5.4 BIOLOGICAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Rancho San Gorgonio Specific Plan to impact biological resources in the City of Banning and its sphere of influence (SOI). The analysis in this section is based in part on the following technical report(s):

- *Biological Resources Report, Rancho San Gorgonio Planned Community Project, City of Banning, Riverside County, California,* LSA, November 6, 2015.

- *MSHCP Consistency and Determination of Biologically Equivalent or Superior Preservation Report, Rancho San Gorgonio Planned Community Project, City of Banning, Riverside County, California*, LSA, November 6, 2015.

Complete copies of these studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices D and E).

The Riverside County Flood Control and Water Conservation District (RCFCWCD) and several individuals submitted a Notice of Preparation (NOP) comment letter or had verbal comments during the scoping meeting addressing biological resources. RCFCWCD stated that if a natural watercourse or mapped flood plain is impacted by the proposed project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements.

Individual commenters were concerned that development of the proposed project would impact existing wildlife (e.g., velvet ants, desert tortoises, nesting eagles, coyotes, foxes, burrowing owls) and disturb wildlife corridors along Smith Creek and Montgomery Creek. Commenters also asked how biological resources were evaluated and what survey methodologies were used. The NOP comment letters are included in Appendix B.

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal and State Regulations

Endangered Species Act

The federal Endangered Species Act (FESA) of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take," as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions which may affect any endangered or threatened species or critical habitat designated for the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is

determined to be endangered or threatened." Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and non-federal government agencies during otherwise lawful activities. A habitat conservation plan (HCP) for the impacted species must be developed in support of an incidental take permit for projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA), is the domestic law that affirms, or implements, the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of migratory birds listed at 50 CFRw.3 except under a valid permit or as permitted in the implementing regulations. USFWS administers the MBTA program.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. Sections 668 to 668d) prohibits the "take" of bald and golden eagles (*Haliaeetus leucocephalus* and *Aquila chryseatos*) and their nests. The USFWS can authorize the "take" of Bald or Golden Eagles under the Bald and Golden Eagle Protection Act, provided that the proposed "take" complies with 16 U.S.C. § 668a and the implementing regulations in 50 C.F.R. part 22. Permits authorizing the "take" of bald and/or golden eagles can be authorized for activities where the take is incidental to, and not the object of, an activity that is otherwise lawful.

Clean Water Act, Section 404

The United States Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into "waters of the U.S." (including wetlands and non-wetland bodies of water that meet specific criteria. Pursuant to Section 404 of the federal Clean Water Act (CWA), a permit is required for any filling or dredging within waters of the U.S. The permit review process entails an assessment of potential adverse impacts to Corps wetlands and jurisdictional waters and identification of minimization and mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS is required. If there is potential for cultural resources to be present, Section 106 review is required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification is required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act

Section 401

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the State in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with State water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits. The proposed project is within the jurisdiction of the Colorado River Basin RWQCB (Region 7).

Section 402

Section 402 of the CWA (33 U.S.C. Section 1342) establishes the National Pollutant Discharge Elimination System (NPDES) permit program to regulate point source discharges of pollutants into waters of the United States. An NPDES permit sets specific discharge limits for point sources discharging pollutants into waters of the U.S. and establishes monitoring and reporting requirements, as well as special conditions. The RWQCBs, under the oversight of the SWRCB, administer the permit program in California.

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires that a project proponent notify the California Department of Fish and Game (CDFW) of any proposed alteration to the bed, bank or channel in or near a streambed, river, or lake. The intent is to protect habitats that are important to fish and wildlife. CDFW may review such alterations proposed by a project and place conditions on the alteration as part of a Streambed Alteration Agreement. The conditions address potentially significant adverse impacts within CDFW's jurisdictional limits.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to candidate species for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. CESA has provisions for take through a Section 2081 permit or consistency determination. In addition, some mammals, birds, reptiles and fish species are protected by the State as Fully Protected Species for which take is strictly prohibited except pursuant specifically to a Natural Comminutes Conservation Plan.

Natural Communities Conservation Planning Act

This act was enacted to encourage broad-based planning to provide for effective protection and conservation of the State's wildlife resources while continuing to allow appropriate development and growth (CFGC Sections 2800 to 2835). Natural Community Conservation Plans (NCCP) may be implemented, which identify measures necessary to conserve and manage natural biological diversity within the planning area, while allowing compatible and appropriate economic development, growth, and other human uses. An approved NCCP enables the California Department of Fish and Wildlife to authorize take of species consistent with the NCCP Act and CFGC Section 2835.

Bird Protection Statutes

Nesting bird protections in the CFGC (Sections 3503, 3503.5, and 3513) include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.

- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others; now recognized as two orders, the Accipitriformes and Falconiformes), or Strigiformes (owls).

- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, any project-related disturbance at active nesting territories is generally required to be reduced or eliminated during the nesting cycle.

Regional

Western Riverside County Multiple-Species Habitat Conservation Plan (MSHCP)

The Western Riverside County Multiple-Species Habitat Conservation Plan covers 146 species and 14 natural communities within a plan area of about 1.26 million acres, or 1,970 square miles, extending from the western county boundary to the San Jacinto Mountains. Roughly 506,000 acres are planned for conservation. The MSHCP was implemented in 2003 and is administered by the Western Riverside County Regional Conservation Authority (RCA).

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 nonnative species invasion. The Criteria Area consists of quarter-section (161-acre) criteria cells within the MSHCP planning boundary that will be used to assemble 153,000 acres of new conservation land (the Conservation Area). The MSHCP provides for the assembly of a Reserve consisting of Core Areas and Linkages for the conservation of Covered Species (Riverside 2003). The MSHCP provides an incentive-based program, the Habitat Evaluation and Acquisition Negotiation Strategy, for adding land to the MSHCP. A Core is the largest planning unit, and its extent is large enough to support population 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. Projects in proximity to the MSHCP Conservation Area may result in edge effects that would 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 within designated survey areas when potential suitable habitat is present. Figure 5.4-1, *MSHCP Survey Areas Onsite*, shows the MSHCP survey areas within the project area. In addition to species that have designated survey areas, surveys for listed riparian birds are required when suitable riparian habitat is present, and surveys for listed fairy shrimp species are required when vernal pools or other suitable habitat is present.

The MSHCP sets forth conservation goals for each covered species. A development project must either demonstrate that the conservation goals for each covered species which was identified in its project site have been met or prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report enumerating mitigation measures to achieve equivalent or superior preservation for each not conserved covered species through deed restriction, conservation easement, or other appropriate method. Mitigation measures may include restoration and/or enhancement of on-site and/or off-site habitat.

The City of Banning was a party to the Implementing Agreement for the MSHCP and is a member of the RCA. Thirteen other cities were parties to the original Implementing Agreement, and four additional cities have become member agencies of the RCA since the Implementing Agreement was adopted in 2004.

The project site is in the MSCHP plan area, but not within any criteria cells. The project site is in an area where several surveys are required: a mammal species survey, a narrow endemic plant species survey, and a burrowing owl survey (see Figure 5.4-1, *MSHCP Survey Areas Onsite*).

"Covered species adequately conserved" under the MSHCP means covered species where the species objectives set forth in the MSHCP are met and which are provided take authorization through the Natural Community Conservation Plan (NCCP) Permit and, for animals, through the FESA Section 10(a) Permit issued for the MSHCP.[1]

The northeast corner of the MSHCP Plan Area was designated as part of the Sand to Snow National Monument by President Obama on February 11, 2016. The Sand to Snow National Monument spans 154,000 acres in San Bernardino and Riverside counties; the Monument boundary is about seven miles north of the project site (White House 2016; USFS 2016).

MSHCP Mitigation Fees

Developments within the MSHCP Plan Area are charged mitigation fees, which are one of the primary sources of funding for implementing the MSHCP. Mitigation fee amounts in Fiscal Year 2016 are as follows:

- Residential, density less than 8.0 dwelling units per acre: $1,952 per dwelling unit
- Residential density between 8.0 and 14.0 dwelling units per acre: $1,250 per dwelling unit
- Residential density greater than 14.0 dwelling units per acre: $1,015 per dwelling unit
- Commercial: $6,645 per acre

Fees for projects within the City of Banning are payable to the City, and fees for projects in unincorporated Riverside County are payable to the County.

MSHCP Construction Guidelines

Project construction activities would be required to comply with Construction Guidelines set forth in Section 7.5.3 of the MSHCP Plan Document and enumerated in the DBESP report (see Appendix E to this DEIR).

MSHCP Best Management Practices

The design and construction of projects developed pursuant to the Specific Plan would be required to comply with MSHCP best management practices (BMPs) set forth in Appendix C of the MSHCP plan document enumerated in the DBESP report (see Appendix E to this DEIR).

[1] Natural Community Conservation Plans (NCCPs) are regional habitat and species conservation plans established under California Fish and Game Code Section 2800 et seq. Each NCCP covers multiple habitats and species. A number of HCPs in California, including the MSHCP, are also NCCPs.

Stephens' Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), which was approved by the USFWS and CDFW in 1990, has a plan area of about 534,000 acres in western Riverside County and was established to protect one listed species, the Stephens' kangaroo rat, listed as federally endangered and state threatened. The SKRHCP includes seven core reserves that totaled about 41,200 acres in 1996; the project site is not within an SKRHCP reserve. Relevant terms of the SKRHCP have been incorporated into the MSHCP and the MSHCP Implementation Agreement. The SKRHCP will continue to be implemented as a separate HCP; however, to provide the greatest conservation for the largest number of covered species, the core reserves established by the SKRHCP are managed as part of the MSHCP Conservation Area consistent with the SKRHCP. Actions shall not be taken as part of the implementation of the SKRHCP that will significantly impact other covered species. The take of SKR outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.

SKRHCP Habitat Mitigation Fees

Proponents of development projects within the SKRHCP are charged an SKR habitat mitigation fee of $500 per gross acre upon issuance of a grading permit; such fees for projects within the City of Banning are paid to the City.

Local

City of Banning Municipal Code

The City of Banning Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's general plan and proposed development projects. The following provisions address biological resources:

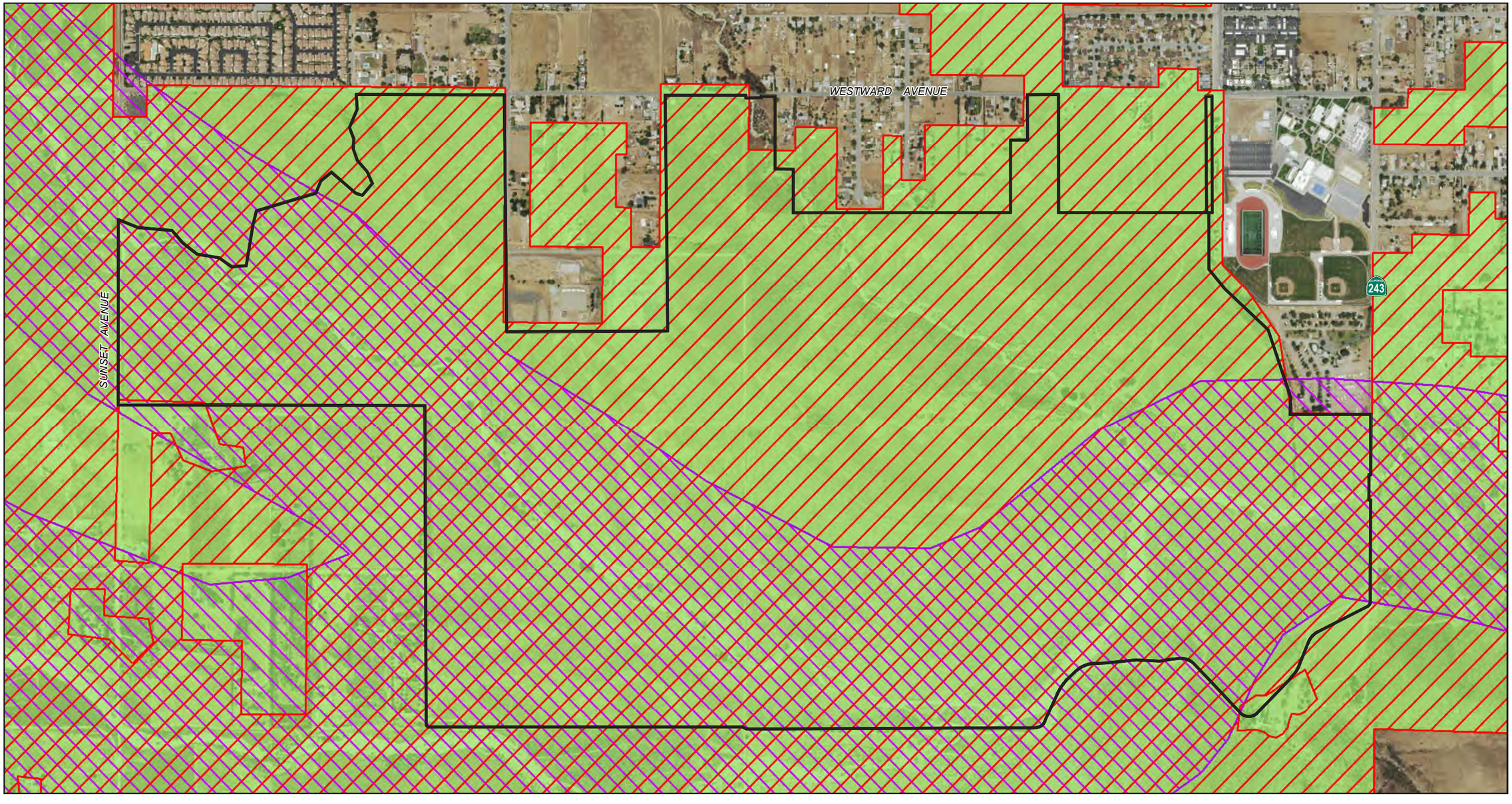
- **Section 12.52.080 (MSHCP Mitigation Fees).** Requires payment of MSHCP mitigation fees by development projects in the City before the City issues grading permits.

- **Section 17.32.020 (Application).** Concept landscaping plans shall be submitted as part of a planning permit application. The plan is required to have a clear landscaping program and must take into account the preservation of natural features (e.g., hills, topography, trees, shrubs, wildlife habitat, etc.). Landscaping plans should also rely on indigenous plant and tree species suitable to the local climate and soil types.

- **Section 17.32.060 (Removal or destruction of trees).** A tree removal and replacement plan must be prepared for the removal and replacement of all trees in excess of 50 years of age, unless their removal is required to protect the public health and safety. Each tree removed in a new subdivision shall be replaced with at least one 36-inch box specimen tree, in addition to any other required landscaping.

Figure 5.4-1 - MSHCP Survey Areas Onsite

5. Environmental Analysis



MHSCP

- 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.

0 800
Scale (Feet)

Source: LSA, 2015.

5. Environmental Analysis
BIOLOGICAL RESOURCES

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5.4.1.2 EXISTING CONDITIONS

Topography

The project area elevation ranges from approximately 2,200–2,420 feet above mean sea level (amsl). 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 (see Figure 3-3, *Aerial Photograph*). The channel depths vary from 1 to 20 feet.

The project is located within the Riverside Lowlands Bioregion, as described in the MSHCP. The Riverside Lowlands Bioregion generally occurs at elevations below 2,000 feet amsl and is characterized by Riversidean sage scrub and annual grasslands. The climate is relatively arid. A high level of disturbance and urbanization are noted within this bioregion.

Plant Communities/Habitat

Vegetation onsite was mapped by LSA on August 20 and 21, 2012 and January 8, 2013. Portions of the vegetation map were refined using notes from the burrowing owl survey conducted in August 2012. The project site was revisited in August 2015 to confirm that the vegetation community mapping was still current.

Habitat Types

Nonnative grassland is the predominant vegetation community on the site, with smaller areas of Riversidean alluvial fan sage scrub, upland Riversidean sage scrub, developed/ruderal, and southern riparian scrub. Habitat types onsite are mapped on Figure 5.4-2, *Vegetation and Land Use*. Acreages of each habitat type onsite are listed in Table 5.4-1.

Table 5.4-1 Habitat Types Onsite

Habitat Type	Acres	Percent of Total
Nonnative grassland	700.5	84.5%
Riversidean alluvial fan sage scrub	82.6	9.9%
Upland Riversidean sage scrub	44.6	5.4%
Southern riparian scrub	0.06	<0.1%
Wetland with non-native grasses	0.2	<0.1%
Seasonally Ephemeral Pools and Puddles in Grassland	0.2	<0.1%
Developed/Roads/Utilities	2.6	0.3%
Total	831	100%

Source: LSA 2015.

Non-native Grassland

Non-native grasslands are likely to be dominated by several species of grasses that have evolved to persist in concert with human agricultural practices: slender oat (*Avena barbata*), wild oat (*Avena fatua*), fox tail chess (*Bromus madritensis*), soft chess (*Bromus hordeaceus*), ripgut grass (*Bromus diandrus*), barley (*Hordeum* spp.), rye grass (*Lolium multiflorum*), English ryegrass (*Lolium perrene*), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*).

Vegetation of the ephemeral channels in the project area 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.

Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub is a Mediterranean shrubland type that occurs in washes and on gently sloping alluvial fans. 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 globu*), palo verde (*Parkinsonia aculeata*), black locust (*Robinia pseudoacacia*), tree of heaven (*Ailanthus altissima*), elderberry (*Sambucus nigra* ssp. *cerulean*), and coast live oak (*Quercus agrifolia*).

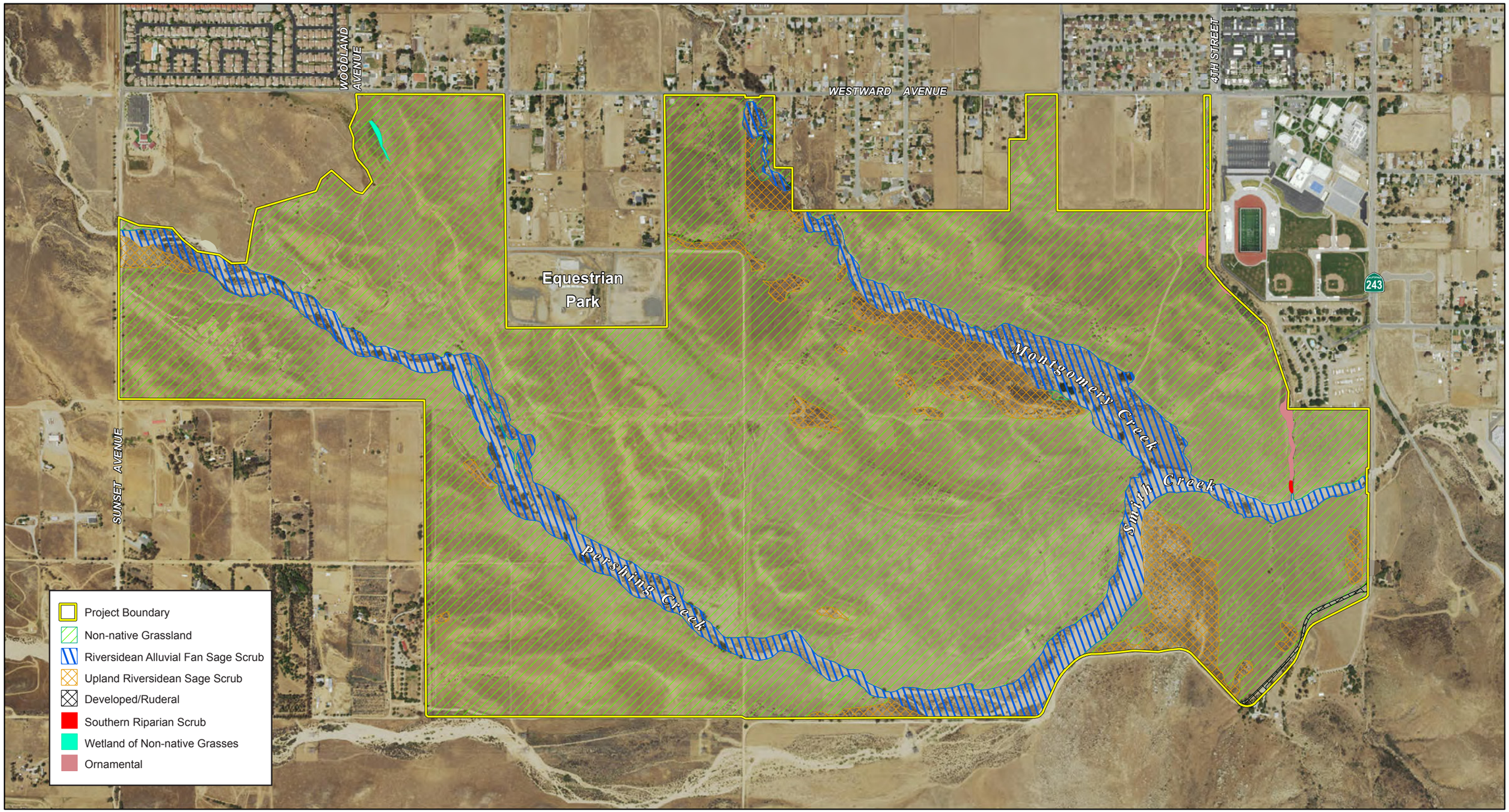
Upland Riversidean Sage Scrub

This plant community is located in pockets on the uncultivated fields, stream banks, ridgelines, and rocky outcrops throughout the project area. Riversidean sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought-deciduous shrubs and subshrub species. Composition varies substantially depending on physical circumstances and the successional status of the vegetation community; however, characteristic species include California sagebrush (*Artemisia californica*), California buckwheat, laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*).

Mulefat Scrub (Southern Riparian Scrub)

The southern riparian scrub habitat type used in the MSHCP exists on the project site with mule fat as the dominant plant. The disturbed mule fat scrub occurs in the lowest 100 feet (0.06 acre) of the South Fourth Street Channel, which flows parallel to the high school property. The vegetation in this area consists of a mixture of a few shrubby willows, mule fat, ornamental trees, and non-native herbs and shrubs. This area is classified as Mulefat Scrub and southern riparian scrub in this section, nomenclature used in the California Natural Diversity Database based on Sawyer and Keepr-Wolf 1995 and newer editions of "A Manual of California Vegetation" classification system. The area with willows and mule fat is of marginal habitat quality and highly disturbed. The site has only a sparse understory and the habitat is not suitable or adequate for listed riparian bird species, including least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo due to the lack of extensive, undisturbed, contiguous riparian habitat.

Figure 5.4-2 - Vegetation and Land Use
5. Environmental Analysis



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Scale (Feet)

Base Map Source: LSA, 2015.

5. Environmental Analysis
BIOLOGICAL RESOURCES

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Wetland with Non-native Grasses

There is a small wetland area (0.2 acre) of hydrophytic grasses – that is, grasses adapted to life in saturated soils – in the northwest corner of the site supported by storm drain discharge from Woodland Avenue. Dominant species in this area include Bermuda grass, barnyard grass (*Echinochloa crus- galli*), annual rabbitsfoot grass (*Polypogon monspeliensis*), and tall flatsedge (*Cyperus eragrostis*).

Seasonally Ephemeral Pools and Puddles

The several ephemeral ponding areas and puddles are due to roads, compaction, and grading in the fields. The puddles in the southwest corner of the project area provided enough inundation for a long enough period of time for non-listed fairy shrimp to reproduce during the 2014 survey—listed fairy shrimp species including Riverside fairy shrimp were not detected.

Vernal pools are ephemeral wetlands that form in shallow depressions underlain by a substrate near the surface that restricts the downward percolation of water. Depressions in the landscape fill with rainwater and runoff during the winter and may remain inundated until spring or early summer, sometimes drying more than once during the wet season. There are no vernal pools on the project site.

Developed/Ruderal

Developed lands include roadways, existing buildings, and other man-made infrastructures, such as rail, utilities, and flood control facilities. Disturbed lands consist of areas that have been disked, cleared, or otherwise altered. Vegetation within the developed and disturbed areas can include ornamental plantings, non-native exotics, and non-native weedy species. The property contains existing dirt roads and electrical utility easements through the center of project area and across the southeast corner of the project.

Plants

Plant species observed onsite are listed in Appendix A of the Biological Resources Report included as Appendix D of this DEIR.

Habitat Suitability Assessments

HSAs are required on the project site under the MSHCP for Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*), both of which are considered adequately conserved under the MSHCP. Each species is ranked 1B by the California Native Plant Society (CNPS), meaning that the species is rare, threatened, or endangered in California and elsewhere.

Habitat suitability assessments (HSAs) for narrow endemic plant species (Yucaipa onion [*Allium marvinii*] and many-stemmed dudleya [*Dudleya multicaulis*]) were conducted on August 20 and 21, 2012, and January 8, 2013. During the visits, the site was analyzed for the presence of suitable habitats and/or soils to support these species. Yucaipa onion occurs in clay soils in openings in chaparral at 2,500 to 3,500 feet elevation. Many-stemmed dudleya occurs in clay soils in open areas of barrens, rocky places, ridgelines, chaparral, coastal sage scrub, and southern needlegrass grasslands.

Suitable soils and/or habitat conditions for the two target species do not occur on site; in addition, the site is outside the elevation range for Yucaipa onion. Therefore, focused surveys are not required for Yucaipa onion or many-stemmed dudleya.

Wildlife

Wildlife common to suburban and agricultural areas, such as red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), and California ground squirrel (*Spermophilus beecheyi*) were observed on the site, as well as special status species less frequently seen near developed areas, such as American badger (*Taxidea taxus*), golden eagle (*Aquila chrysaetos*), bobcat (*Lynx rufus*), and white-tailed kite (*Elanus leucurus*). A complete list of wildlife species observed on the site is included in Appendix A of the Biological Resources Report included as Appendix D of this DEIR.

Sensitive Resources

Special status species include those listed as endangered or threatened under the FESA or CESA, species otherwise given certain designations by USFWS or CDFW, and plant species listed as rare by the California Native Plant Society (CNPS).

Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies or that are known to provide habitat for sensitive animal or plant species.

Sensitive Plant Species

No sensitive plant species were observed onsite in surveys conducted in August 2012 and January 2013. Of 63 plant species covered by the MSHCP, 12 species that may occur in the project region are not currently considered adequately conserved. The potential for those 12 species to occur onsite is assessed in Table 5.4-2. As shown in the table, all 12 species are either considered absent from the site or are considered to have low probability to occur on-site due to lack of suitable habitat, the site being outside the current known range of the species, or both.

One sensitive plant species not covered by the MSHCP – Robinson's peppergrass (*Lepidium virginicum var. robinsonii*) – was determined to have low probability of occurrence in dry soils in coastal sage scrub and chaparral habitats onsite. Robinson's peppergrass is assigned a CNPS California Rare Plant Rank of 4.3 (plant of limited distribution; not very endangered in California [less than 20 percent of occurrences threatened]).

Table 5.4-2 MSHCP-Covered Plant Species Not Currently Considered Adequately Conserved

Species	Status		Habitat Association	Occurrence Probability Onsite
	Federal/ State	CNPS		
Abronia villosa var. aurita Chaparral sandverbena	—	CNPS 1B	Sandy areas in chaparral and coastal sage scrub and improbably in desert dunes or other sandy areas, below 5,300 feet elevation. In California, reported from Riverside, San Diego, Imperial, Los Angeles, and Ventura Counties. Believed extirpated from Orange County. Also reported from Arizona and Mexico (Baja California). Plants reported from desert communities are likely misidentified.	Low. Vegetation on site is highly disturbed, soils are mostly loams.
Astragalus lentiginosus var. coachellae *Coachella Valley milk-vetch*	FE	1B	Sandy areas, typically in coarse sands in active sand fields, adjacent to dunes, along roadsides in dune areas, or along the margins of sandy washes, in Sonoran Desert scrub at 200 to 2,150 feet elevation. Known only from Riverside County in the Coachella Valley between Cabazon and Indio, and in the Chuckwalla Valley northeast of Desert Center.	Absent. No desert vegetation on site. Site is outside elevational range of species.
Calochortus plummerae Plummer's mariposa lily	—	CNPS 1B.2	Sandy or rocky sites of (usually) granitic or alluvial material in valley and foothill grassland, coastal scrub, chaparral, cismontane woodland, and lower montane coniferous forest at 300 to 5,600 feet elevation. Known from the Santa Monica Mountains to San Jacinto Mountains in Riverside, San Bernardino, Orange, Los Angeles, and Ventura Counties, California. In the western Riverside County area, this species is known from the foothills of the San Bernardino Mountains, northeastern Santa Ana Mountains, Box Springs Mountains, and from the Lake Skinner area.	Low. Vegetation on site is highly disturbed, soils are mostly loams.
Chorizanthe parryi var. parryi Parry's spineflower	—	CNPS 1B.1	Sandy or rocky soils in chaparral, coastal scrub, or woodlands at 100 to 5,600 feet elevation. Known only from Los Angeles, Riverside, and San Bernardino Counties.	Low. Vegetation on site is highly disturbed, soils are mostly loams.
Chorizanthe xanti var. *leucotheca* White-bracted spineflower	—	1B	Sandy to gravelly places, generally in Mojave desert scrub and pinyon and juniper woodland at 900 to 4,000 feet elevation. Reported from Los Angeles, Riverside, and San Bernardino Counties.	Low. Vegetation on site is highly disturbed, soils are mostly loamy.
Deinandra mohavensis Mojave tarplant	SE	1B	Low sandbars in riverbeds, mostly in riparian areas or in ephemeral grassy areas, in riparian scrub and mesic chaparral at 2,800 to 5,200 feet elevation. Known from the San Jacinto Mountains in Riverside County, and from San Diego and Kern Counties. Believed extirpated from San Bernardino County.	Absent. Site is outside elevational range of species.
Galium californicum ssp. primum California bedstraw	—	1B	Granitic soils in chaparral and lower montane coniferous forest; 4,400 to 5,600 feet. Known from Riverside and San Bernardino Counties.	Absent. Site is outside elevational range of species. No chaparral or coniferous forest on

Table 5.4-2 MSHCP-Covered Plant Species Not Currently Considered Adequately Conserved

Species	Status		Habitat Association	Occurrence Probability Onsite
	Federal/ State	CNPS		
				site.
Horkelia cuneata sp. puberula Mesa horkelia	—	CNPS 1B.1	Sandy or gravelly soils in chaparral, or rarely in cismontane woodland or coastal scrub at 200 to 2,700 feet elevation. Known only from San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Bernardino Counties, California. Believed extirpated from Riverside and San Diego Counties.	Absent. No chaparral on site. Species believed extirpated from Riverside County.
Lilium parryi Lemon lily	—	1B	Bulbiferous perennial herb of wet areas in meadows and riparian and montane coniferous forests at 4,000 to 9,200 feet elevation. In California, known from Los Angeles, Riverside, San Bernardino, and San Diego Counties. Also occurs in Arizona and Mexico.	Absent. Site is outside elevational range of species.
Mentzelia tricuspis Spiny-hair blazing star	—	2	Sandy or gravelly slopes and washes at 500 to 4,200 feet elevation in desert scrub. In California, known from Inyo, Riverside, San Bernardino, and San Diego Counties. Also occurs in Arizona, Nevada, and Utah.	Absent. No desert scrub on site.
Mimulus purpureus Purple monkeyflower	—	1B	Meadows, pebble (pavement), plain, upper montane coniferous forest, 6,200 to 7,500 feet elevation. Known in California from fewer than 20 occurrences. Threatened by development and vehicles.	Absent. Site is outside elevational range of species.
Symphyotrichum defoliatum (Aster defoliatus) San Bernardino aster	—	1B	Vernally wet sites (such as ditches, streams, and springs) in many plant communities below 6,700 feet elevation. In California, known from Ventura, Kern, San Bernardino, Los Angeles, Orange, Riverside, and San Diego Counties. May also occur in San Luis Obispo County. In the western Riverside County area, this species is scarce, and documented only from Temescal and San Timoteo Canyons.	Low. Vegetation on site is highly disturbed. Nearest known occurrence is San Jacinto Mountains at 3,900 feet elevation.

Source: LSA 2013.
Notes:
Federal Classifications
FE - Listed by the Federal government as an endangered species.
FT - Listed by the Federal government as a threatened species.

State Classifications
CE - Listed as endangered by the State of California
CT - Listed by the State of California as a threatened species

California Native Plant Society (CNPS)
CNPS 1A - Plants presumed extinct in California.
CNPS 1B - Plants considered rare, threatened, or endangered in California and elsewhere.
CNPS 2 - Plants rare, threatened, or endangered in California but more common elsewhere.
CNPS 3 - Plants about which we need more information: A review list.
CNPS 4 - Plants of limited distribution - A watch list.

CNPS Threat Extensions
0.1 - Seriously endangered in California
0.2 - Fairly endangered in California
0.3 - Not very endangered in California

Sensitive Animal Species

The following surveys were conducted by LSA for MSHCP-covered animal species onsite:

- Habitat assessment for Los Angeles pocket mouse by on August 2, 2012.
- Trapping for Los Angeles pocket mouse (three sessions) during August and September 2012.
- Burrow surveys for western burrowing owl in August 2012.
- A habitat assessment for least Bell's vireo (*Vireo bellii pusillus*) and Southwestern willow flycatcher (*Empidonax traillii extimus*) was conducted on August 21, 2012, and again in April 2013.
- A wet season fairy shrimp survey included site visits between November 2012 and May 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 dry season fairy shrimp survey was conducted on August 8, 2013.

Table 5.4-3 details the 11 sensitive animal species observed onsite. The MSHCP covers a total of 83 animal species.

Table 5.4-3 Sensitive Animal Species Found Onsite

Species	Federal/State Status
Amphibians	
Western spadefoot (Spea hammondii)	SSC/MSHCP
Birds	
White-tailed kite (*Elanus leucurus*)	CFP/MSHCP
Burrowing owl (Athene cunicularia hypugaea)	SSC/MSHCP
Golden eagle (*Aquila chrysaetos)*	CFP/BGEPA MSHCP
Loggerhead shrike (*Lanius ludovicianus*)	SSC/MSHCP
Mammals	
Stephens' kangaroo rat (*Dipodomys stephensi)*	FE, ST/MSHCP
Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)	SSC/MSHCP
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	SSC/MSHCP
San Diego pocket mouse *(Chaetopidus fallax*)	SSC/MSHCP
Desert woodrat (*Neotoma lepida*)	SSC/MSHCP
American badger (*Taxidea taxus)*	SSC

Source: LSA 2013.
Notes:
SSC: California Species of Special Concern
CFP: California Fully Protected Animal
FE: Federal Endangered
ST: State Threatened
MSHCP: Western Riverside County Multiple Species Habitat Conservation Plan
BGEPA: Bald and Golden Eagle Protection Act

Habitat Suitability Assessments

HSAs are required on the project site under the Western Riverside County MSHCP for the following species, all of which are considered adequately conserved under the MSHCP.

- western burrowing owl (*Athene cunicularia hypugaea*), a California Species of Special Concern
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), a California Species of Special Concern
- Riverside fairy shrimp (*Streptocephalus woottoni*), listed as federally endangered; classified as a California Special Animal
- vernal pool fairy shrimp (*Branchinecta lynchi*), listed as federally threatened

Focused surveys for a species are required if an HSA identifies suitable habitat onsite. Results of the HSAs are described below:

Western Burrowing Owl (MSHCP/California species of special concern)

Suitable habitat for burrowing owl onsite—clay soils in open areas of barrens, rocky places, ridgelines, chaparral, coastal sage scrub, and southern needlegrass grasslands—was identified on aerial photographs before the first site visit.

Burrow surveys for burrowing owl were conducted in August 2012 and January 2013 per methods prescribed by the MSHCP. Two pairs of burrowing owls, one individual, and one group of six burrowing owls were observed during the burrow survey. Several active burrows with burrowing owl sign were observed within the study area. The locations of burrowing owls, active burrows, and inactive burrows with burrowing owl sign are shown in Figure 5.4-3, *Burrowing Owl Survey Results*.

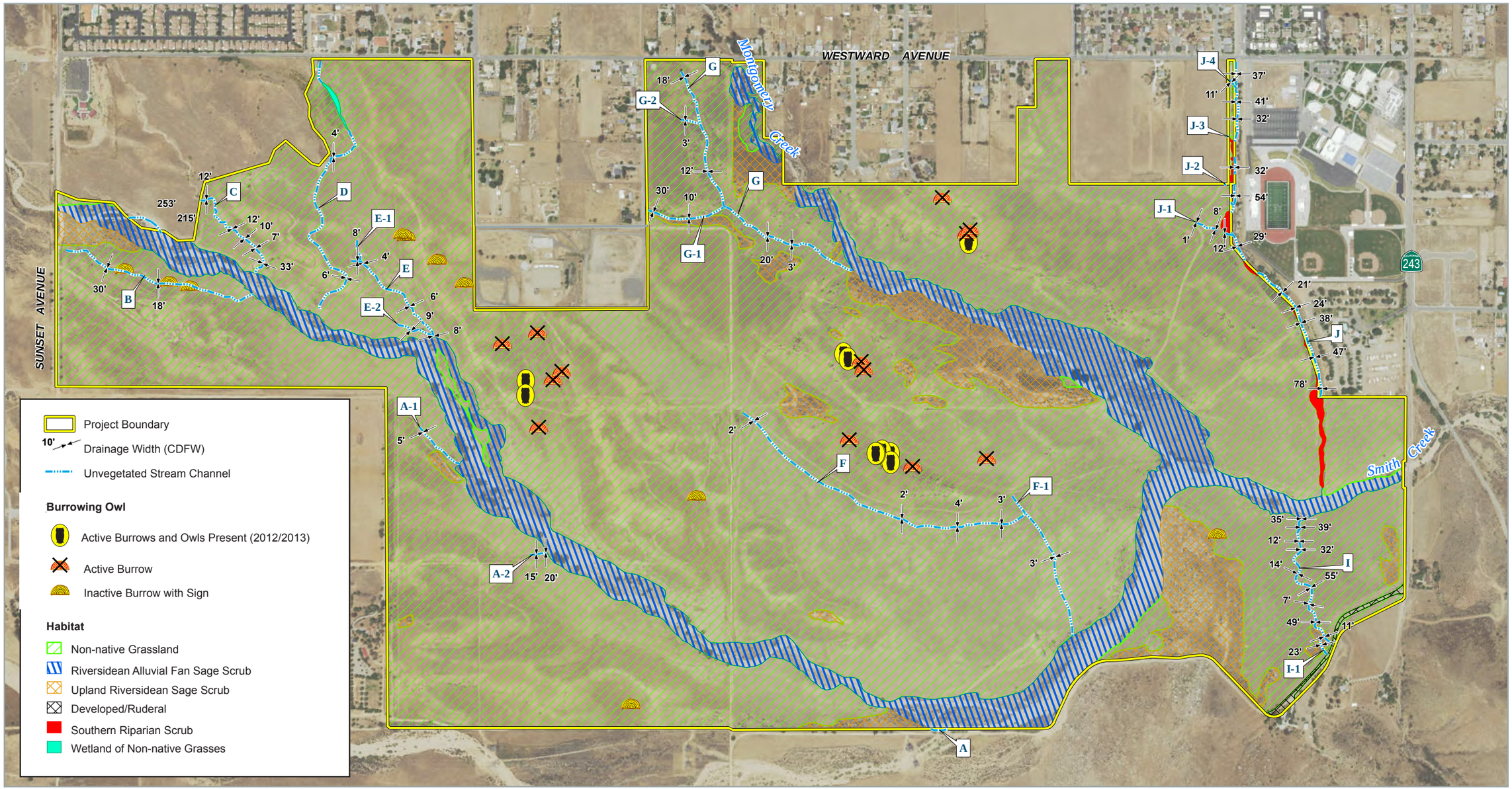
Los Angeles Pocket Mouse (MSHCP/California species of special concern)

An HSA for Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) was conducted 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 study area would be considered occupied. Therefore, the trap lines were placed primarily in areas adjacent to larger washes to determine presence/absence in areas that were not assumed to be occupied.

This species appears to be limited to sparsely vegetated habitat areas in patches of fine sandy soils associated with washes or of aeolian (windblown) origin, such as dunes.

Ten LAPM individuals were captured at eight 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 trap lines in the southeastern portion of the site.

Figure 5.4-3 - Burrowing Owl Survey Results
5. Environmental Analysis



Base Map Source: LSA, 2013.

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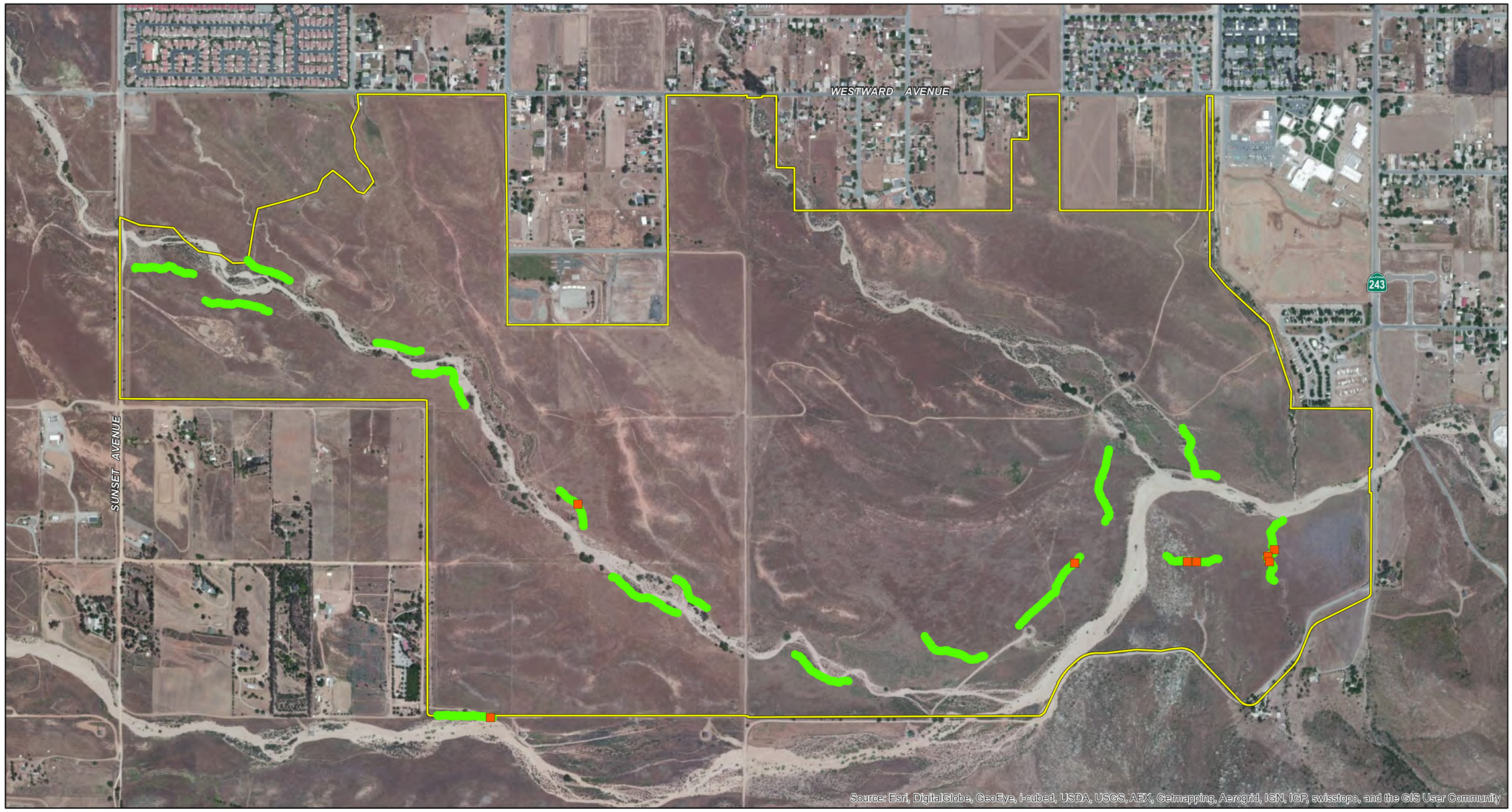
Figure 5.4-4 - Los Angeles Pocket Mouse Trapping Results
5. Environmental Analysis



Project Boundary
LAPM Capture
Traplines

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Scale (Feet)

Base Map Source: LSA, 2013.

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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. LAPM 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.

The locations of LAPM captures and trap lines are shown in Figure 5.4-4, *Los Angeles Pocket Mouse Trapping Results*.

In addition to sensitive animal species for which HSAs were conducted, one juvenile Stephens' kangaroo rat (*Dipodomys stephensi*), a federally listed endangered species and state listed threatened species, was captured during the three trapping sessions in 2012.

Riverside Fairy Shrimp and Vernal Pool Fairy Shrimp

Riverside fairy shrimp – listed as federally endangered; classified as a California Special Animal – is restricted to deep seasonal vernal pools, vernal-pool-like ephemeral ponds, and stock ponds and other human modified depressions. Riverside fairy shrimp prefer warm-water pools that have low to moderate dissolved solids, are less predictable, and remained filled for extended periods of time. Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter, or spring rains, and may persist through May. All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. Riverside fairy shrimp is restricted to southwestern California and northwestern Baja California; in California the species occurs in Los Angeles, Orange, Riverside, and San Diego counties (Dudek 2003).

Vernal pool fairy shrimp, listed as federally threatened, is restricted to seasonal vernal pools, preferring cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived. In southern California the species only occurs in western Riverside County; vernal pool fairy shrimp also occur in the Central Valley and Sierra Nevada foothills in northern California, and their range extends into southern Oregon (Dudek 2003). Vernal pool fairy shrimp were not detected during the seasonal focused surveys.

Riverside fairy shrimp (*Streptocephalus woottoni*) was the subject of seasonal focused surveys. Potential Riverside fairy shrimp habitat is illustrated on Figure 5.4-5, *Potential Fairy Shrimp Habitat*. However, Riverside fairy shrimp were not identified onsite. The only fairy shrimp species observed during the wet season survey was versatile fairy shrimp (*Branchinecta lindahli*), not a special status species nor covered by the MSHCP. The more common egg forms in the samples were the versatile fairy shrimp and alkali fairy shrimp (*B. mackini*). Given the project location, the habitat conditions, and the sizes of the eggs analyzed, the 2012–2013 dry season survey *Streptocephalus* eggs collected from the project site are 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 produces larger eggs, occurs in deeper pools, and is not known to occur as far east as the San Gorgonio Pass area. Reports from the fairy shrimp focused surveys reports are in Appendix D of this DEIR.

Sensitive Animal Species Potentially Present Onsite

Seven sensitive animal species that may occur in the project region are not covered under the MSHCP. The potential for these species to occur on the project site is described in Table 5.4-4. Note that one of the species listed in Table 5.4-4, American badger, was observed onsite; five of the other six species are either absent or have low potential to occur because the project site is outside the range or does not have adequate habitat. Pallid bat has moderate potential to roost and forage on the site.

Table 5.4-4 Animal Species Not MSHCP-Covered

Species	Status Federal/ State	Habitat Preference	Occurrence Probability Onsite
Ambystoma californiense California tiger salamander	FT SSC	Annual grasslands and grassy understory of valley-foothill hardwood habitats in Central and Northern California. Needs underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding. Below about 1,000 feet elevation.	**Absent.** Site is outside expected range of species.
Anniella pulchra pulchra *Silvery legless lizard*	— SSC	Common in several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub types. Legless lizards are common in suitable habitats in the Coast Ranges from Contra Costa Co. south to the Mexican border. Legless lizards are of spotty occurrence throughout the rest of their range, which includes the San Joaquin Valley from San Joaquin County south, the west slope of the southern Sierra Nevada, the Tehachapi Mountains west of the desert, and the mountains of southern California. An isolated desert population is known from Whitewater, Riverside County.	**Moderate.** Conditions may be suitable along storage channels, but may be too dry.
Antrozous pallidus Pallid bat	— SSC	Day roosts in caves, crevices, rocky outcrops, tree hollows or crevices, mines and occasionally buildings, culverts, and bridges. Night roosts may be more open sites, such as porches and open buildings. Grasslands, shrublands, woodlands, and forest in western North America.	**Moderate.** May roost and forage on site.
Chaetodipus californicus femoralis Dulzura pocket mouse	— SSC	Found in a variety of habitats including coastal sage scrub, chaparral and grassland in northern Baja California, San Diego and extreme southwestern and western Riverside Counties. Limit of range to northwest (at interface with C. c. dispar) unclear.	**Absent.** Site is outside expected range of species.
Lasiurus xanthinus Western yellow bat	— SSC	Found in desert and riparian areas of the southwest U.S. Individuals roost in the dead fronds of palm trees, and have also been documented roosting in cottonwood trees.	**Low.** Suitable roosting habitat not present on site, but may forage over site.
Nyctinomops femorosaccus Pocketed free-tailed bat	SSC	Roosts primarily in crevices in cliffs, high rocky outcrops, and slopes. Forages widely in a variety of desert scrub, desert riparian habitats.	**Absent.** Suitable roosting habitat is absent from site.

Table 5.4-4 Animal Species Not MSHCP-Covered

Species	Status Federal/ State	Habitat Preference	Occurrence Probability Onsite
Onychomys torridus ramona Southern grasshopper mouse	— SSC	Believed to inhabit sandy or gravelly valley floor habitats with friable soils in open and semi-open scrub, including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs, preferring low to moderate shrub cover. More susceptible to small- and large- scale habitat loss and fragmentation than most other rodents, due to its low fecundity, low population density, and large home range size. Arid portions of southwestern California and northwestern Baja California.	Low. Site is highly disturbed with only sparse scrub and mostly loamy soils. Not found during Los Angeles pocket mouse survey.
Taxidea taxus American badger	— SSC	Primary habitat requirements seem to be sufficient food and friable soils in relatively open uncultivated ground in grasslands, woodlands, and desert. Widely distributed in North America.	Present. Observed during Los Angeles pocket mouse survey.
Xerospermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	— SSC	Desert succulent scrub, desert wash, desert scrub, alkali scrub; will burrow in man-made levees; prefers open, flat, grassy areas in fine textured, sandy soil. Restricted to Coachella Valley.	Absent. No desert or alkali scrub on site.

Source: LSA 2013
Notes:
Federal Classifications
FE - Listed by the Federal government as an endangered species.

State Classifications
CE - Listed as endangered by the State of California
CT - Listed by the State of California as a threatened species
SSC – Listed by the State of California as a species of special concern

Sensitive Natural Communities

Two sensitive natural communities, southern riparian scrub (0.06 acres) and Riversidean alluvial fan sage scrub (82.6 acres), were identified onsite (see Figure 5.4-2).

Wildlife Movement Corridors

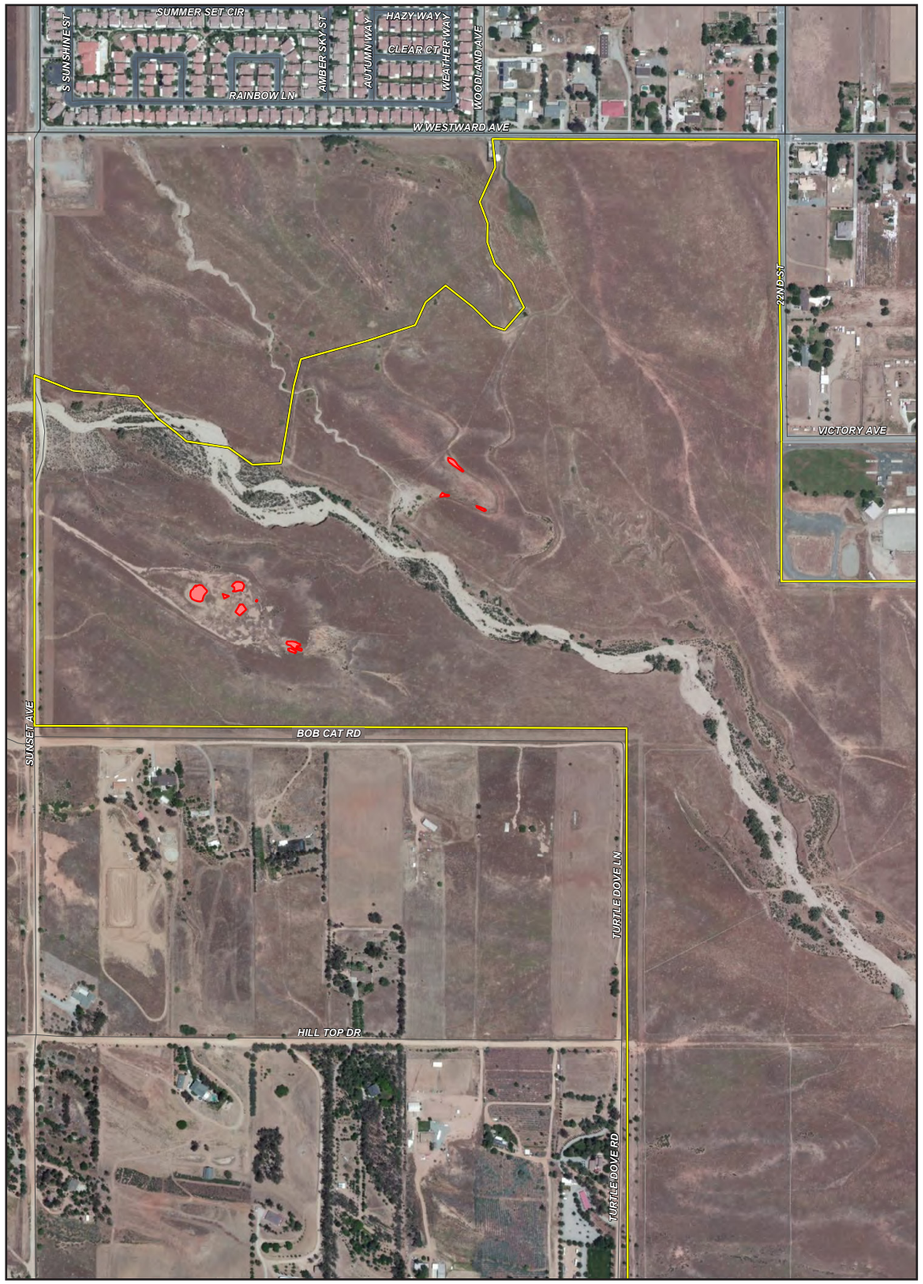
Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging and reaching water sources. Migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

Smith Creek and Pershing Creek provide cover for movement of bobcat, coyote, badgers, and other wildlife through the area. Montgomery Creek north of the site passes through part of the City of Banning as an engineered channel with concrete beds and banks and is undergrounded under and near the I-10. Those segments of Montgomery Creek do not provide cover for wildlife movement. Thus, Montgomery Creek is not an important wildlife corridor linking the project site with wildlife habitat offsite.

There are no bird rookeries on the project site, but there are several burrowing owl burrows.

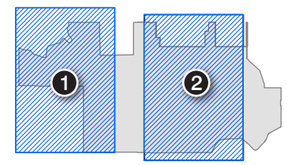
The project site is not in a Linkage designated under the MSHCP, that is, a connection between substantial habitat blocks with adequate size, configuration, and vegetation characteristics to generally provide for "live-in" habitat and/or provide for genetic flow for identified covered species.

Figure 5.4-5 - Potential Fairy Shrimp Habitat



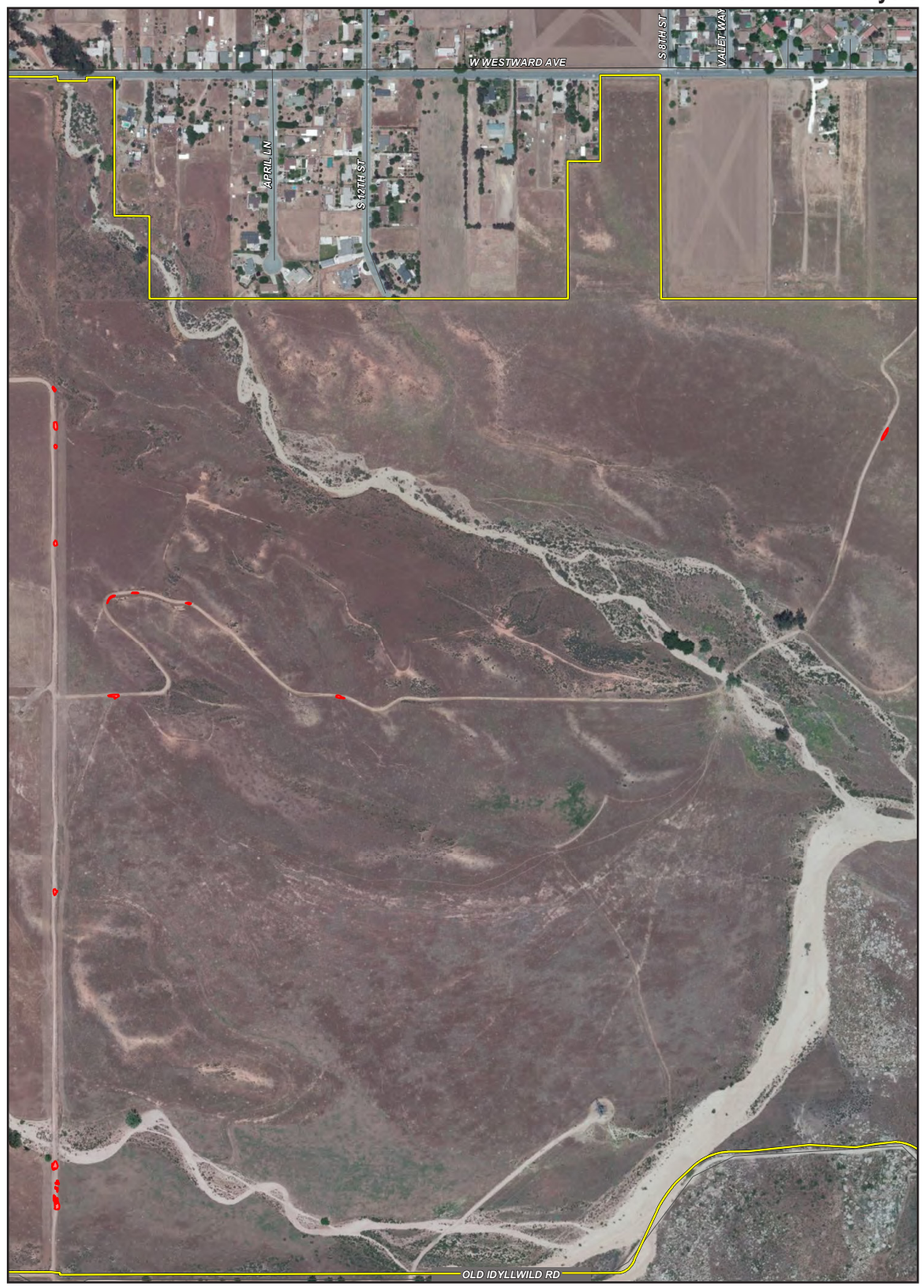
1 Left Map

Key Map



Project Boundary

Potential Fairy Shrimp Habitat



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Scale (Feet)

Base Map Source: LSA, 2013.

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Jurisdictional Waters and Wetlands

The MSHCP defines riparian/riverine areas, areas in which riparian bird species, vernal pools, and fairy shrimp species may occur within the MSHCP Area. MSHCP 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. The study area was surveyed on foot and by vehicle to identify potential jurisdictional areas. All areas of potential jurisdiction were delineated according to the current Corps 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 described in the *Arid West Supplement to 1987 Corps of Engineers Wetland Delineation Manual* (*1987 Manual*) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*Regional Supplement*). Representative sample plots were selected and examined in the field where wetland jurisdiction was in question or needed to be confirmed. At each sample plot, the dominant plant species were identified and their wetland indicator statuses noted. Soil pits were dug to determine if areas within and adjacent to the potential jurisdictional waters were wetlands. The soil profiles in soil pits were assessed to determine the presence or absence of hydric indicators.

The rolling hills and high terraces within the upland areas are split by the deeply incised Montgomery and Pershing Creeks, both of which are tributaries to a larger drainage identified as Smith Creek. The channel depths vary from 1 to 20 feet. The creeks contain low-flow channels, active terraces, inactive low terraces, and isolated oxbows. Erosional features and agricultural ditches along the base of the dryland farming terraces also occur onsite, but do not flow into the creeks.

The main channel of Drainage A (consisting of Pershing and Smith Creeks) is 16,576.2 linear feet of ephemeral waters. Drainage H (Montgomery Creek) is 7,691.7 linear feet of ephemeral waters. Drainage J (South 4th Street) is 4,383.6 linear feet of ephemeral waters. Other tributaries, with and without seasonal flow, bring the total hydrologic feature length onsite to 42,708.4 linear feet, or about 8.1 miles. Note that part of the segment of Montgomery Creek onsite consists of two parallel channels.

The only wetland onsite is 0.2 acre where nuisance flows from Woodland Avenue sheet flow into the pasture, inducing a wetland consisting mostly of nonnative hydrophytic grasses—that is, grasses growing on or in water. The wetland area is not considered potentially jurisdictional to the corps.

The total potential federal jurisdiction onsite is 28.9 acres of ephemeral waters. The total area of potential CDFW jurisdiction onsite, including riparian/riverine vegetation, is 73.7 acres. Potential jurisdictional areas are mapped on Figure 5.4-6, *Jurisdictional Delineation*. CDFW-jurisdictional areas, including Riparian/Riverine areas are mapped on Figure 5.4-7, *CDFW Jurisdictional Areas*.

5.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

B-1 Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

B-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

B-3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

B-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.4.3 Environmental Impacts

Impacts to habitat types and associated species are shown in acres in Table 5.4-5 and are mapped on Figure 5.4-8, *Impacts to Habitats*.

Table 5.4-5 Summary of Project Impacts by Habitat Type and Associated Species

Habitat Type	Land Cover Type	Acres Onsite	Acres Avoided/Conserved	Acres Impacted
Nonnative grassland	Pastures and Fields	700.5	45.2	655.3
MSHCP-Covered Species	Western spadefoot, coast horned lizard, red-diamond rattlesnake, western burrowing owl, golden eagle, ferruginous hawk, white-tailed kite, California horned lark, loggerhead shrike, turkey vulture, coyote, Stephens' kangaroo rat, Dulzura kangaroo rat, San Diego black-tailed jackrabbit, bobcat, long-tailed weasel, and mountain lion.			
Non-MSHCP Species	Coast patch-nosed snake, Oregon vesper sparrow, American badger, , and Robinson's peppergrass.			
Riversidean alluvial fan sage scrub	Ephemeral/Intermittent Streams	82.6	55.8	26.8
MSHCP-Covered Species	Western spadefoot, coastal western whiptail, coast horned lizard, red-diamond rattlesnake, southern California rufous-crowned sparrow, golden eagle, white- tailed kite, loggerhead shrike, coyote, Los Angeles pocket mouse, San Diego pocket mouse, Stephens' kangaroo rat, Dulzura kangaroo rat, San Diego black-tailed jackrabbit, bobcat, long-tailed weasel, San Diego desert woodrat, and mountain lion.			
Non-MSHCP Species	Chaparral sand verbena, silvery legless lizard, coast patch-nosed snake, pallid bat, western mastiff bat, western yellow bat, , Robinson's peppergrass, and American badger.			
Upland Riversidean sage scrub	Upper Terraces of Stream Channels	44.6	17.5	27.1
MSHCP-Covered Species	Parry's spineflower, western spadefoot, coastal western whiptail, San Diego banded gecko, coast horned lizard, granite spiny lizard, red-diamond rattlesnake, Southern California rufous-crowned sparrow, golden eagle, Bell's sparrow, Costa's hummingbird, coyote, San Diego pocket mouse, Dulzura kangaroo rat, bobcat, long-tailed weasel, San Diego desert woodrat, and mountain lion.			
Non-MSHCP Species	Silvery legless lizard, coast patch-nosed snake, Costa's hummingbird, , Robinson's peppergrass, and Lawrence's goldfinch.			
Southern riparian scrub	Fourth Street Channel	0.06	0	0.06
MSHCP-Covered Species	None			
Non-MSHCP Species	Silvery legless lizard, oak titmouse, and yellow-headed blackbird.			
Wetland with non-native grasses	pasture	0.2	0	0.2
MSHCP-Covered Species	none			
Non-MSHCP Species	none			
Seasonally Ephemeral Pools and Puddles in Grassland	Graded Hilltop and Road Puddles	0.2	0	0.2
MSHCP-Covered Species	Western spadefoot toad.			
Non-MSHCP Species	none			
Developed/Roads/Utilities	Roads and Utilities	2.6	0.8	1.7
Total		831	119.3	711.5
Additional Vegetation Information				
Native Trees (elderberry, cottonwood, live oak)	Pershing and Montgomery Creeks	0.47	0.08	0.39
MSHCP-Covered Species	White-tailed kite (and other large nesting birds such as crows, hawks, owls)			
Non-MSHCP Species	Pallid bat, western yellow bat, and big free-tailed bat.			

Source: LSA 2015.

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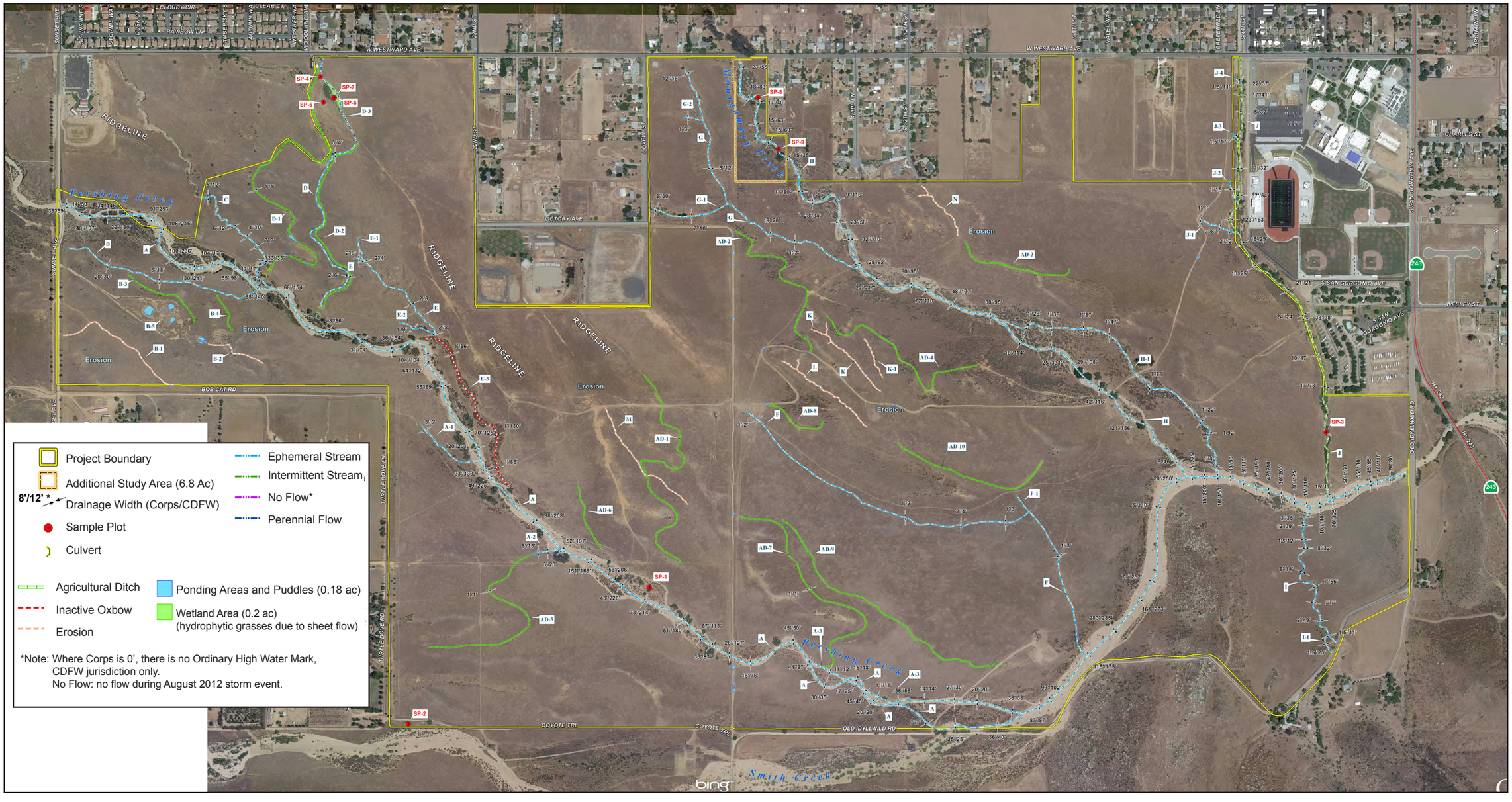
Figure 5.4-6 - Jurisdictional Delineation

5. Environmental Analysis



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Scale (Feet)

Base Map Source: LSA, 2015.

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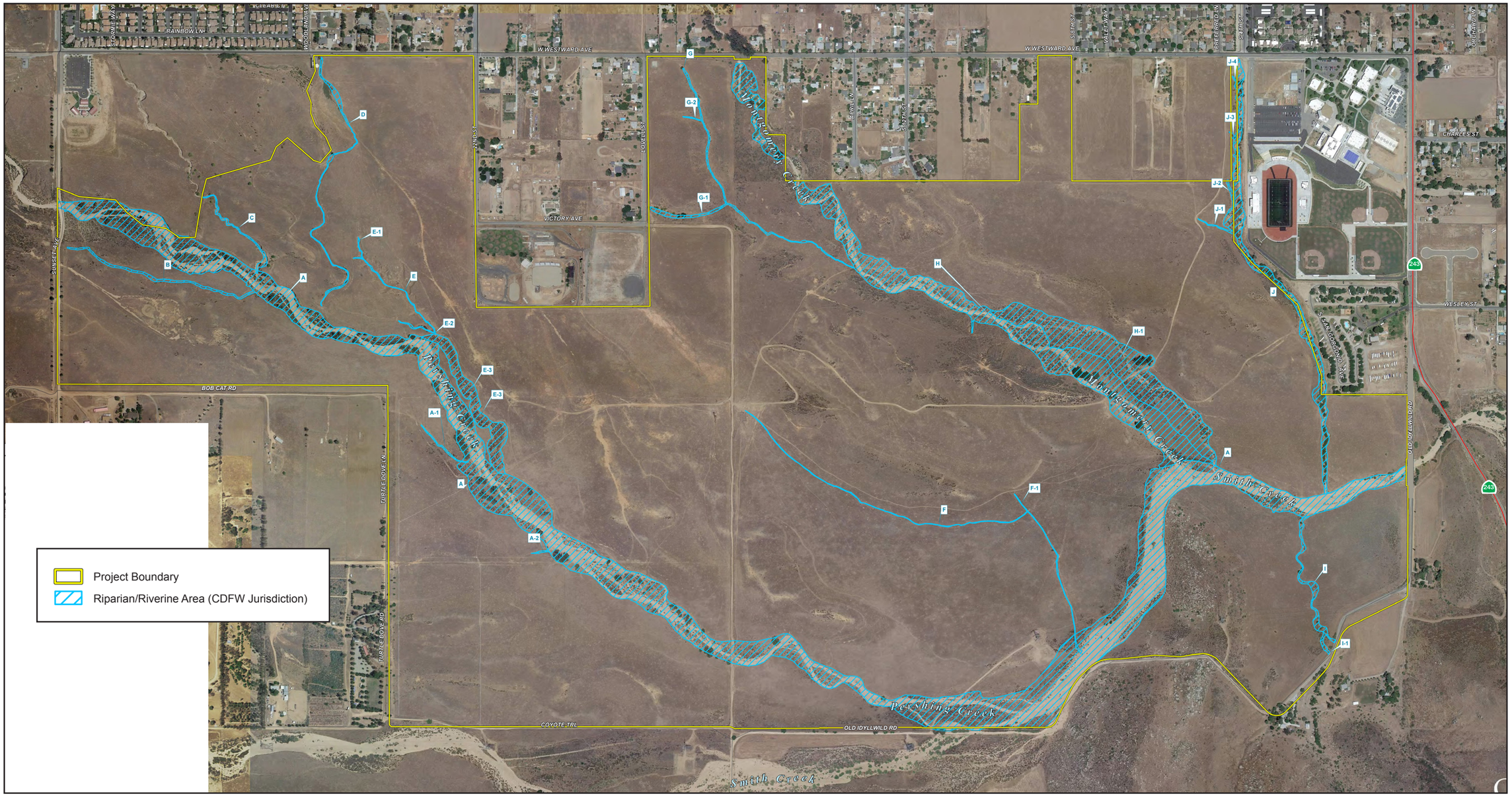
Figure 5.4-7 - CDFW Jurisdictional Areas

5. Environmental Analysis



Base Map Source: LSA, 2015.

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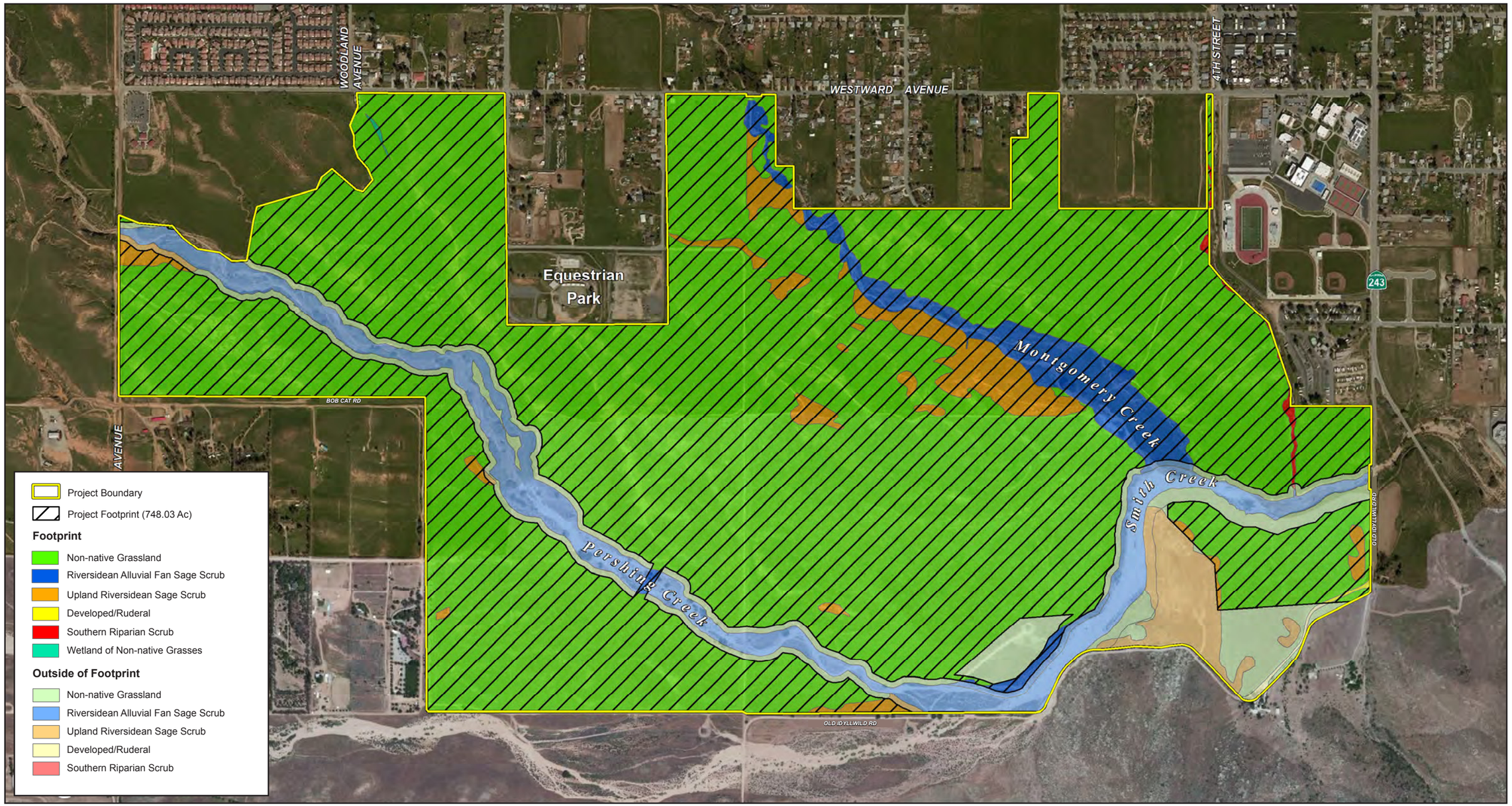
Figure 5.4-8 - Impacts to Habitats
5. Environmental Analysis



Base Map Source: LSA, 2015.

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Impact 5.4-1:	Development of the proposed project would impact sensitive species. [Thresholds B-1 and B-6]

Impact Analysis:

MSHCP-Covered Species

The following MSHCP-covered species were observed onsite: western spadefoot toad, rufous-crowned sparrow, golden eagle, Bell's sparrow, burrowing owl, white-tailed kite, oak titmouse, California horned lark, loggerhead shrike, turkey vulture, coyote, San Diego pocket mouse, San Diego black-tailed jackrabbit, bobcat, Los Angeles pocket mouse, Dulzura kangaroo rat, San Diego woodrat, and Stephens' kangaroo rat.

The following MSHCP-covered species are considered to have high potential to occur onsite due to the presence of suitable habitat: coast horned lizard, granite spiny lizard, and mountain lion. And the following MSHCP-covered species are regarded as having moderate potential to occur onsite: Parry's spineflower, slender-horned spineflower, Mesa horkelia, Bell's sparrow, Costa's hummingbird, and ferruginous hawk. The potential impacts to the aforementioned species would be potentially significant.

Burrowing Owl

Of the 700.5 acres of grassland habitat considered suitable for burrowing owls, project development would impact 655.3 acres, and 45.2 acres would be avoided. Eleven burrowing owls were observed onsite during the focused surveys; owls and active burrows were scattered across much of the site (see Figure 5.4-3, *Burrowing Owl Survey Results*).

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 acres 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 development would not conserve 90 percent of the area onsite with long-term conservation value and burrowing owl pairs. Therefore, per the MSHCP, a DBESP has been prepared and is included as Appendix E to this DEIR. This impact would be potentially significant.

Los Angeles Pocket Mouse

Project development would impact 402.7 acres of suitable habitat for the Los Angeles pocket mouse (LAPM)—the hills and fields in the southeast portion of the site, tributaries to the major washes, and additional areas along the major washes. LAPM was observed onsite. Specific Plan implementation would preserve 77.7 acres of the small mammal survey area within Pershing Creek.

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 Los Angeles pocket mouse (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. A DBESP has been prepared and is included as Appendix E to this DEIR.

The area of LAPM habitat impacted, 402.7 acres, would be nearly 84 percent of the total 480.4 acres of suitable habitat for LAPM onsite. This impact would be potentially significant.

Stephens' Kangaroo Rat

Project buildout would impact 655.3 acres of nonnative grassland and 26.8 acres of Riversidean alluvial fan sage scrub that are suitable habitat for Stephens' kangaroo rat (SKR), which was observed onsite. This impact would be potentially significant.

Proponents of projects developed in conformance with the Specific Plan would pay MSHCP mitigation fees and SKR habitat mitigation fees of $500 per gross acre for development projects within the designated fee area is required pursuant to Riverside County Municipal Code Chapter 4.64, Stephens' Kangaroo Rat Mitigation Fee. Project proponents and their construction contractors would also comply with MSHCP construction guidelines and best management practices in Mitigation Measure 4-3.

Species Not Covered by the MSHCP

Project buildout would impact the following species not covered by the MSHCP and associated with alluvial fan sage scrub and arid land streambeds as listed above in Table 5.4-5: silvery legless lizard, American badger, pallid bat, western mastiff bat, and big free-tailed bat.

Project development would impact the following species not covered by the MSHCP and associated with grassland and coastal sage scrub habitats, and for which marginally suitable habitat at the limits of the species' ranges occurs onsite (see Table 5.4-5): coast patch-nosed snake, American badger, pallid bat, western mastiff bat, and big free-tailed bat. One additional species, Robinson's peppergrass, is described in text in Section 5.4.1.2 above. Focused surveys for Townsend's big-eared bat and other bat species will be conducted to determine habitat suitability and, if present, search for individuals within the project area.

This impact would be potentially significant.

Indirect Impacts

Construction and operation of projects developed pursuant to the MSHCP may affect species and habitats indirectly. Such affects may occur later in time or at greater distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities.

Indirect impacts of the project on adjacent areas may result from edge effects such as exotic plant infestations, pollutants from stormwater runoff, increased fire risk, unauthorized recreational use, and litter. Exotic plant infestations may degrade native habitat that supports special-status and other native species.

Additionally, pollutants (for example in the form of nitrogen compounds from lawn fertilizer or pet waste) may settle on the soil and stimulate growth of nonnative species, which may outcompete native species. Fire risk increases the potential to require vegetation clearing and removal of habitat. Increased fire frequency may also result in type conversion of native habitats and an increase in the number of exotic plant species. Type conversions from more open native habitat to more dense nonnative grasslands would reduce the area of potential habitat for some special-status and other native species. The project may result in additional litter, which may in turn result in animal infestations. These may result in additional predators in the area that may prey on native species. Edge effects resulting from an increase in light and glare associated with safety lighting would be reduced by incorporating shielded lighting near environmentally sensitive areas. This impact would be potentially significant.

Indirect impacts would be minimized by reducing edge effects by implementing the construction guidelines and best management practices listed in Section 5.4.7, *Mitigation Measures*, the development and implementation of stormwater pollution prevention plans and water quality management plans, and following the protocols, similar to those provided in the *Guidelines Pertaining to the Urban/Wildlands Interface* in the MSHCP, Section 6.1.4 and specified in Mitigation Measure 4-11. The MSHCP was conceived and developed and is being implemented specifically to address the direct, indirect, cumulative, and effects on species and habitats at the urban-wildland interface.

Impact 5.4-2 **Specific Plan buildout would impact large trees suitable for bird nesting and bat roosting. [Threshold B-1]**

Impact Analysis: Specific Plan buildout would impact 0.39 acre of native trees (elderberry, cottonwood, and live oak) in Pershing and Montgomery creeks; scattered eucalyptus and tamarisk trees in Pershing, Montgomery, and Smith Creeks; and black locust (*Robina pseudoacacia*) in the upper reach of Fourth Street Channel. These trees are suitable for nesting by smaller birds of special concern, such as the white-tailed kite. Other species (not covered by the MSHCP) associated with large mature solitary or clustered trees include the Nuttall's woodpecker and some bat species, including the western yellow bat and western red bat. This impact would be potentially significant.

Impact 5.4-3 **Buildout of the Specific Plan would not impact narrow endemic plants, fairy shrimp species, vernal pool plant species, or riverine plant species. [Threshold B-1].**

Impact Analysis:

Narrow Endemic Plants

No impacts to MSHCP Survey Area 8 narrow endemic plant species—Yucaipa onion and many-stemmed dudleya—are likely to occur. An HAS conducted for these two species determined that no heavy clay soil habitat suitable for these species is present onsite; therefore, these species are unlikely to be present.

Fairy Shrimp Species

No impacts to sensitive fairy shrimp species would occur. No MSHCP-covered or listed fairy shrimp species are present on the project site. Focused wet and dry season surveys confirmed absence of listed or other special status fairy shrimp species.

Vernal Pool Plant Species

No impacts to listed or special-status plant species associated with clay soils, vernal pools, or playas —thread-leaved brodiaea (FT/SE), spreading navarretia (FT), and San Jacinto Valley crownscale (FE)—would occur. No vernal pools were identified onsite.

Riverine Plant Species

Impacts to listed plant species associated with sand dunes, sandy alluvium, and flood terraces and mountainous regions, such as California dandelion (FE) and Coachella Valley milk-vetch (FE), are unlikely to occur since the project is located outside the species' geographic or elevation range.

Impact 5.4-4 **Development of the Specific Plan would not impact special status species associated with upland vegetation communities. [Threshold B-1]**

Impact Analysis: Impacts to chaparral, coastal sage scrub, mesic sites, and grassland habitats found at higher elevation, and on rock outcrops, ridgelines, and mountain slopes are unlikely to occur because these areas are proposed for natural open space (no development). Plant and animal non-listed California species of special concern adapted to these habitat types are Plummer's mariposa lily, Payson's jewel-flower, Cleveland bush monkeyflower, granite spiny lizard, Costa's hummingbird, Lawrence's goldfinch, black-chinned sparrow, Brewer's sparrow, western mastiff bat, pocketed free-tailed bat, and big free-tailed bat. The project would designate the 16.2 acres of rock outcrops/ridgeline with coastal sage scrub as open space; therefore, impacts would be less than significant.

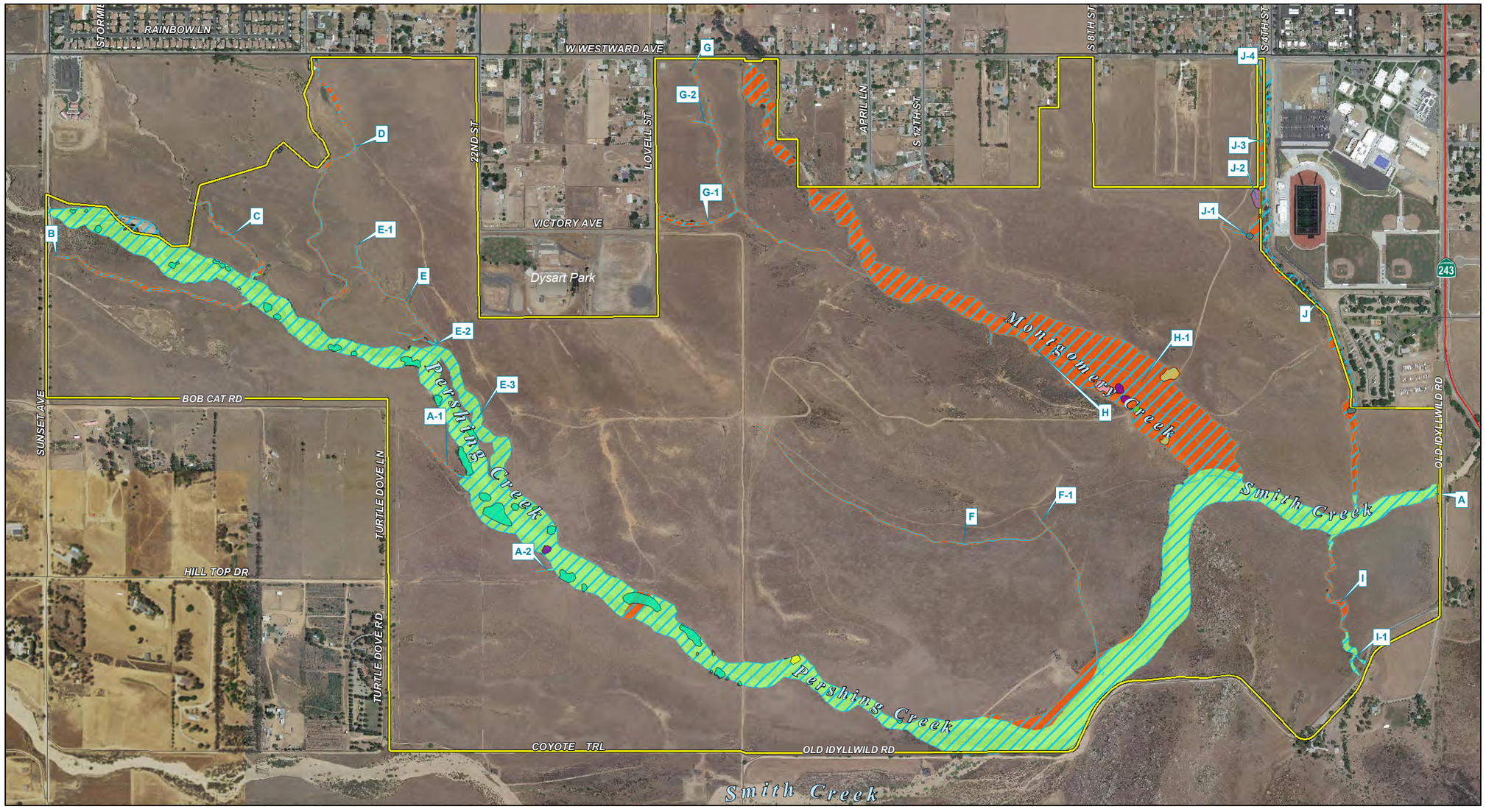
Impact 5.4-5 **Specific Plan buildout would impact riparian/riverine habitats and sensitive natural communities, including 26.8 acres of Riversidean alluvial fan sage scrub, 27.1 acres of upland Riversidean sage scrub, 0.2 acre of wetland with nonnative grasses, and 0.06 acre of mulefat scrub. [Threshold B-2]**

Impact Analysis:

Riparian/Riverine Habitats

Project development would impact 26.8 acres of Riversidean alluvial fan sage scrub on alluvial soils of washes and gently sloping alluvial fans in the Smith Creek, Montgomery Creek, and Pershing Creek drainages, and 0.06 acre of mulefat scrub (southern riparian scrub) in the lowest 100 feet of the South Fourth Street Channel. Areas of Corps- and CDFW-jurisdictional, including riparian/riverine habitats that would be impacted are shown on Figure 5.4-9, *Impacts to Riparian/Riverine Habitat*. This impact would be potentially significant.

Figure 5.4-9 - Impacts to Riparian/Riverine Habitats
5. Environmental Analysis



Base Map Source: LSA, 2015.

5. Environmental Analysis
BIOLOGICAL RESOURCES

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The DBESP Report set forth a range of options for mitigating impacts to riparian habitats, included here as Mitigation Measure 4-6 in Section 5.4-7, below. The options are: (1) contribution of land at 2:1 ratio containing similar habitat and jurisdictional areas to the Reserve; (2) land dedicated at 2:1 mitigation ratio in fee-title toward conservation and managed by third-entity conservation entity; (3) fee payment made to mitigation bank of in-lieu fee program at 2:1 mitigation ratio; or (4) through creation and enhancement of riparian habitat at 2:1 mitigation ratio within the project area using the increased surface runoff from the developed areas expected to be received via the storm drain outlets into Smith and Pershing Creeks.

Other Sensitive Natural Communities

Specific Plan buildout would impact 27.1 acres of upland Riversidean sage scrub and 0.2 acre of wetland with nonnative grasses. The wetland area is not considered potentially jurisdictional to the Corps. Most of the upland Riversidean sage scrub that would be impacted is in the northeast quadrant of the site west of Montgomery Creek (see Figure 5.4-8, *Impacts to Habitats*). Upland Riversidean sage scrub occurs on the upper terraces of stream channels; thus, this impact analysis does not conflict with the analysis of Impact 5.4-4, which focuses on higher-elevation (hill and mountain) areas. This impact would be potentially significant.

Project buildout would impact 0.2 acre of seasonally ephemeral pools and puddles in grassland. These are artificial features created by roads, compaction, and grading in fields and are thus not considered sensitive natural communities. This impact would be less than significant.

Impact 5.4-6	Project development would impact 28,126 linear feet of ephemeral streams, 6.9 acres of waters jurisdictional to the Corps, and 26.3 acres of streambed jurisdictional to the CDFW. [Threshold B-3]

Impact Analysis: Most of the impacts to streambed jurisdictional to the CDFW would be in Montgomery Creek, with smaller areas in Smith Creek, in Gilman Home Channel and in several smaller drainages. Impacts to waters jurisdictional to the Corps would be along the major drainages as well as numerous small ephemeral drainages. These impacts would be potentially significant.

Mitigation for impacts to areas jurisdictional to the Corps and/or the CDFW consists of a range of options, set forth in the Biological Resources Report and in Mitigation Measure 4-5 in Section 5.4-7, below, including onsite mitigation at a 2:1 ratio, where feasible, and offsite mitigation at a 3:1 ratio. Mitigation Measure 4-5 also includes requirements for native landscaping in certain areas, removal of nonnative vegetation, use of stormwater basin discharges to support riparian vegetation downstream, and avoidance of jurisdictional areas where feasible.

Impact 5.4-7	Specific Plan development would not impact wetlands jurisdictional to the Army Corps of Engineers. [Threshold B-3]

Impact Analysis: The 0.2 acres of wetland onsite is seasonal ponding in developed areas wetted by stormwater, which is unreliable and nonsustaining. The wetland is not jurisdictional to the Army Corps of Engineers, and no impact to jurisdictional wetlands would occur.

Impact 5.4-8 Specific Plan buildout would impact wildlife movement and dispersal routes. [Threshold B-4]

Impact Analysis: Project buildout would remove most of the remaining open land within the City of Banning north of the San Jacinto Mountains and along Smith Creek. The development of 711.5 acres of upland and riverine habitat would impact wildlife movement and dispersal due to the expansive nature of the project in remaining areas of open space in and next to the southern part of the City of Banning. A new road crossing would be built across Pershing Creek near the center of the project site. Impacts on wildlife movement and dispersal include presence of fill in the creek, lighting, and perching sites for predators. This impact would be potentially significant.

MSHCP-identified regional wildlife movement corridors are located in the mountain areas and foothills of the Pass Area. The San Gorgonio Pass linkage provides a connection between the San Bernardino and San Jacinto Mountains north and south of Banning, respectively. The linkage is approximately 1.1 miles from the project site and has already been compromised by long-standing development of the City of Banning. Project development would not have a significant impact on wildlife movements within MHSCP-identified corridors.

Pershing and Smith Creeks and the grassland/coastal sage scrub habitat on rocky outcrops would be dedicated as 119.3 acres of open space within the proposed project area. Pershing and Smith Creeks would continue to function as riverine movement corridors. To further reduce impacts associated with the potential loss of connectivity opportunities for wildlife within Pershing Creek, the project would create a crossing under the newly proposed road that would allow continued wildlife movement. The proposed arch or large box culvert bridge would provide a line-of-sight wildlife crossing and would be suitable for large-sized wildlife movement. The SR-243 bridge at the eastern project boundary is not part of the project, and this crossing would not be modified.

In addition to the proposed wildlife crossing, Mitigation Measure 4-11 sets forth the following requirements to be implemented in the Smith Creek and Pershing Creek linear parks and proposed adjacent developments to minimize potential impacts of encroachments—such as light, pets, and invasive plant species—on wildlife movement in Smith and Pershing creeks.

- Lighting shall be directed away from the creeks.
- Pets shall be required to be on leash at all times in the linear parks along Smith Creek and Pershing Creek, as well as in natural open space areas within the Specific Plan site.
- Native vegetation shall be used in the Smith Creek and Pershing Creek linear parks to provide wildlife movement, cover, and screening.

Impact 5.4-9	Project development would not have significant impacts on bat breeding colonies or colonial roosting sites. [Threshold B-4]

Impact Analysis: Project development would not impact bat breeding colonies or colonial roosting sites. Such occupancies by bats onsite are unlikely due to the lack of a dependable source of surface water as well as the lack of caves and large artificial structures such as bridges. Impacts would be less than significant.

Impact 5.4-10	Specific Plan buildout would involve the removal of trees requiring replacement pursuant to City of Banning ordinance. [Threshold B-5]

Impact Analysis: A total of 0.39 acre of cottonwood, elderberry, and coast live oak trees in Montgomery Creek would be removed as shown in Table 5.4-5. Tree removals are strongly discouraged and require replacement under City of Banning Municipal Code Section 17.32.060. Therefore, impact would be potentially significant. Under Mitigation Measure 4-9, a tree removal and replacement plan would be required. Each identified tree removed shall be replaced with at least one 36-inch box specimen tree, in addition to any other required landscaping.

Impact 5.4-11	Project buildout would require measures for compliance with the MSHCP and payment of fees pursuant to the Stephens' kangaroo rat HCP. [Threshold B-6]

Impact Analysis:

MSHCP Consistency Analysis

The purpose of the consistency analysis and the determination of biologically equivalent or superior preservation is for the lead agencies to ensure that a project fulfills all the requirements that apply to it under the MSHCP guidelines, permits, and implementation agreement. Following is a summary of the discussion of the impacts and the proposed avoidance, minimization, and mitigation measures. The MSHCP and DBESP Report are included in Appendix E of this DEIR.

- **MSHCP Section 6.1.2: Riparian/Riverine Habitat and Vernal Pool Areas**

    - The project would avoid 21.8 acres out of 74.3 acres of riparian/riverine/CDFW streambed habitat. No vernal pools were identified on the project site. This acreage does not include the 0.4 acre of storm drain outfall and puddles in the project site.

    - No direct impacts would occur to habitat for MSHCP-Covered riparian bird species of concern, least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo, per MSHCP guidelines.

    - The ponding conditions were found to not be suitable for MSHCP-covered fairy shrimp species and/or not within the species distribution range. Riverside fairy shrimp and vernal pool tadpole shrimp do not occur on the project site (Appendix E, Vernal Pool Reports).

- **MSHCP Section 6.1.3: Narrow Endemic Plant Species Survey Area**

  - Vernal pool plant associations were not observed in the project area. HSAs for the two MSHCP Survey Area plant species of interest in the Banning area—Yucaipa onion and many stemmed dudleya—determined suitable soils and/or habitat conditions do not occur on site.

- **MSHCP Section 6.1.4: Urban/Wildlands Interface (not applicable)**

  - This project is not 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.

- **MSHCP Section 6.3.2 (Species Surveys)**

  - The project site is not in a Criteria Area Plant Species Survey Area (not applicable).

  - The project site is not in an Amphibian Species Survey Area (not applicable).

  - The project site is in a Mammal Species Survey Area. Los Angeles pocket mouse was found in the grassland and upland sage scrub, and is also known to occur in the alluvial fan sage scrub within the creeks. The upland habitat areas and minor tributary habitat would be developed, but Pershing and Smith Creeks would be left in their current conditions. Fifty feet of native habitat buffer at the top of the stream banks would remain in place along Pershing and Smith Creeks. Occupied Los Angeles pocket mouse grassland habitat (480.4-acre MSHCP Survey) area within the project site would be impacted. Since this impact area exceeds more than 10 percent of the habitat in the project site's small mammal survey area, a DBESP and compensatory mitigation is required per the MSHCP.

  - The project site is in a Burrowing Owl Survey Area. The grassland in the project area is considered suitable for burrowing owls due to use of rangeland/grassland habitat, of which 655.3 acres would be impacted. Two pairs of burrowing owls, one individual, and one group of six 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 area. Since the project site meets the MSHCP criteria requiring on-site conservation of 90 percent of the burrowing owl habitat and the project would impact greater than 10 percent of the site's owl habitat, a DBESP has been prepared.

- **MSHCP Section 7.5.2: Wildlife Crossings:** The existing Sunset Avenue would be improved for flood safety, increased traffic use, and emergency services. In addition, a new road would be placed in the center of Pershing Creek. The State Route 243 bridge and the road itself would not be improved upon by the project. The project would be required to comply with Section 7.5.2 of the MSHCP: Guidelines for Construction of Wildlife Crossings.

- **MSHCP Reserve Assembly:** The City 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 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 is not within any of the reserve assembly areas; therefore, it is not subject to MSHCP Reserve Assembly consideration described in MSHCP Section 3.0 or the Habitat Acquisition Assembly process (HANS) described in MSHCP Section 6.1.1.

Measures from the DBESP designed to reduce impacts to three of the animal species covered under the MSHCP—Burrowing owl, Los Angeles pocket mouse, and Stephens' kangaroo rat—to less than significant are described below in Mitigation Measures 4-1, 4-2, and 4-3, respectively).

5.4.4 Cumulative Impacts

A project's cumulative effects may be considered significant if the incremental effects of a project are considerable when viewed in connection with the effects of similar projects in the area in the past, present, and future.

The cumulative effects of the Rancho San Gorgonio Specific Plan project and similar projects are significant. A detailed accounting of similar projects is not necessary, because development along the Interstate 10 corridor through San Gorgonio Pass is a well-established occurrence. The loss of open space and natural habitat—along with associated plants and wildlife—is significant, but even this is overshadowed by the negative effects on regional habitat connectivity.

This is true primarily of the north-south connection between the San Bernardino and San Jacinto Mountains, but also of the east-west connection between the Colorado Desert and coastal lowlands to the west. Some species will be able to incorporate developed areas into their long-term movement patterns, but many other species will not. Nevertheless, what are probably the primary wildlife corridors through the project site—Smith Creek and Pershing Creek Washes—will remain undeveloped and available for wildlife movement much as they are today. Thus, what little long-range wildlife movement may now occur along Pershing Creek (through the project site, up to I-10 and beyond to the open space between Beaumont and Banning) may continue with little change.

The open space north of I-10 is also ultimately scheduled for development. The area east of the project site is more open, but is also subject to ongoing development. Project impacts on wildlife movement in the immediate area will be limited somewhat by the fact that the project site is adjacent to existing development in the City of Banning.

The MSHCP and CVMSHCP have taken all of this into account and were designed specifically to address such issues. The north-south connection will be maintained primarily via the San Gorgonio River Wash, Stubbe Canyon, and Whitewater Canyon. The east-west corridor is maintained through foothill connections north and south of San Gorgonio Pass.

Significant cumulative effects of the project on MSHCP-covered plants and wildlife, wildlife movement, riparian/riverine areas, and habitat connectivity are fully mitigated by the City of Banning's signatory status under the MSHCP and the requisite measures for mitigation of project-specific impacts to burrowing owl, Los Angeles pocket mouse, and Stephens' kangaroo rat and these species' habitat. Cumulative effects on special-status species not specifically covered under the MSHCP are nevertheless mitigated to less than significant levels by the broad range of habitats covered by the MSHCP and project design features and mitigation measures required for the proposed project.

5.4.5 Existing Regulations

Federal

- United States Code, Title 16, Sections 1531 et seq.: Endangered Species Act
- United States Code, Title 16, Sections 703-712: Migratory Bird Treaty Act
- United States Code, Title 16, Section 668: Bald and Golden Eagle Protection Act
- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act

State

- California Fish and Game Code, Sections 3513, 3511, 3503.5, 3503: Bird Protection Statutes
- California Fish and Game Code, Sections 3511, 4700, 5050, 5515: Fully Protected Animal Statutes
- California Fish and Game Code, Section 2050-2087: Endangered Species Act
- California Fish and Game Code, Section 1600-1616: Lakes and Streambeds
- California Fish and Game Code, Sections 2800-2835: Natural Communities Conservation Planning Act
- California Water Code, Section 13000 et seq.: Porter-Cologne Water Quality Act

Riverside County

- County of Riverside Code of Ordinances Chapter 4.62: Multiple Species Habitat Conservation Plan Mitigation Fee
- County of Riverside Code of Ordinances Chapter 4.64: Stephens' Kangaroo Rat Mitigation Fee

Regional Conservation Authority

- Western Riverside County Multiple-Species Habitat Conservation Plan

Riverside County Habitat Conservation Agency

- Stephens' Kangaroo Rat Habitat Conservation Plan

City of Banning

- Municipal Code Section 12.52.080: MSHCP Mitigation Fees
- Municipal Code Section 17.32.020: Landscaping Plans
- Municipal Code Section 17.32.060: Removal or destruction of trees

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.4-3, 5.4-4, 5.4-7 and 5.4-9.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.4-1 Specific Plan buildout would impact sensitive species.
- Impact 5.4-2 Project development would impact nesting birds and large trees suitable for raptor nesting and bat roosting.
- Impact 5.4-5 Specific Plan buildout would impact riparian habitats and sensitive natural communities including 26.8 acres of Riversidean alluvial fan sage scrub; 27.1 acres of upland Riversidean sage scrub; 0.2 acre of wetland with non-native grasses; and 0.06 acre of mulefat scrub.
- Impact 5.4-6 Specific Plan buildout would impact waters jurisdictional to the Corps and streambed jurisdictional to the CDFW.
- Impact 5.4-8 Project development would impact wildlife movement routes.
- Impact 5.4-10 Project buildout would involve removal of trees.
- Impact 5.4-11 Project development would require mitigation measures for MSHCP compliance and payment of SKR habitat mitigation fees.

5.4.7 Mitigation Measures

Mitigation Measures

Impact 5.4-1

Implementation of Mitigation Measures 4-1 through 4-6 would reduce impacts to both MSCHP-covered and non-MSHCP-covered species.

4-1 To ensure direct mortality of burrowing owls is avoided, a preconstruction survey shall be conducted by a qualified biologist within 30 days prior to ground disturbance at the site and

submitted to the City. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the study area during the 30-day preconstruction survey, consultation with the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) shall take place, and no construction activity shall take place within a buffer zone of a minimum of 300 feet except when a smaller buffer is determined to be adequate to protect nesting activity by a qualified biologist and in consultation with CDFW and/or USFWS, until it has been determined that the nest/burrow is no longer active and all juveniles have fledged the nest/burrow. To avoid active nests, no grading or heavy equipment activity shall take place in the buffer zone during the breeding season (February 1 through August 31). Indirect impacts of exotic plant and animal infestations, litter, fire, and increased light and glare will be minimized by use of native plants for landscaping, removal of litter during construction, and by incorporating shielded lighting at the boundary of the conservation area.

If active burrowing owl burrows are detected outside the breeding season (March 1 through August 31, according to the *Western Riverside County Regional Conservation Authority Burrowing Owl Survey Instructions*, dated 2006), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW and USFWS. If occupied burrows are identified in a development area, the burrows shall be avoided or the owls passively relocated.

If burrowing owls are identified during the pre-construction surveys and cannot be avoided, a burrowing owl relocation/translocation plan will be prepared for submittal to the wildlife agencies for approval 90 days prior to ground-disturbing activities. One-way doors shall be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied and backfilled to ensure that animals do not reenter the holes/dens. Disturbance to active burrows shall be minimized to the extent practicable and shall not occur without necessary approvals from the USFWS and/or CDFW.

Prior to construction of the project development areas, the following mitigation measures shall be implemented to minimize impacts to burrowing owl:

- On site conservation of habitat at economically feasible quantity, and not more than a 1:1 mitigation ratio,
- Off-site land conservation, at economically feasible quantity, and not more than a 1:1 mitigation ratio
    - A burrowing owl relocation plan will be developed in cooperation with CDFW, USFWS and Regional Conservation Authority (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 at a ratio of 1:1. Costs for the management associated with translocation, tracking to establish a new breeding pairs, and for

monitoring shall be discussed between the project applicant and the regulatory agencies.

- Additionally, the applicant may contribute funds to an existing RCA land purchase or for the management of burrowing owl, thus providing equivalent preservation of habitat for the species (1:1 ratio).
- Purchasing private land and dedicating a conservation easement over suitable burrowing owl habitat such land in the Smith Creek watershed and San Gorgonio River Valley are preferred options. The Smith Creek watershed conservation study area is located downstream from the project site south of Interstate 10 and east of Banning Municipal Airport. The 2,700-acre study area contains coastal sage scrub, desert scrub, grassland, riparian scrub woodland forest and Riversidean alluvial fan sage scrub habitats. Other suitable locations in western Riverside County will also be considered opportunities for conserving habitat for the burrowing owl.
- The riparian/riverine habitat mitigation may also be complementary mitigation to serve the habitat needs for the burrowing owl through the Clean Water Act Section 404 and California Fish and Game Code Section 1602 permit process.

The contribution of land or funding must be completed before issuance of grading permits by the City of Banning.

4-2 Because greater than 90 percent avoidance of occupied Los Angeles pocket mouse (LAPM) grassland habitat is not feasible, the project is obligated to contribute to the conservation of the species through land conservation on- or off-site. The mitigation alternatives at 1:1 mitigation ratio are: (1) contribution of land containing LAPM occupied habitat to the Reserve; or (2) LAPM-occupied land dedicated to the Regional Conservation Authority (RCA) in fee-title toward conservation and managed by third-party conservation entity; or (3) monetary contribution to the RCA for direct purchase of land for LAPM long-term conservation; or (4) Purchasing private land and dedicating a conservation easement over suitable LAPM habitat such land as in Smith Creek watershed. The Smith Creek watershed conservation study area is located downstream from the project site south of Interstate 10 and east of Banning Municipal Airport. The 2,700 acre plus study area contains coastal sage scrub, desert scrub, grassland, riparian scrub woodland forest and Riversidean alluvial fan sage scrub habitats. Contribution of land or funding, or dedication of land, must be completed before issuance of grading permits by the City of Banning.

4-3 To reduce potential impacts to Stephens' kangaroo rat (SKR) and Los Angeles pocket mouse, project proponents and construction contractors shall adhere to the following best management practices:

- Construction personnel will refrain from entering, on foot or by vehicle, the sandy wash adjacent to the project area.

- Vehicle and equipment staging areas will be established away from the creeks and also away from the terraces that separate the project area from the creek.
- To mitigate for impacts to SKR the project proponent will pay funds into the SKR mitigation fund.

4-4 Before the beginning of ground-disturbing or site clearance activities by a project developed pursuant to the Specific Plan, focused bat preconstruction surveys shall be performed by a qualified bat biologist using acoustic bat detection equipment to gather more information about bat species occupancy and to determine the numbers and species of bat(s) present. The information gained from these preconstruction surveys will be used to determine appropriate mitigation and minimization measures if needed, in consultation with the CDFW.

Replacement bat roosting structures, per most current recommended standards, such as California Department of Transportation bat box specifications, can be installed as mitigation for impacts (*California Bat Mitigation Techniques, Solutions, and Effectiveness* prepared for Caltrans and CSU-Sacramento Foundation, by H. T. Harvey and Associates, dated Dec. 29, 2004). The most appropriate design will be selected in coordination with a bat biologist to ensure it is appropriate for the target bat species (e.g., size, adjacency to forage, orientation, material, color, type of roost). Other mitigation strategies for minimizing impacts to night-roosting bats include prohibition or certain restrictions on work on, or within 100 feet of, a bridge structure from sunset to sunrise or from 10:00 pm to sunrise. Mitigation strategies for minimizing impacts to day-roosting bats include prohibition on work within 100 feet of, or directly under, an active roost; exclusion of bats from seasonal colonies (for work before April 15); and replacement roosting structures.

4-5 Mitigation for fill placed into waters of the U.S. or streambeds under CDFW jurisdiction, and for removal of associated alluvial fan sage scrub and other riparian/riverine wildlife habitat, shall include any combination of the following measures:

- Native landscaping shall be used in temporarily disturbed areas.
- Native landscaping shall be used in transition buffers in open space areas.
- Nonnative vegetation within the creeks shall be removed and replaced with native riparian trees and shrubs.
- Stormwater basin discharges due to seasonal rains shall be used to support additional riparian vegetation and alluvial fan sage scrub downstream.
- Jurisdictional areas on-site shall be avoided where feasible.
- Mitigation on-site at 2:1 ratio, where feasible.

- Mitigation off-site at 3:1 ratio for remaining compensatory requirements in Corps-approved mitigation bank or applicant created conservation area, either
  - Within the Pass Area,
  - Within the Whitewater River watershed, or
  - Outside the watershed.
- Actual mitigation ratios and mitigation plan will be negotiated and authorized through consultation with the Corps and CDFW.

4-6 Mitigation for impacts to Riparian/Riverine areas for MSHCP Consistency would be through several options: (1) contribution of land at 2:1 ratio containing similar habitat and jurisdictional areas to the Reserve; or (2) land dedicated at 2:1 mitigation ratio in fee-title toward conservation and managed by third-party conservation entity; or (3) fee payment made to mitigation bank of in-lieu fee program at 2:1 mitigation ratio; or (4) through creation and enhancement of riparian habitat at 2:1 mitigation ratio within the project area using the increased surface runoff from the developed areas expected to be received via the storm drain outlets into Smith and Pershing Creeks.

Impact 5.4-2

4-7 The following measures shall be implemented during project construction to mitigate impacts to birds nesting and bats roosting in large trees:

- The removal of mature trees and snags will be minimized to the greatest extent practicable. Avoidance of mature native trees such as western cottonwood, black willow, and western sycamore, as well as ornamental fan palms that may serve as roost sites will minimize impacts to roosting bats.
- If trimming or removal of mature trees and snags containing roost cavities is required, a two-step removal process shall be employed for the removal of these mature trees and snags. This process involves removing all branches less than 2 inches in diameter from trees to create a disturbance that will encourage bats to choose another roosting site after foraging that night. The following day, the tree may be completely removed. Alternatively, if a tree is small enough that a bat biologist can determine zero occupancy, then that tree may be removed in one step.
- To avoid direct impacts to flightless young, tree trimming/removal activities shall be performed outside of the bat maternity season, which occurs from April 1 through August 31; this period also coincides with the bird nesting season of March 15 through September 15, thereby reducing impacts to nesting birds.
- If tree trimming/removal activities cannot be avoided during the bat maternity season (April 1 through August 31) and roosting bats have been documented by CDFW-

approved qualified bat biologist, then a biological monitor shall be present during removal of any mature trees or snags containing crevice or cavity habitat during the bat maternity season to monitor for the presence of flightless juvenile bats. If any flightless juvenile or injured adult bats are found during the trimming or removal of those trees, these bats will be transported to a CDFW-licensed rehabilitator according to accepted protocol.

- Bridges constructed for the project can include roosting features suitable for use by crevice and cavity-roosting bats; these bridge features would simulate rock crevices or cave-like spaces and may be part of the bridge structure or consist of bolted-on features. Any bat roosting structures, per most current recommended standards, such as California Department of Transportation bat box specifications, can be installed as mitigation for impacts. The most appropriate will be selected in coordination with a qualified bat biologist to ensure it is appropriate for the target bat species (e.g., size, adjacency to forage, orientation, material, color, type of roost). The inclusion of mature plantings of cottonwood, willow, and sycamore in the landscaping plan (Mitigation Measure 4-9) for the project would serve to mitigate for loss of these roost sites because they would provide suitable habitat for tree-roosting bat species.

- Native habitat enhancement, if implemented as part of the riparian/riverine and jurisdictional waters mitigation plan in Pershing and Smith Creek areas, will improve the quality of the foraging habitat currently available and the overall quantity of the foraging habitat currently available to the local bat population.

4-8 If any previously undiscovered roosting bats are discovered during construction activities, all work shall stop on, under, around, or within an appropriate buffer as determined by the CDFW-approved qualified bat biologist, based on the following factors: the species of bat discovered, the type of roost, and the type of construction activities that will occur near that roost.

4-9 Native trees to be impacted by development of projects pursuant to the Specific Plan shall be assessed by a certified arborist as to the viability and value of the trees in order to determine if mitigation and replacement are required. Removal of healthy, shade-providing, and aesthetically valuable trees shall be strongly discouraged and shall conform with the policies and programs of the City of Banning General Plan. A tree removal and replacement plan shall be required for the removal and replacement of all trees in excess of 50 years of age, unless their removal is required to protect the public health and safety. Each identified tree removed shall be replaced with at least one 36-inch box specimen tree, in addition to any other required landscaping.

4-10 To mitigate impacts to nesting birds including raptors: Within 30 days prior to the commencement of construction (if between January 15 and August 31), a qualified biologist shall perform a raptor nesting survey that will consist of a single visit to ascertain whether there are active raptor nests within 500 feet or other protected bird nests within 300 feet of

the project footprint. Nests will be searched for in unused structures and trees and shrubs. This survey will also identify the species of nesting bird and, to the degree feasible, nesting stage (e.g., incubation of eggs, feeding of young, near fledging). Nests will be mapped (not by using GPS because close encroachment may cause nest abandonment).

Work shall be avoided in riparian areas during active breeding season, typically designated as March 1 through August 31 by the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area,* dated March 29, 2006. 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 buffer zone of 300 feet for all bird species and 500 feet for raptors, including the burrowing owl; the buffer zone shall not be disturbed until the nest is inactive; and biological monitoring shall occur during vegetation removal activities.

Impact 5.4-5

Mitigation Measures 4-5 and 4-6 would also apply to this impact.

Impact 5.4-6

Mitigation Measures 4-5 and 4-6 would also apply to this impact.

Impact 5.4-8

4-11 The following measures shall be implemented to mitigate potential impacts of encroachments—such as light, pets, and invasive plant species—from the Smith Creek and Pershing Creek linear parks and proposed adjacent developments into Smith Creek and Pershing Creek:

- During project construction and project operation, lighting shall be directed away from the creeks.
- During project operation, pets shall be required to be on leash at all times in the linear parks along Smith Creek and Pershing Creek, as well as in natural open space areas within the Specific Plan site.
- During project design and project operation, native vegetation shall be used in the Smith Creek and Pershing Creek linear parks to provide wildlife movement, cover, and screening.

Impact 5.4-10

Mitigation Measure 4-9 would also apply to this impact.

Impact 5.4-11

Mitigation Measures 4-1 through 4-11 would also apply to this impact.

Project Design Features

Additionally, the following project design features (PDF) would reduce impacts associated with project construction and operation on MSHCP-Covered Species. The project would implement the MSHCP-specified construction guidelines and standard best management practices as listed in the DBESP included as Appendix E of this DEIR.

MSHCP Section 7.5.3 Construction Guidelines

PDF 4-1 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.

PDF 4-2 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.

PDF 4-3 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.

PDF 4-4 Sediment and erosion control measures will be implemented until such time soils are determined to be successfully stabilized.

PDF 4-5 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.

PDF 4-6 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.

PDF 4-7 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.

PDF 4-8 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.

PDF 4-9 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.

PDF 4-10 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.

PDF 4-11 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.

PDF 4-12 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.

PDF 4-13 Exotic species removed during construction will be properly handled to prevent sprouting or regrowth.

PDF 4-14 Training of construction personnel will be provided.

PDF 4-15 Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of best management practices.

PDF 4-16 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.

PDF 4-17 Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.

PDF 4-18 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.

PDF 4-19 No waste, dirt, rubble, or trash shall be deposited in the Conservation Area or on native habitat.

MSHCP Appendix C: Standard Best Management Practices

PDF 4-20 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.

PDF 4-21 Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.

PDF 4-22 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.

PDF 4-23 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.

PDF 4-24 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.

PDF 4-25 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.

PDF 4-26 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.

PDF 4-27 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.

PDF 4-28 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.

PDF 4-29 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.

PDF 4-30 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.

PDF 4-31 Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.

PDF 4-32 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).

PDF 4-33 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.

PDF 4-34 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.

Implementation of construction guidelines and best management practices would also reduce project-related effects on species not covered by the MSHCP by reducing stormwater runoff and erosion, avoiding impacts to nesting birds, reducing spread of weeds and protecting native vegetation, reducing fugitive dust, minimizing fire risk, and limiting to the extent feasible the limits of disturbance associated with project construction.

Additional Design Features

The project design would 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.

The project would designate the 16.2 acres of rock outcrops/ridgeline with coastal sage scrub as open space.

To maintain connectivity opportunities for wildlife within Pershing Creek, the project would create a crossing under the newly proposed road that would allow continued wildlife movement. The proposed arch or large box culvert bridge would provide a line-of-sight wildlife crossing and would be suitable for large-sized wildlife movement.

5.4.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with biological resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to biological resources remain.

5.4.9 References

Dudek & Associates, Inc. 2003, June. Western Riverside County MSHCP Species Accounts: Invertebrates/Crustaceans. http://www.wrc-rca.org/Permit_Docs/MSHCP_Docs/volume2/vol2-secb_crustaceans.pdf.

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Riverside, County of (Riverside). 2003, June 17. Final Western Riverside County Multiple Species Habitat Conservation Plan. http://wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/.

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