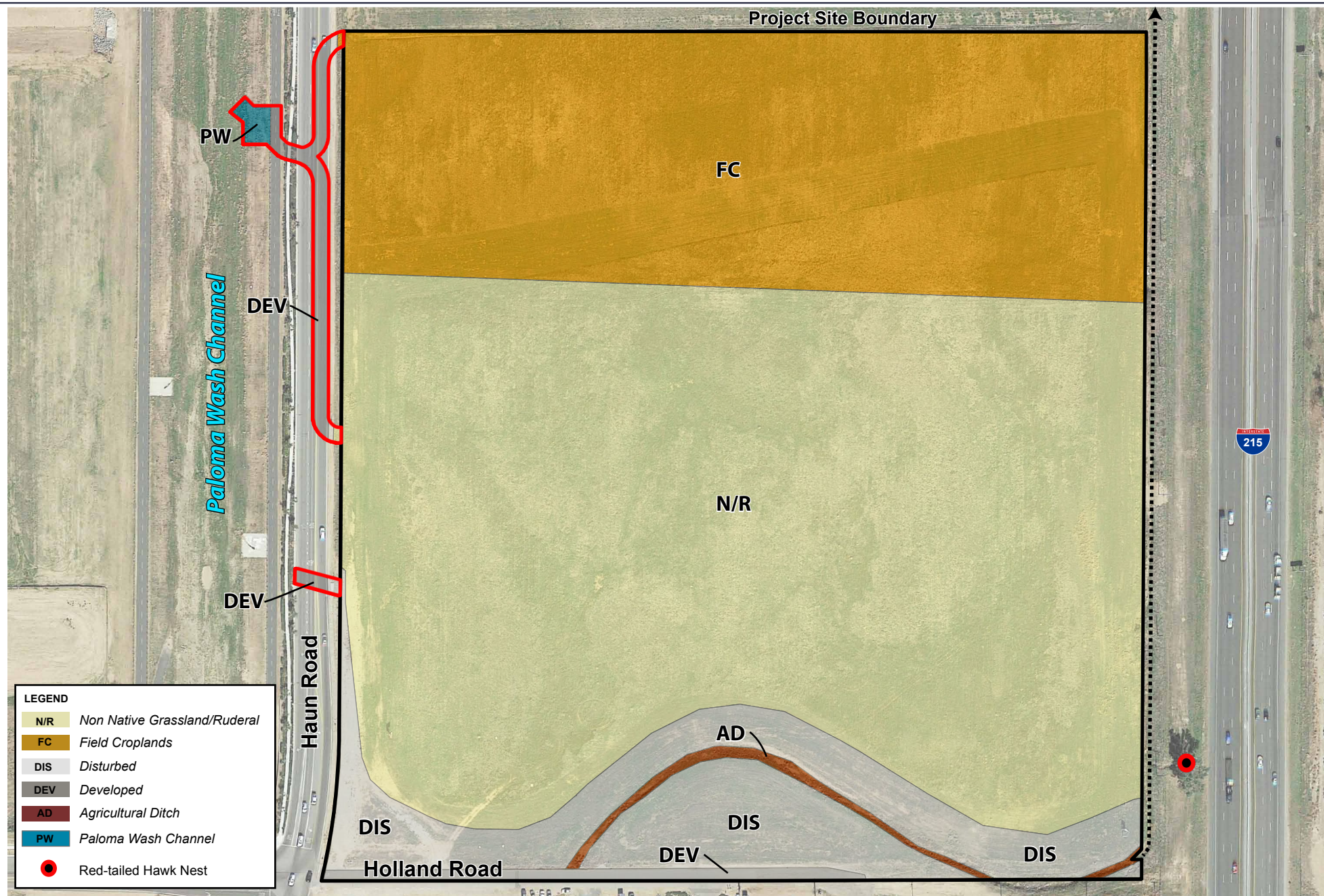
Cadre Environmental 2016, 2019.

## Soils

The Soil Survey of Western Riverside Area<sup>1</sup> has classified the Project Site and offsite study area as Honcut sandy loam, 2 to 8 percent slopes (HnC), Gr Wyman loam, 2 to 8 percent slopes, eroded (WyC2), and Yokohl loam, 2 to 8 percent slopes (YbC). All soils documented within the Project Site and offsite study area are characterized as being well drained (drainage class) as shown in Figure 7, *Soil Associations Map*. This is consistent with conditions observed onsite and lack of inundation documented during a review of historical aerials for years of above average rainfall.

<sup>1</sup> United States Department of Agriculture – Natural Resources Conservation Service - <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed April 2019.





Offsite Study Area      Caltrans Ditch

**Figure 3 - Biological Resources Map**

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1 inch = 200 feet





PHOTOGRAPH 1 - Northeast view of Project Site from southwest corner near Holland Road and Haun Road intersection.



PHOTOGRAPH 2 - Northwest view of Project Site from southeast corner.

*Refer to Figure 2 - Vicinity Map*

#### **Figure 4 - Current Study Area Photographs**

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PHOTOGRAPH 3 - Southwest view of Project Site from northeast corner.



PHOTOGRAPH 4 - Southwest view of Project Site from northwest corner near Haun Road.

*Refer to Figure 2 - Vicinity Map*

### **Figure 5 - Current Study Area Photographs**

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PHOTOGRAPH 5 - Southward view of offsite Paloma Wash channel Study Area



PHOTOGRAPH 6 - Southward view of existing southern tie-in structure located within the Paloma Wash channel.

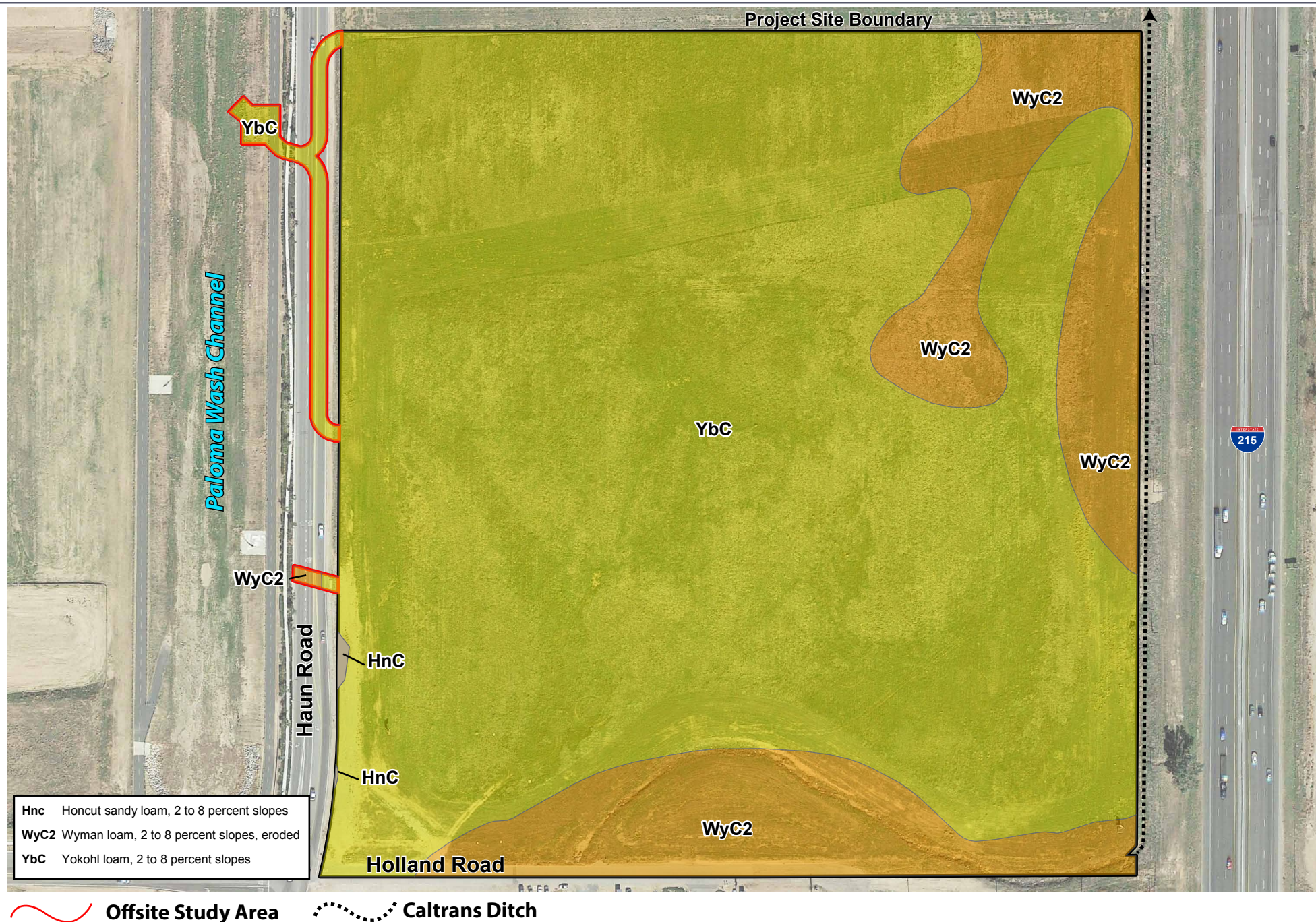
*Refer to Figure 2 - Vicinity Map*

**Figure 6 - Current Study Area Photographs**

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**Figure 7 - Soil Associations Map**

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## **Vegetation Communities**

### **Non-native Grassland/Ruderal**

The non-native grassland/ruderal vegetation community located in the southern region is expected to have been historically dry farmed similar to the northern region of the Project Site. However, this region is now dominated by non-native ruderal species including wild oat (*Avena fatua*), false barley (*Hordeum murinum*), London rockets (*Sisymbrium irio*), Russian thistle (*Kali tragus*), and cheeseweed (*Malva parviflora*). The native common fiddleneck (*Amsinckia menziesii*) was also documented in this habitat type.

### **Field Croplands**

The northern region of the Project Site is characterized as field croplands based on the on-going cultivation of wheat (*Triticum aestivum*). Other less common non-native species documented in this region include London rockets, cheeseweed and false barley.

### **Disturbed**

The disturbed southern region of the Project Site has been recently disked and is expected to be dominated by the same non-native species presented in the non-native grassland/ruderal classification above as well as those present in the agricultural ditch as presented below.

### **Developed**

The developed region of the Project Site is represented by the asphalt paved portion of Holland Road and Haun Road located along the southwest and western boundaries.

### **Agricultural Ditch**

The agricultural ditch did not exhibit any sign of inundation, flow and did not possess native/riparian or wetland vegetation communities within or adjacent to the active channel which ranged between 4 to 8 feet wide. Dominant plant species documented within the ditch include Russian thistle, London rocket, horseweed (*Conyza canadensis*), western ragweed (*Ambrosia psilostachya*), black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), stinknet (*Oncosiphon piluliferum*), prickly lettuce (*Lactuca serriola*), salt heliotrope (*Heliotropium curassavicum*), common goldfields (*Lasthenia californica*), annual sunflower (*Helianthus annuus*), salt grass (*Distichlis spicata*), clustered tarweed (*Deinandra fasciculata*), Jimsonweed (*Datura wrightii*), and non-native grasses.

### **Paloma Wash Channel**

The offsite study area where an outfall structure is proposed extends west of the Project Site and includes a small region of the Paloma Wash channel. The offsite study area

located within the Paloma Wash channel is characterized as disturbed/ruderal vegetation, primarily dominated by non-native invasive species. Common non-native species documented within and in the region of the study area include red-stemmed filaree, black mustard, Russian thistle, tocalote, curly dock (*Rumex crispus*), shepherds' purse (*Capsella bursa-pastoris*), dwarf nettle (*Urtica urens*), stinking chamomile (*Anthemis cotula*), bur clover (*Medicago polymorpha*), and non-native grasses. Less common native species documented in this region include clustered tarweed, California buckwheat (*Eriogonum fasciculatum*), common sand aster (*Corethrogyne filaginifolia*), common fiddleneck, rough cocklebur (*Xanthium strumarium*), annual sunflower, and smooth tarplant (*Centromadia pungens* ssp. *laevis*).

Representative distribution and photographs of these habitat types are illustrated in Figure 3, *Biological Resources Map* and Figures 4 to 6, *Current Project Site and Offsite Study Area Photographs*.

### **General Wildlife**

General wildlife species documented onsite or within the vicinity during the site visits include turkey vulture (*Cathartes aura*), killdeer (*Charadrius vociferous*), rock dove (*Columba livia*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), western kingbird (*Tyrannus verticalis*), cliff swallow (*Petrochelidon pyrrhonota*), western meadowlark (*Sturnella neglecta*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), and California ground squirrel (*Otospermophilus beecheyi*). An active red-tailed hawk (*Buteo jamaicensis*) nest was documented within a Eucalyptus tree located immediately adjacent to the southeast Project Boundary during the 2016 site visit as shown in Figure 3, *Biological Resources Map*.

## **3.0 RIPARIAN, RIVERINE, VERNAL POOL MITIGATION (SECTION 6.1.2)**

### **3.1 Methods**

The Project Site was initially surveyed on April 26<sup>th</sup>, 2016 and an updated survey was conducted on January 31<sup>st</sup>, 2019 to assess the offsite study area associated with constructing an outfall structure extending within the Paloma Wash channel. The survey included complete coverage of the Project Site and offsite study area, with special attention focused toward sensitive species or those habitats potentially supporting sensitive flora or fauna that would be essential to efficiently implementing the terms and conditions of the Western Riverside County MSHCP, and features potentially subject to United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB) and MSHCP jurisdiction (6.1.2). Aerial photography, historical aeriels, and soil maps of the Project Site and offsite study area were utilized to accurately locate and survey the assessment areas. General plant communities were preliminarily mapped directly on the aerial photo using visible landmarks in the field, which are depicted in Figure 3, *Biological Resources Map*. Representative photographs of the Project Site's natural resources were taken during the initial as well as updated field surveys (Figures 4 to 6, *Current Project Site and Offsite Study Area Photographs*).

### 3.2 Results/Impacts

Prior to 2009, a blueline stream bisected the southern region of the Project Site and extended north along the eastern boundary of the property (Caltrans ditch) as shown in Figure 8, *MSHCP Riverine (Section 6.1.2) Onsite Assessment Map*. However, as shown in Figure 8, following construction of a sediment basin located south of the Project Site in 2009, the drainage was redirected to flow west of Haun Road where it currently discharges into the Paloma Wash flood control channel. The onsite feature, now characterized as an agricultural ditch did not exhibit any sign of flow, was characterized by ruderal non-native species, had no wetland or riparian vegetation and is expected to be isolated and non-functional in its current altered state. This onsite feature does not provide function or onsite/downstream resources for target MSHCP Section 6.1.2 species. This feature no longer represents an MSHCP 6.1.2 riparian or riverine feature

Conservatively, all resources characterized as CDFW jurisdictional features were also characterized as MSHCP Section 6.1.2 regulated features (Albert A. Webb Associates 2019). Specifically, the offsite study area is located partially within the Paloma Wash channel which represents an MSHCP 6.1.2 riverine resource as shown in Figure 9, *MSHCP Riverine (Section 6.1.2) Resources Impact Map*. An approximately 10-foot buffer was established around the 0.04-acre permanent impact area and represents a temporary impact/assessment area as outlined in Table 2 *MSHCP Riverine Impacts*. Temporary and permanent impacts proposed to occur within the Paloma Wash channel as a result of constructing an outfall structure will impact 0.08-acre of MSHCP 6.1.2 riverine resources.

All habitats within the offsite Paloma Wash channel study area were characterized as disturbed. No riparian scrub, forest, or woodland habitat representing suitable, foraging, nesting or transitional resources for the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*) or western yellow-billed cuckoo (*Coccyzus americanus*) was detected within or adjacent to the Project Site or offsite study area.

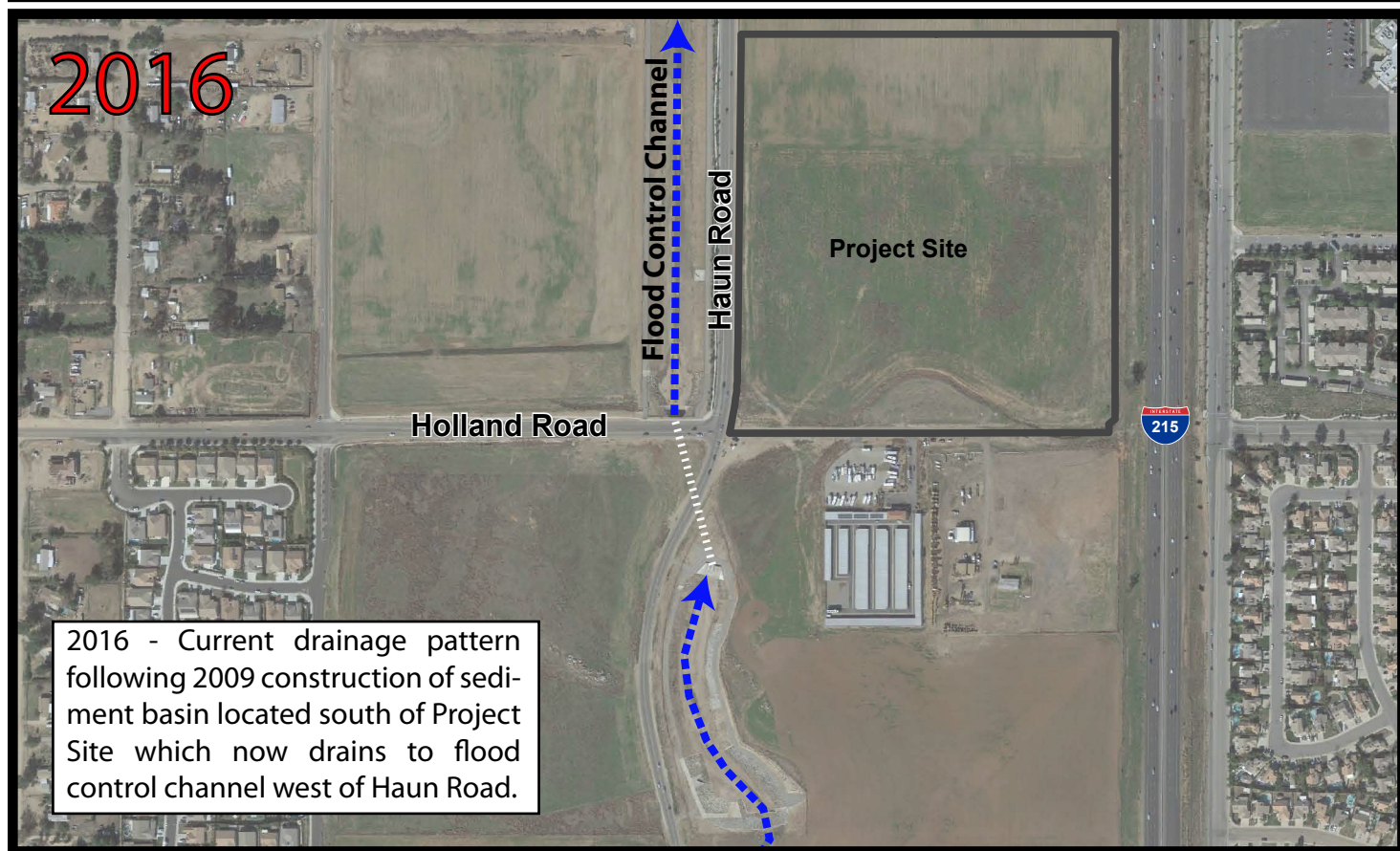
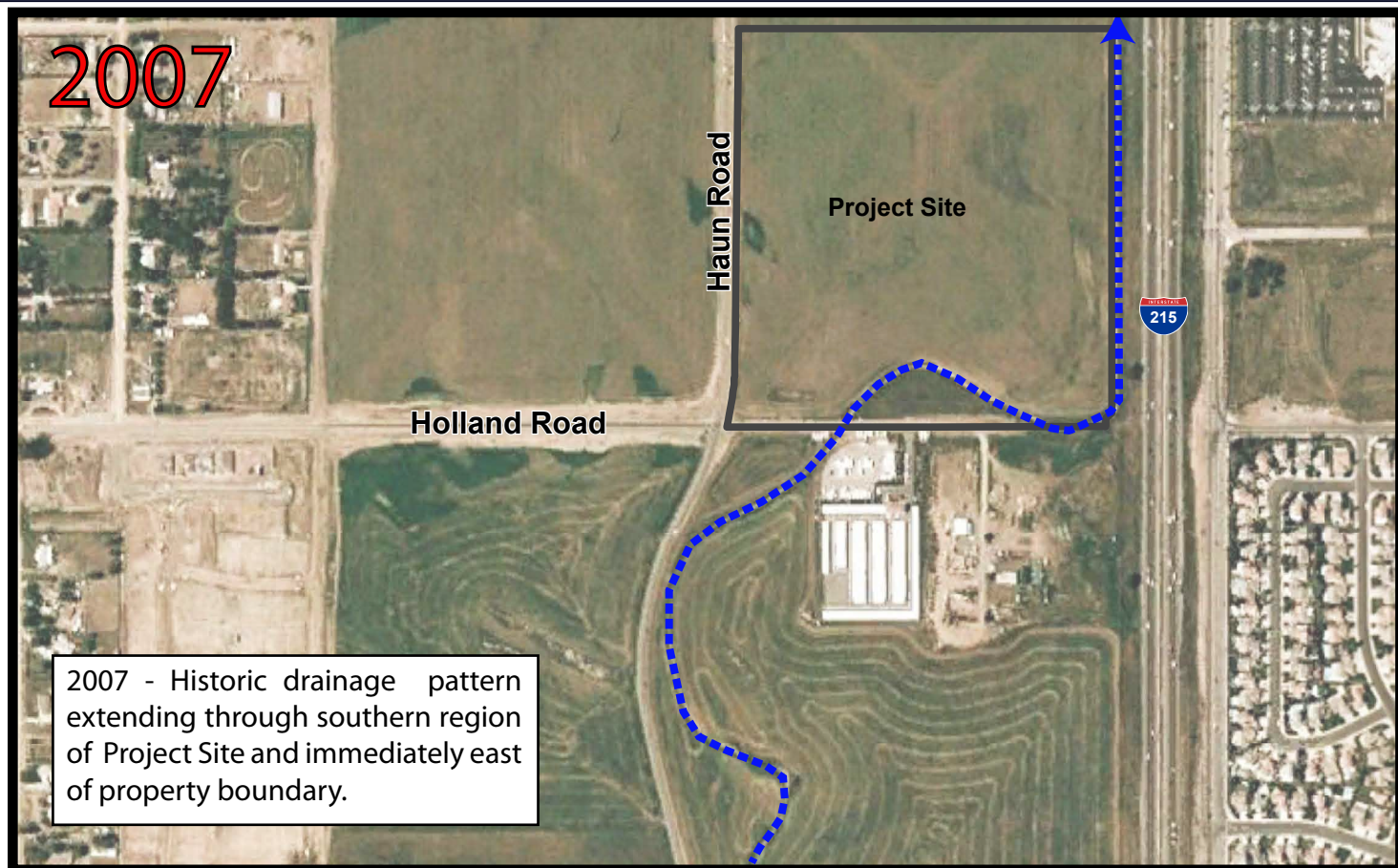
Based on a review of historic aerials, soil maps, habitat assessments and focused surveys conducted onsite and within the offsite study area in 2016, 2017, and 2019, no vernal pool or seasonal depressions representing suitable resources for common or sensitive fairy shrimp species were documented. All soils documented within the Project Site and offsite study area are characterized as being well drained (drainage class) as shown in Figure 7, *Soil Associations Map*.

**Table 2, MSHCP Riverine Offsite Impacts**

| <b>MSHCP<br/>Riverine<br/>Resources</b> | <b>Permanent<br/>Impacts<br/>(ac)</b> | <b>Temporary<br/>Impacts<br/>(ac)</b> | <b>Total Impacts<br/>(ac)</b> |
|---|---------------------------------------|---------------------------------------|-------------------------------|
| Paloma Wash<br>Channel                  | 0.04                                  | 0.04                                  | 0.08                          |

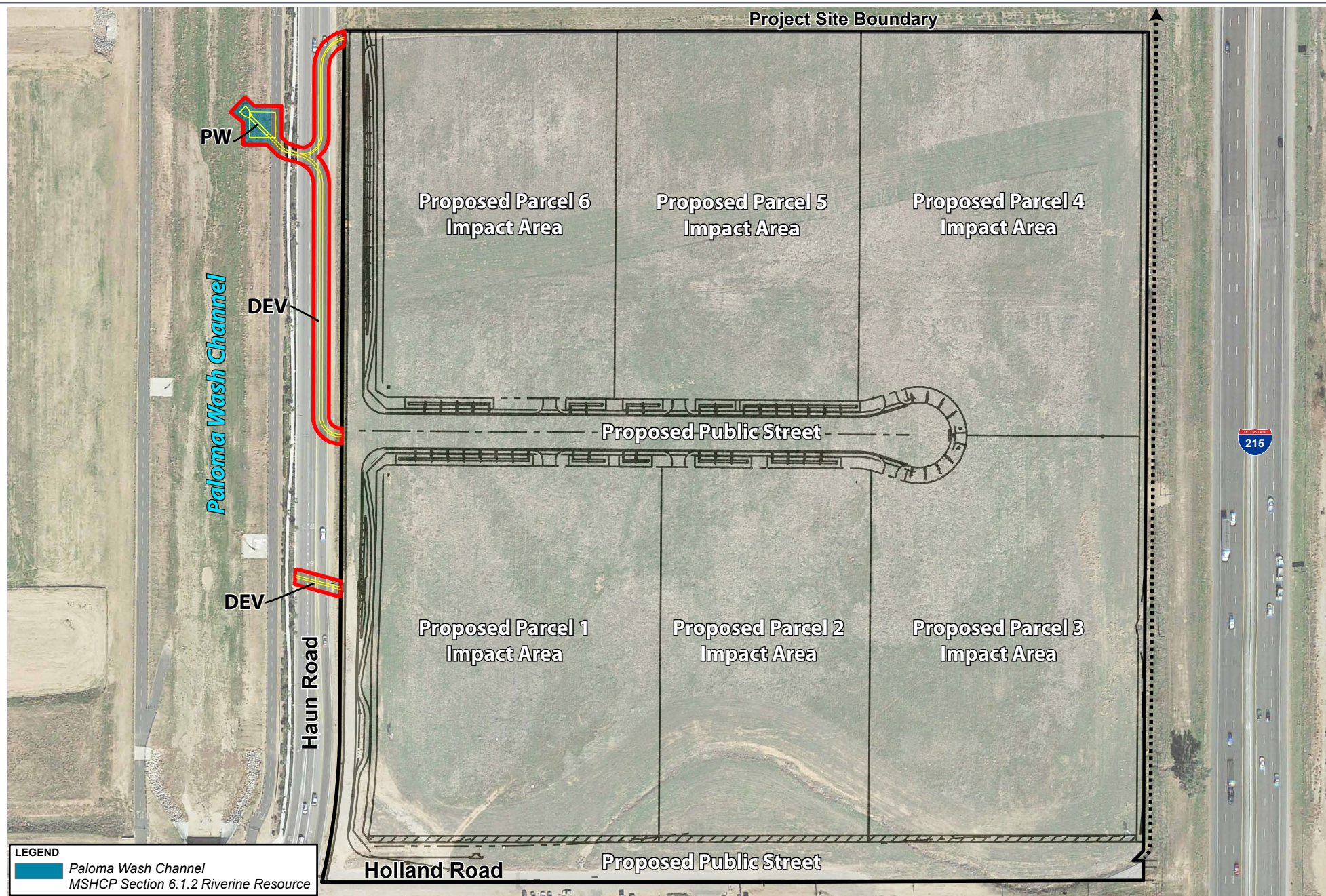
*Albert A. Webb Associates, Jurisdictional Delineation 2019.*





**Figure 8 - MSHCP Riverine (Section 6.1.2) Onsite Assessment Map**  
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 Haun & Holland Project Site TPM 37121





~~~~~ **Offsite Study Area**
~~~~~ **Proposed Offsite Storm Drain Facilities**
- - - - - **Caltrans Ditch**

**Figure 9 - MSHCP Riverine (Section 6.1.2) Resources Impact Map**  
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 Haun & Holland Project Site TPM 37121

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### 3.3 Mitigation and Equivalency

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset temporary and permanent impacts to 0.08-acre of MSHCP Section 6.1.2 riverine resources located within the Paloma Wash channel (disturbed habitat) by:

- 3) Restoring temporary impact area (0.04 acre) by hydroseeding with a native seed mix, and the applicant will perform exotic weed removal for a period of one year. The seed mix will consist of deer grass (*Muhlenbergia rigens*), foothill needlegrass (*Nassella lepida*), California brome grass (*Bromus carinatus*), Spanish clover (*Acmispon americanus*) and alkali barley (*Hordeum depressum*). The seed will be obtained from S & S Seeds, and;
- 4) Purchasing 0.08 acre of rehabilitation credits (2:1) at the Riverpark Mitigation Bank. If the River Park Mitigation Bank is not selling credits when the applicant will need to purchase them, then the applicant will provide for habitat restoration of native alkali habitat within the City of Hemet's vernal pool complex located within Regional Conservation Authority (RCA) lands (APN's 455-130-030, 455-130-036, and 455-130-046) at a higher ratio of 3:1.

The River Park Mitigation Bank proposes to re-establish (recreate former but no longer existing) alkali plain wetland system habitat and rehabilitate (repair existing but degraded) alkali plain wetland system habitat for a grand total of 583 acres of restoration of various types of alkali plain wetland system plant communities. As stated by the United States Army Corps of Engineers (USACE):

*"The Riverpark Mitigation Bank is a proposed 619-acre mitigation bank located along the San Jacinto River (SJR) in western Riverside County (Figures 1 and 2). The Bank property is specifically located just downstream of the Ramona Expressway and immediately upstream of Nuevo Road. The site is depicted on the U.S. Geological Survey (USGS) Perris and Romoland Quadrangle Rancho San Jacinto Nuevo y Potrero Land Grant (Figure 3) in unincorporated Riverside County, California (33° 49' 8.4"N, -117° 9' 18"W)." (USACE 2015)*

*"The primary objective of the proposed mitigation bank would be to replace functions and services of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance or in violation of Section 404 of the CWA. The proposed mitigation bank would provide mitigation for both permanent and temporary impacts to waters of the U.S. In addition, the proposed mitigation bank may be used to offset environmental losses resulting from unavoidable impacts related to regulated activities by the California Department of Fish and Wildlife and the San Diego and Santa Ana Regional Water Quality Control Boards. Specific objectives include: • Restoration of fluvial processes on site within the San Jacinto River floodplain. • Restoration of alkali playa and vernal pool habitat. • Expansion of existing sensitive plant populations across the site. • Removal of ongoing agricultural activities on the site. • Removal of existing berms and the low flow channel. • Permanent*

*protection of the site through transfer of fee title to the Western Riverside Regional Conservation Authority (RCA). • Permanent management of the site through funding of a non-wasting endowment.” (USACE 2015)*

*“Due to its location along the San Jacinto River and its high potential for successful restoration upon elimination of the artificial low flow channel and berms created by historic agricultural activities, the proposed mitigation bank location has been identified by several state and Federal agencies as a high-priority restoration site.” (USACE 2015)*

### **3.3.1 Direct Effects**

Direct impacts are considered to be those that involve the loss, modification, or disturbance of natural resources or habitats (i.e., vegetative communities or substrate) that in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts include the destruction of individual plants or wildlife of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals may also directly affect area-wide population numbers or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

A total of 0.08-acre of impacts (0.04-acre permanent and 0.04-acre temporary) will occur within the Paloma Wash channel as a result of project initiation as summarized in Table 2, *MSHCP Riverine Offsite Impacts*, and illustrated on Figure 9, *MSHCP Riverine (Section 6.1.2) Resources Impact Map*.

### **3.3.2 Indirect Effects**

Indirect impacts are considered to be those impacts associated with the project that involve the effects of alteration of the existing habitat and an increase in human population and or landuse within the Study Area. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to the Study Area.

Indirect impacts also include the effects of increases in ambient levels of sensory stimuli (e.g., noise and light), unnatural predators (e.g., domestic cats and other non-native animals), competitors (e.g., exotic plants and non-native animals), and trampling and unauthorized recreational use due to the increase in human population. Other permanent indirect effects may occur that are related to water quality and storm water management, including trash/debris, toxic materials, and dust.

Initiation of the proposed project will not result in temporary or permanent indirect edge effects to sensitive receptors as a result of noise or lighting levels. The Project Site is located immediately adjacent to State Route 215 along the eastern boundary, Haun Road along the western boundary, and vacant land/mixed commercial retail development along the northern boundary. The lands located immediately south of the Project Site are also developed and do not provide suitable resources or open space habitat for common or sensitive species.

The storm water conveyed and released into the Paloma Wash channel by the proposed outlet structure will be in compliance with National Pollutant Discharge Elimination System (NPDES) regulations as required of the developer of the proposed project and the City of Menifee for treatment of storm water prior to discharge. Effluent will be regulated during both construction (NPDES no. CAS000002) and post-construction (NPDES no. CAS618033).

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

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite study area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for narrow endemic plants if suitable habitat is documented and the assessment area is located within a predetermined "Survey Area" (MSHCP 2004).

The Project Site and offsite study area do not occur within a predetermined Survey Area for MSHCP narrow endemic plant species. Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.

##### **4.1 Methods**

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.

##### **4.2 Results/Impacts**

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.

##### **4.3 Mitigation and Equivalency**

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.

###### **4.3.1 Direct Effects**

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.

###### **4.3.2 Indirect Effects**

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site or offsite study area.



## **5.0 CRITERIA AREA SPECIES MITIGATION (SECTION 6.3.2)**

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite study area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for criteria area species if suitable habitat is documented onsite and the assessment areas are located within a predetermined “Survey Area” (MSHCP 2004).

### **5.1 Criteria Area Species Survey Area – Plants**

The Project Site and offsite study area do not occur within a predetermined Survey Area for MSHCP criteria area plant species. Compliance with Section 6.1.3 respective of MSHCP criteria area plants is not applicable to the proposed Project Site or offsite study area.

Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1 was documented within the region of the offsite study area (Paloma Wash Channel). However, the Project Site and offsite study area do not occur within a predetermined Survey Area for MSHCP narrow endemic or criteria area plant species and focused surveys and/or conservation is not required.

#### **5.1.1 Methods**

Compliance with Section 6.1.3 respective of MSHCP criteria area plants is not applicable to the proposed Project Site or offsite study area.

#### **5.1.2 Results/Impacts**

Compliance with Section 6.1.3 respective of MSHCP criteria area plants is not applicable to the proposed Project Site or offsite study area.

#### **5.1.3 Mitigation and Equivalency**

Compliance with Section 6.1.3 respective of MSHCP criteria area plants is not applicable to the proposed Project Site or offsite study area.

### **5.2 Criteria Area Species Survey Area – Burrowing Owl**

Compliance with Section 6.1.3 respective of MSHCP criteria area plants is not applicable to the proposed Project Site or offsite study area.

#### **5.2.1 Methods**

##### **Burrowing Owl Habitat Assessment and Focused Surveys**

The Project Site and offsite study area occur within an MSHCP burrowing owl survey area and a habitat assessment and focused survey was conducted to ensure compliance with MSHCP guidelines as summarized below.

In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. Step II is comprised of two parts, Part A: Focused Burrow Surveys and Part B: Focused Burrowing Owl Surveys.

Each step is briefly outlined below, followed by the methodology and results of each survey conducted within the Project Site. All initial habitat assessment, burrow and focused surveys were conducted by Ruben Ramirez.

Surveys were conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys were not conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. None of the surveys were conducted within five (5) days of measurable precipitation.

In addition to the MSHCP guidelines, field notes were taken daily. These notes recorded the date, location, animal species observed, and general habitat characteristics of each area and habitat examined that day.

### **Step I – Habitat Assessment**

Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. Cadre Environmental conducted the initial habitat assessment on April 26<sup>th</sup>, 2016 (Cadre Environmental 2016). Upon arrival at the Project Site, and prior to initiating the assessment survey, Cadre Environmental used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence.

All suitable areas of the Project Site were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea taxus*), but they often utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, wood debris piles, openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

According to the MSHCP guidelines, if suitable habitat is present, the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project Site boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. In addition to surveying the entire Project Site all bordering natural habitats located immediately adjacent to the Project Site were assessed including the Caltrans easement located immediately east of the property.

Results from the habitat assessment indicate that suitable resources for burrowing owl are present throughout the Project Site. Accordingly, if suitable habitat is documented onsite or within adjacent habitats, both Step II, focused surveys and the 30-day pre-construction surveys are required in order to comply with the MSHCP guidelines.

## **Step II – Locating Burrows and Burrowing Owls**

Concurrent with the initial habitat assessment, a detailed focused burrow survey was conducted and included documentation of appropriately sized natural burrows or suitable man-made structures that may be utilized by burrowing owl - as part of the MSHCP protocol, which is described below under Part A. Focused Burrow Survey

### **Part A: Focused Burrow Survey**

A systematic survey for burrows, including burrowing owl sign, was conducted by walking across and adjacent to all suitable habitats mapped within the Project Site on April 26<sup>th</sup>, 2016 and March 2<sup>nd</sup>, 2017.

All observations of suitable burrows or dens, natural or man-made, or sightings of burrowing owl, were recorded and mapped during the survey (Cadre Environmental 2016).

### **Part B: Focused Burrowing Owl Surveys**

Four (4) focused burrowing owl surveys (in addition to the initial focused burrow survey – Step II, Part A) were conducted on March 2<sup>nd</sup>, 8<sup>th</sup>, 15<sup>th</sup>, and 20<sup>th</sup>, 2017, from one hour before sunrise to two hours after sunrise. Pedestrian survey transects were spaced to allow 100% visual coverage of the ground surface. The distances between transect centerlines were no more than 20 meters (approximately 66 ft.) apart, and owing to the terrain, often much smaller. During visual surveys, all potentially suitable burrow or structure entrances were investigated for signs of owl occupation, such as feathers, tracks, or pellets, and carefully observed to determine if burrowing owls utilize these features, when present. All burrows are monitored at a short distance from the entrance, and at a location that would not interfere with potential owl behavior, when present.

## **5.2.2 Results/Impacts**

Suitable burrowing owl burrows potentially utilized for refugia, foraging and/or nesting were documented within the Project Site and the offsite study area located within the Paloma Wash channel. Based on the presence of suitable habitat and known occurrences of the species in close proximity to the Project Site, focused MSHCP burrowing owl surveys were conducted to determine the presence, absence and status of the species within the Project Site. No burrowing owl were detected within the Project Site during focused MSHCP burrowing owl surveys (Cadre Environmental 2017).

### **5.2.3 Mitigation and Equivalency**

A 30-day preconstruction survey will be required immediately prior to the initiation of construction within the Project Site and offsite study area to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP.

If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1<sup>st</sup> to August 31<sup>st</sup>) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are completed or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season or active relocation is proposed, a burrowing owl mitigation plan will be developed based on the County of Riverside Environmental Programs Division, CDFW and USFWS requirements for the relocation of individuals to the Lake Mathews Preserve.

### **5.3 Criteria Area Species Survey Area – Mammals**

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite study area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required if suitable habitat for mammals is documented onsite and the property is located within a predetermined “Survey Area” (MSHCP 2004).

The Project Site and offsite study area do not occur within a predetermined Survey Area for mammal species. Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site or offsite study area.

#### **5.3.1 Methods**

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site or offsite study area.

#### **5.3.2 Results/Impacts**

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site or offsite study area.

#### **5.3.3 Mitigation and Equivalency**

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site or offsite study area.

### **5.4 Criteria Area Species Survey Area – Amphibians**

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite study area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required if suitable habitat for amphibian species is

documented onsite and the property is located within a predetermined “Survey Area” (MSHCP 2004).

#### **5.4.1 Methods**

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Project Site or offsite study area.

#### **5.4.2 Results/Impacts**

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Project Site or offsite study area.

### **6.0 REFERENCES**

Cadre Environmental. 2016. General MSHCP Habitat Assessment/Constraints Analysis for the 37 Acre Haun & Holland Project Site, City of Menifee, California.

Cadre Environmental. 2019. General MSHCP Habitat Assessment/Consistency Analysis for the 37.06 Acre Haun & Holland Project Site, City of Menifee, California.

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California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency.

County of Riverside. 2006. Burrowing Owl Survey Instructions – Western Riverside Multiple Species Habitat Conservation Plan Area.

Riverside County Integrated Project (RCIP) Multiple Species Habitat Conservation Plan (MSHCP), March 2004.

United States Department of Agriculture. 2019. Custom Soil Resources Report for Western Riverside Area, California. Natural Resources Conservation Service. <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed April 2019.

United States Army Corps of Engineers. 2015. Prospectus for Mitigation Bank and Application for Permit - Riverpark Mitigation Bank (Public Notice/Application No.: SPL-2015-00318-MBT).

## **APPENDIX A**

MSHCP Focused Burrowing Owl Surveys for the 37-Acre Haun & Holland Road Project  
Site, City of Menifee, California, Cadre Environmental 2017.

## **APPENDIX B**

Riverside County Environmental Programs Division – MSHCP Focused Burrowing Owl  
Survey Report Review (EPD Case Number ME00135), April 10<sup>th</sup> 2017.

## **APPENDIX C**

General MSHCP Habitat Assessment/Compliance Analysis for the 37.06 Acre Haun & Holland Project Site, City of Menifee, California, Cadre Environmental 2019



## **APPENDIX D**

Jurisdictional Delineation - Haun and Holland Road Project TPM 37121  
Albert A. Webb Associates 2019

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