



INFORMATION SUMMARY

- A. Report Date: July 5th, 2017
- B. Report Title: MSHCP Focused Burrowing Owl Surveys for the 245.07-Acre (16.70-acre offsite) Rancho Diamante Project Site, City of Hemet, California.
- C. Case #: TTM 36841
- D. APN#s: 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite – Portions of 465-120-019, and 021, 465-130-016 and 017, 465-100-031, and 033 (including northern reach of Hemet Channel).
- E. Project Location: Portions of the east half of Section 24, Township 5 South, Range 2 West, San Bernardino Base and Meridian, in the County of Riverside, California. Located immediately West of Warren Road, South of the Hemet Channel and East of the San Diego Aqueduct.
- F. Applicant: Benchmark Pacific
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Contact: Richard Robotta (760) 450-0444
- G. MOU Principal: Cadre Environmental
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Contact: Ruben S. Ramirez, Jr. (949) 300-0212
USFWS permit #TE780566-13, CDFW 002243
- H. Date of Surveys: July 21st, 22nd, 23rd, August 4th, 5th, 6th, 18th, 19th, 20th, 25th, 26th, and 28th 2015, May 11th, 12th, 25th, 26th, June 8th, 9th, 22nd, 23rd, 27th, 28th, 29th, and 30th, 2017.
- I. Summary: The 245.07-acre project site is dominated by agricultural lands (field croplands), seasonal depressions, Eucalyptus woodland, disturbed/herbaceous wetland, and a man-made urban-agricultural drainage ditch created along the southern boundary which extends west to an existing infiltration basin. A 16.70-acre offsite assessment area is dominated by unvegetated streambed (Hemet Channel) and agricultural lands (field croplands) extending south from the southwest corner of the project site toward Simpson Road.

The project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (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).

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

The project site occurs completely within a predetermined Survey Area for the burrowing owl. Based on the presence of suitable habitat documented onsite during the habitat assessment and previous observations of foraging adults within/adjacent to the project site and nest located north of project site during 2005 and 2006 surveys (Michael Brandman Associates (MBA) 2007a), updated 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 survey efforts.

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 mitigation plan will be developed for the passive/active relocation of individuals to Regional Conservation Authority lands located north of the project site within Proposed Noncontiguous Habitat Block 7.

SUBJECT

MSHCP Focused Burrowing Owl Surveys for the 245.07-Acre Rancho Diamante Project Site, City of Hemet, California

This report presents the findings of focused burrowing owl surveys conducted for the 245.07-acre project site “Project Site”, APN’s 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite – Portions of 465-120-019, and 021, 465-130-016 and 017, 465-100-031, and 033 (including adjacent right-of-way centerline within Warren Road and northern reach of Hemet Channel).

The Project Site is located in Western Riverside County and is located on the U.S. Geological Survey (USGS) 7.5’ series Winchester Quadrangle, Township 5 South, Range 2 West, and Section 24. The project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) San Jacinto Valley Area Plan. A 62.75 acre portion of the project is located within Criteria Cell 4007 and 20.23 acre portion is located within Criteria Cell 3892 (SU4 Hemet Vernal Pool Areas East). Specifically, the Project Site extends south of the Hemet Channel, west of Warren Road and east of the San Diego Aqueduct.

This report incorporates the findings of a literature review, compilation of existing documentation, and a field reconnaissance and focused surveys conducted on July 21st, 22nd, 23rd, August 4th, 5th, 6th, 18th, 19th, 20th, 25th, 26th, and 28th 2015, May 11th, 12th, 25th, 26th, June 8th, 9th, 22nd, 23rd, 27th, 28th, 29th, and 30th, 2017.

This documentation is consistent with accepted scientific and technical standards and the requirements of the MSHCP. When appropriate, general biological resources are described in summary form in an effort to provide the reader with adequate background information.

METHODS OF STUDY

APPROACH

Prior to visiting the Project Site, a review of all available and relevant data on the biological characteristics, sensitive habitats, and species potentially present on or adjacent to the Project Site was conducted. Additionally, aerial photography, and USGS topographic map data were examined. After reviewing the available information, Cadre Environmental conducted a physical site assessment/burrow and focused survey.

As required by the MSHCP, and during the initial property assessment process, all Project Site APN’s were searched using the Conservation Report Summary Generator to determine if additional surveys for wildlife not adequately covered by the MSHCP may be required. The Project Site is located completely within a predetermined Survey Area for the burrowing owl.

Plant Community/Habitat Classification and Mapping

Plant communities were preliminarily mapped with the aid of an aerial photograph using the MSHCP uncollapsed vegetation communities classification system. When a vegetation community could not be accurately characterized using this classification system, an updated community classification code was developed to more accurately represent onsite habitat types.

General Wildlife Inventory

All animals identified during the reconnaissance survey by sight, call, tracks, scat, or other characteristic sign were recorded onto a 1:200 scale orthorectified color aerial photograph or documented using a global positioning system (GPS). In addition to species actually detected, expected use of the site by other wildlife was derived from the analysis of habitats on the site, combined with known habitat preferences of regionally occurring wildlife species.

Vertebrate taxonomy followed in this report is according to the Center for North American Herpetology (2015 for amphibians and reptiles), the American Ornithologists' Union (1988 and supplemental) for birds, and Baker et al. (2003) for mammals. Both common and scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Burrowing Owl Surveys

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 habitat assessment on July 21st, 22nd, 23rd, and August 4th 2015. 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, or wood debris piles, or 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 adjacent natural habitats located immediately adjacent to the northeast boundary was assessed.

Results from the habitat assessment indicate that suitable resources for burrowing owl are present throughout the Project Site primarily within the disturbed and rock outcrop habitats as illustrated in Attachment A, *Biological Resources Map*. Accordingly, if suitable habitat is documented onsite, both Step II 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. The MSHCP protocol indicated that no more than 100 acres should be surveyed per day/per biologist. Therefore, the Project Site was separated into three (3) burrowing owl survey areas, each totaling approximately 85+/- acres each as illustrated in Attachment E, *Burrowing Owl Survey Areas*.

Part A: Focused Burrow Survey

A systematic survey for burrows, including burrowing owl sign, was conducted by walking across all suitable habitats mapped within the Project Site on July 21st, 22nd, 23rd, and August 4th 2015. 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. Transect routes were also adjusted to account for ridge lines and in general ground surface visibility.

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

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 July 21st, 22nd, 23rd, August 4th, 5th, 6th, 18th, 19th, 20th, 25th, 26th, and 28th 2015, May 11th, 12th, 25th, 26th, June 8th, 9th, 22nd, 23rd, 27th, 28th, 29th, and 30th, 2017 from one hour before sunrise to two hours after sunrise as outlined in Table 1, *Burrowing Owl Survey Schedule*. 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. In addition to monitoring potential burrow locations, all suitable habitats in the Project Site were walked along transects averaging 20 meters (approximately 66 feet) between centerlines.

Table 1 – Burrowing Owl Survey Schedule

Survey	Dates (Conditions) 2015	Results
Survey Area 1		
1	July 21 st - 55°F to 68°F, winds 0-4mph, no rain	No owls detected
2	August 4 th - 64°F to 86°F, winds 0-4mph, no rain	No owls detected
3	August 18 th - 66°F to 78°F, winds 0-4mph, no rain	No owls detected
4	August 25 th - 71°F to 77°F, winds 0-4mph, no rain	No owls detected
Survey Area 2		
1	July 22 nd - 68°F to 77°F, winds 0-4mph, no rain	No owls detected
2	August 5 th - 65°F to 88°F, winds 0-4mph, no rain	No owls detected
3	August 19 th - 61°F to 75°F, winds 0-4mph, no rain	No owls detected
4	August 26 th - 72°F to 84°F, winds 0-4mph, no rain	No owls detected

Survey	Dates (Conditions) 2015	Results
Survey Area 3		
1	July 23 rd - 66°F to 75°F, winds 0-4mph, no rain	No owls detected
2	August 6 th - 68°F to 85°F, winds 0-4mph, no rain	No owls detected
3	August 20 th - 65°F to 74°F, winds 0-4mph, no rain	No owls detected
4	August 28 th - 69°F to 87°F, winds 0-4mph, no rain	No owls detected
Survey	Dates (Conditions) 2017	Results
Survey Area 1		
1	May 11 th - 58°F to 70°F, winds 0-2mph, no rain	No owls detected
2	May 26 th - 55°F to 68°F, winds 0-2mph, no rain	No owls detected
3	June 22 nd - 65°F to 88°F, winds 2-4mph, no rain	No owls detected
4	June 28 th - 59°F to 90°F, winds 2-4mph, no rain	No owls detected
Survey Area 2		
1	May 12 th - 58°F to 72°F, winds 2-4mph, no rain	No owls detected
2	June 8 th - 58°F to 84°F, winds 0-2mph, no rain	No owls detected
3	June 23 rd - 60°F to 89°F, winds 0-2mph, no rain	No owls detected
4	June 29 th - 60°F to 90°F, winds 4-8mph, no rain	No owls detected
Survey Area 3		
1	May 25 th - 60°F to 70°F, winds 2-6mph, no rain	No owls detected
2	June 9 th - 55°F to 82°F, winds 0-6mph, no rain	No owls detected
3	June 27 th - 65°F to 90°F, winds 0-4mph, no rain	No owls detected
4	June 30 th - 60°F to 88°F, winds 2-4mph, no rain	No owls detected

EXISTING CONDITIONS

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 southern boundary extends west to an existing infiltration basin. A total of 14 seasonal depressions have also been delineated within the Project Site (Helix Environmental Planning, Inc. 2017). The majority of flat lowlands are currently being actively farmed (wheat production).

Plant Community/Habitat Classification

The following section provides general vegetation descriptions for habitat types documented within the Project Site. Representative distribution and photographs of these habitat types are illustrated in Attachment A, *Biological Resources Map* and Attachment B-D, *Current Project Site Photographs*

Agricultural Land – Field Croplands (FC):

Most of the property consists of active agricultural land – field croplands, 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, scattered 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.

Eucalyptus Woodland (EW):

A few *Eucalyptus* gum trees (*Eucalyptus* sp.) 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)**, **Mule Fat 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*).

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 bocconeii*), 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)**.

WILDLIFE POPULATIONS

General wildlife species documented onsite or within the vicinity during the site visits and/or during previous surveys include but are not limited to western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferous*), rock dove (*Columba livia*), mourning dove (*Zenaidura macroura*), great horned owl (*Bubo virginianus*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), cliff swallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), blue grosbeak (*Passerina caerulea*), lark sparrow (*Chondestes grammacus*), Brewer's blackbird (*Euphagus cyanocephalus*), western meadowlark (*Sturnella neglecta*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), house sparrow (*Passer domesticus*), and California ground squirrel (*Otospermophilus beecheyi*).

RESULTS

Suitable burrowing owl foraging habitat was documented throughout the Project Site and potential burrow structures were concentrated within and near the debris piles surrounding the Eucalyptus woodland, soil piles within the retention basin and scattered along the Hemet Channel and berm located south of the constructed urban-agricultural ditch as illustrated in Attachment E, *Burrowing Owl Survey Area Map*.

Although a single (1) foraging pair (1) of adult burrowing owls (nest detected north of project site) were detected within the property by MBA during the 2005 and 2006 survey efforts, 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 twenty-four (24) focused surveys conducted in 2015 and 2017.

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 mitigation plan will be developed for the passive/active relocation of individuals to Regional Conservation Authority lands located north of the project site within Proposed Noncontiguous Habitat Block 7.

Sensitive species covered by the MSHCP and documented onsite during previous or updated survey efforts include (MBA 2007, Cadre Environmental 2015):

- white tailed kite (*Elanus leucurus*) - SFP
- loggerhead shrike (*Lanius ludovicianus*) - SSC
- California horned lark (*Eremophila alpestris actia*) - SSC

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ATTACHMENTS

Attachment A - Biological Resources Map

Attachment B - Current Project Site Photographs

Attachment C - Current Project Site Photographs

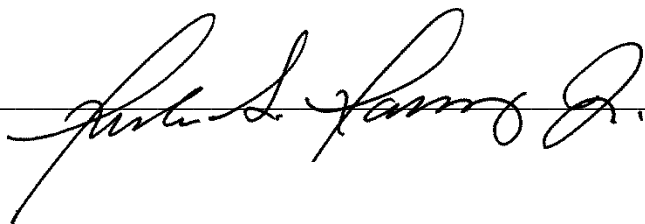
Attachment D - Current Project Site Photographs

Attachment E – Burrowing Owl Survey Map

Certification

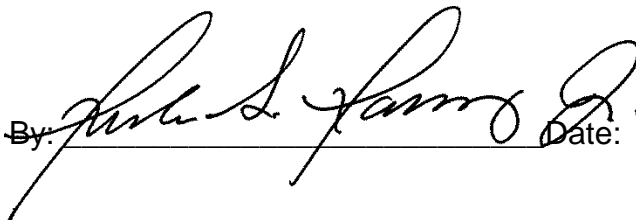
"I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief."

Author: _____

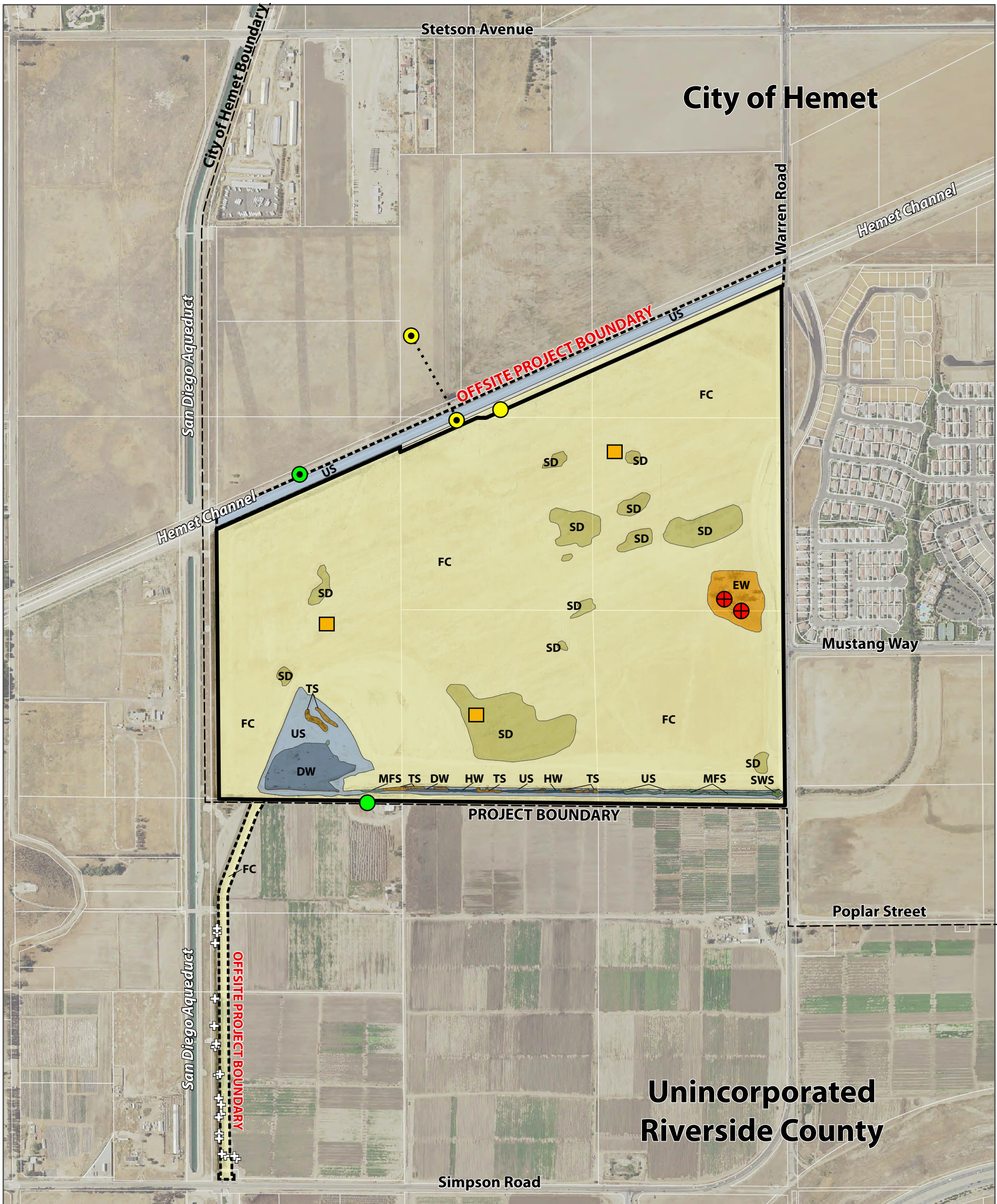


Date: July 5th, 2017

Fieldwork Performed By: _____



Date: July 5th, 2017



Burrowing Owl Observations

- Pair & Young, MBA 2005/2006, CH2M Hill (2005/2006)
- Adult Foraging, MBA 2006
- Pair CH2M Hill 2005
- Single Owl, CH2M Hill 2006

Raptor Nests

- Cadre Environmental 2015

Sensitive Bird Species

- California Horned Lark - SSC (flock), Cadre 2015

Vegetation Communities

FC Agriculture Land - Field Croplands	HW Herbaceous Wetland
SD Seasonal Depression	MFS Mule Fat Scrub
EW Eucalyptus Woodland	SWS Southern Willow Scrub
TS Tamarisk Scrub	US Unvegetated Streambed
DW Disturbed Wetland	

Sources: Cadre Environmental 2015/Helix Environmental Planning Inc. 2017

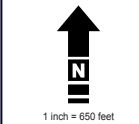
+ Smooth Tarplant (*Centromadia pungens ssp. laevis*), CRPR 1B.1
Sources: Riefner and Associates 2017

APN 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite 465-120-019, and 021, 465-130-016 and 017.

Aerial: NAIP 2014

Attachment A - Biological Resources Map

MSHCP Burrowing Owl Survey Report
Rancho Diamante





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.



PHOTOGRAPH 3 - Southwest view of retention basin from agricultural croplands located in southwest region of project site.



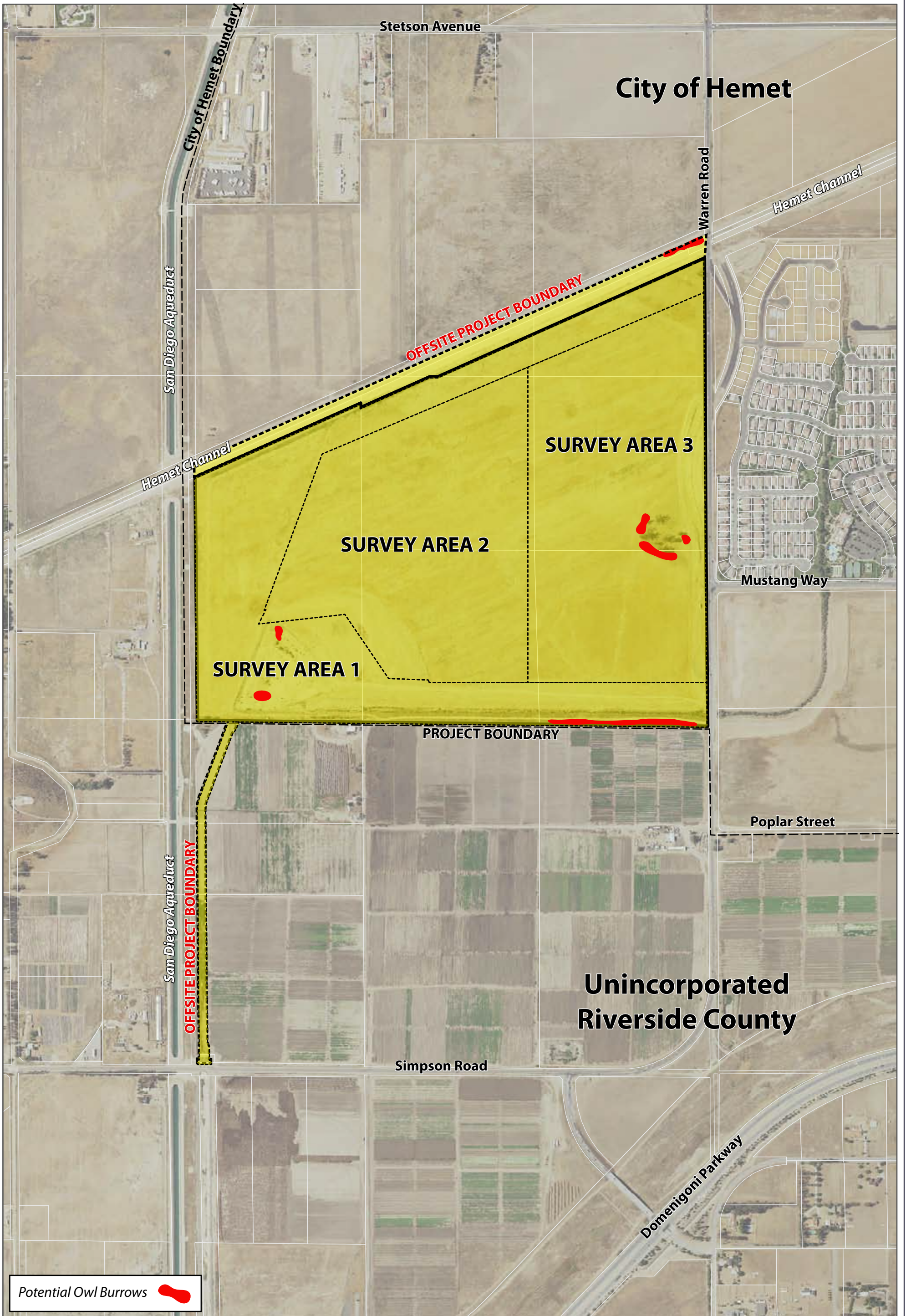
PHOTOGRAPH 4 - Northward view of agricultural croplands from south-central region of Project Site.



PHOTOGRAPH 5 - Eastward view of urban/agricultural runoff channel located immediately north of southern project site boundary.



PHOTOGRAPH 6 - Westward view of urban/agricultural runoff channel dominated by willow, cottonwood, mule fat and *Tamarisk* vegetation.



APN 465-100-016, 465-100-022, 465-110-020, 021, 022, 023, and 027. Offsite 465-120-019, and 021, 465-130-016 and 017.

Aerial: NAIP 2014