THE MERGE

NORTHEAST CORNER OF ARCHIBALD AVENUE AND LIMONITE AVENUE

CITY OF EASTVALE, RIVERSIDE COUNTY, CALIFORNIA

Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

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Biologist
Natural Resources

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Vice President
Natural Resources

March 2018
Updated June 2018

Executive Summary

This report contains the findings of ELMT Consulting's Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis for The Merge Project located at the northeast corner of Archibald Avenue and Limonite Avenue in the City of Eastvale, Riverside County, California. The project site is located within the Eastvale Area Plan, but is not located within any criteria cells, conservation areas, cores, or linkages identified within the MSHCP. Further, a review of the Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map determined that the project site is located within the designated survey area for burrowing owl (*Athene cunicularia*) and Narrow Endemic Plant Species, specifically San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).

The project site primarily consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances from agricultural activities and surrounding development. These disturbances have eliminated the natural plant communities that once occurred on the project site which has resulted in a majority of the project site being dominated by non-native vegetation and heavily compacted soils.

No special-status plant species were observed on-site during the field survey. On-site disturbances have reduced, if not eliminated, the ability of the project site to provide suitable habitat for special-status plant species. Based on habitat requirements for specific special-status plant species and the availability and quality of habitat needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species that were determined to have the potential to occur in the vicinity of the project site. In addition, the project site does not provide suitable habitat for any of the Narrow Endemic Plant Species identified by the RCA MSHCP Information Map query. Therefore, all special-status plant species are presumed to be absent from the project site and no impacts to special-status plant species are not expected to occur from implementation of the proposed project.

No special-status wildlife species were observed on-site during the habitat assessment. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed project site has a low potential to provide habitat for tricolored blackbird (*Agelaius tricolor*). Further, it was determined that the project site does not provide suitable habitat for any of the other special-status wildlife species known to occur in the area since the project site has been heavily disturbed from on-site disturbances and existing development.

No jurisdictional drainage features, riparian/riverine areas, or vernal pools were observed within the project site during the field survey. Therefore, regulatory approvals from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, or California Department of Fish and Wildlife, or a Determination of Biologically Equivalent or Superior Preservation analysis under the MSHCP will not be required.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start

of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer should be expanded to 500 feet. A biological monitor should be present to delineate the boundaries of the buffer area and monitor the active nest to ensure that nesting behavior is not adversely affected by construction activities. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

The project is not listed as a planned "Covered Activity" under the published MSHCP, but is still considered to be a current Covered Activity under Section 7.1, *Covered Activities Outside Criteria Area*, of the MSHCP. Pursuant to this section, public and private development, including the construction of buildings, structures, infrastructure and all alterations of the land, that are carried out by Permittees that are outside of Criteria Areas and Public/Quasi-Public Lands are permitted under the MSHCP, subject to consistency with the policies that apply outside the Criteria Area. With completion of recommendations provided in Section 5 of this report and payment of the MSHCP Local Development Mitigation Fee, development of the project site is fully consistent with the MSHCP.

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EXHIBITS

APPENDIX

Section 1 Introduction

This report contains the findings of ELMT Consulting's (ELMT) Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for The Merge – NEC Archibald & Limonite Project (Project) located in the City of Eastvale, Riverside County, California. The habitat assessment was conducted by ELMT biologists Thomas J. McGill, Ph.D. and Travis J. McGill on March 1, 2017 to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur on the project site that could pose a constraint to development. In addition, this assessment was conducted to characterize mapped Delhi Sand soils on the project site and determine the site's potential to support clean Delhi Sand soils that have the potential provide suitable habitat for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis* [DSF]).

The report provides an in-depth assessment of the suitability of the on-site habitat to support burrowing owl (*Athene cunicularia*), MSHCP Narrow Endemic Plant Species San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*), as well as several other special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), MSHCP and other electronic databases as potentially occurring in the vicinity of the project site.

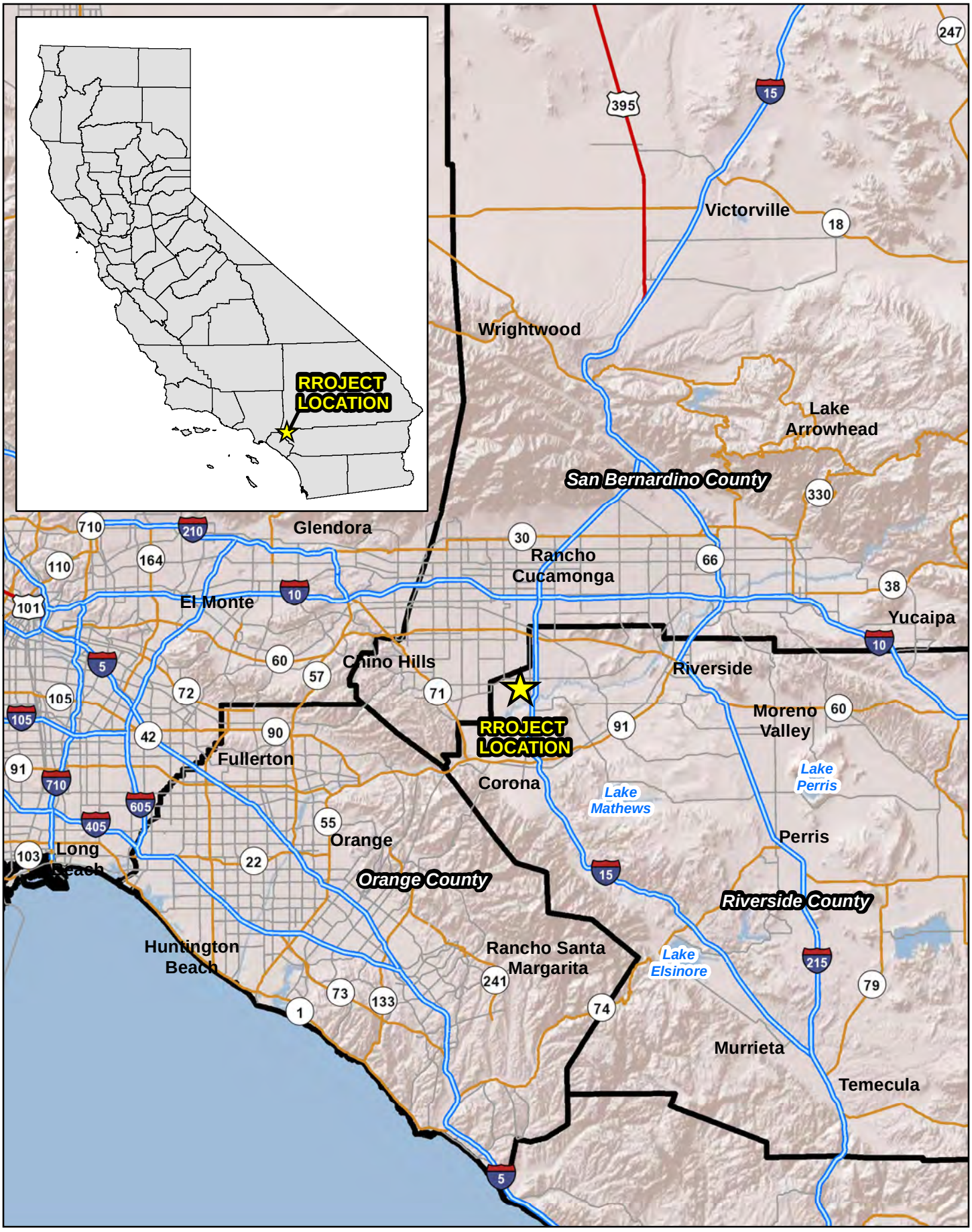
1.1 PROJECT LOCATION

The project site is generally located west of Interstate 15, north of State Route 91, east of State Route 83, and south of State Route 60 in the City of Eastvale, Riverside County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Corona North quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Section 23 of Township 2 south, Range 7 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located on the northeast corner of the intersection of Archibald Avenue and Limonite Avenue within Assessor Parcel Number 164-010-019 (Exhibit 3, *Project Site*).

1.2 PROJECT DESCRIPTION

The proposed project is the development of a future business park on the northeast corner of the intersection of Archibald Avenue and Limonite Avenue. The future business park will consist of a 4,000 square foot (SF) car wash, three (3) restaurant buildings totaling 7,926 SF, a 4,500 SF gas station, two (2) retail shops totaling 21,300 SF, and two (2) major shops totaling 44,600 SF. The business park will also provide 524 parking stalls. Two (2) basins and a bio retention basin will also be installed to collect storm water runoff.

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally, State, and MSHCP listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

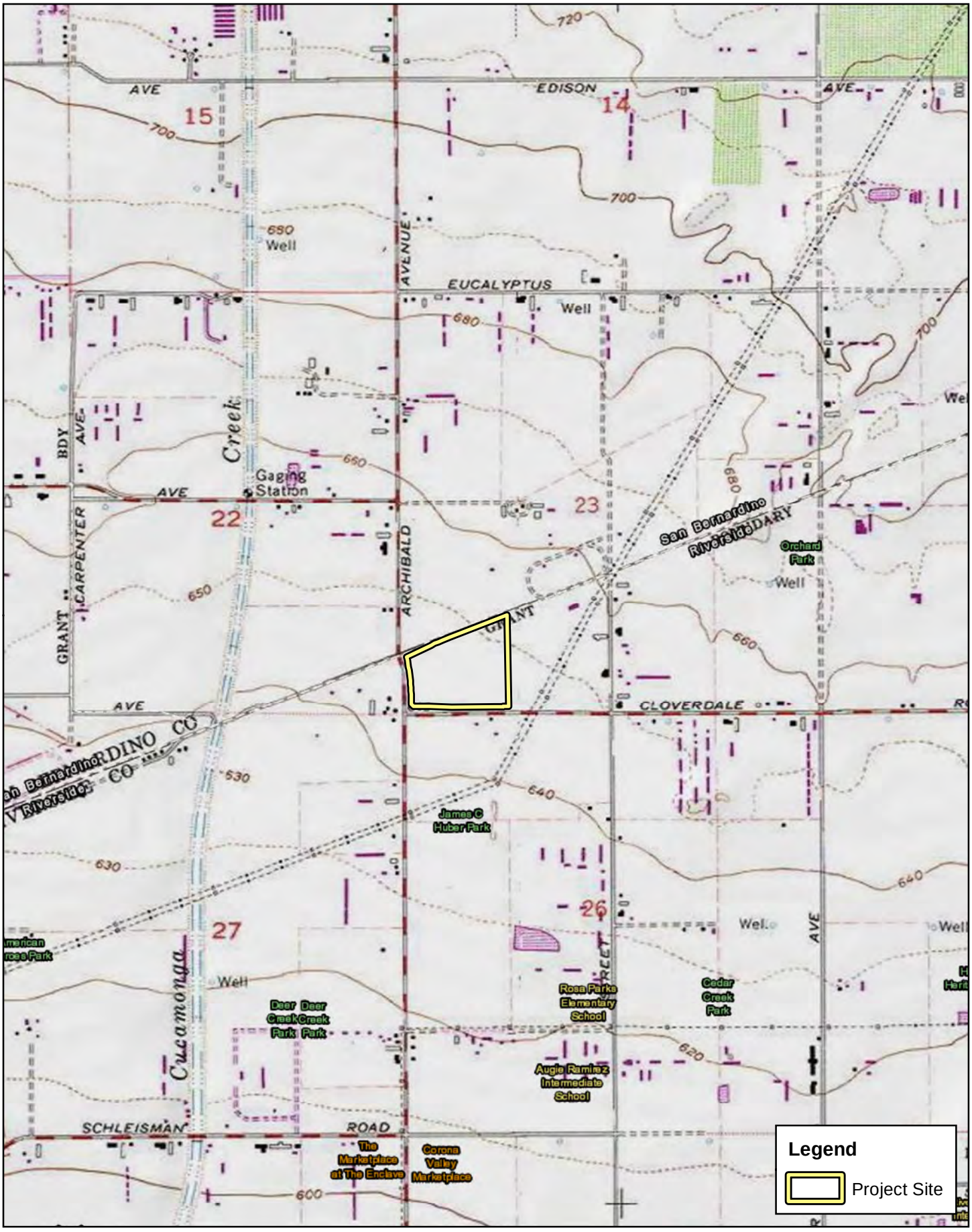


ELMT CONSULTING

THE MERGE

Regional Vicinity

Exhibit 1



ELMT CONSULTING

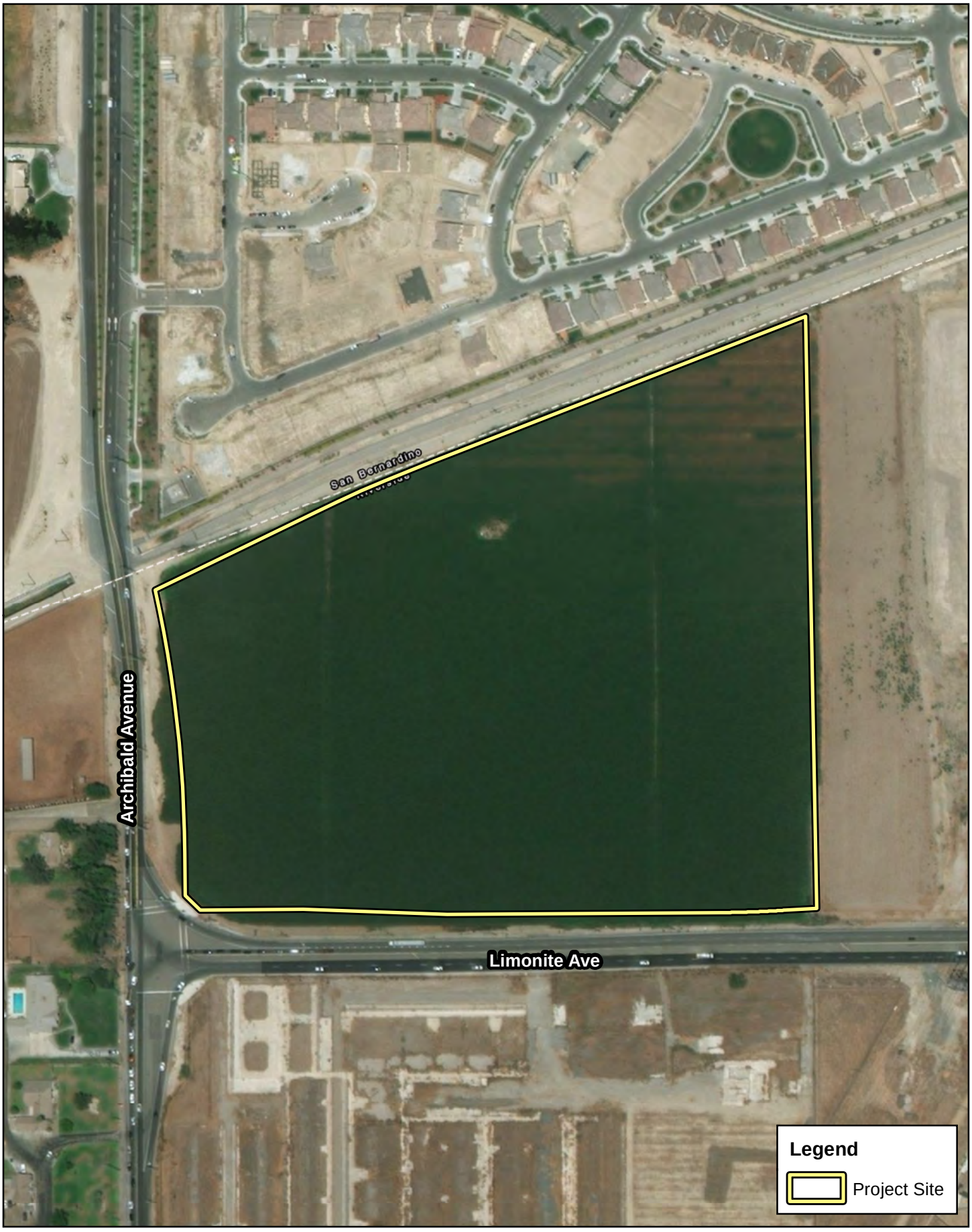
0 500 1,000 2,000 Feet

Source:USA Topographic Maps

THE MERGE

Site Vicinity

Exhibit 2



ELMT CONSULTING

0 125 250 500 Feet

Source:ESRI World Imagry

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Project Site

Exhibit 3

Section 2 Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted. The field investigation was conducted to document existing conditions within the project site and assess the potential for special-status biological resources to occur.

2.1 WESTERN RIVERSIDE COUNTY MSHCP CONSISTENCY ANALYSIS

The project site is located in the City of Eastvale (City) within the Eastvale Area Plan of the MSHCP. The City is a permittee under the MSHCP and, while the project is not specifically identified as a Covered Activity under Section 7.1 of the MSHCP, public and private development that is outside of Criteria Areas and Public/Quasi-Public (P/QP) Lands is permitted under the MSHCP, subject to consistency with MSHCP policies that apply to areas outside of Criteria Areas. As such, to achieve coverage, the project must be consistent with the following policies of the MSHCP:

- The policies for the protection of species associated with riparian/riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP;
- The policies for the protection of narrow endemic plant species as set forth in Section 6.1.3 of the MSHCP;
- Vegetation mapping requirements as set forth in Section 6.3.1 of the MSHCP;
- The requirements for conducting additional surveys as set forth in Section 6.3.2 of the MSHCP; and
- Fuels management guidelines as set forth in Section 6.4 of the MSHCP.

The project site was reviewed to determine consistency with the MSHCP. Geographic Information System (GIS) software was utilized to map the project site in relation to MSHCP areas including criteria cells (core habitat and wildlife movement corridors) and areas proposed for conservation.

2.1.1 Riparian/Riverine Areas and Vernal Pools

The MSHCP requires that an assessment be completed if impacts to riparian/riverine areas and vernal pools will occur as a result of implementation of the proposed project. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools.*

Aerial photography was reviewed prior to conducting the field investigation. The aerials were used to locate and inspect potential natural drainage features, ponded areas, or water bodies that may be considered riparian/riverine habitat and/or fall under the jurisdiction of the United States Army Corps of Engineers

(Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to State and federal regulatory authorities.

2.1.2 Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map query and review of the MSHCP, it was determined that the project site is located within the designated survey area for the following Narrow Endemic Plant Species: San Diego ambrosia, Brand's phacelia, and San Miguel savory, as depicted in Figure 6-1 within Section 6.3.2 of the MSHCP.

2.1.3 Additional Survey Needs and Procedures

Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, states that additional surveys may be needed for certain species in order to achieve coverage for these species. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is located within the designated survey area for burrowing owl as depicted in Figure 6-4 within Section 6.3.2 of the MSHCP.

2.1.4 Additional Survey Needs and Procedures

Section 6.4 of the MSHCP, *Fuels Management*, focuses on hazard reduction for humans and their property. It requires fuels management practices to be compatible with public safety as well as the conservation of biological resources. A project must comply with MSHCP fuels management requirements in order to be in compliance.

2.1.5 Urban/Wildlands Interface Guidelines

Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface*, is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The Urban/Wildlife Interface Guidelines are intended to ensure that indirect project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The project site is not located within or adjacent to any conservation areas, any criteria cells, conservation areas, cores, or linkages identified within the MSHCP. Therefore, the Urban/Wildlands Interface Guidelines do not apply to this project.

2.2 LITERATURE REVIEW

The first step in determining if a project is consistent with the above listed sections of the MSHCP is to conduct a literature review and records search for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and

wildlife species and their proximity to the project site were determined through a query of the CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings, and species covered within the MSHCP and associated technical documents.

Literature detailing biological resources previously observed in the vicinity of the project site and historical land uses were reviewed to understand the extent of disturbances to the habitats on-site. Standard field guides and texts on special-status and non-special-status biological resources were reviewed for habitat requirements, as well as the following resources:

- Google Earth Pro historic aerial imagery (1994-2016);
- 2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- Stephens' Kangaroo Rat Habitat Conservation Plan; and
- RCA MSHCP Information Map.

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the project site. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

2.3 FIELD INVESTIGATION

ELMT biologists Thomas J. McGill, Ph.D. and Travis J. McGill evaluated the extent and conditions of the plant communities found within the boundaries of the project site on March 1, 2017. Plant communities identified on aerial photographs during the literature review were verified in the field by walking meandering transects through the on-site plant communities and along boundaries between plant communities. The plant communities were evaluated for their potential to support special-status plant and wildlife species. In addition, field staff identified any natural corridors and linkages that may support the movement of wildlife through the area.

Special attention was given to special-status habitats and/or undeveloped areas, which have higher potentials to support special-status plant and wildlife species. Areas providing suitable habitat for burrowing owl were closely surveyed for signs of presence during the field survey. Methods to detect the presence of burrowing owls included direct observation, aural detection, and signs of presence including pellets, white wash, feathers, or prey remains.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

2.4 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field survey using the USDA NRCS Soil Survey for Western Riverside Area, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

2.5 PLANT COMMUNITIES

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were delineated on an aerial photograph, classified in accordance with those described in the MSHCP, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

2.6 PLANTS

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

2.7 WILDLIFE

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

2.8 JURISDICTIONAL DRAINAGES AND WETLANDS

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may be considered riparian/riverine habitat and/or fall under the jurisdiction of the Corps, Regional Board, or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction.

2.9 STEPHENS' KANGAROO RAT HABITAT CONSERVATION PLAN

Separate from the consistency review against the policies of the MSHCP, Riverside County established a boundary in 1996 for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and state threatened species. The Stephens' kangaroo rat is protected under the Stephens' Kangaroo Rat Habitat Conservation Plan (County Ordinance No. 663.10; SKR HCP). As described in the MSHCP Implementation Agreement, a Section 10(a) Permit, and California Fish and Game Code Section 2081 Management Authorization were issued to the Riverside County Habitat Conservation Agency (RCHCA) for the Long-Term SKR HCP and was approved by the USFWS and CDFW in August 1990 (RCHCA 1996). Relevant terms of the SKR HCP have been incorporated into the MSHCP and its Implementation Agreement. The SKR HCP 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 SKR HCP are managed as part of the MSHCP Conservation Area consistent with the SKR HCP. Actions shall not be taken as part of the implementation of the SKR HCP that will significantly affect other Covered Species. Take of Stephens' kangaroo rat outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.

The project site is not located within the Mitigation Fee Area of the SKR HCP. Therefore, the applicant is not required to pay the SKR HCP Mitigation Fee prior to development of the project site.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

Riverside County features a somewhat cooler version of a Mediterranean climate, or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Relative to other areas in Southern California, winters are colder with frost and with chilly to cold morning temperatures common. Climatological data obtained for the City of Norco indicates the annual precipitation averages 12.0 inches per year. Almost all of the precipitation in the form of rain occurs in the months between November and March, with hardly any occurring between the months of April and October. The wettest month is February, with a monthly average total precipitation of 2.88 inches, and the driest months are June and July, both with monthly average total precipitation of 0.02 inches. The average maximum and minimum temperatures are 93 and 40 degrees Fahrenheit (° F) respectively with August (monthly average high 93° F) being the hottest months and December (monthly average low 40° F) being the coldest. The temperature during the site visit was in the mid-70s ° F with partly cloudy skies and calm winds.

3.2 TOPOGRAPHY AND SOILS

The project site is relatively flat with no areas of significant topographic relief at an elevation of approximately 650 feet above mean sea level. According to the Custom Soil Resource Report, the project site is underlain by the following soil units: Hilmar loamy fine sand, Hilmar loamy very fine sand (0 to 2 percent slopes), and Delhi fine sand (Exhibit 4, *Soils*). Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities).

3.3 SURROUNDING LAND USES

The project site is located in an area that has undergone a transformation from agricultural and cattle land uses to residential developments. The project site is bordered by residential developments to the north and east, a vacant lot to the south that historically supported a cattle ranch, and an active cattle ranch to the west.

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0 250 500 1,000 Feet

Source:ESRI World Imagry, Soil Survey Geographic Database, Natural Resources Conservation Service

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Soils

Exhibit 4

Section 4 Discussion

4.1 SITE CONDITIONS

The project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances associated with agricultural activities. These disturbances have eliminated the natural plant communities that once occurred on the project site and resulted in a majority of the project site being dominated by non-native vegetation and heavily compacted soils.

4.2 VEGETATION

No native plant communities occur on the project site. The project site consists of a land cover type that would be classified as agricultural/disturbed (Exhibit 5, *Vegetation*). During the site investigation the project site did not seem to be actively cultivated. Vegetation on the project site was approximately 3-5 feet tall and dense (approximately 95% cover). The project site is dominated by wild oat (*Avena sativa*). Other common plant species observed within the project site include Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*), pigweed (*Chenopodium album*), common barley (*Hordeum vulgare*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), wild raddish (*Raphanus raphanistrum*), dwarf nettle (*Urtica urens*), and London rocket (*Sysmbrium irio*).

4.3 WILDLIFE

Plant communities provide foraging habitat, nesting and denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed during the field survey or that are expected to occur within the project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather condition in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

4.3.1 Fish

The MSHCP does not identify any covered or special-status fish species as potentially occurring on the project site. Further, no fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the project site. Therefore, no fish are expected to occur and are presumed absent from the project site.

4.3.2 Amphibians

The MSHCP does not identify any covered or special-status amphibian species as potentially occurring on the project site. Further, no amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. Therefore, no amphibians are expected to occur on the project site and are presumed absent.

ELMT CONSULTING

0 250 500 1,000 Feet

Source:ESRI World Imagry, Soil Survey Geographic Database, Natural Resources Conservation Service

THE MERGE

Vegetation

Exhibit 5

4.3.3 Reptiles

The MSHCP does not identify any covered or special-status reptilian species as potentially occurring on the project site. The project site provides a limited amount of habitat for a few reptile species adapted to a high degree of human disturbance associated with the on-site agricultural activities and surrounding development. No reptiles were obseved on-site. Common reptilian species expected to occur on-site include Great Basin fence lizard (*Sceloporus occidentalis longipes*) common side-blotched lizard (*Uta stansburiana elegans*), gopher snake (*Pituophis catenifer*), and southern alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status reptilian species are expected to occur on-site.

4.3.4 Birds

The project site provides suitable foraging and cover habitat for a variety of resident and migrant bird species. A total of eleven (11) bird species were detected during the field survey and included red-winged blackbird (*Agelatius phoenicenus*), Anna's hummingbird (*Calypte anna*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*) American kestrel (*Falco sparverius*), house finch (*Haemorhous mexicanus*), song sparrow (*Melospiza melodia*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*).

4.3.5 Mammals

The MSHCP does not identify any covered or special-status mammalian species as potentially occurring on the project site. The project site and surrounding areas have the potential to support mammalian species adapted to human presence and disturbance. The only mammalian species observed during the field survey was Audubon's cottontail (*Sylvilagus audubonii*). Other common mammalian species expected to occur include coyote (*Canis latrans*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices, abandoned structures) within and surrounding the project site.

4.4 NESTING BIRDS

No active nests or birds displaying nesting behavior were observed during the field survey. The project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments. The project site has the potential to provide suitable nesting opportunities for birds. A pre-construction nesting bird clearance survey shall be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

4.5 WILDLIFE CORRIDORS AND LINKAGES

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow

animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site has not been identified as a wildlife corridor or linkage. The Santa Ana River is located approximately 2.5 mile south of the project site, which is the closest identified wildlife corridor to the project site. The proposed development will be confined to existing areas that have been heavily disturbed and surrounded by development. The project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the project site to the Santa Ana River. As such, development of the project site is not expected to impact wildlife movement opportunities or prevent the Santa Ana River from continuing to function as a wildlife corridor. Therefore, impacts to wildlife corridors or linkages are not expected to occur.

4.6 STATE AND FEDERAL JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge and/or fill materials into "waters of the United States" pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities pursuant to Section 1602 of the California Fish and Game Code.

No jurisdictional drainage and/or wetland features were observed within the project site during the field survey. Therefore, development of the project site will not result in impacts to Corps, Regional Board, or CDFW jurisdiction and regulatory approvals will not be required.

4.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Corona North USGS 7.5-minute quadrangle. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified seven (7) special-status plant species, thirty (30) special-status wildlife species, and three (3) special-status plant communities as having potential to occur within the Corona North quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Appendix C. Refer to

Table C-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

4.7.1 Special-Status Plants

According to the CNDDB and CNPS, seven (7) special-status plant species have been recorded in the Corona North quadrangle (refer to Appendix C). In addition, the RCA MSHCP Information Map Query identified three (3) Narrow Endemic Plant Species: San Diego ambrosia, Brand's phacelia, and San Miguel savory. The project site primarily consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances from agricultural activities. These disturbances have resulted in a majority of the project site being dominated by non-native vegetation and heavily compacted soils and reduced, if not eliminated, the ability of the project site to provide suitable habitat for special-status plant species.

Although the field investigation was not conducted during the blooming season for the majority of the special-status plant species known to occur in the general vicinity of the project site, based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the project site.

4.7.2 Special-Status Wildlife

According to the CNDDB, thirty (30) special-status wildlife species have been reported in the Corona North quadrangle (refer to Appendix C). No special-status wildlife species were observed on-site during the habitat assessment. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed project site has a low potential to provide habitat for tricolored blackbird (*Agelaius tricolor*). Further it was determined that the project site does not provide suitable habitat for any of the other special-status wildlife species known to occur in the area since the project site has been heavily disturbed from on-site disturbances and existing development.

In order to ensure impacts to tricolored blackbird do not occur from site development, a pre-construction nesting bird clearance survey shall be conducted within three (3) days prior to ground disturbance. With implementation of a pre-construction nesting bird clearance survey, impacts to tricolored blackbird will be less than significant and no mitigation will be required.

4.7.3 Special-Status Plant Communities

The CNDDB lists three (3) special-status plant communities as being identified within the Corona North USGS 7.5-minute quadrangle: Southern California Arroyo Chub/Santa Ana Sucker Stream, Southern Cottonwood Willow Riparian Forest, and Southern Sycamore Alder Riparian Woodland. None of these special-status plant communities occur within the boundaries of the project site.

4.8 DELHI SANDS FLOWER-LOVING FLY SUITABILITY ASSESSMENT

The criteria discussed in detail below was used to rate the relative abundance of clean Delhi Sand soils verses the amount of Cienba, Tujunga, or other alluvial soils, to rate the suitability of the habitat to support DSF. Soils high in gravel and alluvial materials, or high in fine materials such as silts and clays, were rated low, while soils that appear to be high in Aeolian deposited sands were rated high. This qualitative assessment of DSF habitat was further refined by considering the relative degree of soil compaction. Alluvial soils have a tendency to solidify to a hard surface pavement, while Aeolian soils are easier to penetrate and provide good substrate for DSF.

4.8.1 Background

It has been generally acknowledged that DSF occur in Delhi Sand soils, particularly clean dune formations composed of Aeolian sands. Conversely, soils and sands deposited by fluvial processes from the surrounding alluvial fans do not support DSF. These alluvial soils are composed of course sands, cobble and gravel (Tujunga soils) or course sands, silts and clays (Cieneba soils). In this part of Riverside County, the separation of soil types has been lost due to the mixing and cross contamination from years of agricultural activities, development, and other man-made disturbances.

Depending on the extent of mixing and contamination, some areas formally mapped in 1970 as Delhi Sand soils no longer have potential to support DSF populations. Conversely, some areas formally mapped as Cieneba soils may now be composed of Delhi Sand soils and have potential to support DSF. Six DSF experts (Ken Osborne, Greg Ballmen, Rudy Mattoni, Karen Cleary-Rose, Alison Anderson, and Tom McGill) used this criterion, the relative abundance of clean Delhi Sand soils verses the amount of Cienba or other alluvial soils, to rate the suitability of the habitat to support DSF (Michael Brandman Associates, 2003). Soils high in gravel and alluvial materials, or high in fine materials such as silts and clays, were rated low, while soils that appear to be high in Aeolian deposited sands were rated high. This qualitative assessment of DSF habitat was further refined by considering the relative degree of soil compaction. Alluvial soils have a tendency to solidify to a hard surface pavement, while Aeolian soils are easier to penetrate and provide good substrate for DSF.

Although it has been common to attribute the presence of four common plant species California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), deerweed (*Acmispon glaber*), and telegraph weed (*Heterotheca grandiflora*) as indicators of habitat suitability, for the assessment, vegetation composition was not given much weight in making this habitat evaluation. These dominant plant species, and plant species composition of habitats, may not be directly relevant to larval development (due to likely predatory or parasitic habitat of DSF larvae) (Osborne, et al. 2003). The known immature life histories of the nine *asiloid* fly families, including that to which the DSF is classified, are primarily predatory and/or parasitic on other invertebrate species (mainly insects) and the presence or absence of plant species appears not to be relevant to the life history of these flies.

Land with suitable DSF habitat includes only those areas with open, undisturbed Delhi Series soils that have not been permanently altered by residential, commercial, or industrial development, or other human

actions. Areas known to contain Delhi Sand soils and/or to be occupied by DSF have been divided by USFWS into three recovery units (Colton, Jurupa, and Ontario Recovery Units (USFWS, 1997)). These recovery units are defined as large geographic areas based on geographic proximity, similarity of habitat, and potential genetic exchange. Within these three recovery units, are areas that have been previously protected by conservation easements:

- Colton: Eight sites have been permanently protected in the Colton recovery unit. In the USFWS five-year review of the DSF Recovery Plan (USFWS, 2008) the USFWS acknowledge that eight (8) sites had been identified as supporting DSF within the Colton Recovery Unit. These sites have been permanently protected in the Colton Recovery Unit. Within the Colton Recovery unit, the Slover/Pepper population is partially protected through the establishment of a 7.5-acre Colton Transmission Facility Reserve at the eastern terminus of Santa Ana Ave in Colton and 150-acre Conservation Bank. There are about 160-acres of undeveloped DSF habitat contiguous with these conservation areas (USFWS, 2008).

- Jurupa: Approximately 21 ha (52-acres) of DSF habitat have been protected for this population along the Jurupa Hills. Approximately 12 ha (30-acres) are protected under a conservation easement within Riverside County ("I-15/Galena" Biological Opinion; FWS-WRIV-774). An additional 9 ha (22-acres) will be placed under a conservation easement and managed in San Bernardino County as a result of interagency consultation between the USFWS and the Corps ("Fontana Business Center" Biological Opinion; FWS-SB-1788.9), in accordance with Section 7 of the Endangered Species Act.

- Ontario: In 2000, 4 ha (10-acres) of DSF habitat near the intersection of Greystone and Milliken Avenues in the City of Ontario, San Bernardino County, were acquired for conservation and an additional 1.2 ha (3-acres) of contiguous habitat was avoided, but not permanently conserved. At that time, these properties were surrounded by undeveloped land with some characteristics of DSF habitat, and the USFWS anticipated that a larger DSF reserve would be created that could sustain a robust DSF population. However, most of the surrounding property has subsequently been developed for commercial or industrial uses, and it is unlikely that the existing population can be sustained over the long term.

The project site is located within the Ontario Recovery Unit, outside the areas protected under the conservation easements. The Ontario Recovery Unit includes all areas of the Delhi Sand soils within the cities of Rancho Cucamonga, Ontario, Chino, and Fontana. In the USFWS five-year review of the DSF Recovery Plan (USFWS, 2008), the USFWS acknowledges the habitat conditions have changed that preclude long-term conservation goals within the Ontario Recovery Unit. Even though most the recovery unit does contain Delhi Sand soils, the surrounding habitat does not support continued survival, much less the recovery, of DSF (USFWS, 2008). Additionally, portions of the Ontario Recovery Unit have been extensively surveyed and resulted in no DSF observations.

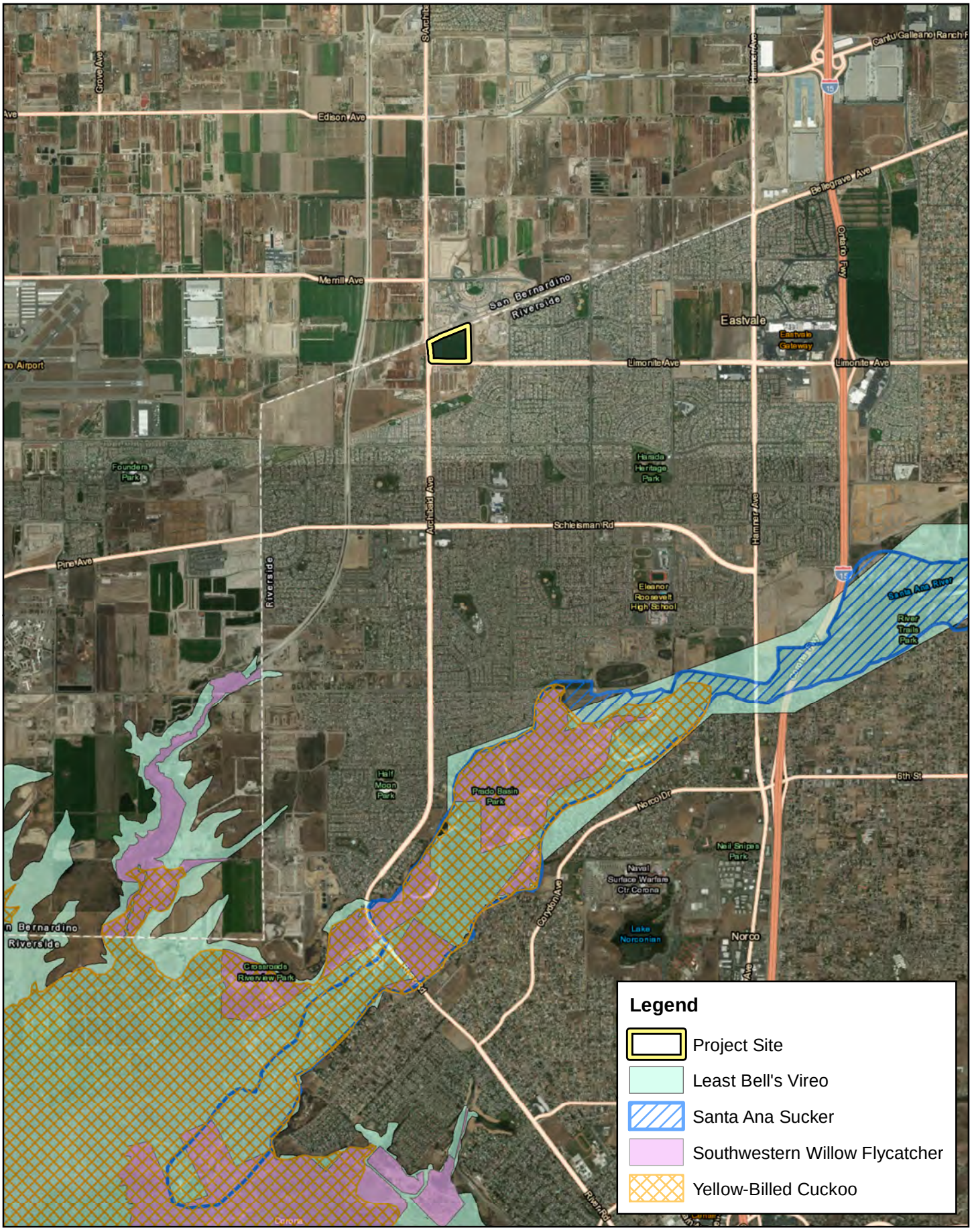
4.8.2 Suitability Assessment

Based on the USDA NRCS Soil Survey, all surface soils within the project site are comprised of Hilmar loamy fine sand, Hilmar loamy very fine sand (0 to 2 percent slopes), and Delhi fine sand (refer to Exhibit 4). Soils within the project site are compacted and heavily mixed from existing agricultural activities and are covered in dense vegetation (approximately 95% cover). Additionally, the project site is surrounded by existing development and cattle ranches, and no longer has connectivity to upwind areas containing Delhi Sands soils, areas subjected to aeolian processes, or areas supporting DSF populations. Therefore, the soils within the project site are rated as "unsuitable quality" with a habitat quality rating of 1. As a result, the site does not support Delhi Sand soils needed for suitable habitat for DSF and DSF is presumed absent from the project site. No further actions or focused surveys are recommended.

4.9 CRITICAL HABITAT

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located within federally designated Critical Habitat. The closest Critical Habitat designation is located along the Santa Ana River approximately 2.5 miles south of the project site (Exhibit 6, *Critical Habitat*). Therefore, consultation with USFWS will not be required for the loss or adverse modification of Critical Habitat.



ELMT CONSULTING

0 0.25 0.5 1 Miles

Source:ESRI World Imagry, USFWS Critical Habitat

THE MERGE

Critical Habitat

Exhibit 6

Section 5 MSHCP Consistency Analysis

The project site is located within the Eastvale Area Plan of the MSHCP, but is not located within any Criteria Cells or MSHCP Conservation Areas (Exhibit 7, *MSHCP Conservation Areas*). Additionally, the project site is located within the designated survey area for burrowing owl and Narrow Endemic Plant Species as depicted in Figures 6-4, and 6-1, respectively, within Sections 6.3.2 and 6.1.3 of the MSHCP. The project site is located within the designated survey area for following Narrow Endemic Plant Species: San Diego ambrosia, Brand's phacelia, and San Miguel savory. Refer to the following sections for an analysis of the suitability of the on-site habitat and potential for burrowing owl and the above listed Narrow Endemic Plant Species to occur on the project site.

5.1 RIPARIAN/RIVERINE AREAS AND VERNAL POOLS

5.1.1 Riparian/Riverine Areas

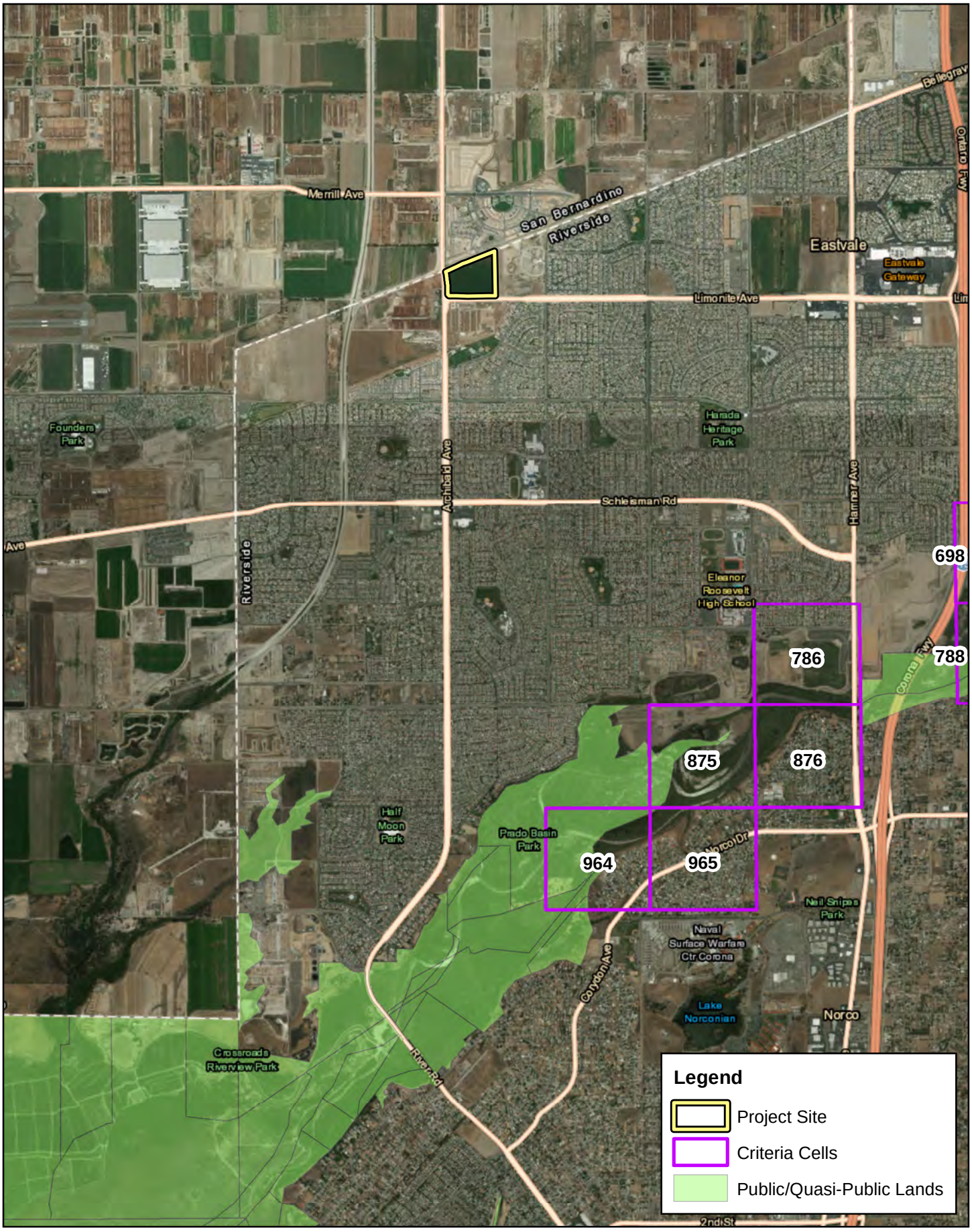
As defined under Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools,* riparian/riverine areas are areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. Any alteration or loss of riparian/riverine habitat from development of a Project will require the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis to ensure the replacement of any lost functions and values of habitats in regards to the listed species. This assessment is independent from considerations given to waters of the United States and waters of the State under the CWA, the California Porter-Cologne Water Quality Control Act, and CDFW jurisdictional streambed under the California Fish and Game Code.

No jurisdictional drainages, riparian/riverine and/or wetland features were observed within the project site during the field survey. Therefore, development of the project site will not result in impacts to riparian/riverine habitat and a DBESP will not be required.

5.1.2 Vernal Pools

Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp.

One of the factors for determining the suitability of the habitat for fairy shrimp would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters.



ELMT CONSULTING

0 0.25 0.5 1 Miles

Source:ESRI World Imagry, RCA MSHCP Information Tool

THE MERGE

MSHCP Conservation Areas

Exhibit 7

These astatic pools are typically characterized as vernal pools. More specifically, vernal pools are seasonal wetlands that occur in depression areas without a continual source of water. They have wetland indicators of all 3 parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season. The determination that an area exhibits vernal pool characteristics and the definition of the watershed supporting vernal pool hydrology is made on a case-by-case basis. Such determinations should consider the length of time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. The seasonal hydrology of vernal pools provides for a unique environment, which supports plants and invertebrates specifically adapted to a regime of winter inundation, followed by an extended period when the pool soils are dry.

The MSHCP lists two general classes of soils known to be associated with special-status plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with special-status species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the special-status species associated with vernal pools can occur on the project site. None of these soils occur on the project site.

A review of recent and historic aerial photographs (1994-2016) of the project site and its immediate vicinity did not provide visual evidence of an astatic or vernal pool conditions on or in the vicinity of the project site. No ponding was observed on-site, further supporting the fact that the drainage patterns currently occurring on the project site do not follow hydrologic regimes needed for vernal pools. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring on the project site. Further, no special-status plant and wildlife species associated with vernal pools were observed.

5.2 NARROW ENDEMIC PLANT SPECIES

Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is located within the designated survey area for Narrow Endemic Plant Species San Diego ambrosia, Brand's phacelia, and San Miguel savory as depicted in Figure 6-1 within Section 6.1.3 of the MSHCP.

The project site supports heavily disturbed land that has been subject to ongoing anthropogenic disturbances from agricultural activities and surrounding developments. Currently, the project site supports undeveloped land that has been heavily disturbed from previous land uses. As a result of the existing land uses and ongoing disturbances, it was determined that the project site does not provide suitable habitat for any of the three Narrow Endemic Plant Species listed under Section 6.1.3 of the MSHCP for this area. Therefore, no additional surveys or analysis is required.

5.3 ADDITIONAL SURVEY NEEDS AND PROCEDURES

The RCA MSHCP Information Map query and review of the MSHCP identified that the project site is located within the designated survey area for burrowing owl as depicted in Figure 6-4 within Section 6.3.2 of the MSHCP.

5.3.1 Burrowing Owl

Burrowing owl is currently designated as a California Species of Special Concern. The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with level to gently-sloping areas characterized by open vegetation and bare ground. The western burrowing owl (*A.c. hypugaea*), which occurs throughout the western United States including California, rarely digs its own burrows and is instead dependent upon the presence of burrowing mammals (i.e., California ground squirrels [*Otospermophilus beecheyi*], coyotes, and badgers [*Taxidea taxus*]) whose burrows are often used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. They also require low growth or open vegetation allowing line-of-sight observation of the surrounding habitat to forage and watch for predators. In California, the burrowing owl breeding season extends from the beginning of February through the end of August.

Under the MSHCP burrowing owl is considered an adequately conserved covered species that may still require focused surveys in certain areas as designated in Figure 6-4 of the MSHCP. The tall and dense (approximately 95% cover) vegetation on the project site does not provide line-of-site opportunities favored by burrowing owls. Further, no suitable burrows (>4 inches in diameter) were observed on the project site. As a result, burrowing owl is presumed absent from the project site. Further, ornamental trees associated with the surrounding developments and power poles adjacent to the site decrease the likelihood that burrowing owls will occur on the project site as these features provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on burrowing owls. Based on this information, it was determined that burrowing owls are absent from the project site and focused surveys are not required.

5.4 ADDITIONAL MSHCP CONSIDERATIONS

5.4.1 Nesting Birds

Vegetation within and surrounding the project site has the potential to provide refuge cover from predators, perching sites and favorable conditions for avian nesting that could be impacted by construction activities associated with the project. Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season. Consequently, if avian

nesting behaviors are disrupted, such as nest abandonment and/or loss of reproductive effort, it is considered "take" and is potentially punishable by fines and/or imprisonment.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer is expanded to 500 feet. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Section 6 Conclusion

The project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances associated with agricultural activities and surrounding development. These disturbances have eliminated the natural plant communities that once occurred on the project site and resulted in a majority of the project site being dominated by non-native vegetation and heavily compacted soils. As a result, no special-status plant species are expected to occur and are presumed to be absent from the project site. No additional surveys are recommended for special-status plant species.

No special-status wildlife species were observed during the field investigation. Based on the field investigation, it was determined that the project site has a low potential to provide habitat for tricolored blackbird. All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species, and known distributions.

No jurisdictional drainage, riparian/riverine, and/or wetland features were observed within or adjacent to the project site. Therefore, development of the project site will not result in impacts to Corps, Regional Board, and/or CDFW jurisdictional areas, or riparian/riverine habitat, and regulatory approvals will not be required.

Based on the proposed project footprint, and with the implementation of a pre-construction nesting bird clearance survey, none of the special-status species known to occur in the general vicinity of the project site will be directly or indirectly impacted from implementation of the proposed project. Therefore, it was determined that this project will have “no effect” on federally, State, or MSHCP listed species known to occur in the general vicinity of the project site. Additionally, the project will have “no effect” on designated Critical Habitats.

With completion of the recommendations in this document and payment of the MSHCP mitigation fees, development of the project site is fully consistent with the Western Riverside County MSHCP.

Section 7 References

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Appendix A Site Photographs

Photograph 1: From the southeast corner of the site looking west along the southern boundary of the site.

Photograph 2: From the southeast corner of the site looking north along the eastern boundary of the site.

Photograph 3: From the northeast corner of the site looking south along the eastern boundary of the site.

Photograph 4: From the northeast corner of the site looking west along the northern boundary of the site where Delhi Sand soils have been mapped.

Photograph 5: From the northwest corner of the site looking east along the northern boundary of the site.

Photograph 6: From the northwest corner of the site looking west along the western boundary of the site.

Photograph 7: From the southwest corner of the site looking north along the western boundary of the site.

Photograph 8: From the southwest corner of the site looking east along the southern boundary of the site.

Photograph 9: From the middle of the northern boundary looking south across the existing agricultural field.

Photograph 10: From the western boundary of the site looking east across the existing agricultural field.

Appendix B Flora and Fauna Compendium

Table B – 1: Plant Species

Scientific Name	**Common Name**
*Avena sativa**	wild oat
*Capsella bursa-pastoris**	Shepherd's purse
Chenopodium californicum	pigweed
*Hirschfeldia incana**	short-pod mustard
*Hordeum vulgare**	common barley
*Lactuca serriola**	prickly lettuce
*Malva parviflora**	cheeseweed
*Medicago sativa**	alfalfa
*Raphanus raphanistrum**	wild radish
*Salsola tragus**	Russian thistle
*Sisymbrium irio**	London rocket
*Urtica urens**	dwarf nettle
*Verbesina encelioides**	golden crownbeard
Zea mays	corn

*Non-native/invasive

Table B – 2: Wildlife Species

Scientific Name	**Common Name**
Aves	**Birds**
Agelaius phoeniceus	red-winged blackbird
Calypte anna	Anna's hummingbird
Columba livia	rock pigeon
Corvus brachyrhynchos	American crow
Falco sparverius	American kestrel
Haemorhouse mexicanus	house finch
Melospiza melodia	song sparrow
Mimus polyglottos	northern mockingbird
Spinus psaltria	lesser goldfinch
Zenaida macroura	mourning dove
Zonotrichia leucophrys	white-crowned sparrow

Appendix C Potentially Occurring Special-Status Biological Resources

Table C-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
SPECIAL-STATUS WILDLIFE SPECIES					
Agelaius tricolor tricolored blackbird	Fed: **Candidate** CA: **END** CSC	Highly colonial yearlong resident of California that frequents emergent wetlands, croplands, grassy fields, flooded land and along edges of ponds. Usually nests near fresh water, preferably in emergent wetland with tall, dense cattails (*Typha* sp.) or tules (*Schoenoplectus* sp.), but also in thickets of willow (*Salix* sp.), blackberry (*Rubus* sp.), and tall herbs.	Yes	No	**Low.** The agricultural fields onsite provide marginal nesting habitat on-site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated shrublands on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*) but can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Anaxyrus californicus arroyo toad	Fed: **END** CA: CSC	Breeding habitat is restricted to shallow, slow-moving stream, and riparian habitats. Breeds in shallow, sandy pools, usually bordered by sand and gravel flood terraces. Occurs in a variety of upland habitats including sycamore-cottonwood woodlands, coastal sage scrub, chaparral, and grassland. Requires areas of sandy or friable soils for burrowing.	Yes (a)	No	**Presumed absent.** No suitable habitat is present on-site.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Aspidoscelis hyperythra orangethroat whiptail	Fed: None CA: CSC	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Athene cunicularia burrowing owl	Fed: None CA: CSC	Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	Yes (c)	No	**Presumed absent.** No suitable habitat is present on-site.
Bombus crotchii Crotch bumble bee	Fed: None CA: None	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada.	No	No	**Presumed absent.** No suitable habitat is present on-site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
Buteo swainsoni Swainson's hawk	Fed: None CA: **THR**	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Catostomus santaanae Santa Ana sucker	Fed: **THR** CA: CSC	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Steams that Santa Ana Sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: CSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Coccyzus americanus occidentalis western yellow-billed cuckoo	Fed: **THR** CA: **END**	In California, the breeding distrution is now thought to be restricted to isolated sites in Sacramento, Amargosa, Kern, Santa Ana, and Colorado River valleys. Obligate riparian species with a primary habitat association of willow-cottonwood riparian forest.	Yes (a)	No	**Presumed absent.** No suitable habitat is present on-site.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: None CA: None	Prefers rocky areas in coastal sage and chaparral within granite or rocky outcrops. Occurs in coastal and cismontane southern California from interior Ventura Co. south.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Coturnicops noveboracensis yellow rail	Fed: None CA: CSC	Shallow marshes, and wet meadows; in winter, drier fresh-water and brackish marshes, as well as dense, deep grass, and rice fields.	No	No	**Presumed absent.** No suitable habitat is present on-site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
Crotalus ruber red-diamond rattlesnake	Fed: None CA: CSC	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake; however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Dipodomys stephensi Stephens' kangaroo rat	Fed: **END** CA: **THR**	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Empidonax traillii extimus southwestern willow flycatcher	Fed: **END** CA: **END**	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	Yes (a)	No	**Presumed absent.** No suitable habitat is present on-site.
Emys marmorata western pond turtle	Fed: None CA: CSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet (1,800 m).	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Generally found in shortgrass prairies, grasslands, disturbed fields, or similar habitat types. Flocks in groups.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Eumops perotis californicus western mastiff bat	Fed: None CA: CSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least three meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	No	**Presumed absent.** No suitable habitat is present on-site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
Gila orcuttii arroyo chub	Fed: None CA: CSC	Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 40 cm.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Icteria virens yellow-breasted chat	Fed: None CA: CSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Lampropeltis zonata (pulchra) California mountain kingsnake (San Diego population)	Fed: None CA: CSC	Found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, Manzanita, and coastal sage scrub. Wooded areas near a stream with rock outcrops, talus or rotting logs that are exposed to the sun.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Lasiurus xanthinus western yellow bat	Fed: None CA: CSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	No	**Presumed absent.** No suitable habitat is present on-site.
Laterallus jamaicensis coturniculus California black rail	Fed: None CA: FP	Shallow marshes, and wet meadows; in winter, drier fresh-water and brackish marshes, as well as dense, deep grass.	No	No	**Presumed absent.** No suitable habitat is present on-site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: CSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	No	**Presumed absent.** No suitable habitat is present on-site.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: CSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
Polioptila californica californica coastal California gnatcatcher	Fed: THR CA: CSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Setophaga petechia yellow warbler	Fed: None CA: CSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Spea hammondii western spadefoot	Fed: None CA: CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	Yes (a)	No	**Presumed absent.** No suitable habitat is present on-site.
SPECIAL-STATUS PLANT SPECIES					
Abronia villosa var. aurita chaparral sand-verbena	Fed: None CA: None CNPS: 1B.1	Found on the coastal side of the southern California mountains in chaparral and coastal sage scrub plant communities in areas of full sun and sandy soils. Found at elevations ranging from 262 to 5,249 feet. Blooming period is from January to September.	No	No	**Presumed absent.** No suitable habitat is present on-site.
Centromadia pungens ssp. laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland habitats. Grows in elevation from 0 to 2,100 feet. Blooming period ranges from April to September.	Yes (c)	No	**Presumed absent.** No suitable habitat is present on-site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-Site**	**Potential to Occur**
Deinandra paniculata paniculate tarplant	Fed: None CA: None CNPS: 4.2	Occurs in coastal scrub, vernal pools, and valley/foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet above msl. Blooming period is from April to November.	No	No	**Presumed absent.** No suitable habitat is present on-site.
Dudleya multicaulis many-stemmed dudleya	Fed: None CA: None CNPS: 1B.2	Often occurs on clay soils and around granitic outcrops in chaparral, coastal sage scrub, and grasslands. Found at elevations ranging from 0 to 2,592 feet. Blooming period is from April to July.	Yes (b)	No	**Presumed absent.** No suitable habitat is present on-site.
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	Fed: **END** CA: **END** CNPS: 1B.1	Grows in sandy or gravelly soils within chaparral and coastal scrub habitat. Found at elevations ranging from 299 to 2,001 feet. Blooming period is from April to September.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Juglans californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Occurs in alluvial soils in chaparral, cismontane woodland, coastal scrub, and riparian woodlands. From 15 to 5,875 feet in elevation. Blooming period is from May to June.	Yes	No	**Presumed absent.** No suitable habitat is present on-site.
Lepidium virginicum var. robinsonii Robinson's pepper-grass	Fed: None CA: None CNPS: 4.3	Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 3 to 2,904 feet. Blooming period is from January to July.	No	No	**Presumed absent.** No suitable habitat is present on-site.
SPECIAL-STATUS PLANT COMMUNITIES					
Southern California Arroyo Chub/Santa Ana Sucker Stream	CDFW Sensitive Habitat	Characterized by a functioning hydrological system that experiences peaks and ebbs in the water volume throughout the year; a mosaic of loose sand, gravel, cobble, and boulder substrates in a series of riffles, runs, pools and shallow sandy stream margins; water depths greater than 1.2 inches and water bottom velocities of more than 0.01 feet per second; non-turbid conditions or only seasonally turbid water; water temperatures less than 86° Fahrenheit; and stream habitat that includes algae, aquatic emergent vegetation, macroinvertebrates, and riparian vegetation.	No	No	**Absent.** Does not occur on-site.
Southern Cottonwood Willow Riparian Forest	CDFW Sensitive Habitat	Dominated by cottonwood (*Populus* sp.) and willow (*Salix* sp.) trees and shrubs. Considered to be an early successional stage as both species are known to germinate almost exclusively on recently deposited or exposed alluvial soils.	No	No	**Absent.** Does not occur on-site.
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows also are often present. Poison-oak, mugwort, elderberry and wild raspberry may be present in the understory.	No	No	**Absent.** Does not occur on-site.

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened
Candidate END – Under Review

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
CSC- California Species of Concern
WL- Watch List
FP- California Fully Protected

California Native Plant Society (CNPS)
California Rare Plant Rank
1A- Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B- Plants Rare, Threatened, or Endangered in California and Elsewhere
2B- Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4- Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Western Riverside County MSHCP
Yes- Fully covered
No- Not covered
Yes (a)- May require surveys under MSHCP Section 6.1.2
Yes (b)- May require surveys under MSHCP Section 6.1.3
Yes (c)- May require surveys under MSHCP Section 6.3.2

Appendix D Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits "take" of threatened or endangered species. "Take" under the ESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

Local Policies

Western Riverside County MSHCP

The MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state- and federal-listed species as well as other identified sensitive species and/or their habitats. Each city or local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), CESA, and FESA will be granted. The Development Mitigation Fee varies according to project size and project description. The fee for residential development ranges from approximately $800 per unit to $1,600 per unit depending on development density (County Ordinance 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the USFWS, the CDFW, and/or any other appropriate participating regulatory agencies and as set forth in the IA for the MSHCP.

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

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1 The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

2 The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

3 The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
- (C) Artificial reflecting pools or swimming pools created in dry land;
- (D) Small ornamental waters created in dry land;
- (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
- (G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.