Appendix E MSHCP Consistency and DBESP Report

Appendices

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MSHCP CONSISTENCY
AND
DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION
REPORT

RANCHO SAN GORGONIO PLANNED COMMUNITY PROJECT

CITY OF BANNING

RIVERSIDE COUNTY, CALIFORNIA

CONFIDENTIAL AND PRIVILEGED

LSA

November 6, 2015

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AND
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CONFIDENTIAL AND PRIVILEGED

Prepared for:

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LSA Project No. PIE1201

LSA

November 6, 2015

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1.0 INTRODUCTION

LSA Associates, Inc. (LSA) was retained by Diversified Pacific to conduct biological surveys for the Rancho San Gorgonio Planned Community Project, within and south of the City of Banning (City), Riverside County. The City is a Permittee to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which was adopted by the County of Riverside in June 2003. The MSHCP is a comprehensive, multijurisdictional Habitat Conservation Plan (HCP) and Natural Communities Conservation Plan (NCCP) for the conservation of species and their associated habitats in western Riverside County. The MSHCP, Implementing Agreement and associated permits authorize Permittees to take listed plant and animal species for otherwise lawful activities consistent with MSHCP requirements and terms and conditions in exchange for compliance with provisions of the MSHCP including the assembly and management of a coordinated Conservation Area/Reserve. As a Permittee, the City has the responsibility to implement and adhere to the provisions of the MSHCP as well as the MSHCP Implementing Agreement.

The purpose of the MSHCP is to conserve large contiguous blocks of habitat to maintain species richness and density, to ensure population viability, to protect habitats from encroachment, and to reduce non-native species invasion. Covered Species are 146 species state and federal-listed plant and animal species and other species of special concern. The Criteria Area is the area within the MSHCP planning boundary is used to define those areas for acquisition for 153,000 acres of new conservation land. The Conservation Area is to be assembled from portions of the MSHCP Criteria Area, which consists of quarter-section (i.e., 160-acre) Criteria Cells, each with specific criteria for the species conservation within that cell. The MSHCP provides for the assembly of a Conservation Area consisting of Core Areas and Linkages for the conservation of Covered Species (Riverside County 2003). The MSHCP provides an incentive-based program, the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) for adding land to the MSHCP Conservation Area. A Core is the largest planning unit and its extent is large enough to support populations of several species. A Linkage is a habitat connection between Cores that is wide and long enough to provide live-in habitat and movement corridors for plants, herbivores, and carnivores. More detailed information is provided in Section 3.0 of the MSHCP. Projects located in proximity to the MSHCP Conservation Area may result in edge effects that could adversely affect biological resources within the MSHCP Conservation area. MSHCP Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4) are intended to reduce such indirect effects.

The MSHCP requires focused surveys for certain plant and animal species for project sites located within designated plant and animal survey areas when potential suitable habitat is present within and outside MSHCP Criteria Cells. In addition to species that have designated survey areas, surveys for listed riparian birds are required when suitable riparian habitat is present, surveys for listed fairy shrimp species are required when vernal pools or other suitable habitat is present, and surveys for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) may be required in areas having Delhi soils. This report provides analysis of the project's compliance with the following sections of the MSHCP:

- MSHCP Section 3.0 MSHCP Objectives for Reserve Assembly;
- Section 6.1. Local Implementation Measures;
- Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools;
- Section 6.1.3: Protection of Narrow Endemic Plant Species;
- Section 6.1.4: Guidelines Pertaining to the Urban/Wildlands Interface;
- Section 6.3.2: Additional Survey Needs and Procedures;
- Section 7.5.2: Wildlife Crossings;
- Section 7.5.3: Construction Guidelines; and
- Appendix C: Best Management Practices (BMPs).

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The project site is located in the City of Banning (City), Riverside County, California. The site is located within Sections 16 and 17, Township 3 South, Range 1 East as shown on the U.S. Geological Survey (USGS) 7.5-minute series *Beaumont, California* quadrangle (Figure 1). The property is 0.4 mile south of Interstate 10 (I-10) and generally bordered by Westward Avenue on the north, Sunset Avenue on the west, Coyote Trail on the south, and San Gorgonio Avenue (State Route 243) on the east.

2.2 PROPOSED PROJECT

The Rancho San Gorgonio (RSG) Specific Plan (anticipated City approval in 2016) proposes an 831-acre master planned residential community within the City and its sphere of influence. The RSG Specific Plan aims to fulfill the City's growth objectives by creating a development that responds to planning needs of the area, incorporates existing natural features and park amenities, and provides a variety of land uses. The Plan is organized into 44 planning areas (PAs) that include a variety of residential densities, lot types and housing types, common open spaces, and a commercial area. Parks and paseos are incorporated throughout the community and buffer the converging existing creeks, while providing walking, riding, and vehicle access throughout the community and connecting the RSG Specific Plan's distinct walkable "Village" neighborhoods. Figure 2 provides a copy of the most current version of the Specific Plan Community Design.

The RSG Specific Plan includes the following proposed land uses:

- A mix of up to 3,385 residential units (on approximately 516 acres);
- 9.3 acres for proposed Neighborhood Commercial uses, intended to provide a location for businesses that meet day-to-day shopping and service needs of the residential uses as may be identified;
- 210 acres for parks and recreational areas, varying from passive open space and trails to sports fields and gathering places;
- 77 acres for circulation uses, including roadways, pathways and bridges for vehicles, bikes, pedestrians, and equestrian use; and
- Drainage way improvements for flood control purposes that respect the natural creek paths through the area.

The RSG Specific Plan proposes a variety of residential opportunities including small, medium, and larger lot single-family detached homes; various potential configurations of single-family detached cluster residences, and potential attached multifamily dwellings. The variety of residential uses provides housing at different price levels. Through the use of effective planning, the proposed

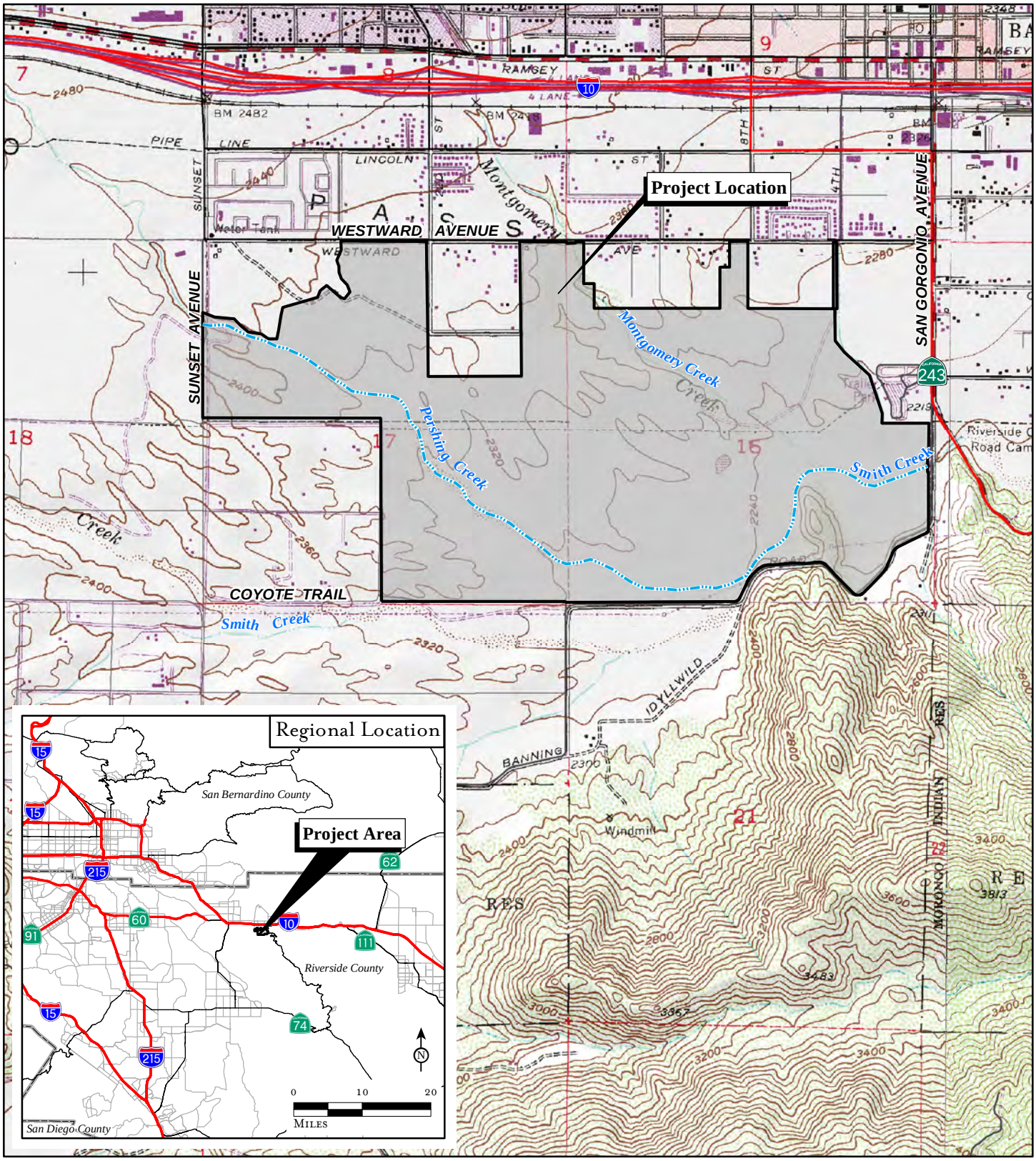

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FIGURE 1

Rancho San Gorgonio Planned Community Project MSHCP and DBESP Report

Regional and Project Location

SOURCE: USGS 7.5' Quads: Beaumont (88), CA; Cabazon (88), CA: Riverside County, 2015.

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FIGURE 2

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SOURCE: Rancho San Gorgonio Specific Plan, 1/26/2015

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RSG Specific Plan responds to the community's vision by providing a desirable high-quality planned community that integrates evenly distributed residential living areas and amenities.

The mix of residential, commercial, open space, and recreational opportunities provided by the RSG Specific Plan is organized and connected by the natural character of the land. The RSG Specific Plan's location within the City, situated between the San Bernardino Mountains including Mount San Gorgonio, and the San Jacinto Mountains, provides a human experience with design concepts that respond to the physical, social, and emotional needs of its residents. Needed infrastructure improvements including roadways, drainage, and other improvements have been identified and incorporated into an urban design concept that retains open space and public gathering areas.

3.0 METHODS

3.1 LITERATURE REVIEW

A literature review was conducted to determine the existence or potential occurrence of special-status plant and animal species on or in the vicinity of the project site. Database records for the *Beaumont, Cabazon, San Jacinto,* and *Lake Fulmor, California* USGS 7.5-minute quadrangles were searched on August 28, 2012, using the California Department of Fish and Wildlife (CDFW)[1] Natural Diversity Data Base application *Rarefind 3* (updated 2013) and the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (updated 2013). Volume 1 of the *Western Riverside County Multiple Species Habitat Conservation Plan* (Riverside County Transportation and Land Management Agency 2003) was also used to identify MSHCP requirements applicable to the project site. Soil information was taken from *Soil Survey of Western Riverside Area, California* (Knecht 1971). Plant species were identified using *The Jepson Manual* (Hickman 1993).

The project site is located within The Pass Area Plan of the MSHCP Planning Area. Specific survey requirements and conservation measures have been developed for this site in accordance with its location within the MSHCP. Figure 3 shows MSHCP survey areas. Table A summarizes the MSHCP Project Review Checklist to determine surveys and conservation measures necessary for MSHCP Compliance.

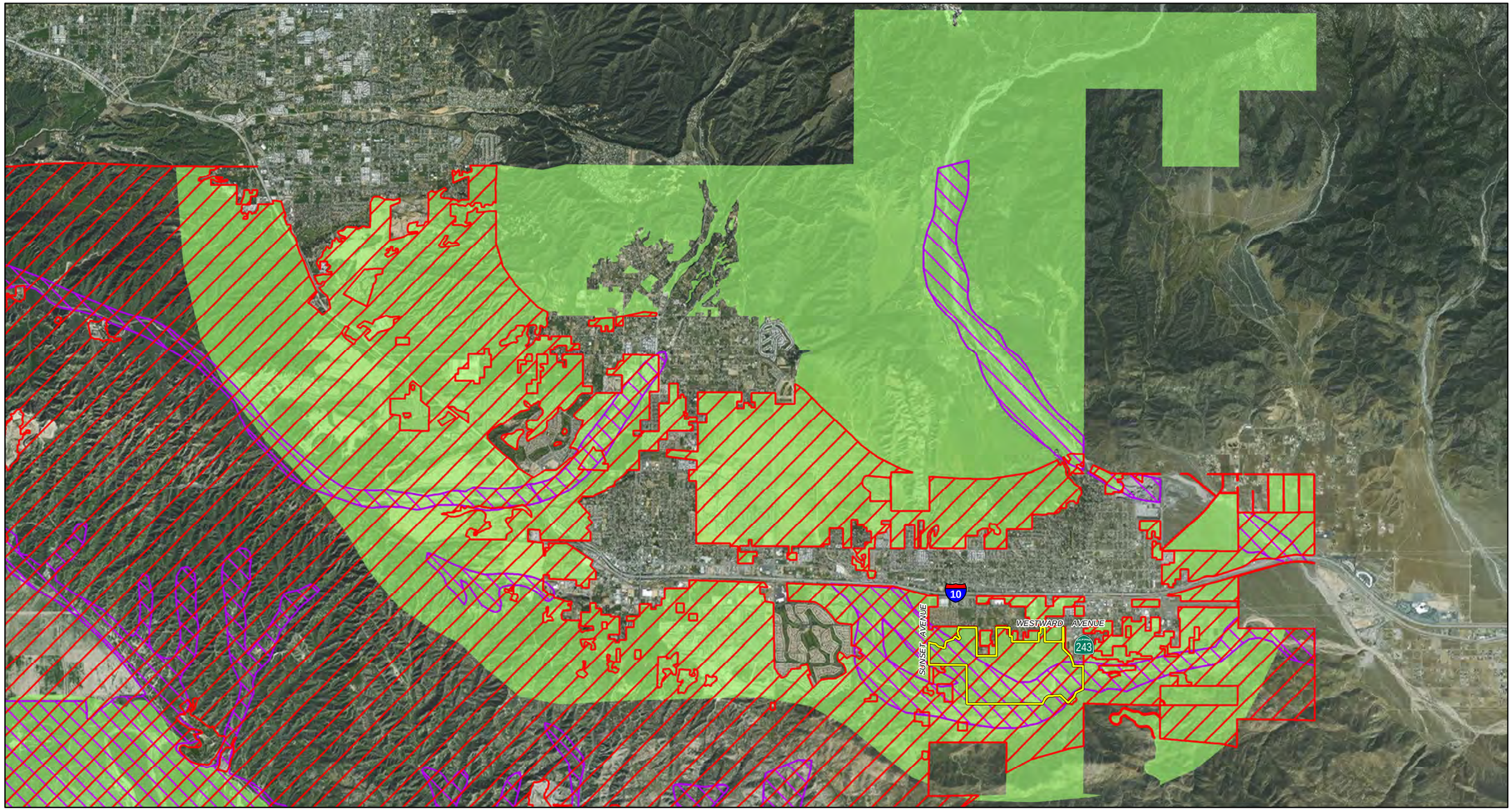
Table A: MSHCP Project Review Checklist

	Yes	No
Is the project located in Criteria Area or Public/Quasi-Public Land?		✓
Is the project located in Criteria Area Species Survey Area?		✓
Is the project located in Amphibian Species Survey Area?		✓
Is the project located in Mammal Species Survey Area?	✓	
Is the project located adjacent to MSHCP Conservation Areas?		✓
Is the project located in Narrow Endemic Plant Species Survey Area?	✓	
Are riverine/riparian/wetland habitats or vernal pools present?	✓	
Is the project located in Burrowing Owl Survey Area?	✓	

3.2 VEGETATION MAPPING

Vegetation was mapped by Dr. Spencer on August 20, and 21, 2012, and January 8, 2013. Portions of the map were refined by Maria Lum based on notes taken during burrowing owl survey visits. The extent of vegetation and land uses was mapped on a current aerial photograph. The various areas were then digitized and converted into GIS shape files. Vegetation community classifications used in this report generally follow *The Vegetation Classification and Mapping Program List of California*

[1] The California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) as of January 1, 2013.



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MSHCP

Project Boundary

Narrow Endemics Plant Species Survey Area (NEPSSA)

Small Mammals Survey Area (Los Angeles Pocket Mouse)

Western Burrowing Owl Survey Area

Note: There are no Critical Habitat or MSHCP Critical Cells located at this site.

SOURCE: ESRI World Imagery, 2010, County of Riverside, 2005 and 2013.

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FIGURE 3

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

MSHCP Survey Areas

Terrestrial Natural Communities Recognized by the California Natural Diversity Data Base (CDFG 2008) and Holland's (1986) vegetation community descriptions.

3.3 BIOLOGICAL SURVEYS

Focused species surveys and Habitat Suitability Assessments (HSAs) for fairy shrimp, Los Angeles pocket mouse, riparian birds, and burrowing owl burrows were conducted in 2012 and 2013 by LSA biologists according to the schedule shown in Table B.

Table B: Survey Dates, Times, and Weather Conditions

Survey	Date	Surveyors	Time (24-hour) (start/finish)	Temp. (°F) (start/finish)	Wind (mph)	Sky
HSA for Los Angeles Pocket Mouse	August 2, 2012	RE, LS	0800/1000	Warm	0–5	Clear
Los Angeles Pocket Mouse Trapping	Aug. 5–10, Aug. 12–17, Aug. 27–Sept. 1, 2012	RE, LS, WD, CB	24 hours for the three trapping sessions	Warm	0–5	clear
Burrow Survey	August 7, 2012	ML, SS, WD	0630/1350	70/110	0–8	clear
Burrow Survey	August 8, 2012	LS, ML, SS	0630/1030	86/105	1–3	clear
Burrow Survey	August 9, 2012	CB, ML, SB, WD	0645/1015	80/100	5–8	clear
Burrow Survey	August 10, 2012	CB, ML, SB, SS	0645/1100	84/100	3–8	clear
Active Burrow Recheck	August 14, 2012	ML	0700/0900	80	0-5	clear
Burrow Survey	August 16, 2012	CB, ML, WD	0730 /1130	86/102	0–5	clear
Active Burrow Recheck	August 16, 2012	ML, WD	0700/0900	85	0–5	clear
Active Burrow Recheck	August 17, 2012	ML, WD	0700/0900	80	0-5	clear
Burrow Survey	August 21, 2012	CB, ML, SS, WD	0630/1130	68/89	0–5	clear
Burrow Survey	August 23, 2012	SS	0630/1045	68/88	1–3	clear
Burrow Survey	January 8, 2013	SS	1020/1415	66/71	1–3	clear
HSA for riparian birds	August 21, 2012	ML, WD, SS	1130/1200	Warm	0	clear
HSA for riparian birds	April 5, 2013	ML, WD, SS	1000/1100	Warm	0–3	clear
Fairy Shrimp wet season survey	November 15, 2012 to May 15, 2013	SS	800/1200	Cool to warm	0–8	clear
Fairy Shrimp dry season	September 2013	SS	Sample collection	—	—	—

HSA: Habitat Suitability Assessment
Surveyors: CB=Claudia Bauer; LS=Leo Simone; ML=Maria Lum; SB=Sarah Barrera; SS=Stan Spencer, WD=Wendy Davis

3.3.1 Riparian/Riverine

Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas, riparian bird species, vernal pools, and fairy shrimp species will occur within the MSHCP Area. Protection of these resources is important for a number of MSHCP conservation objectives. An assessment of a project's potentially significant effects on riparian/riverine areas, vernal pools, and fairy shrimp habitat is required. Guidelines for determining whether or not these resources exist on site are described as follows:

> *Riparian/Riverine Areas* include "lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens which occur close to or which depend upon soil moisture from a nearby fresh water source or areas with fresh water flow during all or a portion of the year." Riparian/riverine areas under the MSHCP also include drainage areas that are vegetated or have upland (non-riparian/riverine) vegetation and that drain directly into an area that is described for conservation under the MSHCP (or areas already conserved).

A jurisdictional delineation was conducted in August 2012 and April 2013 and updated in 2015 (LSA 2015). A copy of the delineation report is provided in Appendix D. The project site was surveyed on foot and by vehicle to identify potential jurisdictional areas. All areas of potential jurisdiction were delineated according to the current USACE and CDFW criteria. The boundaries of the potential jurisdictional areas were observed in the field and mapped on aerial photographs. Limits of federal and state jurisdictional areas mapped during the course of the field investigation were determined by a combination of direct measurements taken in the field and measurements taken from aerial photographs. Areas supporting species of plant life potentially indicative of wetlands were evaluated according to routine wetland delineation procedures.

Vegetation on the site was mapped as described previously. Information from the jurisdictional delineation and vegetation mapping was combined to determine areas qualifying as riparian/riverine based on MSHCP criteria. A habitat suitability analysis for least Bell's vireo (*Vireo bellii pusillus*) and Southwestern willow flycatcher (*Empidonax traillii extimus*) was conducted on August 21, 2012, by Maria Lum, Wendy Davis, and Stan Spencer, and again in April 2013. All areas mapped as riparian scrub and Riversidean alluvial fan sage scrub were evaluated for habitat suitability for riparian/riverine associated species, even if outside the limits of federal and state jurisdiction. There is not a separate report for riparian/riverine habitat assessment due to lack of suitable nesting habitat for associated bird species occurs on the project site.

3.3.2 Vernal Pools and Other Fairy Shrimp

Vernal Pools are described in the MSHCP as "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season." Artificially created features do not meet the MSHCP definition of vernal pool unless created for the purpose of providing wetlands habitat. *Listed Fairy Shrimp Habitat*, as described in the MSHCP, is habitat for Riverside fairy shrimp (*Streptocephalus woottoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), or Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and includes ephemeral pools, artificially created habitat such as tire ruts and stock ponds, and other features determined appropriate on a case-by-case basis by a qualified biologist.

A 2012–2013 wet season survey was conducted for Riverside fairy shrimp and vernal pool fairy shrimp by Stanley Spencer under LSA Federal 10(a)(1)(A) Permits TE-777965 and in accordance with the April 19, 1996, *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods*. Site checks were made on November 15, 16, and 28; December 10 and 21, 2012; January 4, 14, and 18; February 1, 13, 22, 26, and 28; March 4, 14, 16, 25, and 28; April 3, 12, and 26; and May 15, 2013, to determine if water was present in ponding features following storm events. Ponded features were sampled at required intervals until they had dried and remained dry.

A 2012–2013 dry season survey was conducted by LSA Senior Biologists David Muth and Stanley Spencer under LSA Federal 10(a)(1)(A) Permits TE-777965 and TE-796345 in accordance with the United States Fish and Wildlife Service *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for Listed Vernal Pool Branchiopods*, dated April 19, 1996. Mr. Muth and Dr. Spencer collected a series of ten 0.1-liter samples of soil material from each of the potential habitat areas in the project site on August 8, 2013. The soil was processed by Mr. Muth on August 17, 24, 26, and 27, 2013.

3.3.3 NEPSSA Plants

A habitat suitability analysis was required over the entire project area for narrow endemic plants in MSHCP Survey Area 8. HSAs for Narrow Endemic Plant Species Survey Area (NEPSSA) species [Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*)] were conducted on August 20 and 21, 2012, and on January 8, 2013, by LSA Senior Biologist Stan Spencer. Habitat requirements for these species were reviewed prior to the site visits.

Soil conditions and plants were noted during the intensive field surveys in August 2012 on the original 784.4-acre study area and then on the additional 45.6 acres in January 2013. During the visits, the site was analyzed for the presence of suitable habitats and/or soils to support these species. Focused surveys for Narrow Endemic Plant Species in MSHCP Survey Area 8 were not conducted due to lack of suitable habitat and lack of suitable soils. The literature records did not have any records of many-stemmed dudleya within 2 miles of the project study area. Yucaipa onion is reported to occur in the Banning Pass region.

3.3.4 Mammalian Species

A habitat assessment for Los Angeles pocket mouse (*Perognathus longimembris brevinasus* [LAPM]) was conducted by LSA biologists Richard Erickson and Leo Simone on August 2, 2012. Prior to the initial habitat assessment site visit, a review was conducted of aerial photographs and species occurrence records in the vicinity. Three trapping sessions were conducted from August 5–10, 12–17, and August 27–September 1, 2012. Based on previous occurrence records in the major washes, it was determined that all major washes with sandy substrate within the project site would be considered occupied. Therefore, the trap lines were placed primarily in areas adjacent to larger washes to determine presence/absence in the upland areas and the smaller tributaries adjacent to Pershing, Smith, and Montgomery Creeks. The Small Mammal Survey Report is provided in Appendix D. Figure 2 of the small mammal survey report shows the location of the trap lines.

3.3.5 Burrowing Owl

An HSA for burrowing owl (*Athene cunicularia hypugaea*) was conducted by reviewing aerial photographs prior to the initial site visit. Suitable habitat areas were identified by the presence of grassland habitat, dirt access roads, and other open areas with suitable low-growing, open vegetation with the potential to support burrowing owls (burrowing and foraging). Areas with a concentration of coastal scrub shrub species or trees were not considered suitable habitat as they might hide burrowing owl predators and provide perching sites for larger raptors preying on the smaller owls. Burrow surveys were conducted in August 2012 according to Step II, Part A of the *Burrowing Owl Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. All suitable habitat areas on the project site were walked at transects spaced at no more than 30 meters (100 feet), which allowed for 100 percent visual coverage of suitable habitat. Suitable habitat and burrows were observed for presence of burrowing owl sign (e.g., whitewash, pellets, scat, tracks, and/or feathers) and burrowing owls. Burrows with presence of burrowing owl sign and/or burrowing owls were recorded using a handheld GPS unit and mapped onto an aerial photograph. Burrows with burrowing owl sign that did not have burrowing owls present at the time of the initial survey were revisited during other biological resources surveys to determine burrowing owl occupancy.

4.0 RESULTS

4.1 LITERATURE SEARCH

The USFWS and the CDFW provide online records of species reported to the agencies when observed during biological surveys. The records are reported in California Natural Diversity Database and federal Information, Planning, and Conservation (IPaC) decision support system. Appendix A lists species observed on the project site. Appendices B and C list species of special concern reported in the literature to occur on the project or within one mile of the proposed project.

4.2 ENVIRONMENTAL SETTING

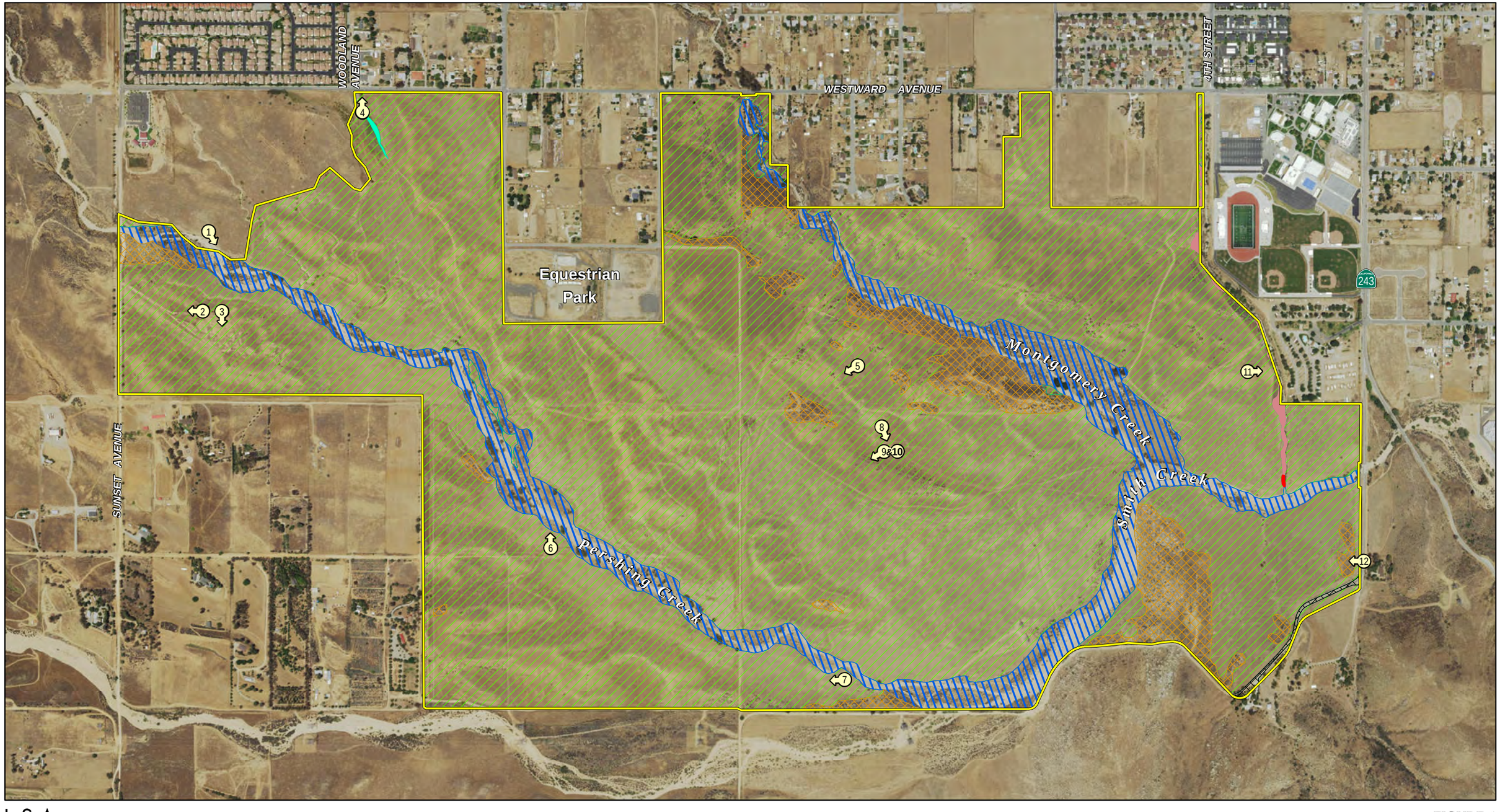
The RSG Specific Plan area is located within the City and its sphere of influence. The City is within Riverside County and the San Gorgonio Pass area, an east-west trending valley situated between the San Bernardino and San Jacinto Mountains. The property is located within the south part of the City, 0.4 mile south of I-10 and generally bounded by Sunset Avenue and Turtle Dove Lane on the west, Coyote Trail and Old Idyllwild Road on the south, San Gorgonio Avenue (State Route 243) on the east, and portions of Westward Avenue to the north.

Development adjacent to the project site to the north includes residential properties, residential tract housing, and two school campuses; Banning High School and Mt. San Jacinto Community College San Gorgonio Pass campus, located on the northeast and northwest, respectively. A similar residential specific plan area had been previously proposed by others on the site located west of Sunset Avenue and northwest from the RSG Specific Plan area. This draft specific plan was called Five Bridges and was submitted for initial review, but was subsequently withdrawn from consideration. The area to the south includes Smith Creek and small residential ranch properties. The project site is located within one half mile south of I-10, as well as the Ramsey Street Commercial Corridor, and Banning's downtown area.

4.3 LAND USES

The property is currently used for ranching and is unimproved. A large electrical transmission easement exists in the southeast corner of the site and a high-pressure gas pipeline easement bisects the property from west to east. The project site is located in an area that was previously used for dry land farming and grazing; winter wheat was the typical crop. The property more recently has been used as rangeland for cattle and horses. Figure 4 provides a map of vegetation communities and land use within the project study area.

The common ownership of the RSG Specific Plan property includes all of the subject 831 acres, including the 161 acres that are presently outside of the current City limits. This area is all within the City's General Plan Planning Area, including the 161 acres. For these reasons, the entire 831-acre site is included in the identified Specific Plan area. Pursuant to the City's 2006 General Plan land use designations, the subject site had been designated predominantly Very Low Density Residential, with



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Project Boundary

Photograph Location

Non-native Grassland

Riversidean Alluvial Fan Sage Scrub

Upland Riversidean Sage Scrub

Developed/Ruderal

Southern Riparian Scrub

Wetland of Non-native Grasses

Ornamental Trees

SOURCE:ESRI, World Imagery, 2010.

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FIGURE 4

Rancho San Gorgonio
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Vegetation, Land Use and Photograph Locations

also a limited amount of Medium Density Residential, Rural Residential and Open Space-Parks. Included with the Specific Plan is a General Plan Amendment, which creates a Specific Plan Area overlay that allows the land uses as contained in the approved RSG Specific Plan. The Zoning designations of the site have been the same as the General Plan land use designations and the approved Specific Plan provides the new zoning for the site.

4.4 VEGETATION COMMUNITIES

Previously referenced Figure 4 shows the vegetation communities, Figures 4A through 4C consist of site photographs, and Figure 5 shows all of the riparian/riverine areas identified on the project site. These are all earthen drainage features subject to CDFW jurisdiction as streams. Table C provides acreages of riparian/riverine areas on the site by vegetation community. Based on the results of the jurisdictional delineation and vegetation mapping, there are 87.7 acres of MSHCP riparian/riverine vegetation community areas on the site. Based on the analysis of the field data, the total potential federal jurisdiction within the project site is 28.9 acres. LSA excluded isolated ditches, roadside and other erosion gullies and rills, and agricultural and urban runoff diversions from jurisdiction under the 2015 Rule based on observations. The total area of CDFW jurisdiction including the riparian/riverine vegetation is 73.9 acres. Proposed impacts to federal waters comprise 6.9 acres. Proposed impacts to CDFW streambeds are 26.3 acres.

Table C: Vegetation Communities in the Rancho San Gorgonio Project Study Area.

General Habitat (Holland Code)	Alliance (Holland Code)	Association (Holland Code)	Acres
Riparian and Riverine			
Non-native grassland (42.000.00)	None	None	4.1
Coastal scrub (32.000.00)	Riversidean sage scrub (32.005.00)	Riversidean alluvial fan sage scrub (32.005.02)	82.6
Coastal scrub (32.000.00) in natural ephemeral tributaries	Riversidean sage scrub (32.005.00)	Upland Riversidean sage scrub (32.005.01)	0.6
Low to high elevation riparian scrub (61.000.00)	Southern riparian scrub (63.900.00)	None	0.06
Seasonally ephemeral pools and puddles	—	—	0.2
Wetland with non-native grasses	—	—	0.2
Subtotal			**87.7**
Upland			
Non-native grassland (excluding the ephemeral pools and puddles) (42.000.00)	None	None	696.7
Coastal scrub (32.000.00)	Riversidean sage scrub (32.005.00)	Upland Riversidean sage scrub (32.005.01)	44.0
Developed/Ruderal (no code)	None	None	2.6
Subtotal			**743.3**
Total			**831**

PHOTOGRAPH 1: *View of unnamed large creek in the center of the study area.*

PHOTOGRAPH 2: *View of one of the smaller pools in the fairy shrimp recorded locations by no listed species as confirmed LSA surveys in 2012–2013.*

PHOTOGRAPH 3: *View of the largest pool (facing south) of suitable habitat for fairy shrimp, but not occupied by special status or listed species (2012).*

PHOTOGRAPH 4: *View of runoff in the ditch below a storm drain outlet (2012).*

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FIGURE 4A

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

Site Photographs

PHOTOGRAPH 5: *View of burrowing owl burrow (occupied) in a narrow erosional feature (2012).*

PHOTOGRAPH 6: *View of a large cottonwood with perching white tailed kites in the center creek (2012).*

PHOTOGRAPH 7: *View of the lower reach of center creek showing grassland and adjacent upland scrub (California buckwheat).*

PHOTOGRAPH 8: *View of slope in the right half of the photograph with a burrow complex occupied by 6 owls in 2012.*

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FIGURE 4B

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

Site Photographs

PHOTOGRAPH 9: *View of burrowing owl features at an occupied burrow complex (2012).*

PHOTOGRAPH 10: *View of occupied burrow in the center of the study area (2012).*

PHOTOGRAPH 11: *View of a minor tributary/gully adjacent to a KOA campground.*

PHOTOGRAPH 12: *View of pasture, creek and rocky knoll in the southeast corner of the study area.*

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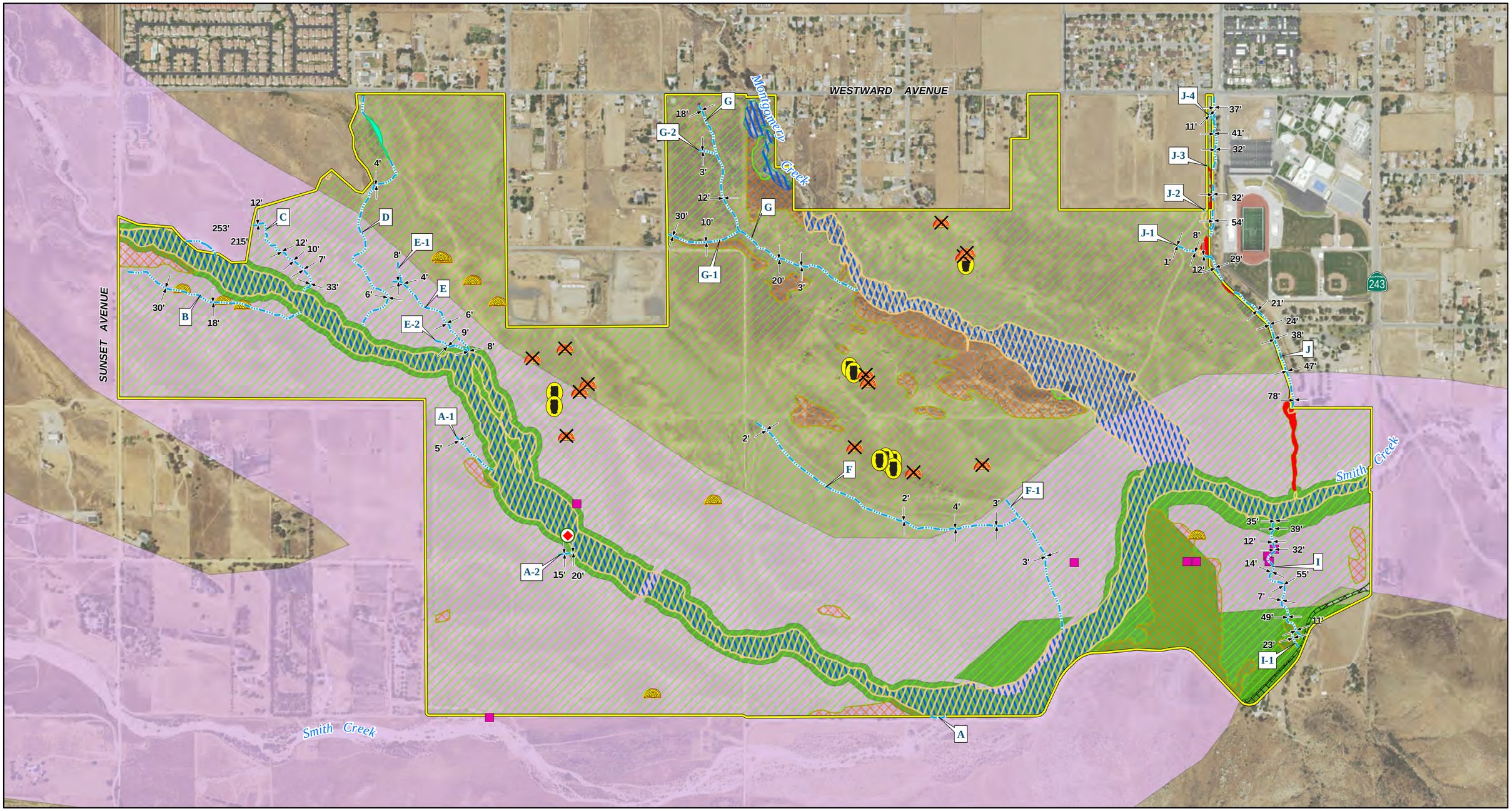
FIGURE 4C

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

Site Photographs



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- Project Boundary
- 10' Drainage Width (CDFW)
- Unvegetated Stream Channel
- Potential Nesting Tree White-tiailed Kite (2012)
- Avoidance Area

Los Angeles Pocket Mouse (LAPM)

- Habitat Areas Assumed Occupied by LAPM
- LAPM Capture Locations
- Small Mammal Survey Area (LA Pocket Mouse)

Burrowing Owl

- Active Burrows and Owls Present (2013)
- Active Burrow
- Inactive Burrow with Sign

Habitat

- Non-native Grassland
- Riversidean Alluvial Fan Sage Scrub
- Upland Riversidean Sage Scrub
- Developed/Ruderal
- Southern Riparian Scrub
- Wetland of Non-native Grasses

SOURCE: ESRI World Imagery, 2010.

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FIGURE 5

Rancho San Gorgonio
Planned Commmunity Project
MSHCP and DBESP Report

Proposed Avoidance Areas for
Existing Biological Resources Map

4.4.1 Riversidean Alluvial Fan Sage Scrub

Major drainages include Smith Creek, Montgomery Creek, and Pershing Creek. These major drainages consist primarily of Riversidean alluvial fan sage scrub. This community occupies coarse alluvial soils of washes and gently sloping alluvial fans, where it is usually indicated by the presence of scalebroom (*Lepidosartum squamatum*) or by a mixture of species typical of Riversidean sage scrub, such as California buckwheat (*Eriogonum fasciculatum*) or white sage (*Salvia apiana*), together with evergreen species that are more typical of chaparral, such as lemonade berry (*Rhus integrifolia*), sugar bush (*Rhus ovata*), hollyleaf cherry (*Prunus ilicifolia*), redberry buckthorn (*Rhamnus crocea*), birchleaf mountain mahogany (*Cercocarpus betuloides*), chaparral yucca (*Yucca whipplei*), and California juniper (*Juniperus californica*).

On the project site, this community occurs throughout the three major washes, where it is typically dominated by scalebroom or by California buckwheat with scalebroom as a subdominant. Scattered trees in these areas include Fremont cottonwood (*Populus deltoides* ssp. *fremontii*), athel (*Tamarix aphylla*), eucalyptus (*Eucalyptus* sp.), palo verde (*Parkinsonia aculeata*), locust (*Robinia pseudoacacia*), tree of heaven, elderberry (*Sambucus nigra* ssp. *cerulean*), and coast live oak (*Quercus agrifolia*).

4.4.2 Riparian Scrub

This community includes riparian areas dominated by shrubby willows, mule fat, or often by related baccharis species (*Baccharis* sp.). There is riparian scrub at the eastern site boundary in the Fourth Street Channel. The vegetation in these areas consists of a mixture of shrubby willows, mule fat, ornamental trees, and non-native herbs and shrubs. These areas are narrow, have a sparse understory, and are isolated in an upland habitat area.

The majority of the vegetation in the South Fourth Street Channel is black locust (*Robina psuedoacacia*) with other upland vegetation. No riparian forest or woodland exists on the site. There is riparian scrub in the lowest 100 feet of the South Fourth Street Channel, which flows parallel to the high school property. The vegetation in this lower 100-foot area (0.1 acre) consists of a mixture of shrubby willows (*Salix* spp.), mule fat (*Baccharis salicifolia*), ornamental trees, and non-native herbs and shrubs. The areas with willows have only a sparse understory, and the habitat is not suitable for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo (*Coccyzus americanus*) due to the lack of extensive riparian habitat.

4.4.3 Hydrophytic Grasses

In heavily grazed areas, wetlands are often dominated by perennial, facultatively hydrophytic grasses, such as Bermuda grass (*Cynodon dactylon*), together with other native and non-native herbaceous species that are tolerant of saturated soils. There is a small wetland area (0.2 acre) of hydrophytic grasses in the northwest corner of the site supported by city street (Woodland Avenue) storm drain discharge. Dominant species in this area include Bermuda grass, barnyard grass (*Echinochloa crus-galli*), annual rabbitsfoot grass (*Polypogon monspeliensis*), and tall flatsedge (*Cyperus eragrostis*).

4.4.4 Ephemeral Stream with Upland Vegetation

Ephemeral drainages that receive too little water to support hydrophytic species are typically barren of vegetation or dominated by the same plant species that occur in adjacent upland areas. Vegetation of the ephemeral channels in the project site is similar to that of the surrounding upland plant community, consisting primarily of non-native annual grasses with scattered clusters of California buckwheat and tree tobacco. Previously referenced Figure 5 depicts the location of the streams within the project site.

4.4.5 Ephemeral Pools

There are no vernal pools. Potential fairy shrimp habitat consists of several ephemeral ponding areas and puddles due to roads, compaction, and grading in the fields. Previously referenced Figure 5 depicts the total potential fairy shrimp habitat is in shallow puddles and road ruts. Refer also to Figure 2 of the fairy shrimp survey report dated June 17 and September 18, 2013 and provided in Appendix D.

4.5 TOPOGRAPHY AND HYDROLOGY

The site elevation ranges from approximately 2,200–2,420 feet above mean sea level. The topography is fairly level with low, rolling hills. The rolling hills and high terraces within the upland areas are split by the deeply incised Montgomery Creek and an unnamed tributary, both of which are tributaries to a larger drainage identified as Smith Creek. The channel depths vary from 1 to 20 feet.

The project site is located in Whitewater Hydrologic Unit/San Gorgonio Hydrologic Area/Banning Hydrologic Subarea (719.31). Four identified drainage courses cross through or are adjacent to the project site: Smith Creek, Pershing Creek, Montgomery Creek, and South Fourth Street Channel. The creeks within the project area flow into the Coachella Planning Area of the California Regional Water Quality Control Board Region 7-Colorado River Basin (Regional Water Quality Control Board [RWQCB] 2006). Region 7 covers 13 million acres in Riverside, San Bernardino, San Diego, and Imperial Counties and only a small portion of the total Colorado River drainage area.

The creeks within the project site are tributary to desert rivers/washes that ultimately drain into the Salton Sea. The surface runoff and precipitation during severe storm events discharge into Smith Creek, to San Gorgonio River, to Whitewater River and, ultimately, into the Salton Sea. The Salton Sea is a "water of the United States" due to interstate and international commerce, and the "sea" is subject to ebbs and flows with the tides in the Gulf of California *(Colvin* v. *United States,* 181 F. Supp. 2d 1050 [C.D. Cal. 2001]). South Fourth Street Channel receives continuous discharges of nuisance flows from the municipal storm drain system, although flows are minimal and percolate into the ground prior to reaching the larger creeks.

The three larger creeks (Pershing, Smith, and Montgomery Creeks) in the project site had substantial flows during the brief intense storm event on August 13, 2012. The Fourth Street and the South Woodland Avenue drainages receive continuous discharges of nuisance flows from the municipal storm drain system although the flows are minimal and percolate into the ground prior to reaching the larger creeks.

Erosional features and agricultural ditches along the base of the dryland farming terraces also occur in the project site without contiguity of flow into the creeks under the current hydrologic conditions and flow patterns. These features are shown in previously referenced Figure 5. Smaller ephemeral features are hillside gullies and erosion rills that end in the pasture/fields when the slope flattens. There are also large inactive floodplain oxbows, terraces, and gullies that did not have any flows during the recent storm event. Other non-jurisdictional features in the project site are the agricultural ditches and berms constructed to build the dryland farming terraces.

4.6 SOILS

The project site is underlain by Holocene and Pleistocene Age alluvial soils except for a small hill in the southeast portion of the property that is composed of granitic and metamorphic bedrock. Soils mapped on the surface include Greenfield, Monserate, and Ramona sandy loams; Hanford coarse sandy loam and cobbly coarse sandy loam; Cieneba rocky sandy loam; Friant rocky fine sandy loam; Tujunga loamy sand; riverwash; rockland; and terrace escarpments. Soils observed on the site are generally consistent with these designations. Figure 6 shows the soils as mapped in the *Soil Survey for Western Riverside Area, California* (Knecht 1971 and SSURGO/Soil Data Mart 2003). All of these soils are non-hydric soils per the Natural Resources Conservation Service (NRCS) National Hydric Soils List.

The soil types within the channels as mapped by the NRCS are sandy loams for a range of soil series, such as Cieneba, Greenfield, Hanford, Monserate, Ramona, and Tujunga. All of these soils are non-hydric soils per the NRCS National Hydric Soils List.

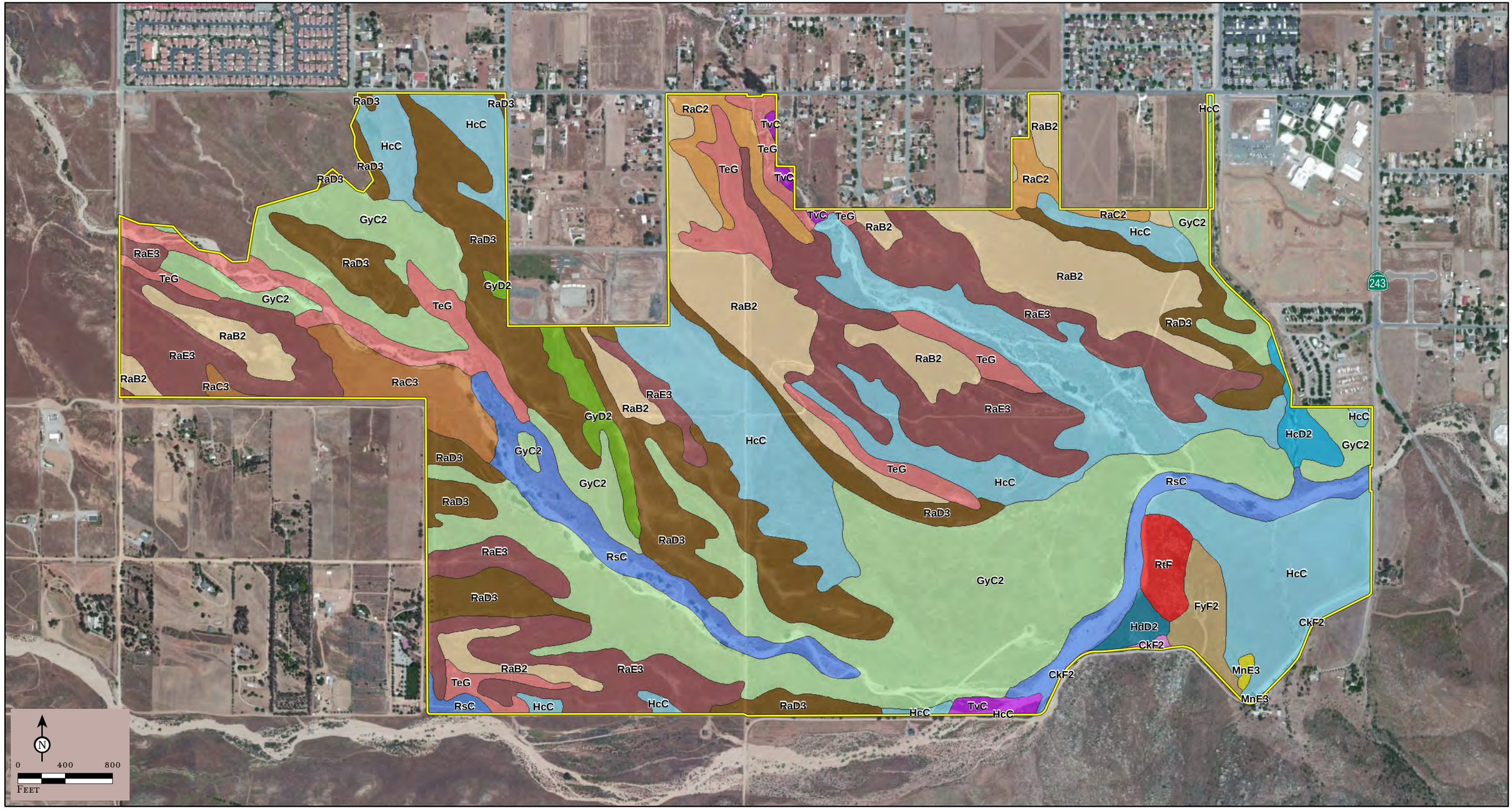
4.7 WILDLIFE MOVEMENT AND CROSSINGS

According to Section 3.0 of the MSHCP, the MSHCP Conservation Area consists of a variety of existing and proposed Cores, Extensions of Existing Cores, Linkages, Constrained Linkages, and Non-continuous Habitat Blocks. However, the project area is not located within the defined boundaries of any of these subunits. Nevertheless, in The Pass MSHCP Planning Area, a Special Linkage Area will contribute to assembly of a portion of the San Gorgonio River/San Bernardino-San Jacinto Mountains Linkage roughly mapped and described in *Missing Linkages: Restoring Connectivity to the California Landscape* (K. Penrod, November 2, 2000). The Special Linkage Criteria Cells are along Smith Creek and San Gorgonio Creek, a few miles due east of the project. The project is in an area devoid of MSHCP Criteria Cells in the MSHCP Pass Planning Area and the MSHCP Special Linkage Area. Refer to Figure 7 for a map of the MSHCP Criteria Cells and the Special Linkage Area in the Pass Planning Area.

4.8 MSHCP HABITAT SUITABILITY ASSESSMENTS AND FOCUSED SPECIES SURVEYS

4.8.1 Riparian Birds

Section 6.1.1 requires an HSA to determine whether habitat for specified riparian birds may be affected by the proposed project. LSA performed an HSA in potential riparian/riverine areas on the project site. There is no riparian or riverine area that meets the MSHCP definition on the site but



LSA

Project Boundary

Soil Types

CkF2: Cieneba rocky sandy loam, 15-50% slopes, eroded

FyF2: Friant rocky fine sandy loam, 25-50%t slopes, eroded

GyC2: Greenfield sandy loam, 2-8% slopes, eroded

GyD2: Greenfield sandy loam, 8-15% slopes, eroded

HcC: Hanford coarse sandy loam, 2-8% slopes

HcD2: Hanford coarse sandy loam, 8-15% slopes, eroded

HdD2: Hanford cobbly coarse sandy loam, 2-15% slopes, eroded

MnE3: Monserate sandy loam, shallow, 15-25% slopes, severely eroded

RaB2: Ramona sandy loam, 2-5% slopes, eroded

RaC2: Ramona sandy loam, 5-8% slopes, eroded

RaC3: Ramona sandy loam, 5-8% slopes, severely eroded

RaD3: Ramona sandy loam, 8-15% slopes, severely eroded

RaE3: Ramona sandy loam, 15-25% slopes, severely eroded

RsC: Riverwash

RtF: Rockland

TeG: Terrace escarpments

TvC: Tujunga loamy sand, channeled, 0-8% slopes

FIGURE 6

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

Soils Map

SOURCE: Bing Imagery, 2010; SSURGO/Soil Data Mart, 2003.

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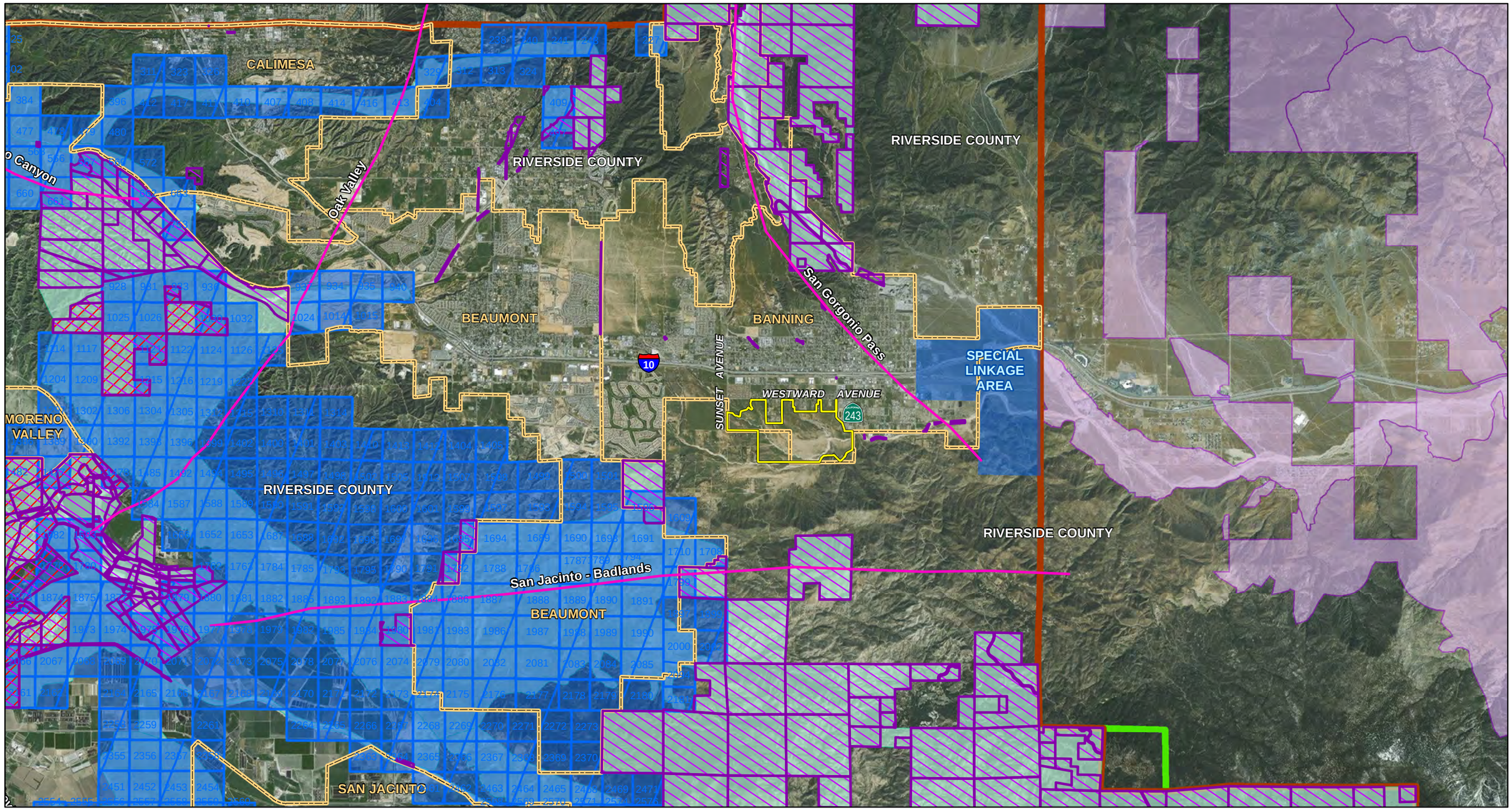

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Project Boundary
City Limits
Criteria Areas
Criteria Cells
Core Linkage
CV MSHCP Conservation Area Boundaries
PQP Conserved Lands 2011
SKR Reserve
Missing Linkages in California Landscape
MSHCP Boundary
CV MSHCP Boundary

FIGURE 7

Rancho San Gorgonio
Planned Community Project
MSHCP and DBESP Report

Wildlife Corridors

SOURCE: ESRI World Imagery, 2010, County of Riverside, 2005 and 2013; www.SCWildlands.org.
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0.1 acre of mule fat scrub occurs at the east end in Fourth Street Channel (see previously referenced Figure 4), which are narrow and isolated from other suitable riparian stands. The areas with willows have only a sparse understory, and the habitat is not suitable for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Due to the lack of riparian/riverine habitat suitable for these bird species within the project site, the MSHCP does not require focused riparian bird surveys and they were not conducted.

4.8.2 Fairy Shrimp

There are no features on the site that meet the MSHCP definition of vernal pools. In order to be considered a vernal pool under the MSHCP, a feature must be a wetland (based on the presence of hydrophytic vegetation, hydric soil, and wetland hydrology). The feature must also have a natural origin. Although there are several depressions on the site that pond water; none meets wetland criteria and all are artificial in nature. These features are barren or dominated by upland species typical of disturbed and sparsely vegetated areas. These dominant species include soft chess (*Bromus hordeaceus*), tumbling pigweed (*Amaranthus albus*), dove weed (*Croton setigerus*), vinegar weed (*Trichostema lanceolatum*), and common knotweed (*Polygonum aviculare*). Other species frequently found in these features include shortpod mustard (*Hirschfeldia incana*) and an annual plantain (cf. *Plantago erecta*).

The only wetland site in the project site is where nuisance flows from Woodland Avenue sheet flow into the pasture, inducing a wetland consisting mostly of non-native hydrophytic grasses (previously referenced Figure 5). This is an artificially induced wetland caused by the street drain outlet. The total wetland area is 0.2 acre in the project site.

Most of these features are large potholes in dirt roads that pond water because of soil compaction. Others are topographical low areas resulting from the construction of berms along natural slopes. The remainder appears to be soil-borrow areas for berms or perhaps stock ponds. Features fitting the latter description (e.g., the cluster of features about 800 feet east of Sunset Avenue in Figure 5) are known from a 2006 survey by BonTerra to be inhabited by a species of the genus *Streptocaphalus*, which may be the federally endangered Riverside fairy shrimp, or it may be a non-listed species more typical of desert habitats.

Although the project site does not contain wetlands meeting the MSHCP definition, a 2012–2013 wet season survey was conducted for Riverside fairy shrimp (*Streptocephalus woottoni*) and vernal pool fairy shrimp (*Branchinecta lynchi*) by LSA Senior Biologist Stanley Spencer under LSA Federal 10(a)(1)(A) Permit TE-777965 and in accordance with the April 19, 1996, *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods*. Site checks were made on November 15, 16, and 28; December 10 and 21, 2012; January 4, 14, and 18; February 1, 13, 22, 26, and 28; March 4, 14, 16, 25, and 28; April 3, 12, and 26; and May 15, 2013, to determine if water was present in ponding features following storm events. Ponded features were sampled at required intervals until they had dried and remained dry.

The only fairy shrimp species observed during the wet season survey was *Branchinecta lindahli*, a non-sensitive species, which was found in Features 1, 2, 4, 5, and 7 as shown on in the fairy shrimp report, provided in Appendix D. Other aquatic animals observed included water boatman (Corixidae;

in Features 1 and 4), backswimmer (Notonectidae, in Feature 1), seed shrimp (Ostracoda, in features 1 and 11), and western spadefoot larvae (*Spea hammondii*, in Feature 1).

The only fairy shrimp species observed during the wet season survey was *Branchinecta lindahli*, a non-sensitive species, which was found in Features 1, 2, 4, 5, and 7. Other aquatic animals observed included water boatman (*Corixidae*; in Features 1 and 4), backswimmer (*Notonectidae*, in Feature 1), seed shrimp (*Ostracoda*, in features 1 and 11), and western spadefoot larvae (*Spea hammondii*, in Feature 1).

A 2012–2013 dry season survey was conducted by David Muth and Stanley Spencer found *Branchinecta* eggs of two types. The more common form in the samples is typical of versatile fairy shrimp, a common species that has been previously documented on the site. The other form, if not a variation in versatile fairy shrimp egg form, is typical of alkali fairy shrimp, another common species. Given the project location, the habitat conditions, and the sizes of the eggs analyzed, the *Streptocephalus* eggs collected from the project site are most likely those of New Mexico fairy shrimp (*Streptocephalus dorothae*). This species has been previously reported from within a mile of the project site. Riverside fairy shrimp, a listed species, produces larger eggs, occurs in deeper pools, and is not known to occur as far east as the San Gorgonio Pass area.

4.8.3 Narrow Endemic Plants

No suitable soils, growing conditions, or narrow endemic plants were observed. The project site is within MSHCP Survey Area 8 of the NEPSSA but is not within a Criteria Area Species Survey Area (CASSA) for plant species. MSHCP Section 6.1.2 requires that an HSA be conducted for all proposed developments within NEPSSAs. An HSA was conducted during site visits on August 21, 2012, and January 2013, to determine the habitat suitability for the two narrow endemic plants identified for Survey Area 8: Yucaipa onion and many-stemmed dudleya. Suitable soils and/or habitat conditions for the two target species do not occur on site (Table D); therefore, focused surveys are not required under the MSHCP.

Table D: MSHCP Narrow Endemic and Plant Survey Species

Species	MSHCP Habitat	Blooming Period	Habitat Suitability
Yucaipa onion *Allium marvinii*	Clay soils in openings in chaparral at 2,500–3,500 feet elevation.	Perennial bulb April–May	**None.** No clay soils or chaparral on the site. Site is outside expected elevational range of species.
Many-stemmed dudleya *Dudleya multicaulis*	Clay soils in open areas of barrens, rocky places, ridgelines, chaparral, coastal sage scrub, and southern needlegrass grasslands. Visible population size varies considerably year-to-year depending on rainfall patterns. The MSHCP account for this species states that it "is associated with openings in chaparral, coastal sage scrub, and grasslands underlain by clay and cobbly clay soils of the following series: Altamont, Auld, Bosanko, Claypit, and Porterville."	Perennial May–June	**None.** No clay or heavy soils on site.

4.8.4 Burrowing Owl

Section 6.3.2 of the MSHCP requires focused burrowing owl surveys. LSA conducted focused burrowing owl surveys in accordance with MSHCP Burrowing Owl Survey Guidelines (MSHCP October 2005) in August 2012 and January 2013. Dates, times and weather conditions of surveys are included in previously referenced Table B. Refer to Figure 5 for map of burrowing owl locations in 2013.

The non-native grassland in the project area is considered suitable for burrowing owls nesting and foraging as a result of the historic and current use of the grasslands for cattle grazing and agriculture. A total of 11 burrowing owls were observed during the burrow survey. Several active burrows with burrowing owl sign (e.g., whitewash, pellets, scat, tracks, and/or feathers) were observed within the project site.

4.8.5 Los Angeles Pocket Mouse

The project site is within the MSHCP mammal survey area for Los Angeles pocket mouse. According to the MSHCP, this species appears to be limited to sparsely vegetated habitat areas in patches of fine sandy soils associated with washes or of windblown origin, such as dunes. This species has been reported to occur in the major washes in the project vicinity. Therefore, Pershing, Montgomery, and Smith Creeks were assumed to be occupied, and no additional trapping was conducted in these areas for this project. An HSA and three trapping sessions were conducted in other areas of the project site in August and September 2012, as described in Section 4.2.

Los Angeles pocket mouse was found in the upland areas and in the smaller tributaries within the MSHCP LAPM survey area, as discussed in the focused survey letter report dated September 12, 2012 and provided in Appendix D. The entire MSHCP designated survey area (including Pershing, Montgomery, and Smith Creeks) is likely occupied suitable habitat with long-term conservation value. The MSHCP small mammal survey area consists of a total of 480.4 acres and is shown in previously referenced Figure 3. Vegetation communities within the MSHCP small mammal survey area are grassland (393.6 acres), alluvial fan sage scrub (63.5 acres), riparian scrub (0.06 acre), and coastal sage scrub (22.5 acres) within the survey area.

There were 10 Los Angeles pocket mouse captures at 8 locations: near the edge of the wash in the southwestern portion of the site, next to a low spot dropping into the wash in the west-central portion of the site, and on three traplines in the southeastern portion of the site. Previously referenced Figure 5 shows the LAPM capture locations.

Of the latter, the western location is in sparse scrubby habitat transitional between the wash and the grassy uplands, the central location is on a rocky hill with sandy soils and coastal sage scrub, and the eastern location is in a field along a small wash tributary to the main wash. This species was not captured in grasslands or coastal sage scrub adjacent to the higher banks of deeply eroded portions of the major washes. Los Angeles pocket mouse is therefore assumed to be present on the site within the three larger washes and their tributaries, in grasslands adjacent to these washes where there is not a high bank impeding movement between the wash and grassland, and on the hill and throughout the field in the southeast portion of the site.

5.0 MSHCP CONSISTENCY AND DBESP ANALYSIS

5.1 SECTION 6.1.2-RIPARIAN, RIVERINE, FAIRY SHRIMP AND VERNAL POOL RESOURCES

5.1.1 Direct Effects

The vegetation and plant communities in the creeks, smaller tributaries, and agricultural drainages are upland grasses and scrub. The dominant plant community is Riversidean alluvial fan sage scrub since there is scattered scalebroom amongst the California buckwheat and California sagebrush within the active channels of Smith, Pershing, and Montgomery Creeks. The terminal reach of Fourth Street storm drain channel is occupied by willows, elderberry, and mule fat, even though the majority of the channel is covered by upland non-native trees, such as black locust and tree of heaven.

Direct permanent impacts will include fill for building pads, bank stabilization, culvert installation, and road crossings in riparian and riverine areas (32.6 acres) with the additional associated vegetation communities and seasonal puddles within the project study area as listed in Table E. The ephemeral drainages in the rangeland are the majority of the impacts at a total of 3.5 acres. Partial fill of Fourth Street Channel will contribute 1.5 acres of impacts and partial fill into Pershing Creek will be 1.0 acre to jurisdictional waters, not vegetative communities. The remaining 26.6 acres of direct impacts is the placement of fill into Montgomery Creek.

Table E: Proposed Project Impacts

General Habitat	Location	Total Acres	Avoided/ Conserved	Impacts
Riparian and Riverine (not limited to CDFW Jurisdiction)				
Non-native grassland	pasture and fields	4.1	0.6	3.5
Riversidean alluvial fan sage scrub	ephemeral/intermittent streams	82.6	55.8	26.8
Upland Riversidean sage scrub	upper terraces of stream channels	0.6	0.3	0.3
Southern riparian scrub	Fourth Street Channel	0.06	0	0.06
Wetland with non-native grasses	pasture	0.2	0	0.2
Seasonally ephemeral pools and puddles in grassland	graded hill top and road puddles	0.2	0	0.2
Subtotal		***87.7***	***56.7***	***31.0***
Upland				
Non-native grassland	pasture and fields	696.7	44.7	652
Upland Riversidean sage scrub	pasture and hillsides	44.0	17.2	26.8
Developed/Roads/Utilities	roads and utilities (no mitigation required)	2.6	0.8	1.8
Subtotal		***743.3***	***62.7***	***680.6***
TOTAL		**831**	**119.4**	**711.6**

The isolated 0.06 acre patch of mule fat scrub is located where the South Fourth Street Channel empties into Smith Creek. This channel bed and banks are covered with non-native herbs and shrubs with only a sparse understory amongst black locust. Cottonwood and willow trees occur half mile downstream beyond SR-243 Bridge and the Fourth Street channel is concrete-lined above Westward Avenue. There is not suitable riparian scrub and forest habitat or the necessary aquatic resources for foraging within the project area. Least Bell's vireo is unlikely to nest on the project site. There is no suitable southwestern willow flycatcher, or western yellow-billed cuckoo habitat on the project site.

All of the seasonally ponded areas and road puddles (0.2 acre) in the dirt roads will be affected. No listed fairy shrimp or plants were found to be present. The USFWS found the fairy shrimp focused surveys to be adequate determination of the absence of listed fairy shrimp, specifically New Mexico fairy shrimp (*Streptocephalus dorothae*), and provided concurrence in email written by Karin Cleary-Rose on February 18, 2014. No on-site or land mitigation is required. Consistency will be met through participation in the MSHCP as implemented by the City of Banning (MSHCP Section 6.1.1, Banning Municipal Code 12.52.080 - Local development mitigation fee).

Proposed on-site impacts are depicted in Figure 8 and summarized in previously referenced Table E. A total of 711.6 acres of the site will be developed and 119.4 acres will be placed in conservation. The largest impact to natural vegetation will be to 652 acres of upland non-native grassland (pasture, rangeland, and cropland).

5.1.2 Indirect Effects

Indirect effects to the avoided habitat on site and to downstream waters (San Gorgonio River and Whitewater River) include reducing groundwater recharge due to increased impervious surfaces; increasing transport of sediment downstream from increased velocity and volume of storm water; reduced filtering and on-site percolation, pollution from the proposed commercial and residential land development; restricted or eliminated wildlife movement corridors; and decrease in plant community diversity in the upland areas.

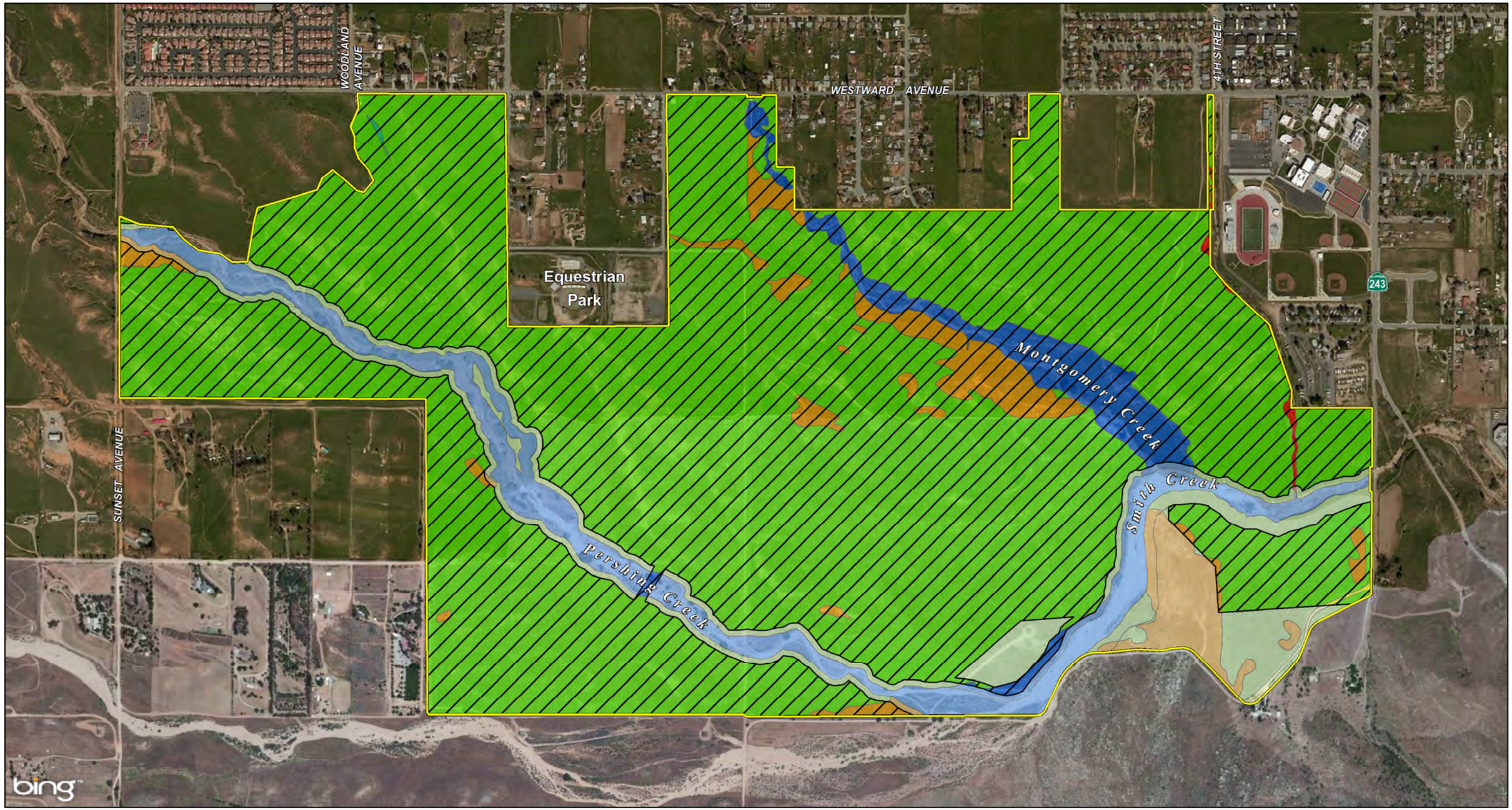
5.1.3 Impacts to Functions and Values for Species Associated with Riparian/Riverine Features

No impacts to potential least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo suitable habitat will occur since the riparian vegetation (mule fat scrub) present on site is not adequate foraging or nesting.

5.1.4 Avoidance Alternatives

Impacts to Smith and Pershing Creeks have been avoided by not filling the channels. The cliff, banks, and slopes require stabilization with landscaping and hardscape for the safety of the community. Other project alternatives considered and not chosen were the following:

- **Montgomery Creek as Closed Pipe.** Avoiding impacts to Montgomery Creek would reduce the total developable area contiguous with the existing infrastructure and existing urban development adjacent to the northern portion of the project site along Westward Avenue. Open space planning



LSA

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Project Boundary

Project Footprint (748.03 Ac)

Footprint

- Non-native Grassland
- Riversidean Alluvial Fan Sage Scrub
- Upland Riversidean Sage Scrub
- Developed/Ruderal
- Southern Riparian Scrub
- Wetland of Non-native Grasses

Outside of Footprint

- Non-native Grassland
- Riversidean Alluvial Fan Sage Scrub
- Upland Riversidean Sage Scrub
- Developed/Ruderal
- Southern Riparian Scrub

FIGURE 8

Rancho San Gorgonio
Planned Commmunity Project
MSHCP and DBESP Report

Project Footprint

SOURCE: Bing Imagery, 2010.

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considerations prioritized the preservation of resources along the southern portion of the project site such as Smith and Pershing Creeks and PA 17 open space due to connectivity to off-site biological resources, ability to provide for safe wildlife movement, and separation from urban interface along the project's northern boundary. For this reason, retaining Montgomery Creek as natural stream or earthen channel is infeasible.

- **Montgomery Creek as Earthen Channel.** Minimizing impacts to Montgomery Creek by creating an earthen bottom channel would reduce impacts to waters, provide an area for native vegetation to establish, provide water quality benefits, and still maintain the land plan objective of placing developed areas adjacent to the existing urban interface. Figure 9 provides an illustration of a conceptual channel.
- **No Road Crossing Across Pershing Creek.** No impacts to Pershing Creek were considered with alternative access to the land south of creek, but a road was necessary for emergency access and contiguity of the project.
- **Avoiding Minor Upland Ephemeral Streams and Drainages.** The accumulated impacts to these tributaries are not a large enough quantity—less than one acre—due to narrow and linear nature of the natural and artificial drainage features, to justify avoiding these low-value drainage features.

5.1.5 Unavoidable Impacts

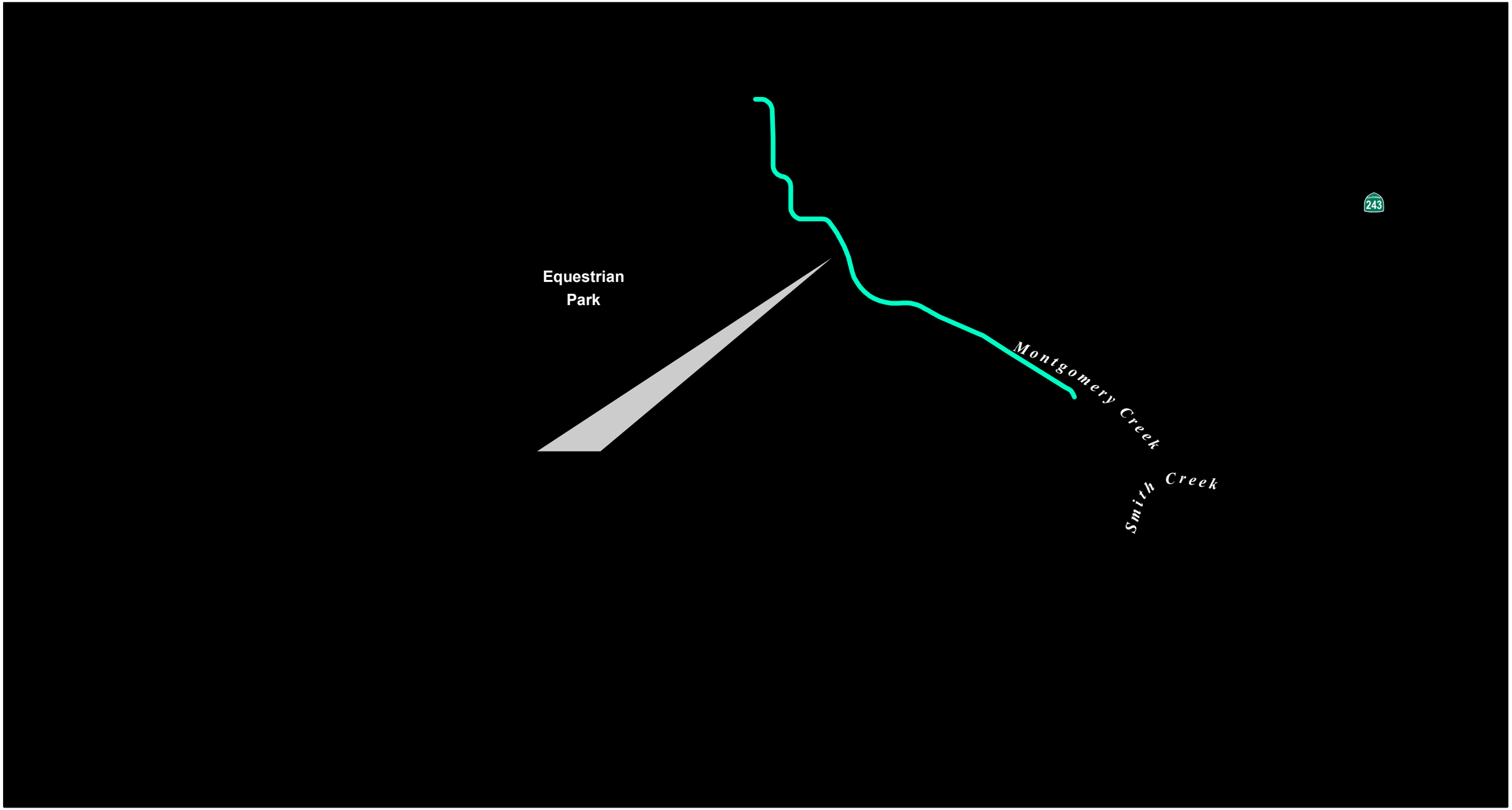
Pershing Creek Bridge. Unavoidable impacts involve the improvements to the road crossings of Pershing Creek. Fill for bridge abutments and footings will be required. Sunset Avenue will be raised with large box culvert or spanning bridge to ensure sand transport downstream. The Pershing Creek "B" Street crossing will also be a large opening or spanning bridge.

Filling and Undergrounding Montgomery Creek. Montgomery Creek will be filled in order to create a residential community within the remaining vacant parcels south of Westward Avenue. The total area of riparian and riverine habitat associated with Montgomery Creek is 16.6 acres. An open channel design is proposed as a project alternative. An earthen-bottom channel would be built within the storm drain easement. An illustration of the proposed channel is provided as Figure 9. This would avoid at least one acre of fill into waters of the U.S. and streambeds.

5.1.6 Rationale for Avoidance Infeasibility

Pershing Creek Bridge. The creek crossing is necessary to provide access to the land south of the creek, for community cohesiveness and for emergency services access. The total impacts to the creek associated with the proposed spanning bridge are estimated to be less than 1 acre.

Filling and Undergrounding Montgomery Creek. Reducing numerous lots or entire planning areas in the Specific Plan would create gaps in developable land adjacent to existing road access and built-out residential areas, which would greatly limit the accessibility to the remainder of the project area and function of the entire community plan. The use of an open channel within the proposed storm drain easement will reduce some land availability and require construction of one or two road crossings.



LSA

LEGEND

Montgomery Creek - Alternative Section

0 400 800

FEET

SOURCE: Rancho San Gorgonio Master Plan of Drainage, February 6, 2015.

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FIGURE 9

Rancho San Gorgonio
Planned Community Project
Determination of Biologically Equivalent or Superior Preservation

Montgomery Creek - Alternative Section

5.1.7 MSHCP Consistency for Impacts to Riparian/Riverine/Vernal Pools Habitat

The project will not affect vegetation communities associated species associated with riparian, riverine, aquatic, or vernal pools as described in Section 6.1.2 of the MSHCP. MSHCP guidelines do not require determination of equivalent or superior preservation and mitigation for impacts.

Specific mitigation details will be determined through this process and through the permitting process with USACE and CDFW. Avoidance, minimization, and/or mitigation measures identified in the Determination of Biologically Equivalent or Superior Preservation Report (DBESP) will ensure that, for riparian/riverine areas, the project will be biologically equivalent or superior to that which would occur under an avoidance alternative without these measures. The project will enhance and create alluvial fan sage scrub/riparian/riverine habitat associated with Pershing and Smith Creeks using the increased surface runoff from the developed areas expected to be received via the storm drain outlets into Smith and Pershing Creeks. Refer to Figure 10 for potential areas for riparian enhancement and creation in the avoided areas.

5.2 IMPACTS TO SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AND FAIRY SHRIMP HABITAT

5.2.1 Impacts to Riparian Birds

There is no open water to support bald eagles (*Haliaeetus leucocephalus*). Riparian vegetation on the site is not suitable for least Bell's vireo, Southwestern willow flycatcher, or Western yellow-billed cuckoo, nor does it provide habitat for peregrine falcon (*Falco peregrinus*). No direct impacts will occur to riparian birds. Indirect impacts would be loss of regional movement through the Pershing and Montgomery Creeks and development edge effects to riparian vegetation in Smith Creek located adjacent to the southern project boundary.

MSHCP Consistency Determination for Riparian Birds. No direct impacts will occur to habitat for listed riparian bird species of concern per MSHCP guidelines in Section 6.1.2. Nevertheless, there may be opportunity in locations where feasible to plant riparian vegetation for increasing density and diversity of the riverine habitat in Pershing Creek.

5.2.2 Impacts to Fairy Shrimp

A few of the depressions on the project site supported hatching of fairy shrimp over the 2012–2013 rainy season. A non-sensitive species, Lindahl's fairy shrimp (*Brachinecta lindahli*), was identified in Pools 1, 2, 3, 4, and 5 during the LSA wet season survey. During the LSA dry season focused survey, *Streptocephalus* cysts were observed in Puddles 2, 3, 4, 5, 6, 9, and 15. The *Branchinecta* cysts were found in Pools 1 through 7 and 9 and 15 during the LSA dry season survey. The pools provide suitable soil and hydrologic conditions to provide habitat for reproduction for the non-listed fairy shrimp species occurring on the project site.

MSHCP Consistency Determination for Fairy Shrimp. The pool conditions were found not to be suitable for listed fairy shrimp species and/or not within the species distribution range. The project is

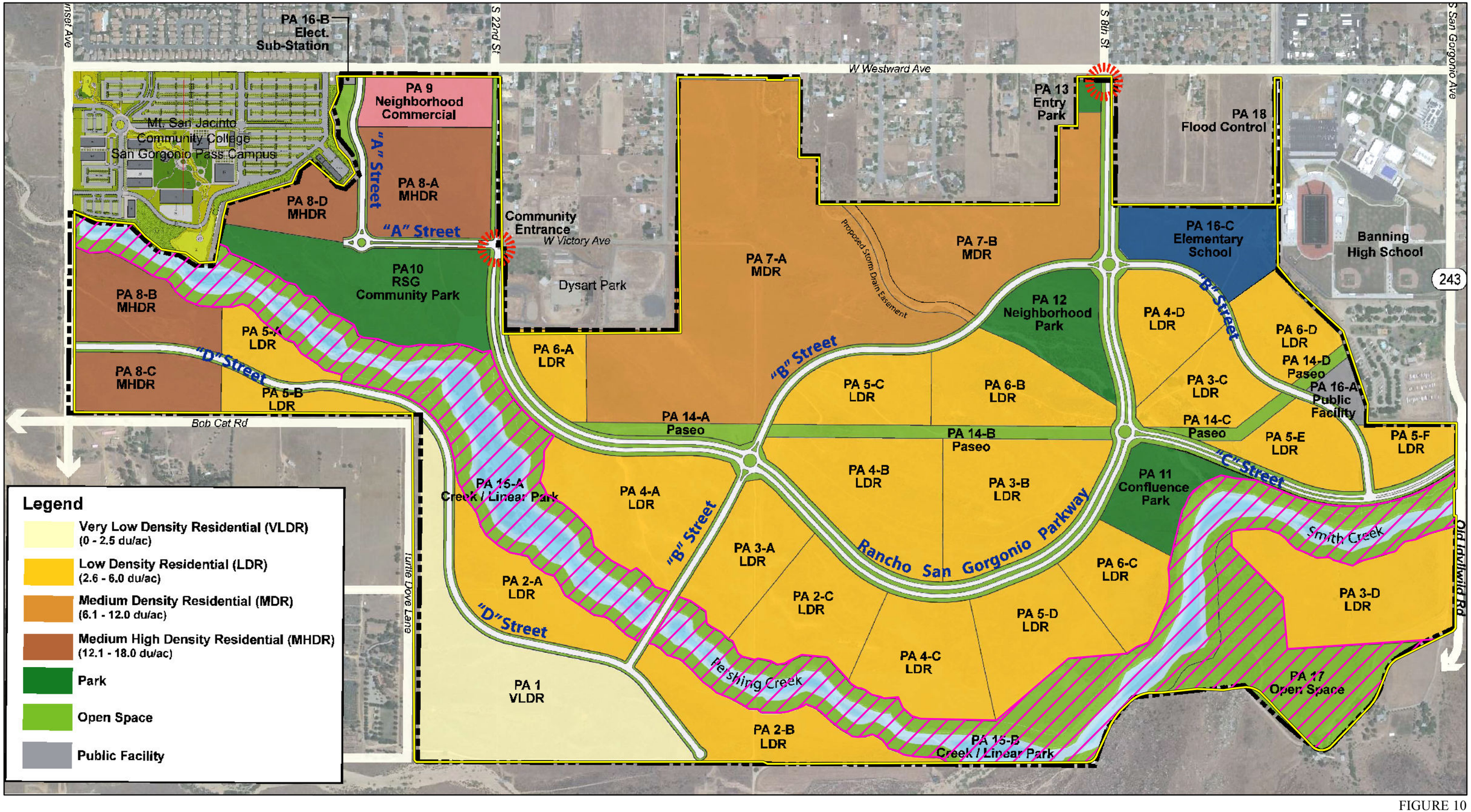

FIGURE 10

0 350 700

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SOURCE: Rancho San Gorgonio Specific Plan, 2015

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Rancho San Gorgonio
Planned Community Project
Determination of Biologically Equivalent or Superior Preservation

Avoidance/Mitigation Areas

consistent with the MSHCP, the pools will not be avoided, and mitigation is not required per MSHCP species guidelines.

5.2.3 Fish (Santa Ana Sucker)

The project site's lack of open water precludes the presence of Santa Ana sucker (*Catostomus santaanae*).

5.2.4 Amphibians (Arroyo Toad, Mountain Yellow-Legged Frog, and California Red-Legged Frog)

The project's riparian/riverine areas do not support adequate aquatic resources (i.e., headwater areas with persistent water from March to mid-June necessary for reproduction) to provide habitat for arroyo toad (*Anaxyrus californicus*), mountain yellow-legged frog (*Rana muscosa*), and California red-legged frog (*Rana aurora draytonii*).

5.3 SECTION 6.1.3 COMPLIANCE: NARROW ENDEMIC PLANT SPECIES SURVEY AREA

5.3.1 Impacts to NEPSSA Plants

Although there are depressions on the site that pond water, they are highly disturbed and barren or are dominated by species typical of disturbed, upland areas. Due to the dominance by upland species and the highly disturbed and artificial nature of these features, the probability that they are occupied by vernal pool species such as California Orcutt grass, Orcutt's brodiaea, Parish's meadow foam, spreading navarretia, thread-leaved brodiaea, or vernal barley is very low. Vernal pool plant associations were not observed in the project area. Habitat suitability assessments (HSA) for NEPSSA species: Yucaipa onion and many-stemmed dudleya determined suitable soils and/or habitat conditions for the two target NEPSSA species do not occur on site.

MSHCP Consistency Determination for NEPSSA Plants. No mitigation is required for narrow endemic plants in the MSHCP survey area.

5.4 SECTION 6.3.2 COMPLIANCE: MSHCP SURVEY SPECIES

5.4.1 Impacts to Burrowing Owl

The burrowing owls and active burrows were found in the small valleys and rolling hills between Pershing and Montgomery Creeks. All of the grassland habitat will be affected by development of the proposed project as listed in previously referenced Table E. Avoiding the occupied burrowing owl habitat located within the center of the project area is not feasible. There are at least 23 suitable burrowing owl burrows located in the grassland and agricultural fields over the entire project area. Indirect effects of the project would be loss of foraging, juvenile dispersal areas, and wintering grounds. The project area is one of the areas of expansive open space within the City of Banning. This project will nearly complete the build-out of the southern portion of the City.

DBESP for Burrowing Owl. Objective 5.2 of the MHSCP Table 9-2 Species Conservation Objectives for burrowing owl states that for sites that have three or more pairs of burrowing owls, have more than 35 acre of suitable habitat, not within Criteria Cell, and are non-contiguous with MSHCP Conservation Area lands, then at least 90 percent of the area with long-term conservation value and burrowing owl pairs be conserved on site until Burrowing Owl Conservation Objectives 1 through 4, as identified in Table 9-2 of the MSHCP, have been met.

Project Design Features and Mitigation Measures for Burrowing Owl. The following measures will mitigate project-related impacts to burrowing owl:

1. To comply with the MSHCP 30-day Pre-construction Burrowing Owl Survey Guidelines (revised August 17, 2006), a pre-construction survey will be required for the burrowing owl within 30 days prior to start of grading/construction activities. Any owls or active burrows found during the survey will be either be avoided with temporary adequate nesting buffer or relocated with CDFW authorization.
2. Proposed mitigation for the burrowing owl is presence-absence survey within 120 days prior to ground disturbance to determine if relocation is necessary.
3. If owls have continued to occupy the project study area, then the following mitigation options will be negotiated with the RCA and Wildlife Agencies.
    - A burrowing owl relocation plan will be developed in cooperation with CDFW and RCA. The owls will be relocated to an MSHCP Core Area or other public/quasi-public land protected and managed for the conservation of the species. Costs for the management associated with translocation, tracking to establish a new breeding pairs, and for monitoring shall be discussed between the Applicant and the Agencies.
    - Additionally, the applicant may consider contributing funds to an existing RCA land purchase or for the management of LAPM and burrowing owl, thus providing equivalent preservation of habitat for both species.
    - The riparian/riverine habitat mitigation may also be complementary mitigation to serve the habitat needs for the LAPM and burrowing owl through the CWA Section 404 and California Fish and Game Code Section 1602 permit process.

5.4.2 Impacts to Los Angeles Pocket Mouse

The LAPM was found in the grassland and upland sage scrub, and also known to occur in the alluvial fan sage scrub within the creeks. The upland habitat areas in the LAPM MSHCP Survey Area will be developed as shown in previously referenced Figure 8, but Pershing and Smith Creeks will be left in their current conditions. Fifty feet of native habitat buffer at the top of the stream banks will remain in place along Pershing and Smith Creeks, beyond the 100 feet of trail improvements with drought-tolerant landscaping, which will be built as part of the project's trail system. Impacts to the LAPM habitat with the MSHCP Survey Area are 403 acres out of a total of 480 acres.

Indirect Effects. Indirect effects include greater likelihood of passive recreation and higher incidence of domestic pets in the open space areas and in the streambed, which could cause increased mortality and disturb remaining grassland and alluvial habitat areas.

Unavoidable Impacts. LAPM is an unlisted species of concern whose status is monitored through implementation of MSHCP guidelines. The species is found in sandy washes and soil areas of the Pass Area. It was captured in the grasslands and assumed to occur in the creeks. The project could not be built as currently proposed and avoid impacts to the LAPM habitat/MSHCP Survey Area.

DBESP for Los Angeles Pocket Mouse. The MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the species be avoided until LAPM Objectives 1 through 4, as identified in Table 9-2 of the MSHCP, have been met. These objectives include conservation of specific acreages of LAPM habitat in certain portions of the MSHCP Conservation Area. Since these objectives have not been met at this time, the 90 percent requirement remains in effect. If the 90 percent conservation threshold cannot be met for a project, a DBESP must be prepared outlining mitigation measures to compensate for impacts to the species.

Although 77.6 acres of the small mammal survey area within Pershing Creek would be preserved, the hills and fields in the southeast portion of the site, tributaries to the major washes, and additional suitable habitat within other low areas along the major washes would be affected in the small mammal survey area. Since these impacts are greater than 10 percent of the area of habitat assumed to be occupied, this DBESP outlines mitigation to offset impacts to the loss of LAPM habitat. The location and acreage of mitigation land required would be determined through consultation with the RCA and wildlife agencies during the Joint Project Review and DBESP process.

Project Design Features and Mitigation Measures for Los Angeles Pocket Mouse.

- The project design will conserve on site a total of 62 acres of riverine and grassland habitat that is known to be occupied by the species in and adjacent to Pershing and Smith Creeks.
- Additional land will be dedicated or purchased for contribution to the MSHCP for long-term conservation of the LAPM. Suitable habitat would be sandy soil areas in grassland habitat in other available land in the MSHCP Small Mammal Survey Areas.
- An off-site mitigation alternative for consideration is contribution of funds toward an RCA purchase or management of LAPM occupied land, in conjunction with burrowing owl mitigation measures, thus providing equivalent preservation of habitat for both species and the riparian/riverine habitat mitigation requirements.

5.5 MSHCP SECTION 3.0 MSHCP OBJECTIVES FOR RESERVE ASSEMBLY

The City of Banning is located in The Pass Area Plan. The MSHCP did not designate any Criteria Cells within the western and central parts of the City. The targeted acreage (50 to 90 acres) within the northern part of the City is in Cell 227 Area Subunit 2-Badlands/San Bernardino Forest. The Special Linkage Area located in the eastern part of the City is for project applicants to contribute to the San Gorgonio/San Bernardino-San Jacinto Mountains Linkage. The project site is not within or adjacent to the MSHCP Public/Quasi Public lands and is not within any of these reserve assembly areas, therefore the project is not subject to MSHCP Reserve Assembly consideration described in MSHCP Section 3.0. Analysis of project consistency with reserve assembly is not required.

5.6 MSHCP SECTION 6.1.4 URBAN/WILDLANDS INTERFACE REQUIREMENTS

This project is not located within 1,000 feet of the MSHCP Criteria Area or other Public/Quasi-Public Lands; therefore, MSHCP Urban/Wildlands Interface requirements (MSHCP Section 6.1.4) do not apply to this project.

5.7 MSHCP SECTION 7.5.2: WILDLIFE CROSSINGS

MSHCP Section 7.5.2 contains guidelines that "constitute a basic framework for wildlife crossing recommendations and are to be applied where there is either known wildlife movement, and/or in portions of the MSHCP Conservation Area that are assembled to provide wildlife movement."

5.7.1 Impacts

The remaining undisturbed natural areas will be main channels of Pershing Creek and Smith Creek and the rock outcrop in the southeast corner of the project study area and the streambed and banks of Pershing Creek. Montgomery Creek could be used by small and medium-sized wildlife, even though the use of the entire reach is restricted by the large culvert under Westward Avenue and the residential development north of the project site. This will reduce the east to west and north to south wildlife dispersal and movement through the existing open rangeland south of the City of Banning.

5.7.2 MSHCP Consistency for Wildlife Crossings

In order to maintain connectivity for wildlife within Pershing Creek, the project includes creation of a crossing under the newly proposed road which will allow continued wildlife movement. The proposed arch or large box culvert bridge will provide a line-of-sight wildlife crossing and will be suitable to allow for large-sized wildlife movement. The SR-243 bridge located at the east project boundary is not part of the project and this crossing will not be modified.

5.8 PROJECT APPROVALS

Project approval would require several discretionary approvals by the City of Banning regarding land use regulation, including certification of the Rancho San Gorgonio Specific Plan EIR; adoption of the Rancho San Gorgonio Specific Plan; annexation of 160 acres in the SOI into City limits; and approvals of a General Plan Amendment/Zone Change to reflect the proposed project, Tentative Tract Map No. 36586, and a Development Agreement.

The project would also require several discretionary permits regarding biological resources and water quality, including a California Fish and Game Code Section 1602 Permit from the CDFW; a Federal Clean Water Act (CWA) Section 404 Permit from the U.S. Army Corps of Engineers; and a CWA Section 401 Certification, and approval of the project water quality management plan by the RWQCB.

5.9 MSHCP SECTION 7.5.3 CONSTRUCTION GUIDELINES

The following conditions will be applied to the project so that impacts are reduced to species as construction occurs.

1. Plans for water pollution and erosion control will be prepared. The plans will describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and use of plant material for erosion control.
2. Avoid work in riparian areas during most active breeding season; typically designated as March 1 to June 30 by the CDFW/MSHCP Guidelines. Disturbance is restricted to a minimum of 300 feet away from any active nest.
3. If vegetation removal must occur during this avoidance period, then a nest survey by a qualified biologist is required. The nest survey shall be conducted for five consecutive days and no more than three days prior to clearing. If an active nest is observed, then the nest location shall be fenced off surrounding a minimum 300-foot (500 feet for raptors) radius buffer zone. The buffer zone shall not be disturbed until the nest is inactive.
4. Sediment and erosion control measures will be implemented until such time soils are determined to be successfully stabilized.
5. Short-term stream diversions, if needed, will be accomplished by use of sandbags or other methods that will result in minimal instream impacts. Short-term diversions will consider effects on wildlife.
6. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments off-site.
7. Settling ponds where sediment is collected will be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care will be exercised during removal of silt fencing to minimize release of debris or sediment into streams.
8. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.
9. The footprint of disturbance will be minimized to the maximum extent feasible. Access to sites will occur on pre-existing access routes to the greatest extent possible.
10. Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.
11. The limits of disturbance, including the upstream, downstream and lateral extents, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
12. During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by covered species that are outside of the project footprint will be avoided.
13. Exotic species removed during construction will be properly handled to prevent sprouting or regrowth.

14. Training of construction personnel will be provided.
15. Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of best management practices.
16. When work is conducted during the fire season (as identified by the Riverside County Fire Department) adjacent to RSS vegetation, appropriate firefighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventative actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.
17. Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.
18. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the proposed grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.
19. No waste, dirt, rubble, or trash shall be deposited in the Conservation Area or on native habitat.

5.10 MSHCP APPENDIX C: STANDARD BEST MANAGEMENT PRACTICES

1. A qualified biologist shall conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
2. Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via preexisting access routes to the greatest extent possible.
4. The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
5. Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian bird species identified in MSHCP Global Species Objective No. 7.
7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal in stream impacts. Silt fencing or other sediment trapping materials

shall be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.

8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
10. The qualified project biologist shall monitor construction activities when working in identified LAPM and BUOW habitat and any other sensitive areas to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to preexisting contours and revegetated with appropriate native species.
12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
13. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
15. The City shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

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APPENDIX A

LIST OF PLANTS AND ANIMALS OBSERVED

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
PLANTS	
GYMNOSPERMS	
Cupressaceae	**Cypress family**
Cupressus sempervirens (non-native species)	Italian cypress
Pinaceae	**Pine family**
Cedrus atlantica (non-native species)	Atlas cedar
Dicots	
Anacardiaceae	**Sumac family**
Schinus molle (non-native species)	Peruvian pepper tree
Asteraceae	**Sunflower family**
Ambrosia confertiflora	Weak-leaved burweed
Ambrosia psilostachya	Western ragweed
Artemisia californica	California sagebrush
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mule fat
Corethrogyne filaginifolia	California aster
Ericameria palmeri var. pachylepis	Box Springs goldenbush
Helianthus gracilentus	Slender sunflower
Lepidospartum squamatum	Scalebroom
Pseudognaphalium beneolens	Fragrant rabbit-tobacco
Pseudognaphalium biolettii	Two-color rabbit-tobacco
Pseudognaphalium microcephalum	San Diego rabbit-tobacco
Stephanomeria exigua	Small wreath-plant
Xanthium strumarium	Rough cocklebur
Boraginaceae	**Borage family**
Amsinckia menziesii	Common fiddleneck
Cryptantha sp.	Cryptantha
Pectocarya sp.	Pectocarya
Brassicaceae	**Mustard family**
Hirschfeldia incana (non-native species)	Shortpod mustard
Sisymbrium sp. (non-native species)	Sisymbrium
Cactaceae	**Cactus family**
Opuntia littoralis	Coastal prickly pear
Caprifoliaceae	**Honeysuckle family**
Sambucus nigra ssp. *cerulea*	Blue elderberry
Convolvulaceae	**Morning-glory family**
Convolvulus arvensis (non-native species)	Field bindweed

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
Euphorbiaceae	**Spurge family**
Croton californicus	California croton
Croton setigerus	Dove weed
Fabaceae	**Pea family**
Acacia greggii	Catclaw
Lotus scoparius	Deerweed
Lotus sp.	Lotus
Parkinsonia aculeata (non-native species)	Mexican palo verde
Robinia pseudoacacia (non-native species)	Black locust
Spartium junceum (nonnative species)	Spanish broom
Fagaceae	**Beech family**
Quercus agrifolia	Coastal live oak
Geraniaceae	**Geranium family**
Erodium cicutarium (non-native species)	Redstem stork's bill
Hydrophyllaceae	**Waterleaf family**
Eriodictyon crassifolium	Yerba santa
Phacelia ramosissima	Branching phacelia
Lamiaceae	**Mint family**
Marrubium vulgare (non-native species)	Horehound
Salvia apiana	White sage
Trichostema lanatum	Woolly blue-curls
Martyniaceae	**Unicorn-plant family**
Proboscidea sp.	Unicorn-plant
Myrtaceae	**Myrtle family**
Eucalyptus sp. (non-native species)	Eucalyptus
Oleaceae	**Olive family**
Fraxinus sp. (non-native species)	Ash
Onagraceae	**Evening primrose family**
Camissoniopsis sp.	Camissoniopsis
Plantaginaceae	**Plantain family**
Plantago sp.	Plantain
Polemoniaceae	**Phlox family**
Eriastrum densifolium	Giant woollystar
Polygonaceae	**Buckwheat family**
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	Slender buckwheat
Polygonum aviculare (non-native species)	Common knotweed

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
Rumex crispus (non-native species)	Curly dock
Rosaceae	**Rose family**
Adenostoma fasciculatum	Chamise
Prunus dulcis (non-native species)	Almond
Salicaceae	**Willow family**
Populus fremontii	Fremont cottonwood
Salix exigua	Narrowleaf willow
Salix gooddingii	Goodding's willow
Scrophulariaceae	**Figwort family**
Keckiella antirrhinoides	Yellow bush penstemon
Simaroubaceae	**Quassia family**
Ailanthus altissima (non-native species)	Tree of heaven
Solanaceae	**Nightshade family**
Datura wrightii	Sacred thorn-apple
Nicotiana glauca (non-native species)	Tree tobacco
Tamaricaceae	**Tamarisk family**
Tamarix aphylla (non-native species)	Athel
Ulmaceace	**Elm family**
Ulmus sp.	Elm
Zygophyllaceace	**Caltrop family**
Tribulus terrestris (non-native species)	Puncture vine
MONOCOTS	
Cyperaceae	**Sedge family**
Cyperus eragrostis	Tall flatsedge
Poaceae	**Grass family**
Arundo donax (non-native species)	Giant reed
Avena sp. (non-native species)	Oat
Bromus diandrus (non-native species)	Ripgut brome
Bromus hordeaceus (non-native species)	Soft chess
Bromus madritensis ssp. *rubens* (non-native species)	Red brome
Bromus tectorum (non-native species)	Cheatgrass
Cynodon dactylon (non-native species)	Bermuda grass
Hordeum murinum (non-native species)	Mouse barley
Schismus barbatus (non-native species)	Common Mediterranean grass

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
ANIMALS	
AMPHIBIANS	
Speobatidae	**Spadefoot Toads**
Spea hammondii	Western spadefoot
REPTILES	
Phrynosomatidae	**Phrynosomatid Lizards**
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Common side-blotched lizard
Colubridae	**Colubrid Snakes**
Lampropeltis getula	Common kingsnake
Salvadora hexalepis virgultea	Coast patch-nosed snake
Viperdae	**Vipers**
Crotalus oreganus	Western rattlesnake
BIRDS	
Odontophoridae	**New World Quail**
Callipepla californica	California quail
Accipitridae	**Kites, Hawks, and Eagles**
Elanus leucurus	White-tailed kite
Buteo lineatus	Red-shouldered hawk
Buteo jamaicensis	Red-tailed hawk
Aquila chrysaetos	Golden eagle
Falconidae	**Falcons**
Falco sparverius	American kestrel
Charadriidae	**Plovers and Lapwings**
Charadrius vociferus	Killdeer
Columbidae	**Pigeons and Doves**
Columba livia (non-native species)	Rock pigeon
Zenaida macroura	Mourning dove
Streptopelia decaocto (non-native species)	Eurasian collared dove
Cuculidae	**Cuckoos and Roadrunners**
Geococcyx californianus	Greater roadrunner
Tytonidae	**Barn Owls**
Tyto alba	Barn owl
Strigidae	**Typical Owls**
Bubo virginianus	Great horned owl
Athene cunicularia hypugaea	Burrowing owl

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Selasphorus rufus/sasin	Rufous/Allen's hummingbird
Picidae	**Woodpeckers**
Picoides nuttallii	Nuttall's woodpecker
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Myiarchus cinerascens	Ash-throated flycatcher
Tyrannus vociferans	Cassin's kingbird
Tyrannus verticalis	Western kingbird
Laniidae	**Shrikes**
Lanius ludovicianus	Loggerhead shrike
Corvidae	**Crows and Ravens**
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Alaudidae	**Larks**
Eremophila alpestris	Horned lark
Paridae	**Titmice**
Poecile gambeli	Mountain chickadee
Baeolophus inornatus	Oak titmouse
Troglodytidae	**Wrens**
Salpinctes obsoletus	Rock wren
Thryomanes bewickii	Bewick's wren
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird
Toxostoma redivivum	California thrasher
Sturnidae	**Starlings**
Sturnus vulgaris (nonnative species)	European starling
Emberizidae	**Emberizines**
Aimophila ruficeps canescens	So. Cal. rufous-crowned sparrow
Melozone crissalis	California towhee
Chondestes grammacus	Lark sparrow
Zonotrichia leucophrys	White-crowned sparrow
Cardinalidae	**Cardinals, Grosbeaks, and Allies**
Passerina caerulea	Blue grosbeak

Appendix A: Plant and Animal Species Observed

Scientific Name	Common Name
Icteridae	**Blackbirds, Orioles and Allies**
Sturnella neglecta	Western meadowlark
Xanthocephalus xanthocephalus	Yellow-headed blackbird
Euphagus cyanocephalus	Brewer's blackbird
Molothrus ater	Brown-headed cowbird
Icterus cucullatus	Hooded oriole
Icterus bullockii	Bullock's oriole
Fringillidae	**Finches**
Carpodacus mexicanus	House finch
MAMMALS	
Leporidae	**Rabbits and Hares**
Lepus californicus bennettii	San Diego black-tailed jackrabbit
Sylvilagus audubonii	Desert cottontail
Sciuridae	**Squirrels**
Spermophilus beecheyi	California ground squirrel
Geomyidae	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
Heteromyidae	**Pocket Mice and Kangaroo Rats**
Perognathus longimembris brevinasus	Los Angeles pocket mouse
Chaetodipus fallax	San Diego pocket mouse
Dipodomys simulans	Dulzura kangaroo rat
Dipodomys stephensi	Stephens' kangaroo rat
Muridae	**Mice, Rats and Voles**
Reithrodontomys megalotis	Western harvest mouse
Peromyscus maniculatus	Deer mouse
Neotoma lepida	Desert woodrat
Canidae	**Foxes, Wolves and Dogs**
Canis latrans	Coyote
Urocyon cinereoargenteus	Gray fox
Mustelidae	**Weasels, Otters, and Badgers**
Taxidea taxus	American badger
Felidae	**Cats**
Lynx rufus	Bobcat

APPENDIX B

SPECIAL STATUS PLANT SPECIES

Appendix B: Special Status Plant Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Abronia villosa var. *aurita* **Chaparral sand-verbena**	US: – CA: 1B MSHCP: NC	Blooms mostly March through August	Low	Site is only marginally suitable. Not observed during focused survey.	Sandy areas (generally flats and benches along washes) in chaparral and coastal sage scrub, and improbably in desert dunes or other sandy areas, below 5,300 feet elevation.
Allium marvinii **Yucaipa onion**	US: – CA: 1B MSHCP: S	Blooms April through May (perennial bulbiferous herb)	Not Likely To Occur	Absent.	Heavy, clay soils do not occur within the project.
Astragalus lentiginosus var. *coachellae* **Coachella Valley milk-vetch**	US: FE CA: 1B MSHCP: NC	Blooms February through May (annual or perennial herb)	Not Likely To Occur	Absent. Sonora desert scrub	Reported in surrounding 9 quads but habitat not present in project area.
Astragalus pachypus var. *jaegeri* **Jaegar's milkvetch**	US: – CA: 1B MSHCP: C	Blooms February through May (annual or perennial herb)	Not Likely To Occur	Sandy and rocky soils in chaparral, coastal sage scrub, and grasslands.	Known to occur in Potrero Creek.
Atriplex coronata var. *notatior* **San Jacinto Valley crownscale**	US: FE CA: 1B MSHCP: S	Blooms April through May (annual herb)	Not Likely To Occur	Absent. Vernal pools; endemic to the San Jacinto River Valley area of western Riverside County	Reported in surrounding 9 quads but habitat not present in project area.
Brodiaea filifolia **Thread-leaved brodiaea**	US: FT CA: SE/1B MSHCP: S	Blooms March through June (perennial herb)	Not Likely To Occur	Absent. Vernal Pools	Reported in surrounding 9 quads but habitat not present in project area.
Calochortus plummerae **Plummer's mariposa lily**	US: – CA: 4.2 MSHCP: P Determined to be adequately conserved by RCA in 2015.	Blooms May through July (perennial herb)	Low	Present. Granitic, rocky, valley and foothill grassland	Most of site is not in mountainous areas and site is intensively grazed, but reported in the Banning area.
Caulanthus simulans **Payson's jewel-flower**	US: – CA: 4.2 MSHCP: C	Blooms March through June	Low	Present. Sandy, granitic, coastal scrub	Reported in the mountains south of the project.

Appendix B: Special Status Plant Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Centromadia pungens ssp. *laevis* **Smooth tarplant**	US: – CA: 1B MSHCP: S	Blooms April through November (annual herb)	Not Likely to Occur	Absent.	Generally alkaline areas in chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland below 1,600 feet elevation.
Chorizante parryi var. *parryi* **Parry's spineflower**	US: – CA: 3.2 MSHCP: C	Blooms April through Jun	Moderate	Sandy and rocky soils in chaparral, coastal sage scrub, and grasslands.	Known to occur in the Banning area and vicinity.
Chorizanthe xanti var. *leucotheca* **White-bracted spineflower**	US: – CA: 1B MSHCP: NC	Blooms April through June (annual herb)	Not Likely to Occur	Absent	Sandy to gravelly places in Mojave desert scrub, pinyon and juniper woodland, or coastal scrub at 980 to 3,900 feet elevation.
Deinandra mohavensis **Mojave tarplant**	US: – CA: SE/1B MSHCP: P	Blooms July through October (annual herb)	Not Likely to Occur	Absent	Reported in foothills south of Smith Creek located outside of the project.
Dodecahema leptoceras **slender-horned spineflower**	US: FE CA: SE/1B MSHCP: S	Blooms April through June (annual herb)	Low	Present. Coastal sage scrub, sandy soil	Reported in surrounding 9 quads, but not within 1 mile
Dudleya multicaulis **Many-stemmed dudleya**	US: – CA: 1B MSHCP: S	Blooms April through July (perennial herb)	Not Likely To Occur	Absent.	Heavy, often clay soils do not occur within the project.
Horkelia cuneata ssp. *puberula* **Mesa horkelia**	US: – CA: 1B MSHCP: NC	Blooms February through July (sometimes to September) (perennial herb)	Moderate	Present. Coastal sage scrub, sandy soil	Sandy or gravelly soils in chaparral, or rarely in cismontane woodland or coastal scrub at 200 to 2,700 feet elevation.
Lepidium virginicum var. *robinsonii* **Robinson's pepper-grass**	US: – CA: 4.3 MSHCP: NC	Blooms January through July (annual herb)	Low	Present. Dry soils in coastal sage scrub and chaparral below 885 meters (2,900 feet) elevation.	Widespread species but with little records in the species databases.
Mimulus clevelandii **Cleveland's bush monkeyflower**	US: – CA: 4.2 MSHCP: P	Blooms January through June	Not Likely To Occur	Present on rock outcrop and slope in the southeast corner of the project.	Species is known to occur in Santa Ana and Aqua Tibia Mountains with chaparral.

Appendix B: Special Status Plant Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Navarretia fossalis **Spreading navarretia**	US: FT CA: 1B MSHCP: S	Blooms April through June (annual herb)	Not Likely To Occur	Absent. Vernal Pools	Reported in surrounding 9 quads but habitat not present in project area.
Sidalcea hickmanii parishii **Parish's checkerbloom**	US: – CA: SR/1B MSHCP: NC	Blooms May through June (perennial herb)	Not Likely To Occur	Absent. chaparral, rocky places, 2,000–5500 feet, pinyon-juniper woodland, Santa Rosa Mountains	Reported in surrounding 9 quads but habitat not present in project area.
Taraxacum californicum **California dandelion**	US: FE CA: 1B MSHCP: NC	Blooms May through September (perennial herb)	Not Likely to Occur	Absent. Mesic meadows and seeps in mountain valleys.	Reported in surrounding 9 quads but habitat not present in project area.

Legend:

US: Federal Classification

– No applicable classification
FE Taxa listed as Endangered
FT Taxa listed as Threatened.

CA: State Classification

SE Taxa State-listed as Endangered.
SR Taxa State-listed as Rare.
1B California Rare Plant Rank 1B: Rare, threatened, or endangered in California and elsewhere.
3 California Rare Plant Rank 3: A review list of plants about which more information is needed.
4 California Rare Plant Rank 4: A watch list of plants of limited distribution.
CRPR Extensions
0.2 Fairly endangered in California (20 to 80% occurrences threatened).
0.3 Not very endangered in California (less than 20% of occurrences threatened).

MSHCP: Western Riverside County MSHCP Status

S Species is adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.
C Species is adequately conserved under the MSHCP.
P Species is covered but not considered adequately conserved pending completion of MSHCP specified requirements.
NC Species is not conserved under the MSHCP.

APPENDIX C

LIST OF SPECIAL STATUS ANIMAL SPECIES

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Invertebrates					
Streptocephalus woottoni **Riverside fairy shrimp**	US: FE CA: SA MSHCP: S	Seasonally following rains; typically January through April.	Absent	Absent	Formerly thought to have occurred on site (CNDDB) but 2013 and 2014 surveys confirmed absence of the species and unsuitable pool conditions.
Amphibians					
Anaxyrus californicus **Arroyo toad**	US: FE CA: SSC MSHCP: S	March through July	Not Likely to Occur	Absent	Habitat is unsuitable due to lack of consistent water source.
Spea hammondii **Western spadefoot**	US: – CA: SSC MSHCP: C	October through April (following onset of winter rains).	Present	Present	Observed, largely terrestrial but requires rain pools or ponded water for breeding. Burrows in loose soils during dry season.
Rana muscosa **Southern mountain yellow-legged frog**	US: FE CA: SE MSHCP: C	Diurnal, winters at the bottom of frozen lakes.	Not Likely to Occur	Absent	Reported in surrounding 9 quads, this site has nothing resembling suitable habitat.
Reptiles					
Aspidoscelis (Cnemidophorus) tigris stejnegeri **Coastal western whiptail**	US: – CA: SA MSHCP: C	Diurnal; April through August.	High	Present	Utilizes a wide variety of habitats including coastal sage scrub, sparse grassland and riparian woodland.
Coleonyx variegatus abbotti **San Diego banded gecko**	US: – CA: SA MSHCP: C	Nocturnal; April through October.	Moderate	Present	Potentially suitable coastal sage habitat is present.
Phrynosoma blainvillii **Coast horned lizard**	US: – CA: SSC MSHCP: C	Diurnal; April through July with reduced activity August through October.	High	Present	Creeks, grassland, and scrub areas provide suitable areas.
Plestiodon skiltonianus interparietalis **Coronado skink**	US: – CA: SSC MSHCP: NC	Diurnal, primarily spring through fall.	Not Likely To Occur	Absent	Coastal scrub. Site is probably too dry for the species.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Aspidoscelis hyperythra **Orange-throated whiptail**	US: – CA: SSC MSHCP: C	Diurnal, primarily spring through fall.	Not Likely To Occur	Absent	Coastal scrub. Apparently outside the current range of the species.
Anniella pulchra pulchra **Silvery legless lizard**	US: – CA: SSC MSHCP: NC	Diurnal and crepuscular, but primarily fossorial; active year round.	Moderate	Present	Conditions may be suitable along drainage channels, but may be too dry.
Salvadora hexalepis virgultea **Coast patch-nosed snake**	US: – CA: SSC MSHCP: NC	Diurnal, primarily spring through fall.	Present	Present	Observed. Uses a wide range of habitats; most likely to occur on the rocky ridge south of Smith Creek.
Sceloporus orcutti **Granite spiny lizard**	US: – CA: – MSHCP: C	Diurnal, primarily spring through fall	High	Present	Coastal scrub with rocky outcrops.
Thamnophis hammondii **Two-striped garter snake**	US: – CA: SSC MSHCP: NC	Primarily nocturnal and crepuscular, spring through fall.	Not Likely to Occur	Absent	The site is probably too dry, as the species is highly aquatic.
Crotalus ruber **Red-diamond rattlesnake**	US: – CA: SSC MSHCP: C	Diurnal and nocturnal; primarily spring through fall.	High	Present	Uses a wide range of habitats.
Xantusia henshawi henshawi **Granite night lizard**	US: – CA: – MSHCP: C	Nocturnal	Low	Present	Rock canyons and boulder outcrops in desert and coastal sage scrub on hillsides.
Birds					
Agelaius tricolor (nesting colony) **Tricolored blackbird**	US: BCC CA: SSC MSHCP: C	Year-round diurnal	Not Likely to Occur	Absent	Preferred nesting habitat (primarily freshwater marsh; dense patches of nettles, willows, blackberries, and thistles; silage; and grain fields) not present.
Aimophila ruficeps canescens **Southern California rufous-crowned sparrow**	US: – CA: SA MSHCP: C	Year-round, diurnal activity	Present	Present	Observed.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Ammodramus savannarum **Grasshopper sparrow**	US: – CA: SSC MSHCP: P	Primarily March through August; diurnal	Low	Present	Undisturbed or lightly disturbed grassland not present.
Aquila chrysaetos (nesting & wintering) **Golden eagle**	US: BCC CA: CFP MSHCP: C	Year-round diurnal	Present	Present	Observed foraging in September 2013.
Artemisiospiza belli belli **Bell's sparrow**	US: BCC CA: SA MSHCP: C	Year-round, diurnal.	Moderate	Present	Rocky ridge south of Smith Creek is potentially suitable habitat.
Athene cunicularia (burrow sites) **Burrowing owl**	US: BCC CA: SSC MSHCP: S	Year-round	Present	Present	Observed, burrows in open, dry grasslands, agricultural and range lands. Known to nest in man-made structures such as berms, cement culverts, cement and wood debris piles.
Baeolophus inornatus **Oak titmouse**	US: BCC CA: SA MSHCP: NC	Year-round	Present	Present	Observed, inhabits primarily Oak Woodland but also oak-conifer, riparian woodland, and pinyon-juniper associations.
Buteo regali (wintering) **Ferruginous hawk**	US: BCC CA: SCC MSHCP: C	October through April; diurnal.	Moderate	Present	Annual grassland is appropriate winter habitat.
Calypte costae (nesting) **Costa's hummingbird**	US: BCC CA: SA MSHCP: NC	Primarily April through July; diurnal.	Moderate	Present	Rocky ridge south of Smith Creek is potentially suitable habitat.
Cathartes aura (breeding) **Turkey vulture**	US: – CA: – MSHCP: C	Year-round	Present	Absent (nesting)	Observed, utilizes a variety of habitats for foraging; nests in rock crevices, caves, ledges, thickets, fallen trees and abandoned buildings away from civilization.
Campylorhynchus brunneicapillus **Cactus wren**	US: – CA: – MSHCP: C	Year-round (non-migratory)	Low	Absent	Suitable habitat is absent.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Coccyzus americanus occidentalis (nesting) **Western yellow-billed cuckoo**	US: FT CA: SE MSHCP: S	May through September	Not Likely to Occur	Absent	Nesting habitat is not present (cottonwood and willows in riparian forest).
Elanus leucurus (nesting) **White-tailed kite**	US: – CA: CFP MSHCP: C	Year-round	Present, possible nesting	Present	Observed, nests in riparian trees such as oak, willows, and cottonwoods. Forages in open country.
Empidonax trailii extimus (nesting) **Southwestern willow flycatcher**	US: FE CA: SE MSHCP: S	May through September	Not Likely to Occur	Absent	Brushy riparian habitat with surface water not present.
Eremophila alpestris actia **California horned lark**	US: - CA: SSC MSHCP: C	Year-round	High, but not confirmed to be nesting	Present	Open grasslands and fields. Prefers bare ground for nesting.
Falco mexicanus (nesting) **Prairie falcon**	US: BCC CA: SA MSHCP: C	Year-round	Not Likely to Occur	Nesting habitat absent; foraging habitat present.	Annual grassland is appropriate foraging habitat, but suitable nesting sites are absent.
Icteria virens **Yellow-breasted chat**	US: – CA: SSC MSHCP: C	April through September	Not Likely to Occur	Absent	Brushy riparian habitat not present.
Lanius ludovicianus (nesting) **Loggerhead shrike**	US: – CA: SSC MSHCP: C	Year-round	Present, but not confirmed nesting	Present	Observed, prefers open habitat with scattered shrubs, trees, posts, fences and other perches. Inhabits open country, riparian areas and open woodlands.
Picoides nuttallii **Nuttall's woodpecker**	US: BCC CA: SA MSHCP: NC	Year-round	Present	Present	Observed, resident in oak and riparian woodlands.
Picoides pubescens **Downy woodpecker**	US: – CA: – MSHCP: C	Year-round	Not Likely to Occur	Absent	Resident in riparian deciduous and associated hardwood and conifer habitats.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Pooecetes gramineus affinis **Oregon vesper sparrow**	US: – CA: SSC MSHCP: NC	September through April	Moderate	Present	Annual grassland is appropriate winter habitat.
Progne subis (nesting) **Purple martin**	US: – CA: SSC MSHCP: C	Summer resident	Not Likely to Occur	Absent	Now rare and local in distribution with nesting habitat marginal on site.
Setophaga petechia (*Dendroica petechia brewsteri*) **Yellow warbler**	US: – CA: SSC MSHCP: C	April through September	Not Likely to Occur	Absent	Number of riparian trees present probably insufficient for nesting by the species. However, migrants are likely to occur.
Spinus lawrencei (nesting) **Lawrence's goldfinch**	US: BCC CA: SA MSHCP: NC	April through August	Moderate	Present	Rocky ridge south of Smith Creek is potentially suitable habitat.
Spizella atrogularis (nesting) **Black-chinned sparrow**	US: BCC CA: SA MSHCP: NC	April through August	Low	Present	Rocky ridge south of Smith Creek is potentially suitable habitat.
Spizella breweri (nesting) **Brewer's sparrow**	US: BCC CA: SA MSHCP: NC	April through August	Low	Present	Rocky ridge south of Smith Creek is potentially suitable habitat.
Toxostoma lecontei **Le Conte's thrasher**	US: – CA: SSC MSHCP: NC	Year-round	Not Likely to Occur	Absent	Desert scrub habitat is not present.
Vireo bellii pusillus **Least Bell's vireo**	US: FE CA: SE MSHCP: S	April through September	Not Likely to Occur	Absent	Brushy riparian habitat not present.
Xanthocephalus xanthocephalus (nesting) **Yellow-headed blackbird**	US: – CA: SSC MSHCP: NC	Year-round diurnal	Present, but nesting habitat absent	Absent	Observed, but preferred nesting habitat (marshes with tall emergent vegetation) not present.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Mammals					
Antrozous pallidus **Pallid bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	High	Present	Roosts in crevices in rocky outcrops and cliffs, caves, mines, hollows or cavities of large trees, and anthropogenic structures such as bridges and buildings; may also roost near the ground in rock piles. Foraging habitat includes grassland, open scrub, open forest, and gravel roads.
Canis latrans **Coyote**	US: – CA: – MSHCP: C	Year-round, mainly crepuscular with increased diurnal activity from February to May.	Present	Present	Observed, utilizes almost all available habitats; limited by water availability.
Chaetodipus fallax fallax **San Diego pocket mouse**	US: – CA: SSC MSHCP: C	Year-round	Present	Present	Observed, found in coastal sage scrub, chaparral, grasslands, and sagebrush.
Chaetodipus fallax pallidus **Pallid San Diego pocket mouse**	US: – CA: SSC MSHCP: C	Year-round	Not Likely to Occur	Absent	This subspecies is found in desert scrub and arid coastal areas.
Corynorhinus townsendii **Townsend's big-eared bat**	US: FC CA: SSC MSHCP: NC	Nocturnal; primarily active spring through fall.	Low	Roosting habitat absent. Foraging habitat present.	Predominantly uses mines, caves, and cave-like areas for roosting. May also use buildings, bridges, rock crevices, and hollow trees as roost sites. Forages in edge habitats along streams and desert washes. May forage several miles from roost sites.
Dipodomys stephensi **Stephens' kangaroo rat**	US: FE CA: ST MSHCP: C	Year-round, nocturnal	Present	Present	Observed, found in plant communities transitional between grassland and coastal sage scrub. Requires well-drained soils with compaction characteristics suitable for burrow construction.
Dipodomys simulans **Dulzura kangaroo rat**	US: – CA: – MSHCP: C	Crepuscular; peak breeding period in winter and spring.	Present	Present	Observed; occurs in gravelly and sandy soils in coastal sage scrub and grasslands.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Eumops perotis californicus **Western mastiff bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	Not Likely to Occur	Absent	Primarily a cliff-dwelling species, roosting under exfoliating rock slabs and in crevices in boulders and buildings. Forages widely over a variety of habitat types.
Lasiurus blossevillii **Western red bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	Low	Present	Roosts in the foliage of broad-leafed trees or shrubs within streams or fields, in orchards, and occasionally urban areas; commonly roosts in mature cottonwoods and sycamores. More commonly found in riparian habitats, but highly migratory. Forages in a variety of habitats.
Lasiurus xanthinus **Western yellow bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	High	Present	Roosts in the dead fronds of palm trees and has also been documented roosting in cottonwood trees. Found in open areas, valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.
Lepus californicus bennettii **San Diego black-tailed jackrabbit**	US: – CA: SSC MSHCP: C	Year-round, diurnal and crepuscular activity.	Present	Present	Observed, occurs in a variety of habitats such as herbaceous and desert scrub. Most common in open habitats.
Lynx rufus **Bobcat**	US: – CA: – MSHCP: C	Year-round, mainly crepuscular during winter, more nocturnal during spring.	Present	Present	Observed, adapted to wide variety of habitats.
Mustela frenata **Long-tailed weasel**	US: – CA: – MSHCP: C	Year-round, nocturnal and diurnal.	High	Present	Inhabits a range of habitats, including coastal sage scrub and grasslands.
Myotis volans **Long-legged myotis**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	Not Likely to Occur	Absent	Roosts in abandoned buildings, cliff crevices, exfoliating tree bark, and hollows within snags; usually overwinters in caves and mine tunnels. Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats.

Appendix C: List of Special Status Animal Species

Species	Status	Activity Period	Occurrence Probability	Habitat Present/ Absent	Rationale
Neotoma lepida intermedia **San Diego desert woodrat**	US: – CA: SSC MSHCP: C	Year-round, mainly nocturnal, occasionally crepuscular and diurnal.	Not Likely to Occur	Present	The species was captured on site, but individuals from Banning and Cabazon are best considered the subspecies *gilva*, not *intermedia* (see section 5.6.2.3, above).
Nyctinomops femorosaccus **Pocketed free-tailed bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	Not Likely to Occur	Absent	Roosts primarily in crevices in cliffs, high rocky outcrops, and slopes. Forages widely in a variety of desert scrub, desert riparian habitats.
Nyctinomops macrotis **Big free-tailed bat**	US: – CA: SSC MSHCP: NC	Nocturnal; year-round, primarily active spring through fall.	Low	Present	Roosts mainly in crevices in cliffs, although there is some documentation of roosting in buildings, caves, and tree cavities. Found in desert shrub, woodlands, and evergreen forests. Forages widely in a variety of habitats.
Perognathus longimembris brevinasus **Los Angeles pocket mouse**	US: – CA: SSC MSHCP: S	Nocturnal. Generally active on the surface spring through fall.	Present	Present	Observed, prefers sandy soil for burrowing. Found in coastal sage scrub and grassland ecotones.
Puma concolor **Mountain lion**	US:– CA: – MSHCP: C	Year-round,	High	Present	Species is wide-ranging over numerous habitats and occurs in the area.
Taxidea taxus **American badger**	US: – CA: SSC MSHCP: NC	Year-round	Present	Present	Observed, primary habitat requires friable soils in relatively open grasslands, woodlands and deserts.

LEGEND

US: Federal Classifications

–	No applicable classification
FE	Taxa listed as Endangered.
FT	Taxa listed as Threatened.
FC	Candidate for listing as Threatened or Endangered.
BCC	Bird of Conservation Concern.

CA: State Classifications	
SE	Taxa State-listed as Endangered.
ST	Taxa State-listed as Threatened.
SSC	California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
CFP	California Fully Protected. Refers to animals protected from take under Fish and Game Code Sections 3511, 4700, 5050, and 5515.
SA	Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or protection status.
MSHCP: Western Riverside County Multiple Species Habitat Conservation Plan Status	
S	Species is adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.
C	Species is adequately conserved under the MSHCP.
P	Species is covered but not considered adequately conserved pending completion of MSHCP specified requirements.
NC	Species is not covered under the MSHCP.

APPENDIX D

FOCUSED SURVEY REPORTS

D-1: LOS ANGELES POCKET MOUSE SURVEY REPORT

D-2: FAIRY SHRIMP WET AND DRY SEASON REPORTS

D-3: BURROWING OWL FOCUSED SURVEY

D-4: JURISDICATION DELINEATION