MSHCP Determination of Biologically Equivalent or Superior Preservation/Consistency Analysis

Rancho Diamante Project Site, City of Hemet, California
TTM 36841

DRAFT REPORT

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GLOSSARY

AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
BMP	Best Management Practices
CAPSA	Criteria Area Plant Survey Areas
CDFG	California Department of Fish and Game (CDFW effective Jan 1st 2013)
CDFW	California Department of Fish and Wildlife
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranking
DBESP	Determination of Biological Equivalent or Superior Preservation
GIS	Geographic Information System
LWRM	Limited Warm Freshwater Habitat
MSHCP	Multiple Species Habitat Conservation Plan
NEPSA	Narrow Endemic Plant Survey Areas
NPDES	National Pollutant Discharge Elimination System
PCD	Page Ranch Planned Community Development
PQP	Public/Quasi-Public
RCA	Western Riverside County Regional Conservation Authority
RCIP	Riverside County Integrated Project
RWQCB	Regional Water Quality Control Board
SKR	Stephens' Kangaroo Rat
SSC	California Species of Special Concern
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WARM	Warm Freshwater Habitat
WET	Wetland Habitat
WILD	Wild Habitat
WQE	Water Quality Enhancement

INTRODUCTION

BACKGROUND AND PURPOSE

This document presents the results of a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis conducted by Cadre Environmental for the proposed Rancho Diamante Project Site as required under Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*, of the Western Riverside County Multiple Species Habitat Conservation Plan "MSHCP" (MSHCP 2004). In addition to preparing a DBESP for the proposed project, this document also presents a consistency determination to ensure that the proposed project is in compliance with the goals and objectives of the MSHCP, including Section 6.1.4, *Guidelines Pertaining to the Urban/Wildlands Interface*.

DEFINITION OF THE PROJECT SITE

The 245.07-acre Project Site, Assessor's Parcel Number (APNs) 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027, is located immediately west of Warren Road, south of the Hemet Channel and east of the San Diego Aqueduct in the City of Hemet, western Riverside County, California (U.S. Geological Survey (USGS) 7.5' series Winchester Quadrangle, east ½ of Section 24, Township 5 South, Range 2 West as shown in Figure 1, *Regional Location Map*. An offsite assessment area totaling 21.48 acres (portions of APNs 465-120-019, and 021, 465-130-016 and 017, 465-100-018, 031, 032, and 033) include the reach of Hemet Channel located immediately north of the Project Site, improvements proposed to Warren Road and a future offsite drainage channel extending south from the southwest corner of the Project Site to the Riverside County Flood Control feature located at Simpson Road.

The majority of the Project Site is characterized as flat highly disturbed active agricultural lands with elevations ranging from 1,495 feet above mean sea level (AMSL) and 1,507 feet AMSL. The Project Site is primarily characterized as agricultural lands (field croplands), seasonal depressions, Eucalyptus woodland, and disturbed/herbaceous wetland vegetation communities. A man-made urban-agricultural drainage ditch created along the southern boundary extends west to an existing infiltration basin. A total of fourteen (14) seasonal depressions have also been delineated within the Project Site (Helix Environmental Planning, Inc. 2018a). The majority of flat lowlands are currently being actively farmed (wheat production).

PROJECT SITE RELATIONSHIP TO THE MSHCP

the Project Site is located within the Western Riverside County MSHCP San Jacinto Valley Area Plan, south of Proposed Noncontiguous Habitat Block 7 and Constrained Linkage B (Hemet Channel). A 62.75-acre portion of the Project Site is located within Criteria Cell 4007 and 20.23-acre portion is located within Criteria Cell 3892 (SU4 Hemet Vernal Pool Areas East), as shown in Figure 2, *Project Site Map* (RCA GIS Data Downloads 2018). The Project Site is located within a predetermined survey area for nine (9) Criteria Area plant species, six (6) Narrow Endemic plant species, and burrowing owl (*Athene cunicularia*). It is not located within a predetermined survey area for mammal or amphibian species.

Figure 1 - Regional Location Map

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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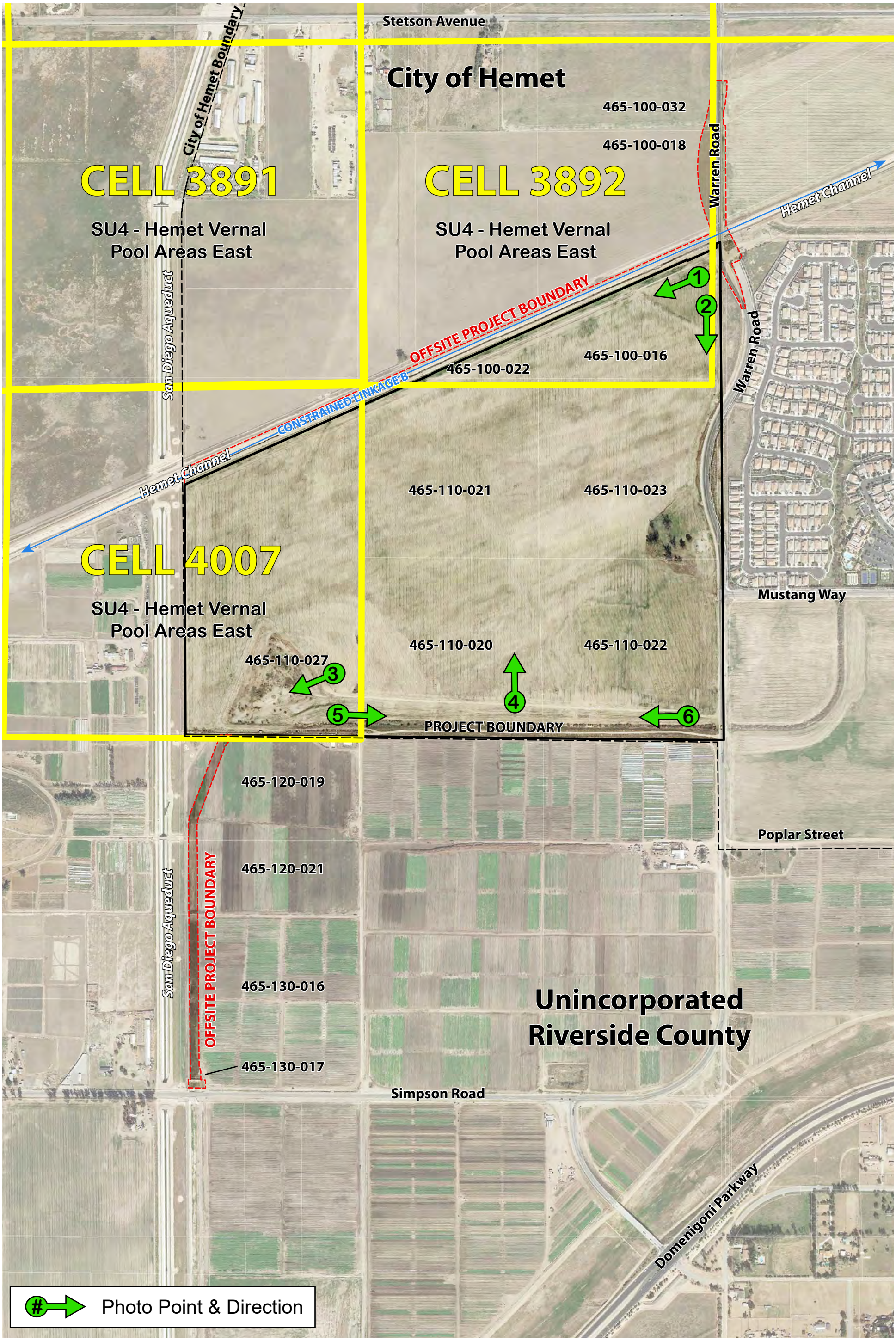
N
not to scale



APNs 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite APNs Portions of 465-120-019, 021, 465-130-016, 017, 465-100-018, and 032.

Figure 2 - Project Site Map

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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1 inch = 650 feet

SURVEY HISTORY

Table 1, *Survey History*, presents a summary of the surveys conducted within the Project Site by Cadre Environmental, Helix Environmental Planning, Inc., Rick Riefner & Associates, and Michael Brandman Associates between 2006 and 2018.

Table 1. Survey History

Year	Survey Type	Conducted By
2006	Rancho Diamante Specific Plan Burrowing Owl Focused Survey Report.	Michael Brandman Associates
2007a	Biological Resources Impact Analysis, MSHCP Consistency Analysis, and HANS Review for the Rancho Diamante Project (TTMs 35392, 35393, and 35394)	Michael Brandman Associates
2007b	Determination of Biologically Equivalent or Superior Preservation (DBESP) for Burrowing Owl for TTMs 35392, 35393, 35394 (Rancho Diamante)	Michael Brandman Associates
2007c	Habitat Assessment (Burrowing Owl, Criteria Area Species, and Narrow Endemic Plant Species) MSHCP Consistency Analysis and HANS Review	Michael Brandman Associates
2007d	Determination of Biologically Equivalent or Superior Preservation (DBESP) for Burrowing Owl Channel 3B	Michael Brandman Associates
2015	MSHCP Focused Burrowing Owl Surveys for the 245.07-Acre Rancho Diamante Project Site	Cadre Environmental
2016	U.S. Fish and Wildlife Service Dry Season Protocol Level Survey for Vernal Pool and Riverside Fairy Shrimp	Helix Environmental Planning, Inc.
2017	U.S. Fish and Wildlife Service Wet Season Protocol Level Survey for Vernal Pool and Riverside Fairy Shrimp	Helix Environmental Planning, Inc.
2017a	General MSHCP Habitat Assessment, Regulatory Constraints, and MSHCP Consistency Approach for the 245.07-Acre Rancho Diamante Project Site	Cadre Environmental
2017b	MSHCP Focused Burrowing Owl Surveys for the 245.07-Acre (16.70-acre offsite) Rancho Diamante Project Site	Cadre Environmental
2017c	MSHCP Sensitive Plant Surveys for the 245.07-Acre Rancho Diamante Project Site	Cadre Environmental, Riefner & Associates
2018a	Jurisdictional Delineation & MSHCP Vernal Pool & Riparian/Riverine Assessment	Helix Environmental Planning, Inc.
2018b	Conceptual Mitigation Plan – Rancho Diamante TM 36394	Helix Environmental Planning, Inc.

PROPOSED PROJECT

The proposed Modified Project encompasses approximately 245 acres of the approximately 1,621-acre Page Ranch Planned Community Development (PCD). As stated by LSA Associates:

> "*The proposed Tentative Tract Map (TTM) No. 36841 (MAP 15-008) would subdivide the 245.07-acre project site into 588 single family residential lots, park and open space areas, and commercial development. The new community will contain a mix of residential lot sizes, with the smallest lot having a minimum of 5,000 square feet and the largest lot having a minimum of 7,000 square feet, with an average lot size of 6,200 square feet. Paseos are proposed for dispersed open space, pedestrian pathways, and the conveyance of drainage and other water quality benefits throughout the community. Drainage is conveyed to the north to the Hemet Channel or to the south to the existing channel serving TTM 31807 immediately south of the Hemet City limits.*
>
> *Proposed TTM No. 36841 establishes the locations of legal lots that would be ultimately sold to merchant home builders who will then subdivide the "for sale" residential lots. The proposed TTM replaces and expands previously approved TTM No. 35394 of the Approved Project and is being processed concurrently with the other two discretionary actions associated with the proposed Modified Project. Offsite improvements to be implemented under the proposed Modified Project include construction of water and reclaimed water pipelines, drainage conveyance features, and realignment of Warren Road including accommodations for future realignment of Stetson Avenue and its intersection with Warren Road at the northeast corner of the project site. The offsite water pipelines will be located within the area of the new Warren Road construction north of new Stetson Avenue. The offsite reclaimed water pipelines will be located along the new Stetson Avenue alignment from California Street to the northwest corner of the Modified Project site. Offsite drainage improvements include a drainage channel outlet from the drainage basin in the southwest corner of the Project site extending southerly to the existing drainage channel at Simpson Road. Warren Road will be realigned north of its intersection with new Stetson Avenue, Hemet Channel, and the railroad tracks*." (LSA 2017)

A total of 213.43 acres of vegetation communities including 8.25 acres of offsite impacts will be directly impacted as a result of project implementation. Specifically, a total of 220.05 acres of permanent impacts and 1.63 acre of temporary impacts to vegetation communities will result from project implementation as illustrated in Figure 3, *Vegetation Communities Impact Map,* and outlined in Table 2, *Vegetation Communities Impact Acreages*. Furthermore, a total of 1.52 acres including 0.02 acre of permanent and 0.74 acre of temporary impacts on MSHCP Section 6.1.2 regulated riparian-vegetated streambed/basin, and 0.06 acre of permanent and 0.70 acre of temporary impact on

unvegetated streambed would result from project initiation as illustrated in Figure 4, *MSHCP Riparian/Riverine Resources Impact Map*. (Helix Environmental Planning Inc. 2018a)

The applicant will offset impacts to 1.52 acre of MSHCP riparian and riverine resources by:

1) The project proposes to purchase 0.03 acre of establishment/re-establishment credits from the Riverpark Mitigation Bank, which is expected to begin selling credits by summer 2018. This element of the mitigation proposal will mitigate permanent impacts to wetland and non-wetland waters of the U.S./State and isolated waters of the State at a 2:1 ratio for non-wetlands and 3:1 ratio for wetlands. This will also mitigate temporary impacts to non-wetland waters of the U.S./State and isolated non-wetland waters of the State. The entirety of resources regulated by both the United States Army Corps of Engineers (USACE) and MSHCP Riparian/Riverine Section 6.1.2 will be mitigated with this option,

2) The project proposes to rehabilitate and enhance a minimum of 3.1 acres of onsite waters of the State, California Department of Fish and Wildlife (CDFW) jurisdiction, and MSHCP Riparian/Riverine resources in the form of herbaceous wetland- and southern willow scrub-vegetated areas. The 3.1 acres will be contained within approximately 14.5 acres of on-site waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources that will be preserved. This element of the mitigation proposal will mitigate permanent and temporary impacts to CDFW jurisdiction and MSHCP Riparian/Riverine resources at a 3:1 ratio for wetland/riparian-vegetated streambed and 2:1 ratio for unvegetated streambed. This will also mitigate temporary impacts to isolated wetland waters of the State at a minimum 1:1 ratio, and

3) Five of the 13 non-jurisdictional features were determined to support two beneficial uses: limited warm freshwater habitat (LWRM) and wild habitat (WILD). These features will be permanently impacted by the project. However, the project has been designed to incorporate 19.2 acres of water quality features to compensate the loss of these two beneficial uses and provide additional uses of value (Ground Water Recharge (GWR), Warm Freshwater Habitat (WARM), Wetland Habitat (WET), and Water Quality Enhancement (WQE)) to the local area and watershed.

Interagency Meetings

The following outline summarizes interagency meetings held to present/discuss existing biological conditions, anticipated impacts to jurisdictional features, and mitigation approaches. Representative agencies/jurisdictions included the City of Hemet, Western Riverside County Regional Conservation Authority (RCA), CDFW, USACE, Santa Ana Regional Water Quality Control Board (RWQCB), and United States Fish and Wildlife Service (USFWS).

- April 2016, January 2017, June 2017 – City of Hemet Meetings,

- June 2016 – Western Riverside County RCA/Wildlife Agencies, USACE, CDFW, RWQCB Preapplication Meeting,

- November 2016 – site visit, Dr. Heather Pert and Ms. Kim Romich with CDFW, and Mr. Jim Thiede with the USFWS.

- March 2018 – Western Riverside County RCA, City of Hemet, Minor Amendment.

ALTERNATIVES

No alternatives are proposed to the preferred project design.

DESCRIPTION OF AVAILABLE BIOLOGICAL INFORMATION

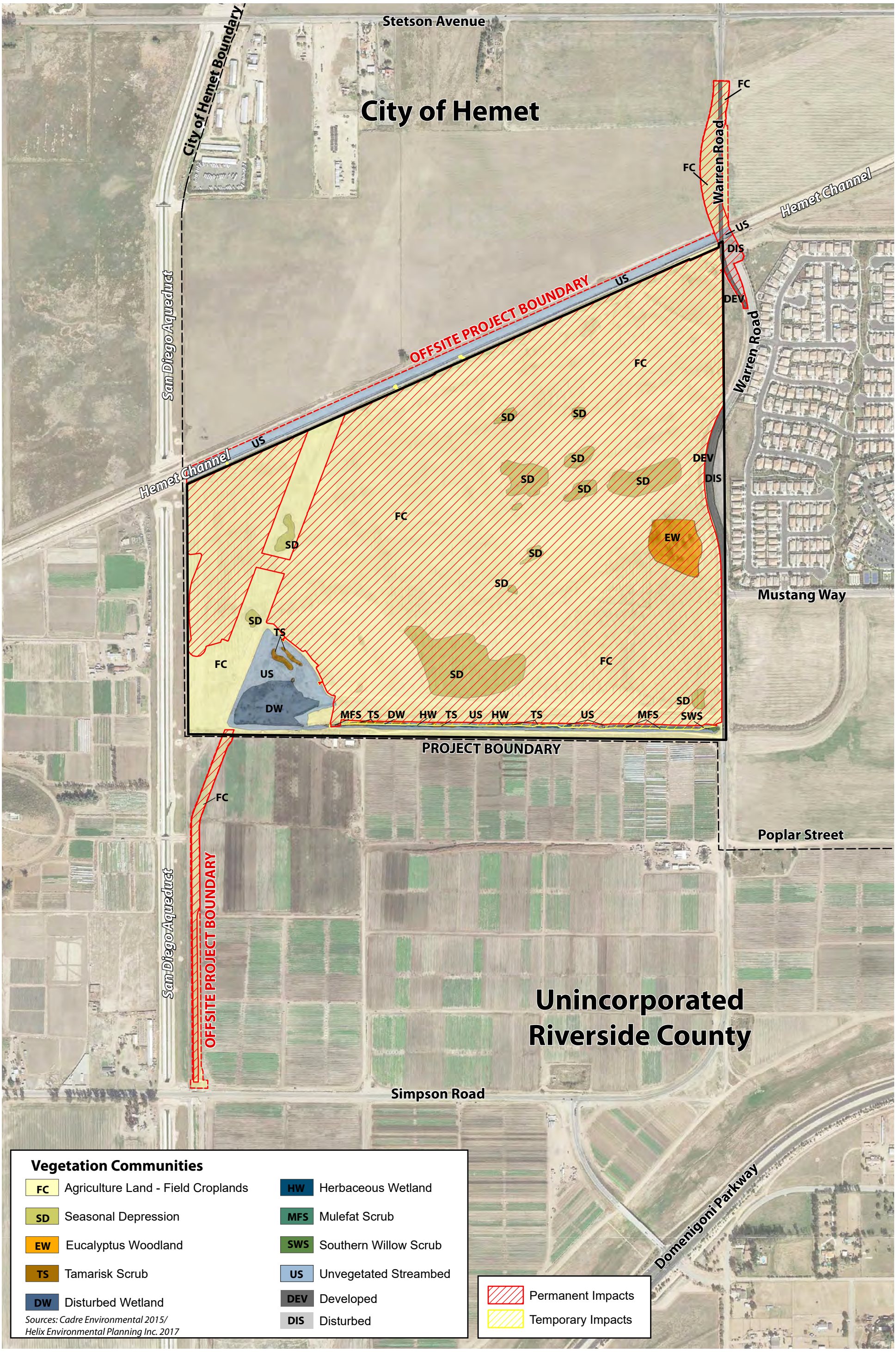
Michael Brandman Associate biologists assessed the Project Site between 2005 and 2006 to determine onsite conditions. Cadre Environmental biologists re-assessed the Project Site in 2015 and 2018 to determine if onsite conditions had changed since the previous assessments. The following is a summary of the current biological conditions within the Project Site.

VEGETATION COMMUNITIES

The Project Site is primarily characterized as agricultural lands (field croplands), seasonal depressions, Eucalyptus woodland, and disturbed/herbaceous wetland vegetation communities. A man-made urban-agricultural drainage ditch created along southern boundary extends west to an existing infiltration basin. A total of fourteen (14) seasonal depressions have also been delineated within the Project Site (Helix Environmental Planning, Inc. 2018a). The majority of flat lowlands are currently being actively farmed (wheat production). Representative distribution and photographs of these habitat types are illustrated in Figure 3, *Vegetation Communities Impact Map* and Figures 5-7, *Current Project Site Photographs*.

Agricultural Land – Field Croplands:

Most of the property consists of active agricultural land – field croplands **(FC)**, which is routinely disked as part of dry-land farming practices. At the time of investigation, most of the property was nearly devoid of vegetation, consisting of sparse, scatted non-native plants such as field bindweed (*Convolvulus arvensis*), cheeseweed (*Malva parviflora*), Russian thistle (*Salsola australis*), heliotrope (*Heliotropium curassavicum*), and Bermuda grass (*Cynodon dactylon*). A few native and non-native forbs were seen along dirt roads that cross the site and along Warren Road, including bur clover (*Medicago polymorpha*), stink-net (*Oncosiphon piluliferum*), Russian thistle, telegraph weed (*Heterotheca grandiflora*), puncture vine (*Tribulus terrestris*), and serrate-leaved saltbush (*Atriplex suberecta*). A total of fourteen (14) Seasonal Depressions **(SD)** are scattered throughout the field croplands and are dominated by the same plant species as described above. One of the seasonal depressions is represented by an existing infiltration basin as described below.



APNs 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite APNs Portions of 465-120-019, 021, 465-130-016, 017, 465-100-018, and 032.

Figure 3 - Vegetation Communities Impact Map

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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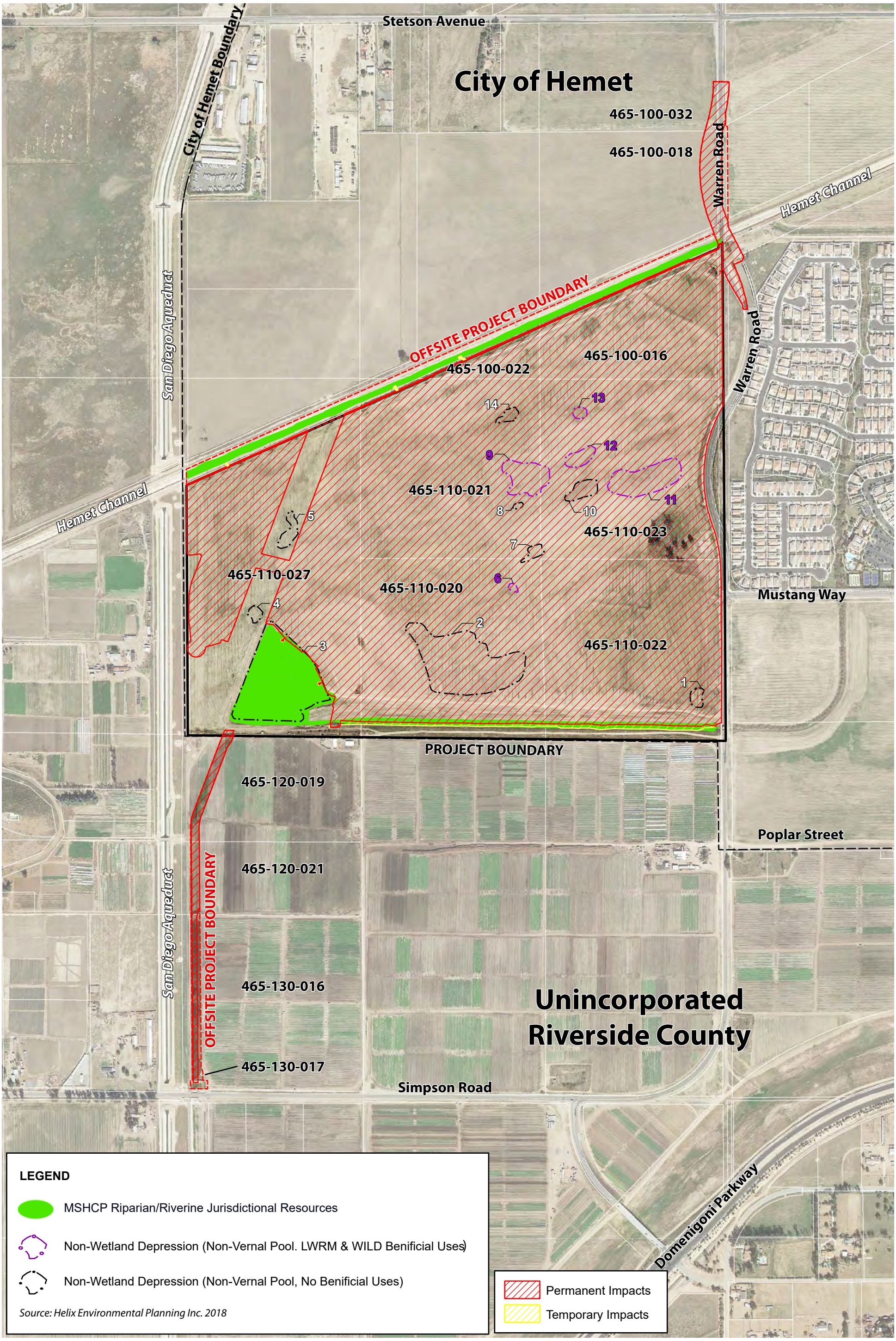

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Figure 4 - MSHCP Riparian/Riverine Resources Impact Map
DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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PHOTOGRAPH 1 - Southwest view of project site from confluence of Hemet Channel and Warren Road. The majority of the project site is characterized as agriculture/field cropland.

PHOTOGRAPH 2 - Southward view from northeast region of project site toward exotic/*Eucalyptus woodland* vegetation community.

Refer to Figure 2 - Project Site Map for Photographic Key

Figure 5 - Current Project Site Photographs
DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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PHOTOGRAPH 3 - Southwest view of infiltration basin from agriculture field croplands located in southwest region of project site.

PHOTOGRAPH 4 - Northward view of agriculture field croplands from south-central region of project site.

Refer to Figure 2 - Project Site Map for Photographic Key

Figure 6 - Current Project Site Photographs

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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PHOTOGRAPH 5 - Eastward view of constructed urban-agricultural drainage ditch located immediately north of southern project site boundary which extends to the basin.

PHOTOGRAPH 6 - Westward view of ditch dominated by disturbed wetland, herbaceous wetland, mule fat scrub, southern willow scrub, tamarisk and unvegetated streambed.

Refer to Figure 2 - Project Site Map for Photographic Key

Figure 7 - Current Project Site Photographs
DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

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Eucalyptus Woodland:

A few *Eucalyptus* gum trees (*Eucalyptus* sp.) **(EW)** grow in the central-eastern portion of the Project Site along Warren Road, which supports a sparse to dense understory of mostly exotic forbs and grasses. Non-native grasses and forbs observed include red brome (*Bromus madritensis* subsp. *rubens*), Russian thistle, field bindweed, Bermuda grass, hare barley (*Hordeum murinum* subsp. *leporinum*), burclover (*Medicago polymorpha*), and ripgut grass (*Bromus diandrus*). Mexican fan palm (*Washingtonia robusta*) is also planted on site.

Constructed Urban-Agricultural Drainage Ditch:

In 2007, an artificial ditch was constructed along the southern boundary of the Project Site to collect agricultural and expanding urban development runoff from adjacent properties. This constructed ditch now supports Disturbed Wetland **(DW),** Herbaceous Wetland **(HW),** Mulefat Scrub **(MFS),** Southern Willow Scrub **(SWS),** Tamarisk Scrub **(TS)** and Unvegetated Streambed **(US)** vegetation communities. The drainage ditch is dominated by facultative native and non-native species, including mule fat (*Baccharis salicifolia*), tamarisk (*Tamarix ramosissima*), and arroyo willow (*Salix lasiolepis*). Scattered Fremont cottonwood (*Populus fremontii*), Emory's baccharis (*Baccharis emoryi*), and black willow (*Salix gooddingii*) are also present. The understory vegetation is dominated by non-native forbs and grasses such as Spanish sunflower (*Pulicaria paludosa*), English plantain (*Plantago lanceolata*), tumbling pigweed (*Amaranthus albus*), curly dock (*Rumex crispus*), white sweet-clover (*Melilotus alba*), common purslane (*Portulaca oleracea*), rabbit-foot grass (*Polypogon monspeliensis*), and Bermuda grass. A few native forbs are also present within and along the outer edge of the ditch, including slender aster (*Aster subulatus* var. *ligulatus*), sand-bur (*Ambrosia acanthicarpa*), and western sunflower (*Helianthus annuus*).

The offsite reach of Hemet Channel located immediately north of the Project Site and generally devoid of vegetation was also mapped as Unvegetated Streambed **(US).**

Infiltration Basin:

An infiltration basin was also constructed in the southwestern portion of the Project Site to collect overflow runoff from the drainage ditch and adjacent farmlands. This shallow basin supports scattered clumps of tamarisk, and facultative weedy forb and grass species such as stink-net, heliotrope, Boccone's sand spurry (*Spergularia bocconei*), common knotweed (*Polygonum arenastrum*), prickly lettuce (*Lactuca serriola*), Bermuda grass, Spanish sunflower, and English plantain. Vegetation communities documented within this infiltration basin include Disturbed Wetland **(DW),** Unvegetated Streambed **(US),** Seasonal Depression **(SD),** and Tamarisk Scrub **(TS).**

Developed & Disturbed:

Regions of the Project Site mapped as Developed **(DEV)** and Disturbed **(DIS)** include the existing Warren Road alignment including adjacent habitats dominated by ruderal non-native species including Russian thistle, field bindweed, Bermuda grass, hare barley burclover and stink-net.

Table 2. Vegetation Communities Impact Acreage

*Vegetation Type	Acreage (onsite)	Acres (offsite)	Permanent Impacts Acres (total)	Temporary Impacts Acres (total)
Agriculture Land – Field Croplands	214.55	10.74	202.90	0.19
Seasonal Depressions	12.93	--	12.26	--
Unvegetated Streambed	6.57	6.61	0.07	0.69
Disturbed Wetland	3.42	--	--	0.03
Eucalyptus Woodland	2.94	--	2.93	--
Tamarisk Scrub	0.61	--	--	0.19
Mulefat Scrub	0.48	--	0.02	0.37
Herbaceous Wetland	0.31	--	--	0.13
Southern Willow Scrub	0.06	--	--	0.01
Disturbed	1.02	3.12	0.82	0.02
Developed	2.18	1.01	1.05	--
TOTALS	**245.07**	**21.48**	**220.05**	**1.63**

**Source: Cadre Environmental 2015, Helix Environmental Planning Inc., 2018a.*

SENSITIVE PLANT SPECIES

The MSHCP has determined that all of the sensitive plant species potentially occurring within the Project Site 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 and Criteria Area plant species if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" (MSHCP 2004). Based on the initial MSHCP review of predetermined Survey Areas and habitat assessments for target species, focused surveys were conducted for the following fifteen (15) Criteria Area and Narrow Endemic plant species.

Initial MSHCP sensitive plant surveys were conducted within the eastern region of the Project Site in the spring of 2005 and 2006 by Michael Brandman Associates (MBA 2007c).

Updated focused surveys for MSHCP criteria area and narrow endemic plants were conducted for all suitable habitat areas within and immediately adjacent to the Sensitive Plant Survey Areas. Each focused survey was conducted on foot according to MSHCP protocols, USFWS, California Native Plant Society (CNPS), and CDFW survey guidelines. The updated project surveys were coordinated with the blooming periods of several reference populations to aid detection of rare plants in 2015, 2016, and 2017 (Cadre Environmental 2017c).

MSHCP Criteria Area Plant Species

The Project Site occurs within a predetermined MSHCP Survey Area for nine (9) Criteria Area plant species (RCA GIS Data Downloads 2018).

- San Jacinto Valley Crownscale (*Atriplex coronata* var. *notatior*) [Federal endangered, California Rare Plant Rank[1]- CRPR 1B.1]
- Davidson's saltscale (*Atriplex davidsonii*) [CRPR 1B.2]
- Parish's brittlescale (*Atriplex parishii*) [CRPR 1B.1]
- thread-leaved brodiaea (*Brodiaea filifolia*) [Federal threatened, State endangered, CRPR 1B.1]
- smooth tarplant (*Centromadia pungens* subsp. *laevis*) [CRPR 1B.1]
- round-leaved filaree (*Erodium macrophyllum*) [CRPR 1B.1]
- Coulter's goldfields(*Lasthenia glabrata* subsp. *coulteri*) [CRPR 1B.1]
- little mousetail (*Myosurus minimus* subsp. *apus*) [CRPR 3.1]
- mud nama (*Nama stenocarpum*) [CRPR 2.2]

One (1) of the MSHCP target Criteria Area species, a small population (consisting of 191 plants) of the smooth tarplant (*Centromadia pungens* subsp. *laevis*) was found on the offsite region of the Project Site as depicted on Figure 8, *Sensitive Floral and Faunal Species Observation Map*.

Smooth Tarplant (*Centromadia pungens* subsp. *laevis*) [CRPR 1B.1] – Smooth tarplant is an annual member of the sunflower family (Asteraceae) that occurs in vernal pools, alkali playas and scrub, alkali grasslands, riparian areas, and disturbed sites in alkaline soils. Smooth tarplant is tolerant of mild disturbance and is often found in agricultural lands or other disturbed mesic habitats. It blooms April to September. This species is easily detected when present, even in small numbers.

Smooth tarplant occurs from southwestern San Bernardino County, through western Riverside County to San Diego County. The largest numbers of populations occur in western Riverside County where this plant is widely scattered throughout the Perris Basin (Roberts 2004; CNDDB 2015/2016/2017). Within western Riverside County, substantial populations occur along the San Jacinto River floodplain, the Salt Creek watershed near Hemet, the Temecula-Murrieta area, and the Elsinore Valley. It is uncommon outside of western Riverside County.

Smooth tarplant reference populations were observed on August 3rd, 2015, along Devonshire Avenue at Warren Road in Hemet, and on April 17th, 2016, along Meyers Road, north of Devonshire Avenue in Hemet. Smooth tarplant was recorded previously for the offsite assessment area, north of Simpson Road, during the SR 79 project surveys (Caltrans 2007). At Rancho Diamante, smooth tarplant was documented on disturbed saline-alkali soils from the same general area; the southwestern (offsite) portion of the Project Site (north of Simpson Road along the San Diego Aqueduct). The population totals 191 plants and the locations mapped for the property are depicted on Figure 8, *Sensitive Floral and Faunal Species Observation Map*. The Domino and Traver soils are mapped for this habitat area (Figure 9, *Soil Associations Map*).

[1] In the spring of 2011, the California Native Plant Society (CNPS) officially changed the name “CNPS List” to “California Rare Plant Rank (CRPR)”, which is reflected in this report. However, the definitions of the ranks and the ranking system have not changed.

The limited distribution of this species onsite is not expected to have long-term conservation value and no additional mitigation obligations specific to this species is expected.

MSHCP Narrow Endemic Plant Species

The Project Site occurs within a predetermined MSHCP Survey Area for six (6) Narrow Endemic plant species (RCA GIS Data Downloads 2018).

- Munz's onion (*Allium munzii*) [Federal endangered, State threatened, CRPR 1B.1]
- San Diego ambrosia (*Ambrosia pumila)* [Federal endangered, CRPR 1B.1]
- many-stemmed dudleya (*Dudleya multicaulis*) [CRPR 1B.2]
- spreading navarretia (*Navarretia fossalis*) [Federal threatened, CRPR 1B.1]
- California Orcutt grass (*Orcuttia californica*) [Federal/State endangered, CRPR 1B.1]
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) [CRPR 2.1]

No target MSHCP Narrow Endemic plants were found within or adjacent to the Project Site.

SENSITIVE WILDLIFE SPECIES

The MSHCP has determined that all of the sensitive wildlife species potentially occurring within the Project Site 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 specific wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" (MSHCP 2004). Based on the initial MSHCP review of predetermined Survey Areas and habitat assessments for target species, focused surveys were conducted for the following three (3) wildlife species.

- Riverside fairy shrimp (*Streptocephalus woottoni*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)
- burrowing owl (*Athene cunicularia*)

Incidental MSHCP covered species documented during the habitat assessments and/or focused survey efforts include, white-tailed kite [SSC], loggerhead shrike, turkey vulture, California horned lark [SSC], coyote, and San Diego black-tailed jackrabbit [SSC]. As previously stated, MSHCP has determined that all of these sensitive species documented within the Rancho Diamante Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004).

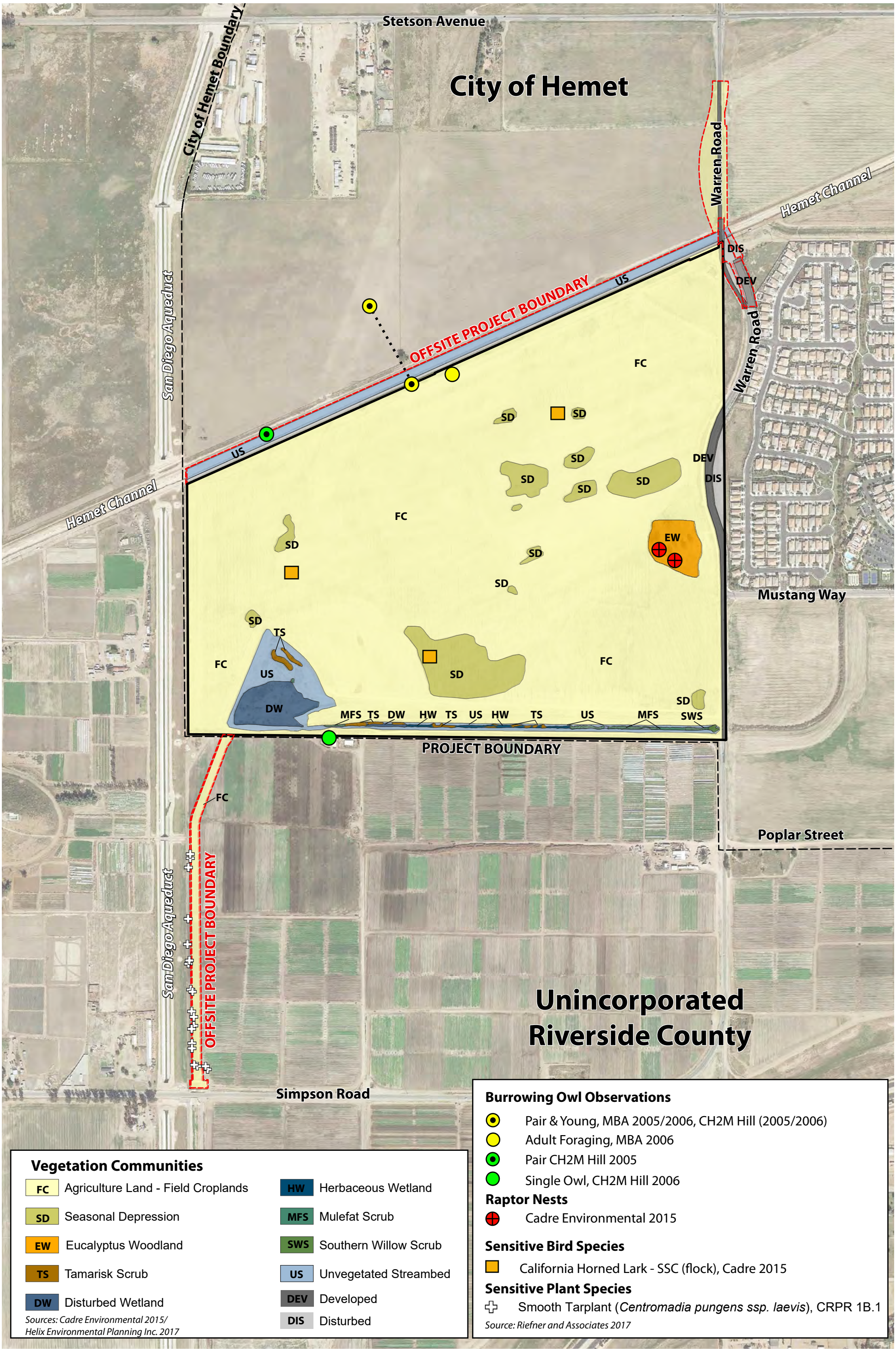

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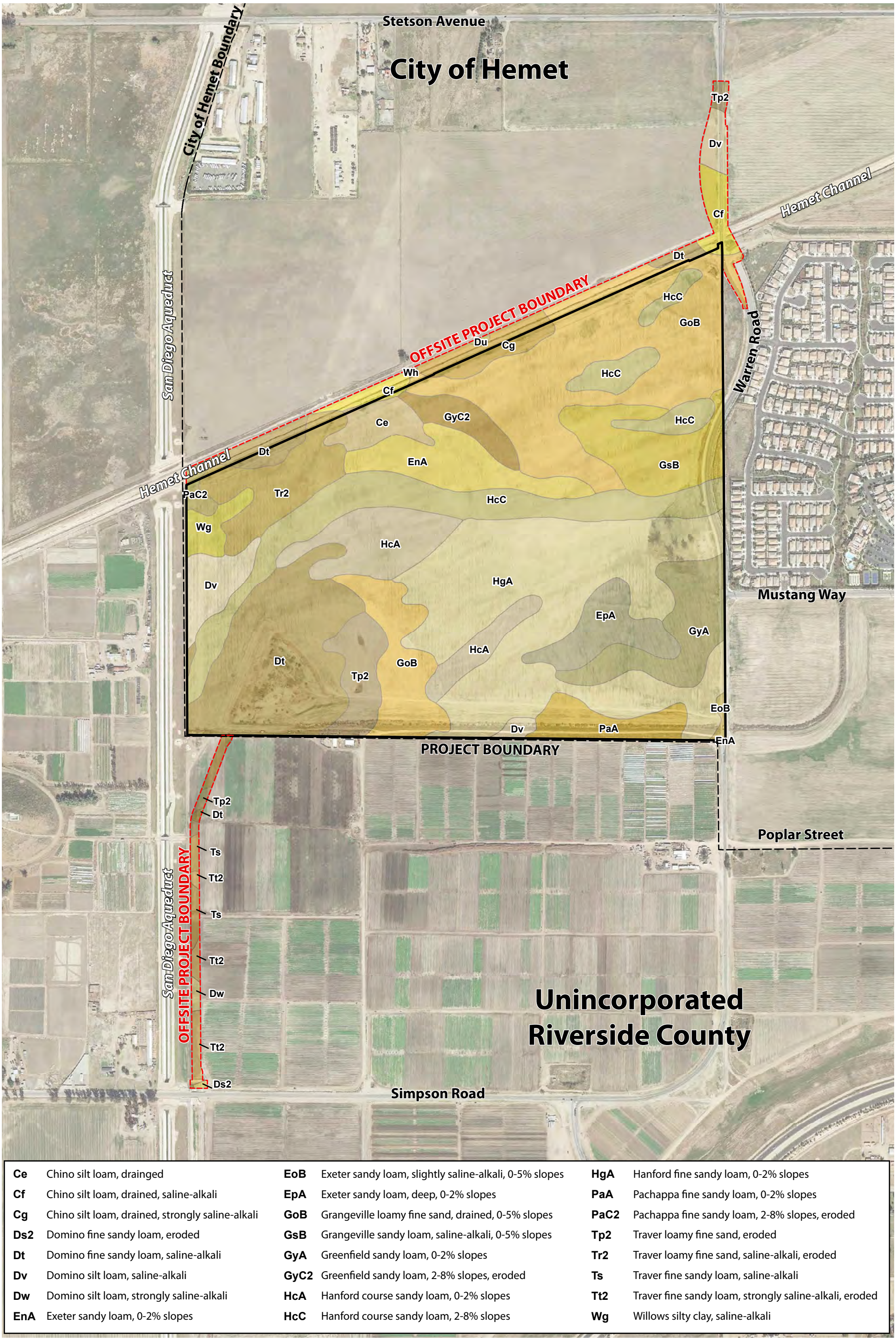
Figure 8 - Sensitive Floral and Faunal Species Observation Map

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

CADRE Environmental

N

1 inch = 650 feet



Ce	Chino silt loam, drainged	**EoB**	Exeter sandy loam, slightly saline-alkali, 0-5% slopes	**HgA**	Hanford fine sandy loam, 0-2% slopes
Cf	Chino silt loam, drained, saline-alkali	**EpA**	Exeter sandy loam, deep, 0-2% slopes	**PaA**	Pachappa fine sandy loam, 0-2% slopes
Cg	Chino silt loam, drained, strongly saline-alkali	**GoB**	Grangeville loamy fine sand, drained, 0-5% slopes	**PaC2**	Pachappa fine sandy loam, 2-8% slopes, eroded
Ds2	Domino fine sandy loam, eroded	**GsB**	Grangeville sandy loam, saline-alkali, 0-5% slopes	**Tp2**	Traver loamy fine sand, eroded
Dt	Domino fine sandy loam, saline-alkali	**GyA**	Greenfield sandy loam, 0-2% slopes	**Tr2**	Traver loamy fine sand, saline-alkali, eroded
Dv	Domino silt loam, saline-alkali	**GyC2**	Greenfield sandy loam, 2-8% slopes, eroded	**Ts**	Traver fine sandy loam, saline-alkali
Dw	Domino silt loam, strongly saline-alkali	**HcA**	Hanford course sandy loam, 0-2% slopes	**Tt2**	Traver fine sandy loam, strongly saline-alkali, eroded
EnA	Exeter sandy loam, 0-2% slopes	**HcC**	Hanford course sandy loam, 2-8% slopes	**Wg**	Willows silty clay, saline-alkali

APNs 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite APNs Portions of 465-120-019, 021, 465-130-016, 017, 465-100-018, and 032.

Figure 9 - Soil Associations Map

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

CADRE Environmental

N

1 inch = 650 feet

Fairy Shrimp

Protocol USFWS dry and wet season surveys were conducted by Helix Environmental Planning, Inc. (2016, 2017) to determine the presence/absence of the federally endangered Riverside fairy shrimp and the federally threatened vernal pool fairy shrimp. The common versatile fairy shrimp (*Branchinecta lindahli*) were documented. No federally listed species including the vernal pool or Riverside fairy shrimp were detected onsite during focused USFWS protocol dry and wet season sampling conducted in 2016 and 2017 (Helix Environmental Planning, Inc. 2016, 2017).

Burrowing Owl

The Project Site occurs completely within a predetermined Survey Area for the burrowing owl. Burrowing owl were detected within and adjacent to the Project Site during initial MSHCP focused surveys conducted in 2005 and 2006 by Michael Brandman Associates and CH2M Hill, as shown on Figure 8, *Sensitive Floral and Faunal Species Observations Map*. Updated MSHCP focused burrowing owl surveys were conducted by Cadre Environmental during the summer of 2015 and spring/summer of 2017. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Project Site during the 2015 or 2017 updated survey efforts.

RIPARIAN AND RIVERINE RESOURCES

As depicted on Figure 4, *MSHCP Riparian/Riverine Resources Impact Map*, riparian and riverine resources characterized and regulated by MSHCP Section 6.1.2 include 16.05-acres of mulefat scrub, southern willow scrub, tamarisk scrub, and understory herbaceous and disturbed wetland that has established within the onsite man-made channel and basin. Unvegetated streambed resources meeting MSHCP 6.1.2 jurisdiction also include non-wetland and non-riparian streambed and bank associated with the Hemet Channel and portions of the onsite man-made channel and basin.

A total of 1.52 acres including 0.02 acre of permanent and 0.74 acre of temporary impacts on MSHCP Section 6.1.2 regulated riparian-vegetated streambed/basin, and 0.06 acre of permanent and 0.70 acre of temporary impact on unvegetated streambed would result from project initiation as tabulated in Table 3, *MSHCP Riparian/Riverine Impact Acreages*.

No suitable habitat 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.

Table 3. MSHCP Riparian/Riverine Impact Acreage

MSHCP JURISDICTIONAL RESOURCES	EXISTING Acres[1] (Linear Feet)	IMPACTS Acres[1] (Linear Feet)	
		Temporary	Permanent
MSHCP Riparian/Riverine Areas (Section 6.1.2)			
Riparian Habitat			
Disturbed Wetland	3.42	0.04	--
Herbaceous Wetland	0.31	0.13	--
Mule Fat Scrub	0.39	0.37	0.02
Southern Willow Scrub	0.06	0.01	<0.01
Tamarisk Scrub	0.61	0.19	<0.01
Subtotal	4.87	0.74	0.02
Unvegetated Streambed			
Unvegetated Streambed	11.18	0.70	0.06
Subtotal	11.18	0.70	0.06
TOTAL	**16.05**	**1.44**	**0.08**

Source: Helix Environmental Planning Inc. 2018a.

VERNAL POOL RESOURCES

No resources characterized as MSHCP vernal pool were documented onsite. As stated by Helix Environmental Planning:

> "*Based on the data reviewed, some non-jurisdictional features become saturated and/or inundated infrequently and during good rainfall years, such as 2011 and 2017. The extent and duration of saturation and inundation during these years is unknown, but based on the vegetation and soils composition, and the very low density and species of fairy shrimp cysts found, the duration is expected to be short-lived and not long enough to promote wetland or season wetland conditions, such as that which would be associated with vernal pools. The areas subject to infrequent saturation and inundation are a result of their low-lying landscape position and location along the northeast-southwest trending slope that defines the site. No evidence of a restrictive layer was found during soil boring, although some soils above 15 feet and below 20 feet have clayey sand components, and silty clay was encountered between 15 and 20 feet. This suggests water percolates throughout the site and flows beneath the surface, generally from northeast to southwest.* (Helix Environmental Planning, Inc. 2018a).

SOILS

The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the Project Site as shown on Figure 9, *Soil Associations Map*:

- Ce – Chino silt loam, drained.
- Cf – Chino silt loam, drained, saline-alkali.
- Cg – Chino silt loam, drained, strongly saline-alkali.
- Ds2 – Domino fine sandy loam, eroded.

- Dt – Domino fine sandy loam, saline-alkali.
- **Dv – Domino silt loam, saline-alkali.**
- **Dw – Domino silt loam, strongly saline-alkali.**
- EnA – Exeter sandy loam, 0-2% slopes.
- EoB – Exeter sandy loam, slightly saline-alkali, 0-5% slopes.
- EpA – Exeter sandy loam, deep, 0-2% slopes.
- GoB – Grangeville loamy fine sand, drained, 0-4% slopes.
- GsB – Grangeville sandy loam, saline-alkali, 0-5% slopes.
- GyA – Greenfield sandy loam, 0-2% slopes.
- GyC2 – Greenfield sandy loam, 2-8% slopes, eroded.
- HcA – Hanford course sandy loam, 0-2% slopes.
- HcC – Hanford course sandy loam, 2-8% slopes.
- HgA – Hanford fine sandy loam, 0-2% slopes.
- PaA - Pachappa fine sandy loam, 0-2% slopes.
- PaC2 – Pachappa fine sandy loam, 2-8% slopes, eroded.
- **Tp2 – Traver loamy fine sand, eroded.**
- **Tr2 – Traver loamy fine sand, saline-alkali, eroded.**
- **Ts – Traver fine sandy loam, saline-alkali.**
- **Tt2 – Traver fine sandy loam, strongly saline-alkali, eroded.**
- **Wg – Willows silty clay, saline-alkali.**

Domino, Traver and Willows soil types (Bold) are classified as sensitive substrates considered important for the conservation of certain plant species and vernal pool resources in the region (MSHCP 2004). Soils mapped within the eastern two-thirds of the Project Site consist primarily of the Exeter, Hanford, Grangeville, and Greenfield soils, and the western portion of the property by the saline-alkali Domino and Traver soils.

The Domino series consist of moderately well drained to somewhat poorly drained saline-alkali soils that occur in basins and on alluvial fans. The Traver series are slightly to strongly saline soils, moderately well drained, and occur on valley plains and in basins (Knecht 1971). A small area of Willows soils is also mapped in the western portion of the property. The Willows series consists of very deep, poorly to very poorly drained sodic soils that formed in alluvium from mixed rock sources.

The Chino series are moderately alkaline and may be slightly to strongly saline-alkali. They have calcareous silt loam A horizons and calcareous silty clay loam C horizons. The Chino soils occur in basins and flood plains at elevations of near sea level to 3,100 feet. They formed in alluvium derived from granitic rocks.

The Exeter series consists of moderately well drained soils that formed in alluvium mainly from granitic sources, which are moderately deep to a duripan. Exeter soils occur on alluvial fans and stream terraces and have a neutral pH.

The Grangeville series consists of very deep, somewhat poorly drained soils that formed in moderately coarse textured alluvium derived predominantly from granitic rock sources. Grangeville soils occur on alluvial fans and floodplains and have slightly to moderately alkaline soils; some are saline-alkali (i.e., the mapping unit GsB).

The Greenfield series consists of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils occur on alluvial fans and terraces and are slightly acid to neutral.

The Hanford series consists of very deep well drained soils that formed in moderately coarse textured alluvium derived predominantly from granite. Hanford soils are associated with stream bottoms, floodplains and alluvial fans, and are slightly acid to slightly alkaline.

The Pachappa series consists of well-drained soils developed from moderately coarse textured alluvium. They occur on gently sloping alluvial fans and flood plains with annual grass-herb vegetation. Characteristically, the Pachappa soils have slightly acid A1 horizons and neutral B2 horizons that overlie moderately alkaline, slightly calcareous B3 horizons and very slightly calcareous C horizons.

RELATIONSHIP TO MSHCP CRITERIA AREAS, CORES, AND LINKAGES

LOCATION OF THE PROJECT SITE WITHIN MSHCP CRITERIA CELLS

Regions of the MHSCP have been organized into Area Plans that generally coincide with logical political boundaries, including city limits or long-standing unincorporated communities. Both the Rancho Diamante parcel and offsite impact areas are located within the San Jacinto Valley Area Plan, which encompasses the San Jacinto and Hemet City limits and surrounding unincorporated communities. The San Jacinto Valley Area Plan has a target conservation acreage of 11,540 to 19,465 acres, of which 620 to 1,000 acres are intended to be within the City boundaries.

The Project Site is located completely within the MSHCP San Jacinto Valley Area Plan, Subunit 4, Hemet Vernal Pool Areas East. Target conservation acreage within Subunit 4 is 940 to 1,445 acres. Planning species for Subunit 4 include burrowing owl, mountain plover, vernal pool fairy shrimp, California Orcutt's grass, Davidson's saltscale, little mousetail, spreading navarretia, thread-leaved brodiaea, and vernal barley. As stated by the MSHCP:

> "*Conservation within this Cell Group will contribute to assembly of Proposed Noncontiguous Habitat Block 7. Conservation within this Cell Group will focus on playas/vernal pool habitat and agricultural land. Areas conserved within this Cell Group will be connected to playas/vernal pool habitat proposed for conservation in Cell #3793 to the east, in Cell #3891 and #3892 to the south and in Cell #3684 and #3791 both in the Harvest Valley/Winchester Area Plan to the west. Conservation within this Cell Group will range from 70%-80% of the Cell Group focusing in the central portion of the Cell Group".* (MSHCP 2004)
>
> *"Conservation within the Southwest Area Plan Cell Group S will contribute to the assembly of Proposed Extension of Existing Core 7, Proposed Constrained Linkage 17 and Proposed Constrained Linkage 18 including*

focus on the conservation on chaparral, coastal sage scrub, grassland, riparian scrub, woodland, and forest habitats." (MSHCP 2004)

Biological issues and considerations for Subunit 4 are as follows.

- Conserve alkali soils supporting California Orcutt grass, Davidson's saltscale, little mousetail, spreading navarretia, thread-leaved brodiaea, and vernal barley;
- Conserve existing vernal pool complexes;
- Maintain vernal pool hydrology; and
- Conserve grassland habitat for wintering mountain plover and burrowing owl.

A 62.75-acre portion of the Project Site is located within Criteria Cell 4007 and 20.23-acre portion is located within Criteria Cell 3892 (SU4 Hemet Vernal Pool Areas East) as illustrated in Figure 2, *Project Site Map*.

Criteria Cell 3892 - SU4 Hemet Vernal Pool Areas East

As stated by the MSHCP:

"*Conservation within this Cell will contribute to assembly of Proposed Noncontiguous Habitat Block 7. Conservation within this Cell will focus on playas/vernal pool habitat and agricultural land. Areas conserved within this Cell will be connected to playas/vernal pool habitat proposed for conservation in Cell Group D' to the north and in Cell #3891 to the west. Conservation within this Cell will range from 75%-85% of the Cell focusing in the northwestern portion of the Cell*." (MSHCP 2004)

A 20.23-acre portion of the Project Site is located within the extreme southeastern region of Criteria Cell 3892. The southeastern region of Criteria Cell 3892 (where no conservation is identified) is separated hydrologically from the northwestern portion of the Cell (Proposed Noncontiguous Habitat Block 7) by the Hemet Channel (Constrained Linkage B). No conservation within Criteria Cell 3892 is proposed or identified by the MSHCP criteria for the region located within the Project Site. The project is consistent with conservation goals identified for Criteria Cell 3892 – SU4 Hemet Vernal Pool Areas East.

The offsite realignment of Warren Road extending north of the Project Site extends into Criteria Cell 3892. Impacts and MSHCP consistency associated with the realignment of Warren Road will be addressed in a MSHCP minor amendment.

Criteria Cell 4007 - SU4 Hemet Vernal Pool Areas East

As stated by the MSHCP:

"*Conservation within this Cell will contribute to assembly of Proposed Noncontiguous Habitat Block 7. Conservation within this Cell will focus on playas/vernal pool habitat. Areas conserved within this Cell will be*

connected to playas/vernal pool habitat proposed for conservation in Cell #3891 to the north and in Cell #4007 in the Harvest Valley/Winchester Area Plan to the west. Conservation within this Cell will be approximately 5% of the Cell focusing in the northern portion of the Cell." (MSHCP 2004)

A 62.75-acre portion of the Project Site is located within the southeastern region of Criteria Cell 4007. The southeastern region of Criteria Cell 4007 (where no conservation is identified) is separated hydrologically from the northern portion of the Cell (Proposed Noncontiguous Habitat Block 7) where conservation is identified. No conservation within Criteria Cell 4007 is proposed or identified by the MSHCP criteria for the region located within the Project Site. The project is consistent with conservation goals identified for Criteria Cell 4007 – SU4 Hemet Vernal Pool Areas East.

LOCATION OF THE PROJECT SITE WITHIN MSHCP LINKAGES

The proposed storm drain facilities will be located partially within an area designated as Public/Quasi-Public (PQP) in Hemet Channel (Constrained Linkage B), the facilities will not impede or conflict with the conservation value of channel as a drainage facility and wildlife movement corridor. Therefore, no PQP replacement is necessary.

UNAVOIDABLE IMPACTS TO RIPARIAN AND RIVERINE RESOURCES

DIRECT IMPACTS

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 1.52 acres including 0.02 acre of permanent and 0.74 acre of temporary impacts on MSHCP Section 6.1.2 regulated riparian-vegetated streambed/basin, and 0.06 acre of permanent and 0.70 acre of temporary impact on unvegetated streambed would result from project initiation as illustrated in Figure 4, *MSHCP Riparian/Riverine Resources Impact Map*, and tabulated in Table 3, *MSHCP Riparian/Riverine Impact Acreages*.

INDIRECT IMPACTS

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 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 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.

PROJECT DESIGN FEATURES AND MITIGATION MEASURES

MEASURES TO MITIGATE IMPACTS TO RIPARIAN/RIVERINE RESOURCES

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset impacts to a total of 1.52 acres of MSHCP Section 6.1.2 regulated Riparian/Riverine resources by implementing the following mitigation measures as illustrated in Figure 10, *Proposed Offsite Mitigation*, and Figure 11, *Proposed Onsite Mitigation*.

1) The project proposes to purchase 0.03 acre of establishment/re-establishment credits from the Riverpark Mitigation Bank, which is expected to begin selling credits by summer 2018, as shown in Figure 10, *Proposed Offsite Mitigation*. This element of the mitigation proposal will mitigate permanent impacts to wetland and non-wetland waters of the U.S./State and isolated waters of the State at a 2:1 ratio for non-wetlands and 3:1 ratio for wetlands. This will also mitigate temporary impacts to non-wetland waters of the U.S./State and isolated non-wetland waters of the State. The entirety of resources regulated by both the United States Army Corps of Engineers (USACE) and MSHCP Riparian/Riverine Section 6.1.2 will be mitigated with this option,

2) The project proposes to rehabilitate and enhance a minimum of 3.1 acres of onsite waters of the State, California Department of Fish and Wildlife (CDFW) jurisdiction, and MSHCP Riparian/Riverine resources in the form of herbaceous wetland- and southern willow scrub-vegetated areas as shown in Figure 11, *Proposed Onsite Mitigation*. The 3.1 acres will be contained within approximately 14.5 acres of on-site waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources that will be preserved. This element of the mitigation proposal will mitigate permanent and temporary impacts to CDFW jurisdiction and MSHCP Riparian/Riverine resources at a 3:1 ratio for wetland/riparian-vegetated streambed and 2:1 ratio for unvegetated streambed. This will also mitigate temporary impacts to isolated wetland waters of the State at a minimum 1:1 ratio, and

3) Five of the 13 non-jurisdictional features were determined to support two beneficial uses: LWRM and WILD. These features will be permanently impacted by the project. However, the project has been designed to incorporate 19.2 acres of water quality features to compensate the loss of these two beneficial uses and provide additional uses of value GWR, WARM, WET, and WQE to the local area and watershed as shown in Figure 11, *Proposed Onsite Mitigation*.

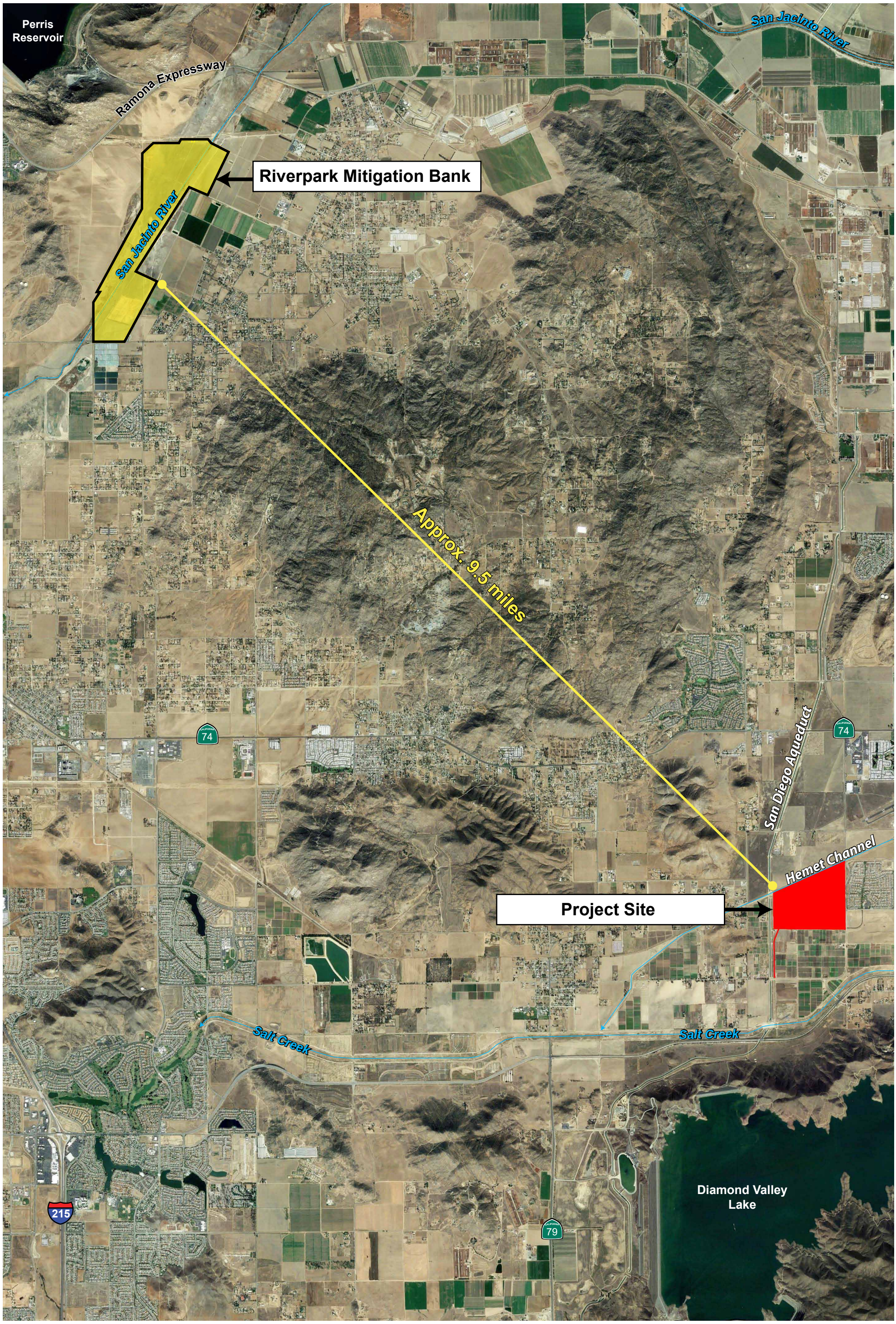
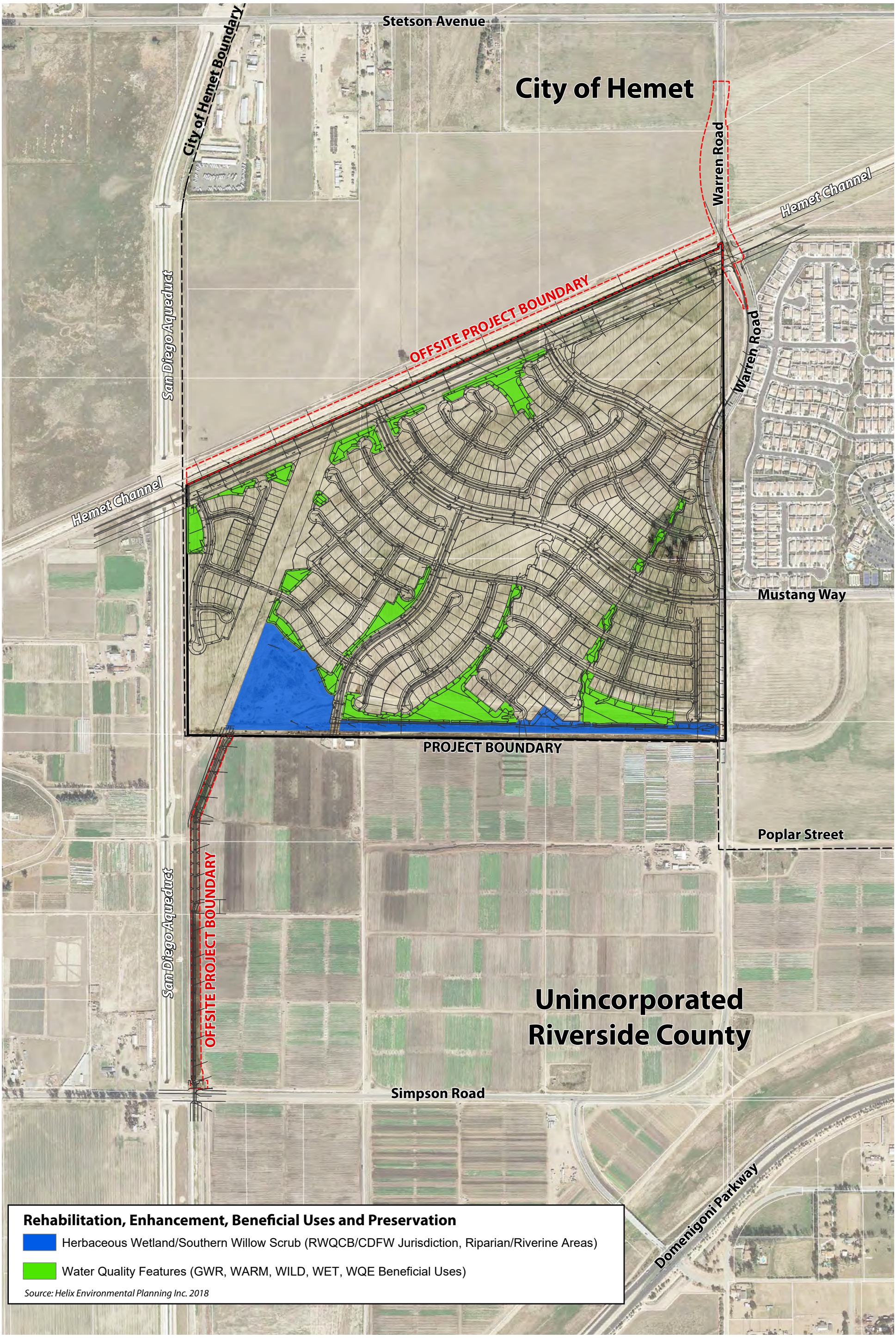


Figure 10 - Proposed Offsite Mitigation

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

CADRE Environmental

N
not to scale



APNs 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite APNs Portions of 465-120-019, 021, 465-130-016, 017, 465-100-018, and 032.

Figure 11 - Proposed Onsite Mitigation

DBESP and MSHCP Consistency Analysis
Rancho Diamante - TTM 36841

CADRE Environmental

N

1 inch = 650 feet

MEASURES TO MINIMIZE IMPACTS AT THE URBAN/WILDLANDS INTERFACE

All Urban/Wildlands Interface guidelines presented in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area will be implemented. The Project Site is located immediately south of PQP land located within Hemet Channel (Constrained Linkage B) and final project design will be developed to ensure best management practices incorporated into the proposed project address and minimize edge effects associated with the Urban/Wildlands Interface including the maintenance and conveyance of seasonal clean water flows through the northern region of the Project Site to the Hemet Channel.

In addition to the implementation the mitigation measures described above, the following project design features will minimize indirect effects at the Urban/Wildlands Interface.

Water Quality/Hydrology

The project will comply with all applicable water quality regulations, including obtaining and complying with those conditions established in (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permits. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable Best Management Practices (BMPs) during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any stream course or offsite conservation areas.

Significant vernal pool resources and sensitive plant species are located north and southwest of the Project Site within Salt Creek. Alterations to downstream hydrology and additional impacts to flows leading southwest of the Project Site to Salt Creek would be considered significant. The project proponent will provide design elements that will contribute to the Regional Drainage Plan and significantly improve the existing hydrology contributing to the sensitive resources located southwest of the Project Site within Salt Creek. Specifically, the proposed project will safely convey the region-wide peak flows (the maximum flow rate associated with a 100-year storm event), as well as the increased surface flows that will result from the development of the site. Offsite drainage improvements will include a drainage channel outlet from the onsite drainage basin in the southwest corner of the Project Site extending southerly to the existing drainage channel at Simpson Road. Three (3) outfall structures will extent north of the Project Site to Hemet Channel discharging captured and treated waters and no significant impacts to downstream hydrology are anticipated.

Toxics

Storm water treatment systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources. Toxic sources within the Project Site would be limited to those commonly associated with residential, commercial, and mixed-use development, such as pesticides, insecticides, herbicides, fertilizers, and vehicle emissions. In order to mitigate the potential effects of these

toxics, the project will incorporate structural BMPs, as required in association with compliance with WDRs and the NPDES permit system, in order to reduce the level of toxins introduced into the drainage system and the surrounding areas. Runoff patterns will be recreated to mimic the pre-channelization conditions within the Project Site, water quality measures will be implemented and no significant impacts are anticipated.

Lighting

Night lighting associated with the proposed development that is adjacent to the Hemet Channel (PQP Conserved Land, MSHCP Constrained Linkage B) would be directed away to reduce potential indirect impacts to wildlife species. No significant impacts are anticipated.

Noise

Because the proposed project development will not result in noise levels that exceed residential, commercial or mixed-use noise standards established for Riverside County, wildlife within proposed open space habitats will not be subject to noise that exceeds these established standards. Short-term construction-related noise impacts will be reduced by the implementation of the following:

- During all Project Site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project Site.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the Project Site during all project construction.

- The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by City of Hemet staff.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

No significant impacts are anticipated.

Invasive Species

The landscape plans for the residential, commercial and mixed development shall avoid the use of invasive species for the portions of the development areas adjacent to the open space areas. Invasive plants that should be avoided are included in Table 6-2 of the MSHCP, *Plants That Should Be Avoided Adjacent to the MSHCP Conservation Area*. No significant impacts are anticipated.

Barriers

Barriers are intended to reduce or minimize unauthorized public access and associated impacts to protected resources. A permanent barrier between the Project Site and Hemet Channel (PQP Conserved Land, MSHCP Constrained Linkage B) will be constructed. No significant impacts are anticipated.

The proposed storm drain facilities will be located partially within an area designated as PQP in Hemet Channel, the facilities will not impede or conflict with the conservation value of channel as a drainage facility and wildlife movement corridor. Therefore, no PQP replacement is necessary.

The above measures would serve to minimize adverse project effects on conservation configurations and would minimize management challenges that can arise during development located adjacent to open space and/or conservation habitat. The project design and BMPs incorporated into the proposed project will address and minimize edge effects associated with the Urban/Wildlands interface.

Implementation of all Urban/Wildlands Interface guidelines will minimize adverse project indirect impacts and is consistent with MSHCP Section 6.1.4.

DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset impacts to a total of 1.52 acres of MSHCP Section 6.1.2 regulated Riparian/Riverine resources by implementing the following mitigation measures as illustrated in Figure 10, *Proposed Offsite Mitigation*, and Figure 11, *Proposed Onsite Mitigation*.

1) The project proposes to purchase 0.03 acre of establishment/re-establishment credits from the Riverpark Mitigation Bank, which is expected to begin selling credits by summer 2018, as shown in Figure 10, *Proposed Offsite Mitigation*. This element of the mitigation proposal will mitigate permanent impacts to wetland and non-wetland waters of the U.S./State and isolated waters of the State at a 2:1 ratio for non-wetlands and 3:1 ratio for wetlands. This will also mitigate temporary impacts to non-wetland waters of the U.S./State and isolated non-wetland waters of the State. The entirety of resources regulated by both the USACE and MSHCP Riparian/Riverine Section 6.1.2 will be mitigated with this option,

2) The project proposes to rehabilitate and enhance a minimum of 3.1 acres of onsite waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources in the form of herbaceous wetland- and southern willow scrub-vegetated areas as shown in Figure 11, *Proposed Onsite Mitigation*. The 3.1 acres will be contained within approximately 14.5 acres of on-site waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources that will be preserved. This element of the mitigation proposal will mitigate permanent and

temporary impacts to CDFW jurisdiction and MSHCP Riparian/Riverine resources at a 3:1 ratio for wetland/riparian-vegetated streambed and 2:1 ratio for unvegetated streambed. This will also mitigate temporary impacts to isolated wetland waters of the State at a minimum 1:1 ratio, and

3) Five of the 13 non-jurisdictional features were determined to support two beneficial uses: LWRM and WILD. These features will be permanently impacted by the project. However, the project has been designed to incorporate 19.2 acres of water quality features to compensate the loss of these two beneficial uses and provide additional uses of value GWR, WARM, WET, and WQE to the local area and watershed as shown in Figure 11, *Proposed Onsite Mitigation*.

The Project Site is currently dominated by active agricultural croplands and a disturbed man-made ditch and basin. The proposed offsite and onsite mitigation would contribute to the long-term conservation of target MSHCP species in this region by purchasing credits at a mitigation bank occupied by MSHCP target sensitive species. The proposed mitigation would also result in the onsite capture, treatment and conveyance of water to existing MSHCP linkages and conservation areas located within Hemet Channel and downstream regions of Salt Creek. The proposed project, inclusive of the proposed mitigation program described above, is considered biologically equivalent or superior to an avoidance alternative.

SUMMARY OF CONSISTENCY WITH MSHCP POLICIES

CRITERIA AREAS

A 62.75-acre portion of the Project Site is located within Criteria Cell 4007 and 20.23-acre portion is located within Criteria Cell 3892 (SU4 Hemet Vernal Pool Areas East) as illustrated in Figure 2, *Project Site Map*.

Criteria Cell 3892 - SU4 Hemet Vernal Pool Areas East

As stated by the MSHCP:

> "*Conservation within this Cell will contribute to assembly of Proposed Noncontiguous Habitat Block 7. Conservation within this Cell will focus on playas/vernal pool habitat and agricultural land. Areas conserved within this Cell will be connected to playas/vernal pool habitat proposed for conservation in Cell Group D' to the north and in Cell #3891 to the west. Conservation within this Cell will range from 75%-85% of the Cell focusing in the northwestern portion of the Cell*." (MSHCP 2004)

A 20.23-acre portion of the Project Site is located within the extreme southeastern region of Criteria Cell 3892. The southeastern region of Criteria Cell 3892 (where no conservation is identified) is separated hydrologically from the northwestern portion of the Cell (Proposed Noncontiguous Habitat Block 7) by the Hemet Channel (Constrained Linkage B). No conservation within Criteria Cell 3892 is proposed or identified by the

MSHCP criteria for the region located within the Project Site. The project is consistent with conservation goals identified for Criteria Cell 3892 – SU4 Hemet Vernal Pool Areas East.

The offsite realignment of Warren Road extending north of the Project Site extends into Criteria Cell 3892. Impacts and MSHCP consistency associated with the realignment of Warren Road will be addressed in a MSHCP minor amendment.

Criteria Cell 4007 - SU4 Hemet Vernal Pool Areas East

As stated by the MSHCP:

> "*Conservation within this Cell will contribute to assembly of Proposed Noncontiguous Habitat Block 7. Conservation within this Cell will focus on playas/vernal pool habitat. Areas conserved within this Cell will be connected to playas/vernal pool habitat proposed for conservation in Cell #3891 to the north and in Cell #4007 in the Harvest Valley/Winchester Area Plan to the west. Conservation within this Cell will be approximately 5% of the Cell focusing in the northern portion of the Cell*." (MSHCP 2004)

A 62.75-acre portion of the Project Site is located within the southeastern region of Criteria Cell 4007. The southeastern region of Criteria Cell 4007 (where no conservation is identified) is separated hydrologically from the northern portion of the Cell (Proposed Noncontiguous Habitat Block 7) where conservation is identified. No conservation within Criteria Cell 4007 is proposed or identified by the MSHCP criteria for the region located within the Project Site. The project is consistent with conservation goals identified for Criteria Cell 4007 – SU4 Hemet Vernal Pool Areas East.

CRITERIA AREA SPECIES SURVEY AREA

One (1) of the MSHCP target Criteria Area species, a small population (consisting of 191 plants) of the smooth tarplant was found on the offsite region of the Project Site as depicted on Figure 8, *Sensitive Floral and Faunal Species Observation Map*.

The limited distribution of this species onsite is not expected to have long-term conservation value and no additional mitigation obligations specific to this species is expected.

The project is consistent with MSHCP Section 6.3.2.

NARROW ENDEMIC PLANT SPECIES SURVEY AREA

No target MSHCP narrow endemic plants were found during the focused surveys within or adjacent to the Project Site and/or are not expected on site (Cadre Environmental 2017c).

The project is consistent with MSHCP Section 6.3.2.

AMPHIBIAN SPECIES SURVEY AREA

The Project Site is not located within an MSHCP Amphibian Species Survey Area; therefore, no surveys were required (RCA GIS Data Downloads 2018).

The project is consistent with MSHCP Section 6.3.2.

MAMMAL SPECIES SURVEY AREA

The Project Site is not located within an MSHCP Mammal Species Survey Area; therefore, no surveys were required (RCA GIS Data Downloads 2018).

The project is consistent with MSHCP Section 6.3.2.

BURROWING OWL SURVEY AREA

No burrowing owls were detected within the Project Site during focused MSHCP surveys conducted in 2015 and 2017. The MSHCP states:

> "*If the site (including adjacent areas) support three or more pairs of burrowing owls and supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation areas lands, at least 90 percent of the areas within long-term conservation value and burrowing owl pairs will be conserved onsite*" (MSHCP 2004)

Burrowing owl were detected within and adjacent to the Project Site during initial MSHCP focused surveys conducted in 2005 and 2006 by Michael Brandman Associates and CH2M Hill, as shown on Figure 8, *Sensitive Floral and Faunal Species Observations Map*. Results of the initial burrowing owl surveys conducted during the 2005 and 2006 did not meet the MSHCP requirements of three (3) or more pairs for a site requiring onsite conservation.

Regardless, at a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction 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, a burrowing owl relocation plan will be developed for the passive/active translocation of individuals to RCA conserved lands located north of the Project Site within Proposed Noncontiguous Habitat Block 7.

The project is consistent with MSHCP Section 6.3.2.

RIPARIAN/RIVERINE RESOURCES

A total of 1.52 acres of MSHCP Section 6.1.2 regulated Riparian/Riverine resources will be impacted as a result of project initiation. The following mitigation measures will be implemented as illustrated in Figure 10, *Proposed Offsite Mitigation*, and Figure 11, *Proposed Onsite Mitigation*.

Off-Site Establishment/Re-Establishment

The project proposes to purchase 0.03 acre of establishment/re-establishment credits from the Riverpark Mitigation Bank, which is expected to begin selling credits by summer 2018, as shown in Figure 10, *Proposed Offsite Mitigation*. This element of the mitigation proposal will mitigate permanent impacts to wetland and non-wetland waters of the U.S./State and isolated waters of the State at a 2:1 ratio for non-wetlands and 3:1 ratio for wetlands. This will also mitigate temporary impacts to non-wetland waters of the U.S./State and isolated non-wetland waters of the State. The entirety of resources regulated by both the USACE and MSHCP Riparian/Riverine Section 6.1.2 will be mitigated with this option,

On-Site Rehabilitation, Enhancement, and Preservation

The project proposes to rehabilitate and enhance a minimum of 3.1 acres of onsite waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources in the form of herbaceous wetland- and southern willow scrub-vegetated areas as shown in Figure 11, *Proposed Onsite Mitigation*. The 3.1 acres will be contained within approximately 14.5 acres of on-site waters of the State, CDFW jurisdiction, and MSHCP Riparian/Riverine resources that will be preserved. This element of the mitigation proposal will mitigate permanent and temporary impacts to CDFW jurisdiction and MSHCP Riparian/Riverine resources at a 3:1 ratio for wetland/riparian-vegetated streambed and 2:1 ratio for unvegetated streambed. This will also mitigate temporary impacts to isolated wetland waters of the State at a minimum 1:1 ratio, and

On-Site Replacement and Enhancement of Beneficial Uses

Five of the 13 non-jurisdictional features were determined to support two beneficial uses: LWRM and WILD. These features will be permanently impacted by the project. However, the project has been designed to incorporate 19.2 acres of water quality features to compensate the loss of these two beneficial uses and provide additional uses of value GWR, WARM, WET, and WQE to the local area and watershed as shown in Figure 11, *Proposed Onsite Mitigation*.

The project is consistent with MSHCP Section 6.1.2.

STEPHENS' KANGAROO RAT HABITAT CONSERVATION PLAN

The Project Site falls within the Stephens' kangaroo rat (SKR) fee area outlined in the Riverside County SKR HCP. The project applicant shall pay the fees pursuant to County Ordinance 663.10 for the Riverside County SKR HCP Fee Assessment Area as established and implemented by the County.

MSHCP LOCAL DEVELOPMENT MITIGATION FEE

The project applicant shall pay MSHCP Local Development Mitigation fees as established and implemented by the City of Hemet. Five categories of the fee are defined and include: Residential, density less than 8.0 dwelling units per acre $1,651 per dwelling unit; Residential, density between 8.1 and 14.0 dwelling units per acre

$1.057 per dwelling unit; Residential, density greater than 14.1 dwelling units per acre $859 per dwelling unit; Commercial $5,620 per acre; and Industrial $5,620 per acre.

URBAN/WILDLANDS INTERFACE

All Urban/Wildlands Interface guidelines presented in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area will be implemented. The Project Site is located immediately south of PQP land located within Hemet Channel (Constrained Linkage B) and final project design will be developed to ensure best management practices incorporated into the proposed project address and minimize edge effects associated with the Urban/Wildlands Interface including the maintenance and conveyance of seasonal clean water flows through the northern region of the Project Site to the Hemet Channel. Compliance with all the following MSHCP Urban/Wildlands Interface guidelines presented in the section titled (MEASURES TO MINIMIZE IMPACTS AT THE URBAN/WILDLANDS INTERFACE) will ensure that the proposed project will not result in significant indirect impacts to downstream resources.

The project is consistent with MSHCP Section 6.1.4.

FUELS MANAGEMENT

The final project design will ensure that no fuel modification will extend into the Hemet Channel (PQP Conserved Land). The reach of Hemet Channel located immediately north of the Project Site is generally devoid of vegetation.

The project is consistent with MSHCP Section 6.4.

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