

**DETERMINATION OF BIOLOGICALLY
EQUIVALENT OR SUPERIOR PRESERVATION**

CENTER PARK RESIDENTIAL PROJECT

CITY OF RIVERSIDE

RIVERSIDE COUNTY, CALIFORNIA

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LSA Project No. KCL1701

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1.0 PURPOSE

As concluded in the *Biological Resources Assessment and MSHCP Consistency Analysis Report* dated August 28, 2018, the presence of the riparian drainage within the project required further analysis pertaining to Section 6.1.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. MSHCP Section 6.1.2 describes the process through which protection of riparian/riverine areas, vernal pools, and fairy shrimp species will occur within the MSHCP Area. Protection of these resources is important for a number of MSHCP conservation objectives. An assessment of a project's potentially significant effects on riparian/riverine areas is required. Guidelines for determining whether or not these resources exist on site are 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 by upland (non-riparian/riverine) vegetation and drain directly into an area that is described for conservation under the MSHCP, riparian linkage, or areas already conserved.

Protection of these areas is important to conservation of the following listed species:

- Plants
 - Brand's phacelia (*Phacelia stellaris*)
 - California Orcutt grass (*Orcuttia californica*)
 - California black walnut (*Juglans californica*)
 - Coulter's Matilija poppy (*Romneya coulteri*)
 - Engelmann oak (*Quercus engelmannii*)
 - Fish's milkwort (*Polygala cornuta* var. *fishiae*)
 - Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)
 - Lemon lily (*Lilium parryi*)
 - Mojave tarplant (*Deinandra mohavensis*)
 - Mud nama (*Nama stenocarpum*)
 - Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)
 - Orcutt's brodiaea (*Brodiaea orcuttii*)
 - Parish's meadowfoam (*Limnanthes gracilis* ssp. *parishii*)
 - Prostrate navarretia (*Navarretia prostrata*)
 - San Diego button-celery (*Eryngium aristulatum* var. *parishii*)
 - San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)

- San Miguel savory (*Satureja chandleri*)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Spreading navarretia (*Navarretia fossalis*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Vernal barley (*Hordeum intercedens*)
- Fish
 - Santa Ana sucker (*Catostomus santaanae*)
- Amphibians
 - Arroyo toad (*Anaxyrus californicus*)
 - Mountain yellow-legged frog (*Rana muscosa*)
 - California red-legged frog (*Rana aurora draytonii*)
- Birds
 - Bald eagle (*Haliaeetus leucocephalus*)
 - Least Bell's vireo (*Vireo bellii pusillus*)
 - Peregrine falcon (*Falco peregrinus*)
 - Southwestern willow flycatcher (*Empidonax traillii extimus*)
 - Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

The Permittee (City) must make a determination of compliance with the MSHCP Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Guidelines (MSHCP Section 6.1.2). Proper analysis and documentation (including all necessary determinations of biologically equivalent or superior preservation) will enable the Permittee to assess a project and make a final determination of compliance with Section 6.1.2. If impacts to suitable riparian and riverine habitats for the species listed above will occur or if the project impacts on ephemeral and intermittent waters within the project site will affect downstream habitat for these species, then mitigation is proposed in a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report. The DBESP report is reviewed by the Permittee and adopted, then forwarded to the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) for a 60-day comment period.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The project site is located at 3444 Center Street, Riverside, California 92507 (Assessor's Parcel Number 246-130-001) in the Highgrove area. It is located west of Interstate 215 and east of Orange Street. Refer to Figure 1 for project location map. (All referenced figures are in Appendix A.) Geographically, the project site is located with the northwest quarter of the projected Section 7 of Township 2 South, Range 4 West on the *San Bernardino South, California 7.5-minute U.S. Geological Survey (USGS) topographic map*.

2.2 PROJECT DESCRIPTION

The project site will be developed for the Center Park Residential (manufactured homes) Project.

2.3 CONSIDERATION OF AVOIDANCE ALTERNATIVE

The project will avoid the existing riparian drainage, with the exception of the detention basin outlet, which requires the installation of a pipe and dissipater within the drainage channel at the southwest corner of the project site.

3.0 METHODS

3.1 LITERATURE REVIEW

A literature review was conducted to determine the existence or potential occurrence of special-status plant and animal species on the project site and in the project vicinity. Database records for the *San Bernardino South* and *Riverside West, California* U.S. Geological Survey (USGS) 7.5-minute series quadrangles and surrounding quadrangles were searched on August 18, 2017, using the CDFW California Natural Diversity Data Base *Rarefind 5* online application (<https://map.dfg.ca.gov/rarefind/>) and the California Native Plant Society's *Inventory of Rare and Endangered Plants* (<http://www.cnps.org/inventory>). The USFWS database of designated Critical Habitat, and the Riverside County Integrated Project Conservation Summary Report (http://onlineservices.rctlma.org/content/rcip_report_generator.aspx) and Volume 1 of the MSHCP (Riverside County Transportation and Land Management Agency) were queried to determine MSHCP habitat assessment and survey requirements. Soil information was taken from electronic data provided by the Web Soil Survey (Natural Resource Conservation Service 2013). Current and historical aerial photographs were also reviewed in Google Earth (Google Earth 2016).

3.2 FIELD SURVEY

Habitat assessments and focused surveys were conducted by LSA Biologist Maria Lum on August 18, 22, and 23, 2017. Weather conditions consisted of clear skies, warm temperatures (75 to 80 °F), and 0 to 3 mile per hour wind speed. Observations regarding general site conditions, vegetation, potential jurisdictional waters, and habitat suitability for special-interest plant and wildlife species and other biological resources were recorded. All plant and animal species observed during the field survey were noted. The project site was assessed for the presence of riparian/riverine and vernal pool resources.

3.2.1 MSHCP Section 6.1.3 NEPSSA Plants Habitat Assessment

A habitat assessment was conducted for Narrow Endemic Plant Species Survey Area (NEPSSA) Survey Area 7 plants species, which include San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Satureja chandleri*). Refer to Figure 2 for the location of the survey area. The site was analyzed for the presence of suitable habitats and/or soils to support these species since the MSHCP Conservation Report included the project parcels in the survey.

3.2.2 MSHCP Section 6.1.2 Species Associated with Riparian and Riverine Habitat

A habitat assessment of the vegetation communities occurring along the drainage within the project site was conducted to determine if it was suitable for listed species associated with riparian, riverine, aquatic, or vernal pool areas. Species of concern with potential to occur on the site are least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*).

3.3 RIPARIAN/RIVERINE HABITAT ASSESSMENT

Vegetation on the site was mapped as described in the *MSHCP Consistency Analysis and Habitat Assessment Report* dated November 14, 2017, and Jurisdictional Delineation report dated October 12, 2017. Information from the jurisdictional delineation and vegetation mapping was combined to determine areas qualifying as riparian/riverine based on MSHCP criteria. The assessment is provided in Section 5.6 of this report.

3.4 VERNAL POOLS AND FAIRY SHRIMP HABITAT ASSESSMENT

As detailed in the *MSHCP Consistency Analysis and Habitat Assessment Report*, the soil conditions are not suitable for rare and listed fairy shrimp known to occur in the region. No additional discussion or analysis is required, since impacts to vernal pools and fairy shrimp habitat will not occur and mitigation is not required.

3.5 DBESP ANALYSIS REQUIREMENTS

The DBESP analysis includes the following topics of discussion:

- Analysis in the following areas should be addressed:
 - 100 percent avoidance.
 - Alternatives.
- Explanation of project design features and mitigation measures that reduce indirect effects, such as edge treatments, landscaping, elevation difference, minimization, and/or compensation through restoration or enhancement.
- Quantification of unavoidable impacts to riparian/riverine areas and vernal pools associated with the project, including direct and indirect effects, and indication of the amount of habitat left intact on the site, if any.
- Habitat assessments for least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, and vernal pool fairy shrimp, and, if the site supports suitable habitat, focused survey requirements.
- The following functions and values assessments focusing on how they will affect downstream values related to conserved species:
 - Hydrologic regime.
 - Flood storage.
 - Flood flow modification.
 - Nutrient retention and transformation.
 - Sediment trapping and transport.
 - Toxic trapping.
 - Public use.

- Wildlife habitat.
- Aquatic habitat.
- Written discussion of edge treatments (MSHCP Section 6.1.4) and their relation to the functions and values to be conserved.
- Description of the on-site avoidance and minimization measures for the following edge effects:
 - Lighting.
 - Noise.
 - Trash/debris.
 - Urban and storm water runoff.
 - Toxic material.
 - Exotic plant and animal infestations.
 - Dust.
 - Trampling and unauthorized recreational use.
- Mitigation measures to ensure long-term conservation through deed restriction, conservation easement, or other appropriate mechanism.
- A finding demonstrating that although the proposed project would not avoid impacts, with proposed design and compensation measures, the project would be biologically equivalent or superior to what would occur under an avoidance alternative without these measures, based on one or more of the following factors:
 - Effects on Conserved Habitats.
 - Effects on the species listed in Section 6.1.2 of the MSHCP.
 - Effects on riparian Linkages and function of the MSHCP Conservation Area.

4.0 EXISTING CONDITIONS

4.1 ENVIRONMENTAL SETTING

The project is situated in the northwestern area of the City of Riverside on a bluff, above the Santa Ana River valley area, and below the foothills located north of the project site. The project region is characterized by an arid climate, with dry, hot summers and moderate winters. Rainfall averages 5–15 inches annually (Beck and Haase 1974). Precipitation usually occurs in the form of winter rain, with warm monsoonal showers in summer. The project is situated in the Peninsular Ranges Geomorphic Province of California that encompasses western Riverside County (California Geological Survey 2002). Granitic outcroppings are a dominant natural feature in the foothills north of the project site. The site is bordered by residential and industrial development on all sides.

4.2 LAND USES ON SITE

The 12.87-acre project site (survey area) is vacant and previously supported citrus groves.

5.0 DESCRIPTION OF BIOLOGICAL RESOURCES

5.1 HYDROLOGY ASSESSMENT

In the existing condition, runoff from approximately 64 percent of the site in the southeastern portion is conveyed as sheet flow southwesterly into the existing riparian drainage. Additional off-site runoff from Viola Drive and the associated adjacent residential area (MB 39/64), approximately 11 acres, confluences with the on-site runoff within the riparian drainage. Runoff conveyed through the riparian drainage discharges off site and into a culvert that directs runoff under Orange Street and discharges into a concrete-lined channel as concentrated flow on the western side of Orange Street where it discharges into a vacant field. Refer to Figure 4 for a view of the end of the stream in the field.

Although no drainage or ordinary high water mark (OHWM) were visible in the vacant field downstream, historical imagery indicates that exceptional storm flows have potential to sheet flow southwest to the Springbrook Arroyo channel along Garner Road, which drains into Lake Evans, the Santa Ana River, and eventually the Pacific Ocean.

Runoff from the remaining northern portion of the site is conveyed westerly as sheet flow into the adjacent transport storage facility property and into Orange Street. According to City records, there is no existing storm drain system within the project vicinity. All runoff is ultimately conveyed southwestward to the Santa Ana River and into the Pacific Ocean.

5.2 PRE-DEVELOPMENT STREAM CHARACTERISTICS

The riparian drainage appears in historical aerial photos as far back as 1938 (NETRonline) when the region was covered in citrus groves.

5.3 CURRENT STREAM CHARACTERISTICS

The riparian drainage south of the project currently receives urban runoff and storm water from the residential streets. The drainage is deeply incised and eroded by the high flows from developed areas during severe storms. The area of the physical streambed and bank within the project site limits is a 0.70-acre/1,078-linear foot channel.

5.4 SOILS

As Figure 3 depicts, the soils within the project site consist of Greenfield sandy loam, 2 to 8 percent slopes, eroded (Gyc2); Monserate sandy loam, 0 to 5 percent slopes (MmB); Monserate sandy loam, 8 to 15 percent slopes, eroded (MmD2); and Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2). These soils are described as granitic alluvium with a variety of organic matter, silt, sandy, clay, and cemented subsurface layers below 5 feet in the soil profiles.

5.5 VEGETATION COMMUNITIES

The majority of the field was unvegetated at the time of the field survey because it had been recently disced for weed abatement. Plant debris includes short pod mustard (*Hirschfeldia incana*), cheeseweed mallow (*Malva parviflora*), and tree of heaven (*Ailanthus altissima*). The south side of the

project site includes an intermittent drainage channel and riparian vegetation fed by urban runoff. The shrub and tree species in the channel consist of a mix of ornamentals and native plant species. Dominants are Goodding's willow (*Salix gooddingii*) and velvet ash (*Fraxinus velutina*, non-native) along with five other non-native tree species with mule fat (*Baccharis salicifolia*) and castor bean (*Ricinus communis*). Refer to Figures 5 and 6a through 6f for site photographs and to Figure 7, Riparian/Riverine Areas.

5.5.1 Black Willow Thicket and Mule Fat Thicket

The drainage channel contains 0.40 acre of *Salix gooddingii* Alliance (Black Willow Thicket) and *Baccharis salicifolia* Alliance (Mule Fat Thicket) vegetation communities in its upper reach. There is 0.03 acre/174 linear feet of disturbed cattail (*Typha domingensis*) marsh area, which occurs with standing water or moist soil at the end of Viola Street. Other plant species in the marsh area include bindweed (*Convolvulus althaeoides*), and Johnson grass (*Sorghum halepense*). Adjacent shrubs are mule fat and castor bean. Trees are Goodding's willow, velvet ash, and Mexican fan palm (*Washingtonia robusta*) in the upper portion of the channel. The urban runoff percolates into the ground within 174 feet below the end of Viola Street.

The remainder of the stream is a dry eroded barren channel along 904 linear feet vegetated by upland ornamental species. Figure 7 maps the tree species within the total 0.67 acre of riparian/riverine vegetation community including the wetland.

5.5.2 Annual Non-Native Grassland and Ornamental Trees

The upland vacant land had been regularly disced for weed abatement, but remains of cheeseweed (*Malva parviflora*) and other non-native brome species were observed. There are Peruvian pepper trees (*Schinus molle*) along the perimeter of the parcel. There are several non-native trees in the stream channel.

5.6 SPECIES OBSERVED

Common wildlife species observed within the project site during the field survey include California ground squirrel (*Spermophilus beecheyi*), cottontail rabbit (*Sylvilagus audubonii*), and mourning dove (*Zenaida macroura*). Two domestic dogs were living with the occupant of an encampment during the field survey. No special-status wildlife species were observed.

5.7 SPECIAL-STATUS SPECIES

No special-status species were observed during the field surveys and none are expected to occur within the project site. Vegetation on the project site has been regularly maintained either by disking, mowing, or plowing, and therefore lacks naturally occurring upland communities such as Riversidean sage scrub that would support special-status species.

Although the riparian drainage contains the only native vegetation communities within the project site (black willow thicket and mule fat thicket), these communities are mixed with many invasive nonnative species such as castor bean, Mexican fan palm, and ash.

The limited amount of standing water and the small size of the native riparian vegetation is not sufficient to support silvery legless lizard (*Anniella pulchra pulchra*), two-striped garter snake (*Thamnophis hammondi*), least Bell's vireo, southwestern willow flycatcher, yellow-breasted chat (*Icteria virens*), or yellow warbler (*Setophaga petechia*). Refer to Appendix B for a full listing plant and animal species of special concern known to occur in the region.

Based on literature review and the field survey, some special-interest species, including Federal/State listed species, are known to occur in the region. The species records provided by the CDFW and the USFWS show observations of Santa Ana sucker (*Catostomus santaanae*) and least Bell's vireo in the Santa Ana River. The river is one mile west of the project site without contiguous suitable habitats or hydrologic connectivity. Figure 8 shows a map of the species locations and Figure 9 shows map of federally designated Critical Habitats. There is no opportunity for aquatic species associated with the Santa Ana River, such as the Santa Ana sucker, to occur on site since the drainage dissipates into a vacant field approximately 750 feet downstream from the project site.

6.0 EFFECTS ON RIPARIAN AND RIVERINE HABITAT

6.1 DIRECT EFFECTS

The project will avoid the drainage, except for the installation of a drain outlet from the proposed storm water detention basin. Direct effects to the drainage include the installation of an outlet pipe and dissipater in the channel, as well as periodic maintenance of the outlet pipe and dissipater and trash removal.

There are no direct effects to habitats that would provide live-in, movement, breeding, or foraging areas required for the long-term conservation of species listed in MSHCP Section 6.1.2. Since the riparian drainage and the associated vegetation is sustained by urban runoff, the drainage and plant communities do not contribute sustainable or extensive habitat for the long-term conservation of Covered Species on site or downstream. The storm water and nuisance runoff could be diverted into the municipal storm drain system in the future and the plant communities in the drainage would not persist.

6.2 INDIRECT EFFECTS

There is potential for increased sediment and non-visible pollutant discharge from the proposed project. However, with the implementation of the project's Storm Water Pollution Prevention Plan (SWPPP) during construction and the Water Quality Management Plan (WQMP) post-construction, indirect effects to jurisdictional waters are unlikely.

The project will not further restrict or eliminate wildlife movement because the drainage will remain in its current state through placement of a Conservation Easement¹ There will be no impacts to potential habitat for MSHCP Section 6.1.2 species and other MSHCP Covered Species since the riparian drainage will be avoided.

¹ The purpose of the Conservation Easement is to ensure the drainage is retained in its current state and to prevent any use that will impair or interfere with its conservation values.

7.0 RATIONALE FOR WHY AVOIDANCE IS NOT FEASIBLE

Direct effects to the drainage include the installation of an outlet pipe and dissipater in the channel during construction. With the exception of the installation of a drain outlet from the proposed storm water detention basin, the project has been designed to avoid the drainage. Periodic maintenance of the outlet pipe and dissipater, including the removal of trash, will occur subsequent to construction. Future avoidance of the drainage and/or activity within the drainage will be ensured through the recordation of a Conservation Easement. The terms of the Conservation Easement will be established pursuant to CDFW requirements to preserve the drainage in its current condition in perpetuity. Future construction, planting, dumping, filling, and similar activities will be prohibited within the area covered under the Conservation Easement. Activities within the drainage will be limited to those allowed by the CDFW that preserve and enhance native species, their habitat, and natural communities, in a manner consistent with habitat conservation purposes.

The following measures have been identified to ensure preservation of the drainage to the greatest extent feasible.

BIO-3: Prior to the issuance of a grading permit, the applicant shall record a Conservation Easement pursuant to CDFW requirements to preserve the riparian drainage in its current condition in perpetuity. Construction, planting, dumping, filling, and similar activities will be prohibited within the area covered under the Conservation Easement. Activities within the drainage will be limited to those allowed by the CDFW that preserve and enhance native species, their habitat, and natural communities, in a manner consistent with habitat conservation purposes.

BIO-4: Prior to the issuance of a grading permit, the applicant shall coordinate with the USACE to determine if jurisdiction will be asserted over the riparian drainage under the Federal Clean Water Act (CWA) Section 404. If USACE jurisdiction over the riparian drainage is asserted, the applicant shall provide evidence that USACE has issued a CWA Section 404 permit, the Regional Water Quality Control Board (RWQCB) has issued a CWA Section 401 certification, and that applicable USACE permit and RWQCB certification requirements have been satisfied prior to the issuance of a grading permit. If the riparian drainage is not subject to USACE jurisdiction, the applicant shall comply with applicable Waste Discharge Requirements (WDR) established by the RWQCB under the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Prior to the issuance of a grading permit, the applicant shall obtain a Streambed Alteration Agreement administered by the CDFW pursuant to California Fish and Game Code Section 1600 for the 0.67 acre of the stream comprising both the bed-and-bank and associated wildlife habitat.

The requirement for establishment of the Conservation Easement and satisfaction of any regulatory permit conditions addressed through Mitigation Measures BIO-3 and BIO-4, ensure no significant direct, indirect, or cumulative impacts would occur.

8.0 EFFECTS ON CONSERVED MSHCP HABITATS

The project site is located within the MSHCP Cities of Riverside and Norco Area Plan (Figure 10). The project is not adjacent to or upstream of a proposed or dedicated MSHCP Conservation Area, land targeted for conservation in Criteria Cells, or any Public/Quasi-Public lands with dual function of wildlife habitat conservation. The project site is not located within a Criteria Cell; therefore, it is not subject to possible land conservation requirements under the MSHCP. No further action or mitigation is required.

9.0. FUNCTIONS AND VALUES ASSESSMENT FOR DOWNSTREAM MSHCP SECTION 6.1.2 PLANT SPECIES

The habitats for the riparian/riverine and vernal pool plant species identified for protection under the MSHCP are not expected to occur in the project area due to the lack of suitable topography, soils, and hydrology and high degree of land disturbance. Refer to Appendix B for the list of important plant species requiring conservation. Appendix B also lists the habitat requirements, the project habitat quality, and the likelihood of occurrence on the project site of MSHCP Section 6.1.2 plant species. There is no potential for plant species of interest under MSHCP Section 6.1.2 within or adjacent to the project site due to long-term agricultural use, ongoing land disturbance and weed abatement. No further action or mitigation is required.

10.0 FUNCTIONS AND VALUES ASSESSMENT FOR DOWNSTREAM MSHCP SECTION 6.1.2 WILDLIFE SPECIES

The habitats for the riparian/riverine and vernal pool wildlife species identified for protection under MSHCP Section 6.1.2 were not observed during the field surveys and are not expected to occur within the project site due to the lack of suitable vegetative cover and the periodic weed abatement activities that occur on site. Refer to Appendix B for the list of special-status animal species requiring conservation. Appendix B also lists the habitat requirements, the project habitat quality, and the likelihood of occurrence on the project site of MSHCP Section 6.1.2 wildlife species.

10.1 WILDLIFE HABITAT

The “wildlife habitat” function is the ability of the wetland or other water to provide habitat for various types of animals typically associated with wetlands and riparian habitats. Both resident and migratory species are considered in this function.

The project site contains a highly disturbed riparian drainage comprising approximately 0.7 acre and 904 linear feet, and 0.03 acre of isolated wetlands that has the ability to provide some wildlife habitat value for nesting birds and other species adapted to residential areas. However, the riparian drainage is isolated and surrounded by development, and lacks the dense mature riparian woodland habitat needed to support the riparian/riverine and vernal pool wildlife species identified for protection under MSHCP Section 6.1.2.

10.2 MSHCP WILDLIFE SURVEY AREA SPECIES

The project site is located within an MSHCP Burrowing Owl (*Athene cunicularia*) Survey Area. The site has suitable grassland habitat and ground squirrel burrows. Although no owls or sign were detected during the site visits and focused survey, a 30-day pre-construction survey is required pursuant to MSHCP Species Survey Requirements.

Bird species associated with riparian/riverine habitats, invertebrates, and plants associated with vernal pools do not have potential to inhabit the riparian drainage on the project site due to lack of suitable habitat, as explained in Section 10.1. The species of interest are not in the project area due to the lack of large, contiguous areas of suitable vegetative cover, adequate seasonal or perennial water, and unique soil types on the project site and in the adjoining properties.

10.3 ENDANGERED SPECIES HABITAT

The Endangered Species Habitat function is the ability of a wetland or other waters to provide habitat for endangered species typically associated with riparian, riverine, wetlands, and other waters. Both resident and migratory species are considered in this function. There is no suitable quality habitat for listed aquatic, avian, and mammal species within the project area due to extensive disturbance and a lack of suitable habitat conditions, including soil composition, hydrology, and vegetation communities.

10.4 FISH HABITAT

The riparian drainage located on the project site is ephemeral and does not provide suitable habitat for fish or amphibians listed in MSHCP Section 6.1.2. The stream receives intermittent urban runoff, which could be diverted into a closed pipe system that would remove the source of irrigation water to the vegetation in the channel. Thus, the stream is not naturally sustainable habitat and lacks long-term conservation value. In addition, the urban runoff creates an unstable streambed. Extensive erosion has created a vertical-walled deeply incised gully in a portion of the stream.

11.0 FUNCTIONS AND VALUES ASSESSMENT OF DOWNSTREAM ECOLOGICAL PROCESSES

11.1 NUTRIENT PRODUCTION

This function is the effectiveness of the wetland or other water to retain and/or transform inorganic phosphorus and/or nitrogen into their organic forms or transform (remove) nitrogen in its gaseous form. Nutrient production for the drainages found within the project site is present to a small extent in the small wetland area. The amount of nutrients potentially created in 0.7 acre of streambed is minor and retained on site due to the lack of continuous flow through the channel; water rarely flows off site during normal conditions.

11.2 NUTRIENT EXPORT

This function is the capability of a wetland or other water to flush organic plant material into downslope waters. There may be instances where export represents a nutrient loss to the system or where exported material causes water quality problems downslope. The drainage within the project area is considered of low value for nutrient export due to the lack of vegetative debris and adequate water in the lower half of the drainage, which is required to decompose and transport organic matter. This is further evidenced by the fact that the only transport of material off site is sandy sediment.

11.3 FLOOD STORAGE

This function is the effectiveness of the wetlands or their waters to reduce flood damage and attenuation of floodwater for prolonged periods following rain events. The drainage feature adjacent to the project site slows some of the runoff in the upper reach, which is more heavily vegetated. During high-flow events, the drainage does not reduce flows since the remainder of the channel is scoured and deeply entrenched down to the compacted subsurface layers of cemented sand.

11.4 WATER PURIFICATION

This function is the ability of a wetland or other water to filter and absorb soil particles and allow bacteria to digest organic matter that may be present in water and soil. Water purification is considered to be low value since the 0.03 acre of wetland/marsh area is not large enough to detain and filter substantial volumes of water. The drainage feature only provides low value for water purification.

11.5 SEDIMENT RETENTION

This function is the ability of a wetland or other water to bind soil and dissipate erosive forces. The drainage provides some value of sediment retention due to the dense vegetation at the end of Viola Street, but the channel is scoured with loose sand and erodible vertical banks in the lower reach of the channel.

11.6 SEDIMENT DETOXIFICATION

This function is the efficiency with which a wetland or other water physically or chemically traps and retains inorganic sediments and/or chemical substances generally toxic to wildlife. Sediment detoxification is considered a low value for drainage due to the lack of vegetation to physically trap and retain inorganic sediments, and the lack of water to sustain microorganisms necessary to break down toxins.

11.7 GROUNDWATER DISCHARGE AND RECHARGE

This function involves the potential for the wetland or other water to contribute to an aquifer or the potential to serve as an area where groundwater can be discharged to the surface. Groundwater discharge and recharge does not occur within this small drainage feature.

12.0 MITIGATION MEASURES

12.1 MITIGATION FOR DIRECT EFFECTS

The riparian drainage lacks long-term conservation value for covered species associated with riparian/riverine and vernal pool habitats. The riparian and wetland habitat in the drainage will be avoided and the drainage does not contain adequate or suitable habitat for covered species associated with riparian and riverine habitats. The construction of the project will avoid the stream bed and bank and associated native riparian vegetation. The storm drain outlet and a riprap dissipater will require minor impacts to the drainage during installation, as well as periodic maintenance of the outlet pipe and dissipater and trash removal. The following measures will address the long-term impacts of the new outlet structure:

- Prior to the issuance of grading permits, the applicant will be required to satisfy (as required) USACE, RWQCB, and CDFW permit requirements.
- The project will be required to record a Conservation Easement pursuant to CDFW requirements to preserve the condition of riparian drainage in perpetuity. Construction, planting, dumping, filling, and similar activities will be prohibited within the area covered under the Conservation Easement. Activities within the drainage will be limited to those allowed by the CDFW that preserve and enhance native species, their habitat, and natural communities, in a manner consistent with habitat conservation purposes.

12.2 MITIGATION FOR INDIRECT EFFECTS

The standard construction Best Management Practices (BMPs) and water quality control measures for construction and post-development as required by the City of Riverside will be implemented to avoid downstream effects. These measures are listed below. This list is not intended to be complete or inclusive. The grading permit and Storm Water Pollution Prevention Plan (SWPPP) will contain requirements for necessary compliance for project completion. The BMPs, SWPPP, and Water Quality Management Plan (WQMP) will reduce the effects for the project to less than significant, and no additional mitigation is recommended.

12.2.1 Drainage

All runoff from the newly built-out, paved, and landscaped areas shall be directed to temporary water quality treatment measures during the construction phase and to permanent storm water and sewer treatment facilities within the community infrastructure. The project will be in compliance with project-specific National Pollutant Discharge Elimination System (NPDES) and Federal Clean Water Act Section 401 permit authorizations.

The Federal Clean Water Act delegates authority to the States to issue NPDES permits for discharges of storm water from construction, industrial, and municipal entities to Waters of the United States. The California Municipal Separate Storm Water Sewer System (MS4) permit meets the California State Water Resources Control Board's requirements to mitigate for the negative impact of increases in storm water runoff caused by new development and redevelopment. The project storm

water discharge rates cannot exceed the pre-development runoff condition for 2-year 24-hour storm total or the 85th percentile 24-hour storm runoff event to be in compliance with the MS4 post-construction and site design requirements.

Water pollution and erosion control plans will be prepared in accordance with Regional Water Quality Control Board (RWQCB) requirements. The plans will include sediment and hazardous material control measures, and describe dewatering process and diversion structures, fueling and equipment management practices, and plant materials used for erosion control.

The project-specific WQMP will describe the project BMPs to minimize impacts to water quality. Examples of site design BMPs are maximizing permeable area, landscaped buffer areas (parkways), preserving existing vegetation, planting additional native or drought-tolerant plants, and the use of natural drainage systems. Landscaping will buffer the drainage along the trail and privacy walls behind the homes. Application of chemicals will be consistent with labeling.

12.2.2 Grading/Land Development

Additional measures related to grading and land development are as follows:

- If ground disturbance or vegetation removal occurs during the bird breeding season (February 1 to August 31), then a nest survey by a qualified biologist is required. The nest survey shall be conducted for no more than three days prior to ground disturbance or vegetation removal. If an active nest is observed, then the appropriate avoidance buffer shall be installed per MSHCP Species Conservation Guidelines. The buffer zone shall not be disturbed until the nest is inactive.

13.0 DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

The project is not required to provide habitat mitigation or preservation for species listed in MSHCP Section 6.1.2 since no habitat with long-term conservation value is present within the project site. The project site has been disturbed for more than 100 years (NETROnline) by agriculture and weed abatement discing. The riparian drainage within the project site will be avoided, with the exception of the placement of an outlet structure from the storm water detention basin, as well as periodic maintenance of the outlet pipe and dissipater and trash removal. In addition, a Conservation Easement will be placed over the riparian drainage to ensure its preservation in its current state and to prevent any use that will impair or interfere with its conservation values.

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APPENDIX A

FIGURES

Figure 1: Regional and Project Location

Figure 2: Biological Study Area

Figure 3: Soils

Figure 4: Vegetation

Figure 5: Site Photograph Key Map

Figure 6: Site Photographs

Figure 7: Riparian/Riverine Areas

Figure 8: Species Occurrences

Figure 9: Critical Habitats

Figure 10: MSHCP Area Plans, Survey Areas and Criteria Cells



FIGURE 2

LSA

LEGEND

 Project Site

SOURCE: Google (2018)

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Center Park Residential Project
Project Site



FIGURE 3

LSA

LEGEND

Project Site

● Soil Sample Location

Soils

GyC2: Greenfield sandy loam, 2 to 8 percent slopes, eroded

MmB: Monserate sandy loam, 0 to 5 percent slopes

MmD2: Monserate sandy loam, 8 to 15 percent slopes, eroded

RaB2: Ramona sandy loam, 2 to 5 percent slopes, eroded



0 75 150
FEET

Center Park Residential Project
Soils

SOURCE: Google (2018); Soil Data Mart, 2015

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Exhibit 9 DBESP Report



LSA



SOURCE: Google (2018)

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LEGEND








-  Project Site
 Disced Field of Non-native Annual Vegetation (Cheesewood Dominant, *Malva parviflora*)
 Non-native Annual Vegetation
 Peruvian Pepper Tree (*Schinus molle*)
 Red Willow/Mule Fat Scrub (with Ornamental Trees)
 Tree of Heaven (*Ailanthus altissima*)
 Trees Removed

FIGURE 4

Center Park Residential Project
Vegetation



FIGURE 5

LSA

LEGEND

- Project Site
- ↶ Photograph Location



0 100 200
FEET

SOURCE: Google (2018)

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Center Park Residential Project
Site Photograph Key Map



Photograph 1: *View of storm water flowing into project site and the end of Viola Drive.*



Photograph 2: *View of dense vegetation at the beginning of the stream due to frequent street and urban runoff onto the project site.*



Photograph 3: *View of dense cattails and short pod mustard in the narrow channel .*



Photograph 4: *View of the end of the moist soil area at ash tree in the center of the streambed.*

LSA

FIGURE 6a

Center Park Residential Project
Site Photographs



Photograph 5: *View of stream and mixed upland and riparian trees in the channel.*



Photograph 6: *View of the north edge of the field and stream.*



Photograph 7: *View of southwestern corner of the project area.*



Photograph 8: *View of debris piles and removed trees in the southeast corner of the project site.*

LSA

FIGURE 6b

Center Park Residential Project
Site Photographs



Photograph 9: *View of ground squirrel burrows in the dirt piles at the southeast corner of the project site.*



Photograph 10: *View of deeply furrowed ground in the entire project site and view of invasive trees growing in the northern area of the project site.*



Photograph 11: *View of lower bench near the southwest corner of the project site.*



Photograph 12: *View of the stream west of the project site, which empties into a field within one block.*

LSA

FIGURE 6c



Photograph 13: View of the culvert where the stream exits the biological study area in the southwest corner of the project site.



Photograph 14: View along Center Street toward the northwest showing invasive tree of heaven.



Photograph 15: View of the northeastern corner of the project site showing the area with the most abundant tree of heaven.



Photograph 16: View looking north from the highest location in the center of the project site.

LSA

FIGURE 6d



Photograph 17: *View looking south from the highest location in the center of the project site.*



Photograph 18: *View of Goodding's willow trees at the end of Viola Street.*



Photograph 19: *View along the north bank the stream showing annual non-native grasses on the arroyo slope and castor bean on the lower stream banks.*



Photograph 20: *View of one of three unauthorized dumping sites on the project site.*

LSA

FIGURE 6e

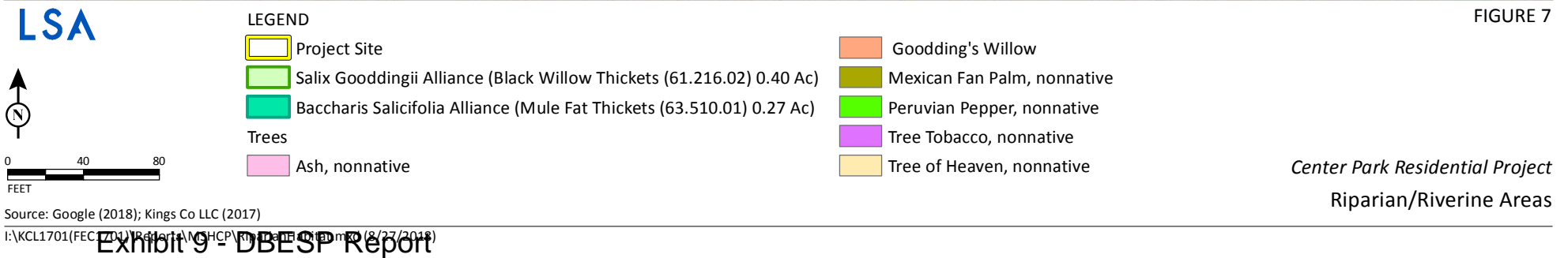
Center Park Residential Project
Site Photographs

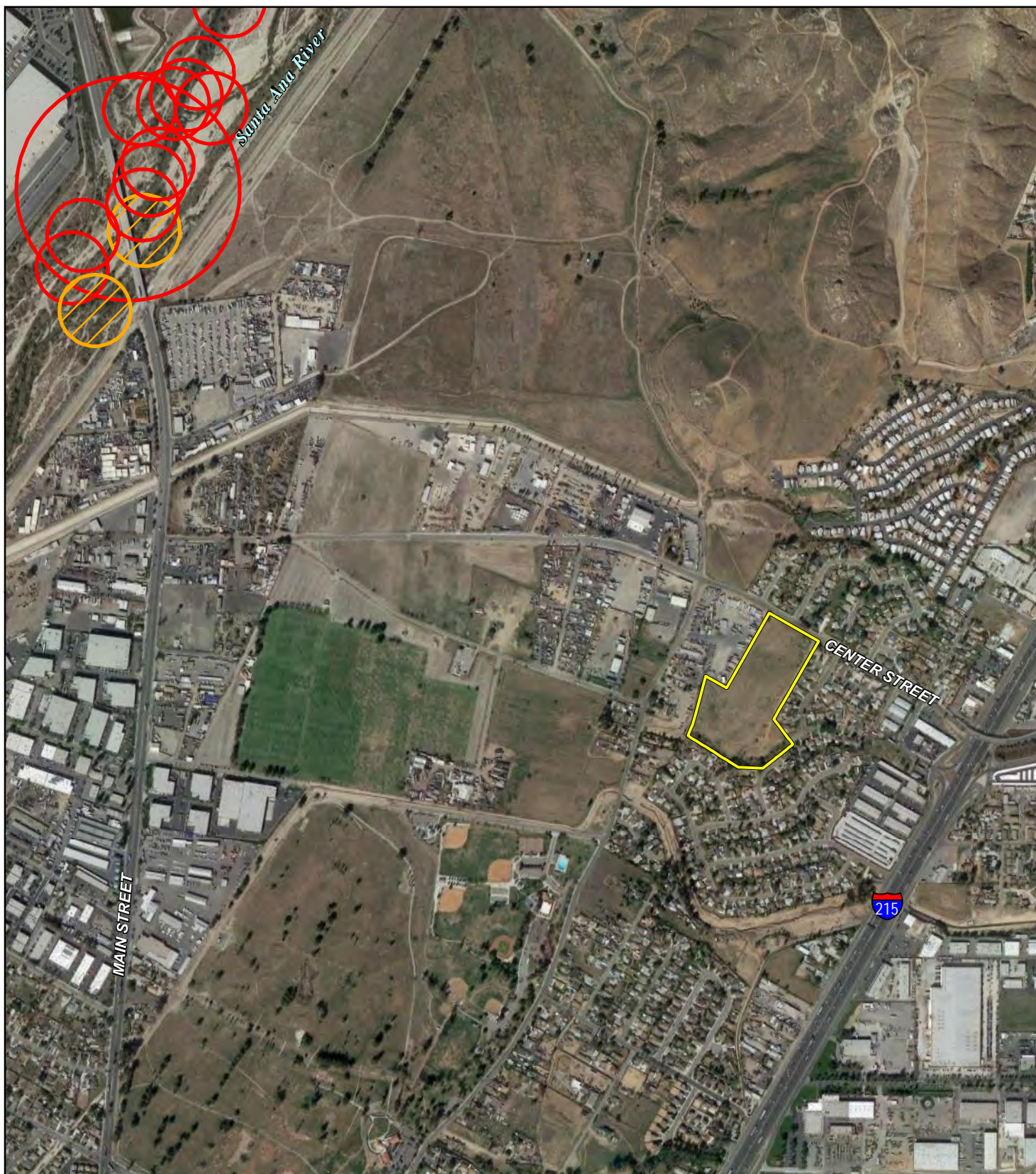


Photograph 21: *View of typical vegetation in the upper reach of the stream with willows, ash, palm, mulefat, and castor bean.*



FIGURE 7





LSA



SOURCE: Google (2018); USFWS (2016)

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Exhibit 9 - DBESP Report

APPENDIX B

MSHCP SECTION 6.1.2: COVERED SPECIES ASSOCIATED WITH RIPARIAN, RIVERINE AND VERNAL POOL HABITATS

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
Plants						
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crownscale	US: FE CA: 1B MSHCP: S	Alkaline flats in playas, chenopod scrub, valley and foothill grasslands, vernal pools at 365 to 520 meters (1,200 to 1,700 feet) elevation. Endemic to the San Jacinto River Valley area of western Riverside County.	Blooms April through May (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Brodiaea filifolia</i> Thread-leaved brodiaea	US: FT CA: SE/1B MSHCP: S	Usually on clay or associated with vernal pools or alkaline flats; occasionally in vernal moist sites in fine soils (clay loam, silt loam, fine sandy loam, loam, loamy fine sand). Typically associated with needlegrass or alkali grassland or vernal pools. Occurs from 25 to 1,120 meters (80 to 3,700 feet) elevation. Known only from Los Angeles, Orange, Riverside, San Bernardino, San Diego, and San Luis Obispo Counties, California.	Blooms March through June (perennial herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	US: – CA: 1B MSHCP: C	Clay and some serpentine soils, usually associated with streams or vernal pools, from 30 to 1,700 meters (100 to 5,600 feet) elevation. In California, known only from Riverside and San Diego Counties. Also occurs in Mexico.	Blooms May through July (perennial herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth tarplant	US: – CA: 1B MSHCP: S	Generally alkaline areas in chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland below 480 meters (1,600 feet) elevation. Known from Riverside and San Bernardino Counties, extirpated from San Diego County.	Blooms April through November (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Clinopodium chandleri</i> San Miguel savory	US: – CA: 1B MSHCP: S	Rocky moist sites in oak woodland or tall dense chaparral or at the margins these communities in coastal sage scrub or grassland, at 110 to 1,210 meters (400 to 4,000 feet) elevation. Prefers moist rocky canyons with trees or large shrubs. Known only from Orange, Riverside, and San Diego Counties, and Baja California, Mexico. In western Riverside County restricted to Santa Ana Mountains.	Blooms March through May (perennial herb)	None	None	Suitable soil and hydrologic conditions are not present.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
<i>Deinandra mohavensis</i> Mojave tarplant	US: – CA: SE/1B MSHCP: P	Seeps, drainages (including low areas along roads), ponds, and similar mesic areas, generally in sandy alluvial soil, in openings in riparian scrub, coastal scrub, and chaparral at 640 to 1,600 meters (2,100 to 5,300 feet) elevation.	Blooms (May) June through October (January) (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Dodecahema leptoceras</i> Slender-horned spineflower	US: FE CA: SE/1B MSHCP: S	Sandy cobbly riverbed alluvium in alluvial fan sage scrub (usually late seral stage), on floodplain terraces and benches that receive infrequent overbank deposits from generally large washes or rivers, where it is most often found in shallow silty depressions. Occurs at 200 to 760 meters (600 to 2,500 feet) elevation.	Blooms April through June (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	US: FE CA: SE/1B MSHCP: C	Riversidean alluvial fan sage scrub and chaparral in sandy or gravelly soils of floodplains and terraced fluvial deposits of the Santa Ana River and larger tributaries (Lytle and Cajon Creeks, lower portions of City and Mill Creeks) at 90 to 625 meters (300 to 2,100 feet) elevation in San Bernardino and Riverside Counties.	Blooms May through September	None	None	Suitable soil and hydrologic conditions are not present.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	US: FE CA: SE/1B MSHCP: C	Vernal pools and similar mesic habitats in coastal scrub and grassland at 15 to 620 meters (50 to 2,000 feet) elevation. In California, known only from Riverside and San Diego Counties	Blooms April through June (annual or perennial herb)	None	Outside of species range	The species is only known from the Santa Rosa Plateau.
<i>Holocarpha virgata</i> ssp. <i>elongata</i> Curving (graceful) tarplant	US: – CA: 4 MSHCP: P	Chaparral, cismontane woodland, coastal scrub, and grassland at 60 to 1,100 meters (200 to 3,600 feet) elevation. Known only from Orange, Riverside, and San Diego Counties, California.	Blooms May through November (annual herb)	None	Outside of species range	Species is commonly found in the Santa Rosa Plateau and San Mateo Canyon.
<i>Hordeum intercedens</i> Vernal barley	US: – CA: 3.2 MSHCP: C	Vernal pools and saline flats and depressions below 1,000 meters (3,300 feet) elevation. Known from many California Counties. Also occurs in Mexico.	Blooms March through June (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
<i>Juglans californica</i> Southern California black walnut	US: – CA: 4 MSHCP: C	Primarily alluvial areas in chaparral, coastal sage scrub, and cismontane woodland at 50 to 900 meters (160 to 3,000 feet) elevation.	Blooms March through August (deciduous tree)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> Ocellated Humboldt lily	US: – CA: 4 MSHCP: P	Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland at 30 to 1,800 meters (100 to 5,900 feet) elevation.	Blooms March through August (perennial herb)	None	Outside of species range	Species are commonly found in the Santa Ana Mountains and Arroyo Seco Canyon.
<i>Lilium parryi</i> Lemon lily	US: – CA: 1B MSHCP: P	Bulbiferous perennial herb of wet areas in meadows and riparian and montane coniferous forests at 1,220 to 2,790 meters (4,000 to 9,200 feet) elevation.	Blooms July through August (perennial herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Limnanthes alba</i> ssp. <i>parishii</i> Parish's meadowfoam	US: – CA: SE/1B MSHCP: C	Seasonally wet meadows and edges of vernal pools and intermittent streams; 550 to 2,000 meters (1,800 to 6,600 feet) elevation.	Blooms April through June	None	Outside of species range	Known from Santa Ana and San Jacinto Mountains in Riverside and San Diego Counties.
<i>Nama stenocarpa</i> Mud nama	US: – CA: 2B MSHCP: S	Lake shores, riverbanks, and similar intermittently wet areas at 5 to 500 meters (20 to 1,600 feet) elevation. Known in California from San Diego, Orange, and Riverside Counties and from San Clemente Island. Believed extirpated from Los Angeles and Imperial Counties. Known also from Baja California and Arizona.	Blooms January through July (annual or perennial herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Navarretia fossalis</i> Spreading navarretia	US: FT CA: 1B MSHCP: S	In vernal pools, playas, shallow freshwater marshes, and similar sites at 15 to 820 meters (50 to 2,700 feet) elevation. In California, known only from Los Angeles, San Luis Obispo, Riverside, and San Diego Counties. Also occurs in Mexico.	Blooms April through June (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
<i>Navarretia prostrata</i> Prostrate vernal pool navarretia	US: – CA: 1B MSHCP: S	Vernal pools, usually alkaline, from 15 to 1,210 meters (50 to 4,000 feet) elevation. Known only from Alameda, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, San Benito, San Diego, and San Luis Obispo Counties. Presumed extirpated from San Bernardino County.	Blooms April through July (annual herb)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Orcuttia californica</i> California Orcutt grass	US: FE CA: SE/1B MSHCP: S	Vernal pools from 15 to 660 meters (50 to 2,200 feet) elevation. In California, known from Los Angeles, Ventura, Riverside, and San Diego Counties. Also occurs in Mexico.	Blooms April through August (annual grass)	None	None	Suitable soil and hydrologic conditions are not present.
<i>Phacelia stellaris</i> Brand's star phacelia	US: – CA: 1B MSHCP: S	Dunes and sandy openings in coastal scrub communities at 5 to 400 meters (20 to 1,300 feet) elevation. In western Riverside County, this species appears to be restricted to sandy washes and benches in alluvial floodplains. Known only from Los Angeles (believed extirpated), Riverside, and San Diego Counties, California. The most recent record of this species from Los Angeles County was in 1943.	Blooms March through June (annual herb)	None	Outside of species range	Species range is limited to the Santa Ana River.
<i>Polygala cornuta</i> var. <i>fishiae</i> Fish's milkwort	US: – CA: 4 MSHCP: P	Shaded rocky places in canyons 100 to 1,100 meters (300 to 3,600 feet) elevation. Chaparral and oak woodland. Santa Monica Mountains, Mt. Wilson, Santa Ana Mountains, etc.	Blooms May through August	None	Outside of species range	Species are commonly found in the Santa Ana Mountains and Aqua Tibia Mountains.
<i>Quercus engelmannii</i> Engelmann oak	US: – CA: 4 MSHCP: C	Chaparral, woodland, and grassland, from 120 to 1,300 meters (400 to 4,300 feet) elevation. Known from Los Angeles, Orange, Riverside, and San Diego Counties and from northern Baja California.	Year-round (deciduous tree)	None	Outside of species range.	Restricted to woodland habitats in the Santa Ana Mountains and the Santa Rosa Plateau.
<i>Romneya coulteri</i> Coulter's Matilija poppy	US: – CA: 4 MSHCP: P	Dry washes, banks near washes, canyons, and steep northern slopes in coastal sage scrub and chaparral away from the immediate coast, below 1,220 meters (4,000 feet) elevation. Known only from Los Angeles, Orange, Riverside and San Diego Counties.	Blooms May through July	None	Outside of species range	Species are commonly found in the Santa Ana Mountains and inland foothill washes with soil moisture.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
Invertebrates						
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	US: FT CA: SA MSHCP: S	Vernal pools and similar features in unplowed grassland areas. Pools must contain water continuously for at least 18 days in all but the driest years to allow for reproduction.	Seasonally following rains; typically January through April	None	None	Suitable soil and hydrologic conditions are not present.
<i>Linderiella santarosae</i> Santa Rosa Plateau fairy shrimp	US: – CA: SA MSHCP: S	Southern basalt flow vernal pools with cool clear to milky waters that are moderately predictable and remain filled for extended periods of time. Known only from the Santa Rosa Plateau of western Riverside County.	Seasonally following rains; typically January through April	None	None	Suitable soil and hydrologic conditions are not present.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	US: FE CA: SA MSHCP: S	Warm-water vernal pools (i.e., large, deep pools that retain water into the warm season) with low to moderate dissolved solids, in annual grassland areas interspersed through chaparral or coastal sage scrub vegetation. Suitable habitat includes some artificially created or enhanced pools, such as some stock ponds, that have vernal pool like hydrology and vegetation.	Seasonally following rains; typically January through April	None	None	Suitable soil and hydrologic conditions are not present.
Fish						
<i>Catostomus santaanae</i> Santa Ana sucker	US: FT CA: SSC MSHCP: C	The Santa Ana sucker's historical range includes the Los Angeles, San Gabriel, and Santa Ana River drainage systems located in Southern California. An introduced population also occurs in the Santa Clara River drainage system in southern California. Found in shallow, cool, running water.	Year-round	None	Outside of Species Range (Santa Ana River)	Perennial river or streams are not present in the project area.
Amphibians						
<i>Anaxyrus (Bufo) californicus</i> Arroyo toad	US: FE CA: SSC MSHCP: S	Washes and arroyos with open water; sand or gravel beds; for breeding, pools with sparse overstory vegetation. Coastal and a few desert streams from Santa Barbara County to Baja California.	March through July	None	None	Suitable soil and hydrologic conditions are not present.
<i>Rana draytonii</i> California red-legged frog	US: FT CA: SSC MSHCP: S	Deep, quiet pools of streams, marshes, and occasionally ponds, with dense, shrubby vegetation at edges, usually below 1,200 meters (4,000 feet).	December through April	None	None	No mountainous aquatic and marsh habitats on the project site or in the region.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
<i>Rana muscosa</i> Sierra Madre yellow-legged frog	US: FE CA: SE MSHCP: S	Ponds, lakes, and streams at moderate to high elevation; appears to prefer bodies of water with open margins and gently sloping bottom. Transverse Ranges in southern California from 370 to 2,290 meters (1,200 to 7,500 feet) elevation. Restricted to streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats.	March through June	None	Outside of species range	No mountainous aquatic and marsh habitat on the project site or in the region.
Birds						
<i>Coccyzus americanus occidentalis</i> (nesting) Western yellow-billed cuckoo	US: FT CA: SE MSHCP: S	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	June through September	None	None	Dense cottonwood/willow riparian forest habitat with perennial river is not present.
<i>Empidonax traillii extimus</i> (nesting) Southwestern willow flycatcher	US: FE CA: SE MSHCP: S	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	June through September	None	None	Dense cottonwood/willow riparian forest habitat with perennial river is not present.
<i>Falco peregrinus anatum</i> (nesting) American peregrine falcon	US: – CA: CFP MSHCP: C	Widespread, but scarce and local throughout North America. Wetlands near high cliffs; few known to nest in urban settings on tall buildings.	Year-round	None	None	No cliff nesting habitat is present on the project site.
<i>Haliaeetus leucocephalus</i> (nesting & wintering) Bald eagle	US: – CA: SE/CFP MSHCP: C	Winters locally at deep lakes and reservoirs feeding on fish and waterfowl. Locally rare throughout North America.	November through February	None	None	Open water and forest habitat is not present.

MSHCP Section 6.1.2: Covered Species Associated with Riparian, Riverine and Vernal Pool Habitats

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability	Habitat Presence	Rationale
<i>Vireo bellii pusillus</i> Least Bell's vireo	US: FE CA: SE MSHCP: S	Riparian forests and willow thickets. The most critical structural component of Least Bell's Vireo habitat in California is a dense shrub layer 2 to 10 feet (0.6–3.0 meter) above ground. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	None	Marginal	Insufficient riparian scrub present; high level of disturbance.

US: Federal Classifications

FE Listed as Endangered.
FT Listed as Threatened.

CA: State Classifications

SE State-listed as Endangered.
SSC Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
CFP California Fully Protected. Refers to animals protected from take under Fish and Game Code sections 3511, 4700, 5050, and 5515.
SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or rarity status.
1B California Rare Plant Rank 1B – rare, threatened or endangered in California and elsewhere.
2B California Rare Plant Rank 2B – rare, threatened or endangered in California, but more common elsewhere.
3.2 California Rare Plant Rank 3 – a review list of plants about which more information is needed.
0.2 Fairly endangered in California (20 to 80% occurrences threatened).
4 California Rare Plant Rank 4 – a watch list of plants of limited distribution.

MSHCP: Western Riverside County MSHCP Status

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