

JURUPA VALLEY RETAIL CENTER PROJECT

CITY OF JURUPA VALLEY, COUNTY OF RIVERSIDE, CALIFORNIA

Biological Resources Assessment and MSHCP Consistency Analysis

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November 2021
JN 186614

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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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November 2021
JN 186614

Executive Summary

This report contains the findings of Michael Baker International’s (Michael Baker) biological resources assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed Jurupa Valley Retail Center Project (project, project site) located in the City of Jurupa Valley, Riverside County, California. Michael Baker biologists conducted a field survey/habitat assessment on October 28, 2021 to confirm existing site conditions and assess the potential for occurrence of special-status¹ biological resources that have been documented or that are likely to occur on or within the immediate vicinity of the project site and areas within 500 feet (survey area²).

The survey area is located within a heavily developed portion of the City of Jurupa Valley. Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling) and residential/commercial development resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is comprised of disturbed habitat that is dominated by ruderal/weedy, low-growing plant species and ornamental tree species. In addition, developed areas were also observed surrounding the project site, within the northern, eastern, southern, and western portions of the survey area.

No special-status plant species were observed during the field survey. The survey area is primarily comprised of development and a disturbed parcel characterized by heavily disturbed/compacted soils and ornamental vegetation. Additionally, the routine weed abatement within the project site and surrounding developed land uses have reduced the potential for the survey area to provide suitable habitat for special-status plant species. Based on existing site conditions and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the special-status plant species identified by the records searches either have a low potential or are not expected to occur within the survey area.

No special-status wildlife species were observed during the field survey. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that all special-status wildlife species identified by the records searches either have a low potential to occur or are not expected to occur within the survey area. With the incorporation of the standard Best Management Practices summarized in Section 4.9 and the Avoidance and Minimization Measures (AMMs) provided in Section 5, the proposed project is not expected to result in significant impacts to special-status wildlife species or their habitats.

¹ As used in this report, “special-status” refers to plant and wildlife species that are federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List; State/locally rare vegetation communities; or species covered under the Western Riverside County Multiple Species Habitat Conservation Plan.

² As used in this report, “survey area” refers to the project site boundary plus a 500-foot survey buffer.

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ACRONYMS AND ABBREVIATIONS

AMM	Avoidance and Minimization Measures
AMSL	Above Mean Sea Level
APN	Assessor’s Parcel Number
BIOS	Biogeographic Information and Observation System
BMPs	Best Management Practices
BUOW	Burrowing Owl
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CSS	Coastal Sage Scrub
CWA	Federal Clean Water Act
FESA	Federal Endangered Species Act
GIS	Geographic Information System
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
Michael Baker	Michael Baker International
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
P/QP	Public/Quasi-Public
project	Jurupa Valley Retail Center Project
RCA	Western Riverside County Regional Conservation Authority
Regional Board	Regional Water Quality Control Board
USDA	United States Department of Agriculture, Natural Resource Conservation Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WEAP	Workers Environmental Awareness Program

Section 1 Introduction

This report contains the findings of Michael Baker International’s (Michael Baker) biological resources assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed Jurupa Valley Retail Center Project (project, project site). Michael Baker conducted a thorough literature review and a field survey to confirm existing site conditions and assess the potential for special-status³ biological resources that have been documented or that are likely to occur on or within the immediate vicinity of the project site, including areas within 500 feet (survey area⁴). Specifically, this report provides a detailed assessment of the suitability of the on-site habitat to support special-status plant and wildlife species that were identified in the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) RareFind 5 (CDFW 2021a), the CNDDDB Biogeographic Information and Observation System (BIOS; CDFW 2021b), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (Online Inventory; CNPS 2021), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project planning tool, the Western Riverside County Regional Conservation Authority’s (RCA) online MSHCP Information Application (RCA 2021), and other databases as potentially occurring in the vicinity of the survey area.

1.1 PROJECT LOCATION

The survey area is generally located north of Limonite Avenue, east of Camino Real, south of State Route 60, and west of Santa Ana River in the City of Jurupa Valley, Riverside County, California (refer to Figure 1, *Regional and Project Vicinity*). The survey area is depicted in an un-sectioned area of Township 2 South, Range 5 West, on the U.S. Geological Survey’s (USGS) *Fontana, California 7.5-minute* quadrangle. Specifically, the survey area is located north of Rathke Drive, east of Golden West Avenue, west of Pacific Avenue, and south of State Route 60 (refer to Figure 2, *Survey Area*⁵).

1.2 PROJECT DESCRIPTION

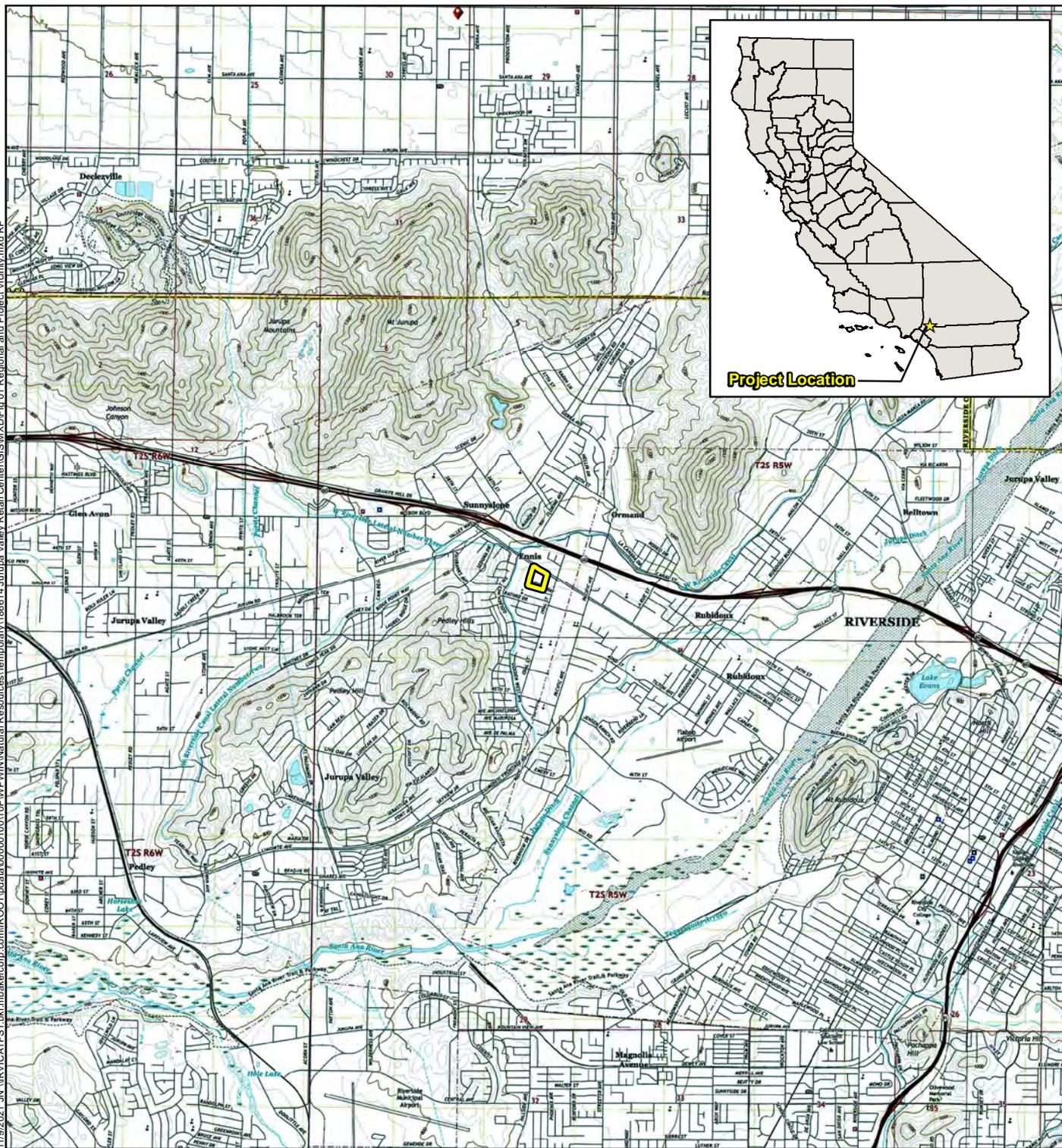
The proposed project involves the construction of a commercial retail center, comprised of seven buildings (totaling 72,100 square feet), including a grocery store and fitness center. The project includes parking, drainage improvements, and sidewalk frontage. The site is currently surrounded by existing retail development (refer to Figure 3, *Project Depiction*).

³ As used in this report, “special-status” refers to plant and wildlife species that are federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List; State/locally rare vegetation communities; or species covered under the Western Riverside County Multiple Species Habitat Conservation Plan.

⁴ As used in this report, “survey area” refers to the project site boundary plus a 500-foot survey buffer. It is important to note that the project site boundary was expanded after the field survey to include an additional area to the east. Because the expanded area was still located within the 500-foot buffer, an additional survey was deemed to not be necessary.

⁵ Because an additional survey was not conducted after the expansion of the project site, the survey area depicted in Figure 2 and beyond is wider to the north, west, and south than the area to the east.

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 Project Site



JURUPA VALLEY RETAIL CENTER PROJECT
 BIOLOGICAL RESOURCES ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
Regional and Project Vicinity

Source: USGS 7.5-Minute topographic quadrangle maps: Fontana, Riverside East, Riverside West, San Bernardino South, California (2018)

Figure 1



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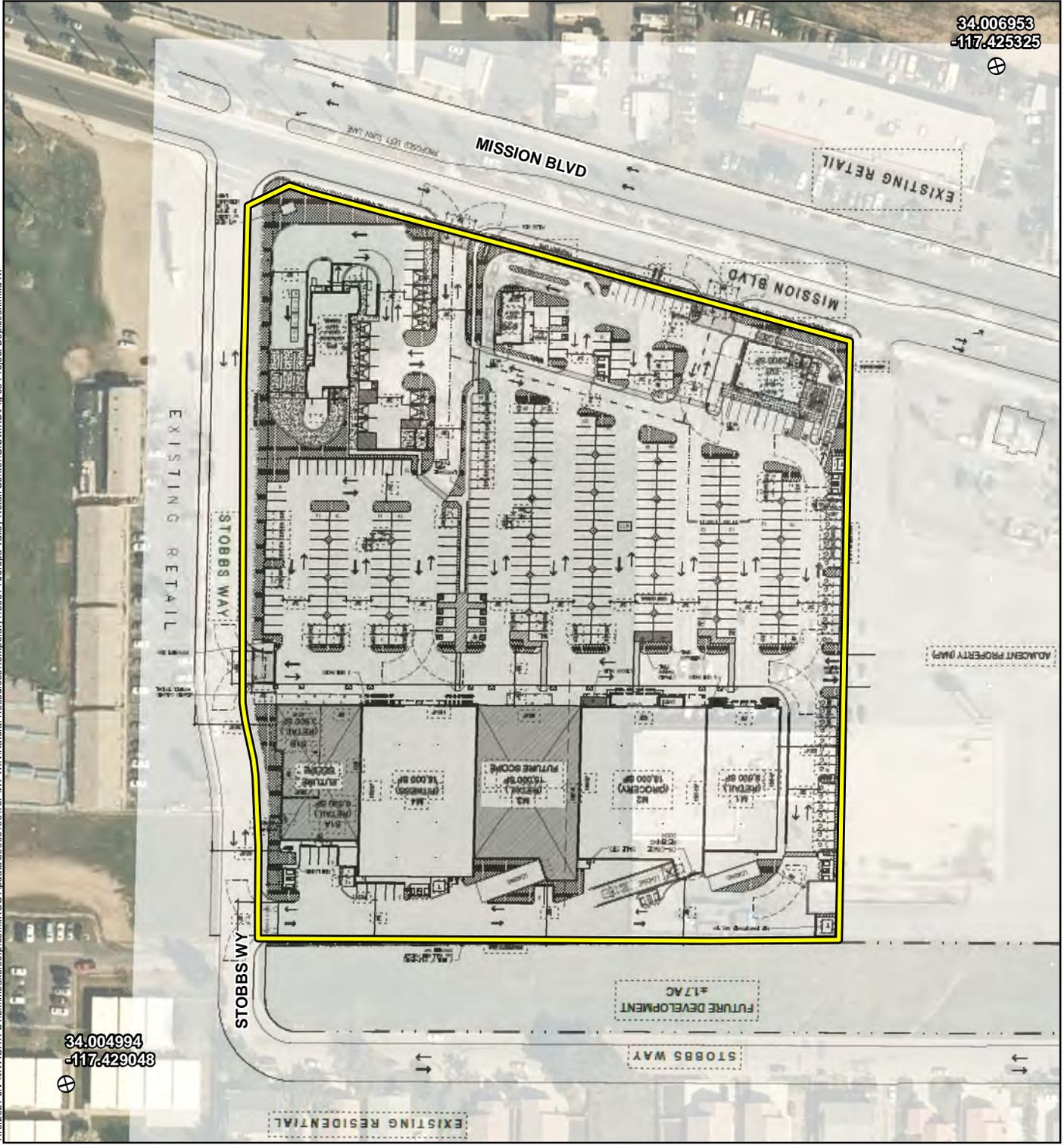
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	Project Site		Reference Point
	Survey Area (500-foot Buffer)		

34.006953
-117.425325



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34.004994
-117.429048



Legend

-  Project Site
-  Reference Point

Figure 3

Section 2 Methodology

Prior to conducting the field survey, Michael Baker conducted thorough literature reviews and records searches to determine which special-status biological resources have the potential to occur on or within the general vicinity of the survey area. A general habitat assessment or field survey was conducted in order to document existing biological conditions and determine the potential for special-status plant and wildlife species to occur within the survey area.

2.1 LITERATURE REVIEW

Michael Baker conducted thorough literature reviews and records searches to determine which special-status biological resources have the potential to occur on or within the vicinity of the survey area. Previous special-status plant and wildlife species occurrence records within the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles were determined through a query of the CNDDDB (CDFW 2021a), the CNDDDB BIOS (CDFW 2021b), the CNPS Online Inventory (CNPS 2021), the Calflora Database (Calflora 2021), the USFWS IPaC project planning tool, RCA's online MSHCP Information Application (RCA 2021), and those species covered under the MSHCP and associated technical documents.

Current conservation status of species was verified through lists and resources provided by the CDFW, specifically the *Special Animals List* (CDFW 2021c); *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2021d); *State and Federally Listed Endangered and Threatened Animals of California* (CFDW 2021e); and *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2021f). In addition, Michael Baker reviewed previously prepared reports, survey results, and literature, as available, detailing the biological resources previously observed on or within the vicinity of the survey area to gain an understanding of existing site conditions, confirm previous species observations, and note the extent of any disturbances that have occurred in the survey area that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources.

On-site and adjoining soils were researched prior to conducting the habitat assessment using the United States Department of Agriculture, Natural Resource Conservation Service's (USDA) *Custom Soil Resources Report for Western Riverside Area, California* (USDA 2021). In addition, reviews of the local geological conditions and historical aerial photographs were conducted to assess the ecological changes and disturbances that have occurred within and surrounding the survey area over time.

Aerial photography was reviewed prior to the field survey to locate potential natural corridors and linkages that may support the movement of wildlife through the area. The literature review provided a baseline from which to inventory the existing biological resources and evaluate the ability of the survey area to support special-status biological resources. Additional occurrence records of those species that have been documented on or within the vicinity of the survey area were derived from database queries. The CNDDDB was used, in conjunction with Geographic Information System (GIS) ArcView software, to identify and map reported special-status species occurrence records within the USGS *Fontana* and *Riverside West,*

California 7.5-minute quadrangles. Refer to Section 6 of this report for a complete list of technical references that were reviewed by Michael Baker throughout the course of the habitat assessment.

2.2 FIELD SURVEY

Michael Baker biologists Ashley Spencer and Nelly Moreno conducted a habitat assessment/field survey on October 28, 2021 to document the extent and conditions of the vegetation communities occurring within the boundaries of the survey area and to assess the potential for special-status species to occur within the survey area. Refer to Table 1 below for a summary of the survey date, timing, surveyors, and weather conditions.

Table 1. Survey Date, Timing, Surveyors, and Weather Conditions

Date	Time (start / finish)	Surveyors	Weather Conditions	
			Temperature (°F) (start / finish)	Average Wind Speed (mph)
October 28, 2021	0740 / 0845	Ashley Spencer Nelly Moreno	66 sunny / 73 sunny	5 – 8

Vegetation communities preliminarily identified on aerial photographs during the literature review were verified in the field by walking meandering transects through the vegetation communities and along boundaries between vegetation communities. Michael Baker extensively surveyed all naturally vegetated areas within the survey area, where accessible. Naturally vegetated areas typically have a higher potential to support special-status plant and wildlife species than areas that are highly disturbed or developed, which usually have lower quality and/or reduced amounts of habitat for wildlife. All plant and wildlife species observed during the habitat assessment, as well as dominant plant species within each vegetation community, were recorded in a field notebook, as described below. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, and the overall condition of on-site vegetation communities were recorded.

2.3 VEGETATION COMMUNITIES

Vegetation communities occurring within the survey area were delineated on an aerial photograph during the field survey and later digitized using the GIS ArcView software to quantify the area of each vegetation community in acres. Vegetation communities occurring within the survey area were mapped on an aerial photograph and classified in accordance with vegetation communities provided in *A Manual of California Vegetation* (MCV) (Sawyer et al. 2009) and cross referenced with the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) for the purposes of evaluating the presence or absence of special-status vegetation communities identified in the CNDDDB records search, which uses the Holland vegetation system. Finally, the vegetation descriptions in the MSHCP were referenced to determine the applicable MSHCP communities.

2.4 PLANTS

Plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unfamiliar plants were photographed in the field and identified later using plant taxonomic guides. Plant nomenclature used in this report follows the *Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

2.5 WILDLIFE

Wildlife species detected during the field survey by sight, calls, tracks, scat, burrows, nests, or other types of sign were recorded in a field notebook. Field guides used to assist with identification of species during the field survey included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna, and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are generally well standardized, scientific names are provided immediately following common names of wildlife species in this report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Society's *Checklist of North American Birds* (Chesser et al. 2020); nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding* (Crother 2017); and nomenclature for mammals follows the *Bats of the United States and Canada* (Harvey et al. 2011) and *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

Section 3 Results and Discussion

3.1 EXISTING CONDITIONS

3.1.1 TOPOGRAPHY AND SOILS

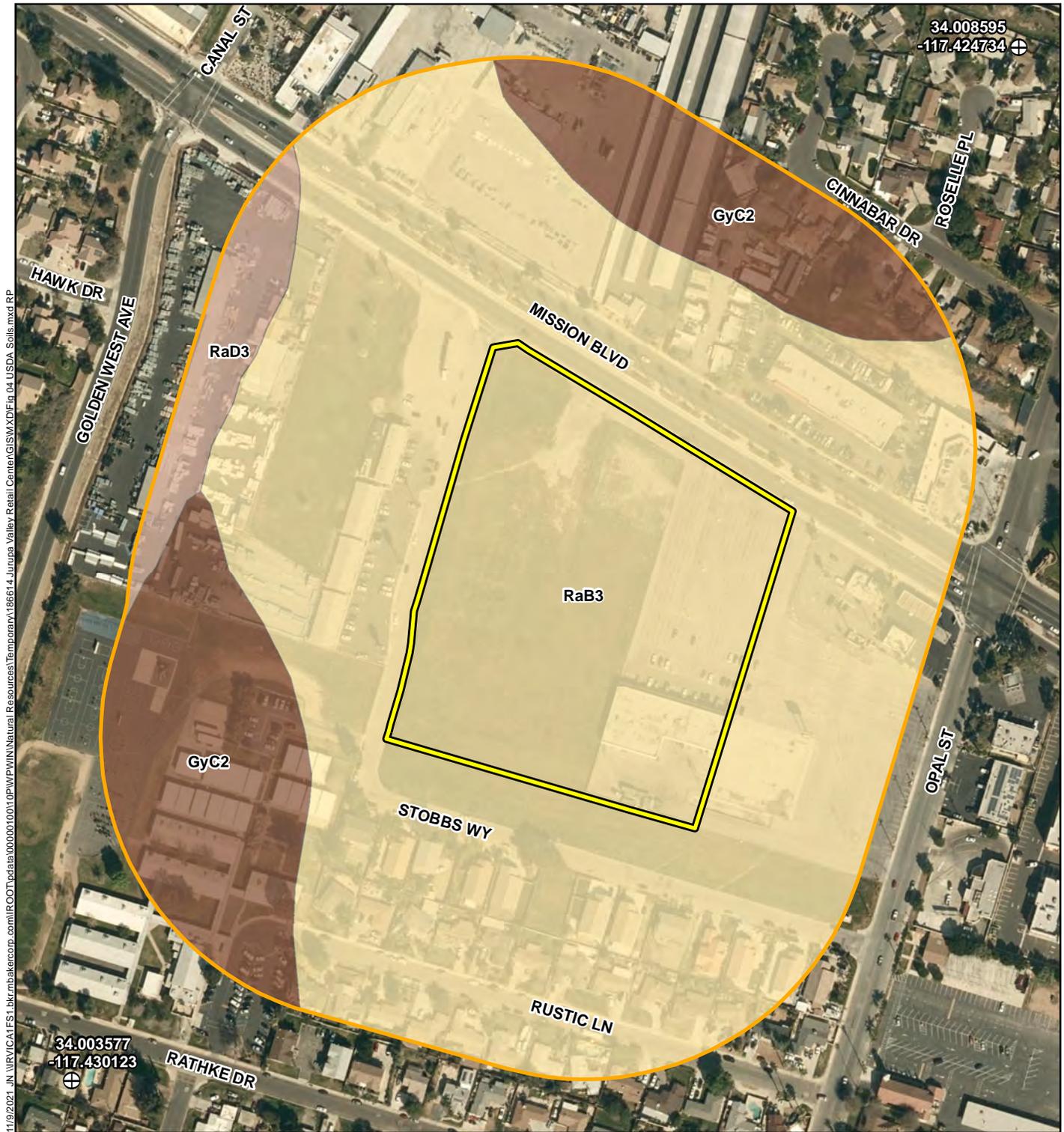
The survey area is relatively flat with on-site surface elevation ranging from approximately 835 to 872 feet above mean sea level (AMSL) and generally sloping upwards to the north. According to the *Custom Soil Resources Report for the Western Riverside Area, California* (USDA 2021), the survey area is underlain by the following soil units: Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2); Ramona sandy loam, 0 to 5 percent slopes, severely eroded (RaB3); and Ramona sandy loam, 8 to 15 percent slopes, severely eroded (RaD3). Refer to Figure 4, *USDA Soils*, for a depiction of soil units within the survey area. In addition, please refer to Appendix A for representative photographs of the survey area taken during the field survey.

3.1.2 SURROUNDING LAND USES

Land uses within and surrounding the survey area mainly consist of residential and commercial land uses along with disturbed/undisturbed, vacant land. Vacant, relatively undisturbed land primarily comprises the western portion of the survey area. Residential and commercial land uses primarily comprise the north, east, and western portions of the survey area. The heavily trafficked Mission Boulevard bisects the northern portion of the survey area in a northwest to southeast direction. In addition, State Route 60 is located approximately 0.18 mile to the north of the survey area and the Santa Ana River is located approximately 4 miles to the east of the survey area.

3.2 VEGETATION COMMUNITIES AND LAND COVER TYPES

Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling) and residential/commercial development resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is comprised of disturbed habitat that is dominated by ruderal/weedy, low-growing plant species and ornamental tree species. In addition, developed areas were also observed surrounding the project site, within the northern, eastern, southern, and western portions of the survey area. These land cover types are depicted on Figure 5, *Vegetation Communities and Other Land Cover Types*. Refer to Table 2 and the sections below for a summary of the land cover types within the survey area. Additionally, refer to *Table B-1: Plant and Wildlife Species Observed List*, provided in Appendix B, for a complete list of plant species observed within the survey area during the field survey.



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	Project Site		GyC2 Greenfield sandy loam, 2 to 8 percent slopes, eroded		RaD3 Ramona sandy loam, 8 to 15 percent slopes, severely eroded
	Survey Area (500-foot Buffer)		RaB3 Ramona sandy loam, 0 to 5 percent slopes, severely eroded		
	Reference Point				



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	Project Site		Disturbed Habitat (12.69 acres)
	Survey Area (500-foot Buffer)		Developed (35.22 acres)
	Reference Point		

Figure 5

Table 2. Vegetation Communities and Land Cover Types within the Survey Area

Vegetation Communities and Land Cover Types	Total Within Survey Area (Acres)
Disturbed Habitat	12.69
Developed	35.22
TOTAL*	47.91

*Total may not equal to sum due to rounding.

3.2.1 DISTURBED HABITAT

Disturbed habitat comprises approximately 12.69 acres of the survey area. Disturbed areas within the survey area do not qualify as a natural plant community and instead consist of unpaved bare ground or areas that have been previously disked or tilled as part of routine weed abatement activities. Surface soils within these areas have been heavily disturbed/compacted as a result of anthropogenic disturbances and are either devoid of vegetation or support non-native, ruderal plant species. Plant species observed in the disturbed areas include wild oat (*Avena fatua*), Bermuda grass (*Cynodon dactylon*), puncture vine (*Tribulus terrestris*), and prickly lettuce (*Lactuca serriola*).

3.2.2 DEVELOPED

Developed areas make up approximately 35.22 acres of the survey area and consist of areas that have been constructed upon or physically altered to a degree that native vegetation is no longer supported. Developed areas within the survey area consist of Mission Boulevard, Stobbs Way, and residential and commercial development.

3.3 WILDLIFE

Natural vegetation communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a general discussion of common wildlife species that were detected during the field survey or that are expected to occur based on existing site conditions. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Refer to *Table B-1: Plant and Wildlife Species Observed List*, provided in Appendix B, for a complete list of wildlife species observed within the survey area during the field survey.

3.3.1 FISH

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish were observed in the survey area during the field survey. Therefore, no fish are expected to occur within the survey area.

3.3.2 AMPHIBIANS

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable breeding habitat for amphibians were observed within the survey area during the field survey. Therefore, no amphibians are expected to occur within the survey area.

3.3.3 REPTILES

No reptiles were observed within the survey area during the field survey. Since the survey area is primarily disturbed, it is expected to provide suitable habitat for a limited number of reptilian species that are acclimated to edge or urban environments. Reptilian species that may be present within the survey area include Great Basin fence lizard (*Sceloporus occidentalis longipes*), western side-blotched lizard (*Uta stansburiana elegans*), woodland alligator lizard (*Elgaria multicarinata webbia*), and San Diego gophersnake (*Pituophis catenifer annectens*).

3.3.4 BIRDS

A total of thirteen (13) bird species were detected during the field survey, including among others American pipit (*Anthus rubescens*), Anna's hummingbird (*Calypte anna*), killdeer (*Charadrius vociferus*), house finch (*Haemorhous mexicanus*), Say's phoebe (*Sayornis saya*), yellow-rumped warbler (*Setophaga coronata*), and mourning dove (*Zenaida macroura*).

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGF)⁶. To maintain compliance with the MBTA and CFGF, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered "take" and is potentially punishable by fines and/or imprisonment. The survey area provides nesting habitat for year-round and seasonal avian residents that could occur in the area. Additionally, the survey area provides nesting habitat for avian species that nest on the open ground (e.g., killdeer). However, no remnant nests, active nests or birds displaying overt nesting behavior were observed during the field survey.

3.3.5 MAMMALS

The only mammal species observed during the field survey was domestic dog (*Canis lupus familiaris*). The survey area and surrounding habitat provides suitable habitat for a limited number of mammalian species adapted to living in edge or urban environments. However, the routine weed abatement and surrounding development limits the potential for mammalian species to occur. Other common mammalian species that

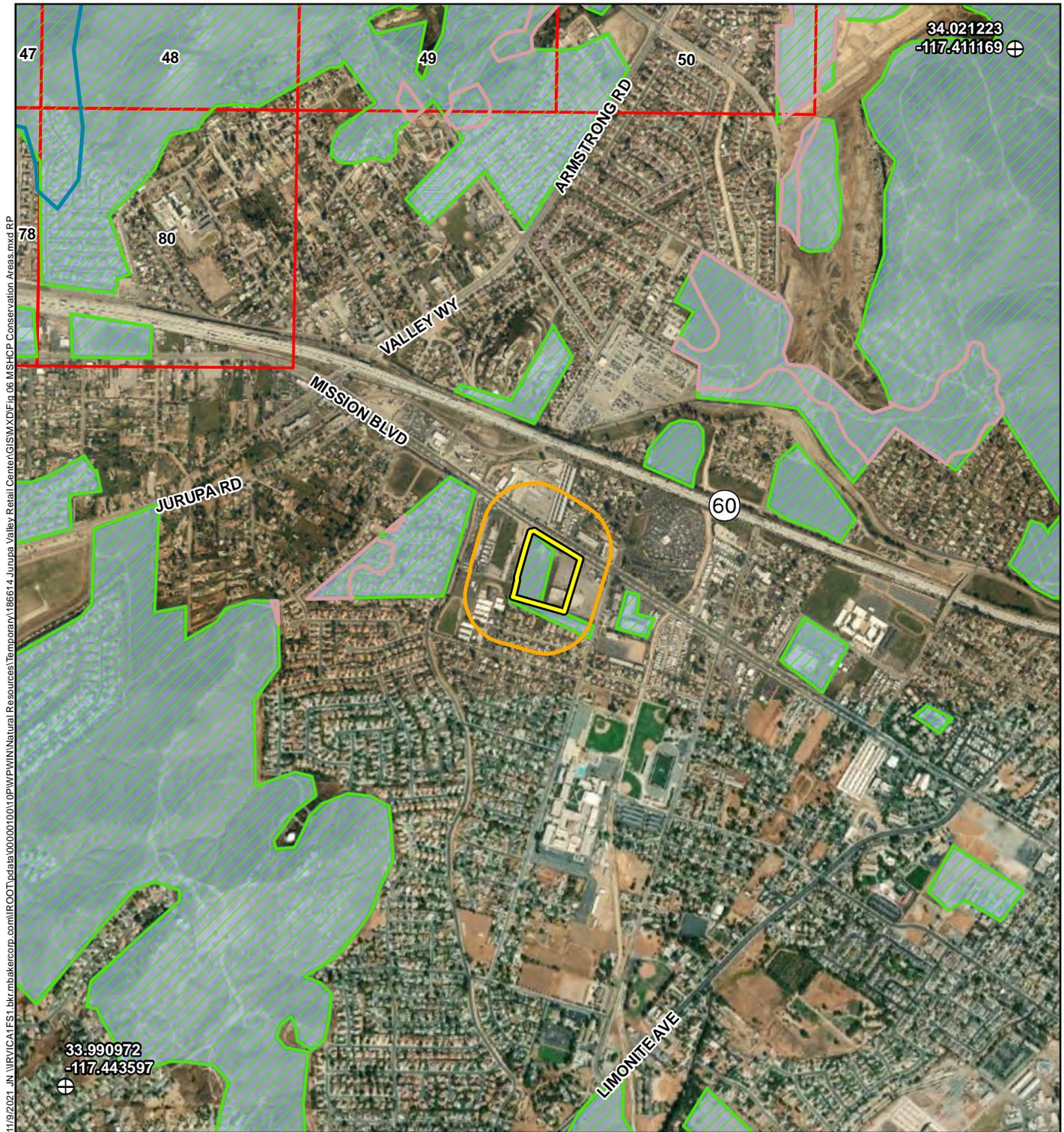
⁶ Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the CFGF or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA, as amended (16 U.S.C. § 703 *et seq.*).

may occur within the survey area include coyote (*Canis latrans*), opossum (*Didelphis virginiana*), and Audubon's cottontail rabbit (*Sylvilagus audubonii*). Bats occur throughout most of southern California and may use the survey area as foraging habitat; however, the survey area is heavily disturbed/developed. Common bat species that may forage within the survey area include Mexican free-tailed bat (*Tadarida brasiliensis*) and big brown bat (*Eptesicus fuscus*). Mexican free-tailed bats prefer caves or manmade structures (i.e., bridges, abandoned buildings) near water for roosting while big brown bat prefers hollow tree snags/limbs, loose bark, or manmade structures (i.e., bridges, abandoned buildings, barns) for roosting; however, these features are not present within the survey area.

3.4 WILDLIFE CONNECTIVITY

Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

According to the RCA's online MSHCP Information Application (RCA 2021), the survey area is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or Public/Quasi-Public Lands (P/QP) lands identified by the MSHCP (refer to Figure 6, *MSHCP Conservation Areas*). The survey area is located within a heavily developed area of Jurupa Valley and is surrounded by Mission Boulevard to the north and residential/commercial land uses to the north, south, east and west. The surrounding highways and land uses have fragmented the connection between the survey area and surrounding naturally occurring vegetation communities. The disturbed landscape of the survey area and absence of vegetation for cover most likely preclude the movement of wildlife through the survey area. Further, elevated noise levels, vehicle traffic, lighting, and human presence associated with Mission Boulevard and surrounding residential/commercial development all decrease the suitability of the survey area to be used as a wildlife movement corridor or linkage.



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Legend		
	Project Site	
	Survey Area (500-foot Buffer)	
	Reference Point	

Western Riverside County MSHCP

- Criteria Cells
- Burrowing Owl Survey Area
- Delhi Sands Flower-loving Fly Survey Area
- Los Angeles Pocket Mouse Survey Area
- Narrow Endemic Plants Survey Area

Figure 6

3.5 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDDB and CNPS Online Inventory were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities in the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles. In addition, the USFWS IPaC project planning tool was queried. The field survey was conducted to assess the conditions of the habitat(s) within the boundaries of the survey area to determine if the existing vegetation communities, at the time of the field survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potentials for special-status species to occur within the survey area were determined based on the reported locations in the CNDDDB and CNPS Online Inventory and the following:

- **Present:** the species was observed or detected within the survey area during the field survey.
- **High:** Occurrence records (within 20 years) indicate that the species has been known to occur on or within one mile of the survey area and the survey area is within the normal expected range of this species. Intact, suitable habitat preferred by this species occurs within the survey area and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).
- **Moderate:** Occurrence records (within 20 years) indicate that the species has been known to occur within one mile of the survey area and the survey area is within the normal expected range of this species. There is suitable habitat within the survey area but the survey area is ecologically isolated from any local known extant populations or sightings.
- **Low:** Occurrence records (within 20 years) indicate that the species has been known to occur within five miles of the survey area, but the survey area is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the survey area.
- **Not Expected:** There are no occurrence records of the species occurring within five miles of the survey area, there is no suitable habitat within the survey area, and/or the survey area is outside of the normal expected range for the species.

The CNDDDB and CNPS literature search identified eighteen (18) special-status plant species and sixty-three (63) special-status wildlife species and four (4) special-status vegetation communities as potentially occurring in the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles. In addition, the USFWS IPaC project planning tool identified seven (7) special-status wildlife species and two (2) special-status plant species which for the most part overlap with the results of the CNDDDB and CNPS literature search; the USFWS IPaC results also identified monarch butterfly (*Danaus plexippus*). In total, eighteen (18) special-status plant species and sixty-four (64) wildlife species were identified in the CNDDDB, CNPS, and USFWS IPaC project planning tool. Special-status plant and wildlife species were evaluated for their potential to occur within the survey area based on habitat requirements, availability and quality of suitable habitat, and known distributions. Special-status biological resources identified during the literature review as having the potential to occur within the vicinity of the survey area are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Appendix C. Additionally, refer to Appendix D for the USFWS IPaC species list.

3.5.1 SPECIAL-STATUS PLANT SPECIES

Eighteen (18) special-status plant species have been recorded in the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles (refer to Appendix C). No special-status plant species were observed during the field survey. The survey area is primarily comprised of development and a disturbed parcel characterized by heavily disturbed/compacted soils and ornamental vegetation. Additionally, the routine weed abatement within the project site and surrounding developed land uses have reduced the potential for the survey area to provide suitable habitat for special-status plant species. Based on existing site conditions and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the special-status plant species identified by the CNDDDB and CNPS databases either have a low potential or are not expected to occur within the survey area.

3.5.2 SPECIAL-STATUS WILDLIFE SPECIES

Sixty-four (64) special-status wildlife species that have been recorded in the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles by the CNDDDB (refer to Appendix C). No special-status wildlife species were observed during the field survey. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that all special-status wildlife species identified by the CNDDDB either have a low potential to occur or are not expected to occur within the survey area.

3.5.3 SPECIAL-STATUS VEGETATION COMMUNITIES

Four (4) special-status vegetation communities have been reported in the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles by the CNDDDB: Riversidian Alluvial Fan Sage Scrub, Southern California Arroyo Chub/Santa Ana Sucker Stream, Southern Cottonwood Willow Riparian Forest, and Southern Willow Scrub. None of these special-status vegetation communities were observed within the survey area during the field survey.

3.6 CRITICAL HABITAT

Under the definition used by the federal Endangered Species Act (FESA), designated “Critical Habitat” refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated Critical Habitat if they contain one or more of the physical or biological features that are essential to that species’ conservation and if the other areas that are occupied are inadequate to ensure the species’ recovery. If a project may result in take or adverse modification to a species’ designated Critical Habitat and the project has a federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a federal nexus may include projects that occur on federal lands, require federal permits (e.g., Clean Water Act [CWA] Section 404 permit), or receive any federal oversight

or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA. The survey area is not located within designated Critical Habitat for any federally listed species (refer to Figure 7, *Critical Habitat*).

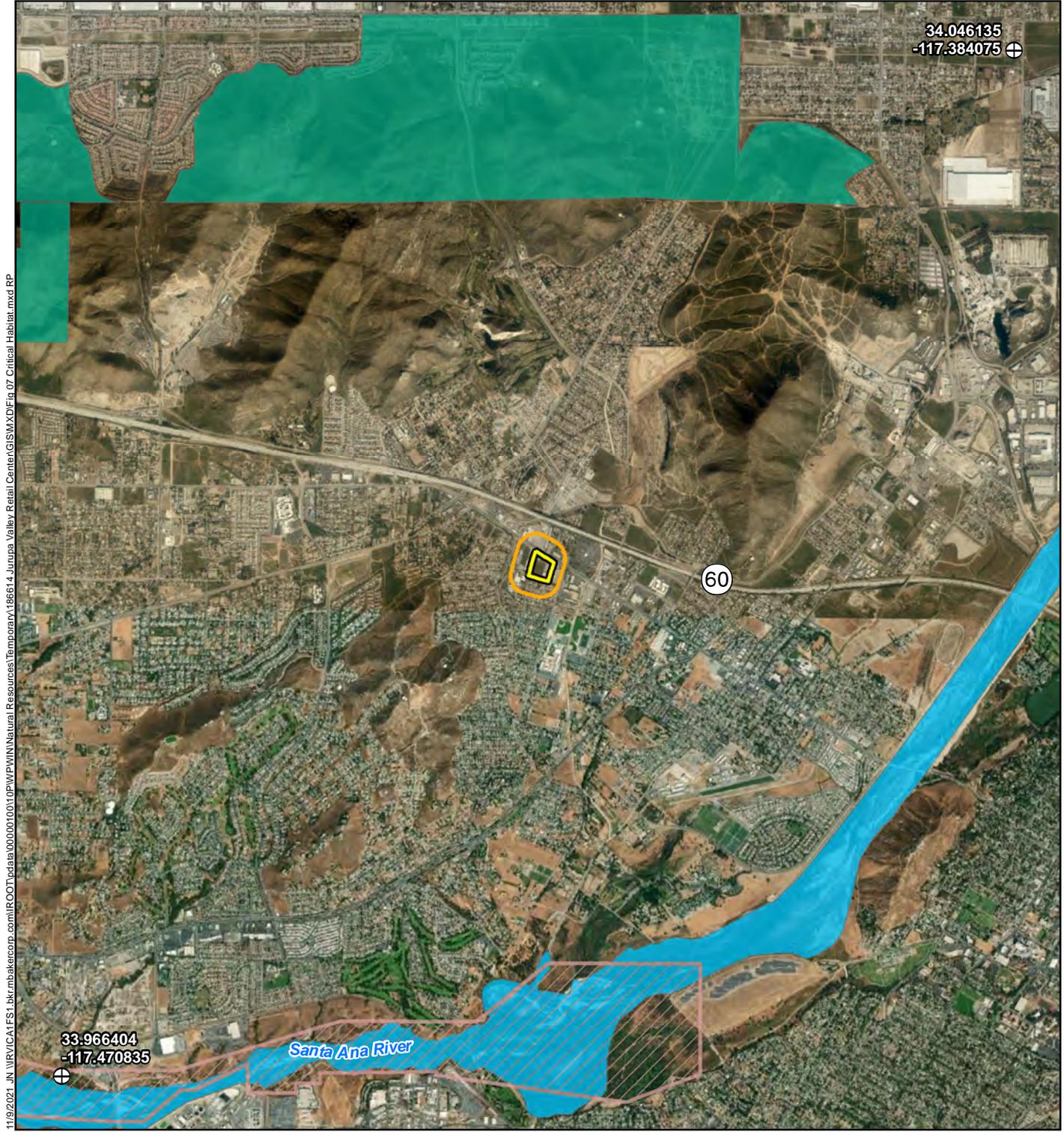
3.7 STEPHEN'S KANGAROO RAT HABITAT CONSERVATION PLAN

Separate from the consistency review against the requirements 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). The proposed project is not located within the Fee Area for Stephens' kangaroo rat, nor is it located in any suitable habitat. Therefore, the project applicant will not be required to pay the SKR HCP mitigation fee prior to development of the site.

3.8 STATE AND FEDERAL JURISDICTIONAL AREAS

There are three agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The United States Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredged or fill material into "waters of the U.S." pursuant to Section 404 of the federal CWA and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (Regional Board) regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated vegetation communities under Section 1600 et seq. of the CFGC.

No jurisdictional drainage or wetland features were observed within the boundaries of the project impact limits or survey area. Therefore, development of the project is not expected to result in impacts to State or federal jurisdictional areas or require regulatory approvals/permits from the Corps, Regional Board, or CDFW.



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Legend		Critical Habitat	
	Project Site		Coastal California Gnatcatcher (<i>Polioptila californica californica</i>)
	Survey Area (500-foot Buffer)		Santa Ana Sucker (<i>Catostomus santaanae</i>)
			Least Bell's Vireo (<i>Vireo bellii pusillus</i>)
	Reference Point		

Figure 7

Section 4 MSHCP Consistency Analysis

This section contains the findings of Michael Baker’s MSHCP consistency analysis for the proposed project. It should be noted while the previous sections of the report discuss the survey area as a whole, this section only focuses on the project site (i.e., the proposed road section and its associated temporary/permanent impacts). The purpose of this consistency analysis is to summarize the biological data for the proposed project and to document the project’s consistency with the goals and objectives of the MSHCP. According to the RCA’s online MSHCP Information Application (RCA 2021), the project is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP (refer to Figure 6, MSHCP Conservation Areas). However, the project site is located within a designated survey area for burrowing owl (*Athene cunicularia*; BUOW).

4.1 PROJECT INTRODUCTION AND SETTING

4.1.1 PROJECT AREA

The project site is comprised of assessor’s parcel numbers (APN): 182-031-001 and -002.

4.1.2 PROJECT DESCRIPTION

The proposed project involves the construction of a commercial retail center, comprised of seven buildings (totaling 72,100 square feet), including a grocery store and fitness center. The project includes parking, drainage improvements, and sidewalk frontage. The site is currently surrounded by existing retail development (refer to Figure 3, *Project Depiction*).

4.1.3 COVERED ROADS

The proposed project does not include the construction of, or improvements to, any Covered Roads referenced in Section 7 of the MSHCP. Therefore, a discussion related to the proposed project and Covered Roads is not warranted.

4.1.4 COVERED TRAILS

The proposed project does not include the construction of, or improvements to, any Covered Trails referenced in Section 7 of the MSHCP. Therefore, a discussion related to the proposed project and Covered Trails is not warranted.

4.1.5 GENERAL SETTING

Land uses within and surrounding the project site mainly consist of residential and commercial land uses as well as disturbed/undisturbed, vacant land. Vacant, relatively undisturbed land primarily comprises the western portion of the project site. Residential and commercial land uses primarily comprise the north, east,

and western portions of the project site. The heavily trafficked Mission Boulevard bisects the northern portion of the project site in a northwest to southeast direction. In addition, State Route 60 is located approximately 0.18 mile to the north of the project site and the Santa Ana River is located approximately 4 miles to the east of the project site.

4.2 RESERVE ASSEMBLY ANALYSIS

According to the RCA's online MSHCP Information Application (RCA 2021), the project site is not located within any Subunits, Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP. Therefore, a Reserve Assembly discussion related to the proposed project is not warranted.

4.2.1 CRITERIA CELL ANALYSIS

According to the RCA's online MSHCP Information Application (RCA 2021), the project site is not located within any Criteria Cells identified by the MSHCP. Therefore, a discussion related to Criteria Cells and the proposed project is not warranted.

4.2.2 PUBLIC/QUASI-PUBLIC LANDS ANALYSIS

According to the RCA's online MSHCP Information Application (RCA 2021), the project site is not located within any P/QP lands identified by the MSHCP. Therefore, a discussion related to P/QP lands and the proposed project is not warranted.

4.3 VEGETATION MAPPING

As stated in Section 6.3.1 of the MSHCP, project-level vegetation mapping may be required for projects that meet certain criteria to assess whether conservation is required. Michael Baker conducted a review of the 2012 vegetation layer presented in the RCA's online MSHCP Information Application (RCA 2021) and aerial photography to understand existing site conditions and extent of any disturbances that have occurred within the survey area. In addition, the field surveys were conducted in order to document the extent and condition of the vegetation communities occurring within the boundaries of the survey area.

Vegetation communities occurring within the project site were delineated on an aerial photograph during the field surveys and later digitized using the GIS ArcView software to quantify the area of each vegetation community in acres. Vegetation communities occurring within the project site were classified in accordance with the vegetation descriptions provided in MCV (Sawyer et al. 2009) and cross referenced with the vegetation communities described in the MSHCP and identified by the RCA's online MSHCP Information Application (RCA 2021).

Based on the results of the field survey, natural habitats within the project site have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The project site is primarily comprised of disturbed land that is dominated by ruderal/weedy, low-growing plant species and ornamental plant

species (refer to Figure 5, *Vegetation Communities and Other Land Cover Types*). The entire project site was mapped as developed/disturbed land in the 2012 vegetation layer presented in the RCA's online MSHCP Information Application (RCA 2021). Refer to Table 3 below for a summary of the vegetation communities and land cover types within the project site, which are equal to the impacts that are expected to occur as a result of the proposed project.

Table 3. Vegetation Communities and Land Cover Types in the Project Site

Vegetation Communities and Land Cover Types	Acreages
	Total Within Project Site
Disturbed Habitat	5.92
Developed	2.84
TOTAL	8.76

*Total may not equal to sum due to rounding.

4.4 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE RESOURCES AND VERNAL POOLS

4.4.1 RIPARIAN/RIVERINE

As defined under Section 6.1.2 of the MSHCP, riparian/riverine resources 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 wide variety of listed or special-status water-dependent fish, amphibian, avian, and plant species. Based on the field survey, riparian/riverine resources were not observed within the project site. Therefore, a discussion related to riparian/riverine resources and the proposed project is not warranted.

4.4.2 VERNAL POOLS

One of the factors for determining the presence of vernal pools would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. Prior to conducting the habitat assessment, a review of historical aerial photographs using Google Earth was conducted. In addition, a review of the *Custom Soil Resources Report for the Western Riverside Area, California* (USDA 2021), was also conducted to determine the soil associations within the survey area. The MSHCP lists two general classes of soils known to be associated with special-status plant species and presence of vernal pool habitat; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with special-status species/vernal pool habitat 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.

A review of historic Google Earth aerials of the survey area did not provide visual evidence of astatic or vernal pool conditions within the survey area or surrounding vicinity. Additionally, no non-vernal pool features such as stock ponds, ephemeral pools, road ruts, or depressions were observed during the review of Google Earth aerials and during the field survey within the survey area. Further, based on a review of the *Custom Soil Resources Report for the Western Riverside Area, California* (USDA 2021), none of the soil classes (i.e., Bosanko, Auld, Altamont, and Porterville series and Traver-Domino Willows association) known to be associated with vernal pool habitat occur within the survey area. The mapped soils throughout the survey area primarily consist of sandy loam textures and not the clay soil textures which are needed to form the impermeable restrictive duripan layer below the soils surface. Therefore, no impacts are expected to occur, and no further discussion related to the proposed project and vernal pools is warranted.

4.4.3 FAIRY SHRIMP

One (1) species of fairy shrimp has been recorded in the USGS *Fontana and Riverside West, California* 7.5-minute quadrangles: San Diego fairy shrimp (*Branchinecta sandiegonensis*). No occurrence records for vernal pool fairy shrimp (*Branchinecta lynchi*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and Riverside fairy shrimp (*Streptocephalus woottoni*) have been recorded in the USGS *Fontana and Riverside West, California* 7.5-minute quadrangles according to information obtained through the CNDDDB (CDFW 2021a) and IPaC. San Diego fairy shrimp are restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, stock ponds, and other human modified depressions that are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May. In Riverside County, San Diego fairy shrimp have been found in pools formed over the following soil: Terrace escarpments. Based on the results of the vernal pool habitat assessment in Section 4.4.2 above, no vernal pools are expected to occur within the survey area. In addition, based on the *Custom Soil Resources Report for the Western Riverside Area, California*, Terrace escarpments are not located within the survey area. Further, there are no occurrence records for San Diego fairy shrimp within five (5) miles of the survey area (CDFW 2021a). Based on this information and the results of the vernal pool habitat assessment in the previous section 4.4.2 it was determined that there is no suitable habitat for San Diego fairy shrimp within or adjacent to the survey area. Therefore, no impacts are expected to occur to San Diego fairy shrimp.

Riverside fairy shrimp are restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, stock ponds, and other human modified depressions that are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May. In Riverside County, the species been found in pools formed over the following soils: Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils. Based on the results of the vernal pool habitat assessment in Section 4.4.2 above, no vernal pools are expected to occur within the survey area. In addition, based on the *Custom Soil Resources Report for the Western Riverside Area, California*, Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils are not located within the survey area. According to the CNDDDB, there are no occurrences records for Riverside fairy shrimp within five (5) miles of the survey area within the USGS *Fontana and Riverside West, California* 7.5-minute quadrangles (CDFW 2021a). Based on this information and the results of the vernal pool habitat assessment in Section 4.4.2, it was determined that

there is no suitable habitat for Riverside fairy shrimp within or adjacent to the survey area. Therefore, no impacts are expected to occur to Riverside fairy shrimp.

Vernal pool fairy shrimp are only found in seasonal vernal pool habitats and do not occur in riverine, marine, or other permanent bodies of water. Vernal pool fairy shrimp are restricted to cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived. In Riverside County, vernal pool fairy shrimp are known from four locations in the Plan Area: Skunk Hollow, the Santa Rosa Plateau, Salt Creek, and the vicinity of the Pechanga Indian Reservation. According to the CNDDDB, there are no occurrence records for vernal pool fairy shrimp within the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles or within 5 miles of the survey area. Based on this information and the results of the vernal pool habitat assessment in Section 4.4.2, it was determined that there is no suitable habitat for vernal pool fairy shrimp within or adjacent to the survey area. Therefore, no impacts are expected to occur to vernal pool fairy shrimp.

Santa Rosa Plateau fairy shrimp are restricted to cool-water vernal pools which are formed on seasonal southern basalt flows. In Riverside County, Santa Rosa Plateau shrimp are only known from vernal pools on the Santa Rosa Plateau. According to the CNDDDB, there are no occurrence records for vernal pool fairy shrimp within the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles or within 5 miles of the survey area. Based on this information and the results of the vernal pool habitat assessment in Section 4.4.2, it was determined that there is no suitable habitat for Santa Rosa Plateau fairy shrimp within or adjacent to the survey area. Therefore, no impacts are expected to occur to Santa Rosa Plateau fairy shrimp.

4.4.4 RIPARIAN BIRDS

Based on the field survey, riparian/riverine resources were not observed within the project site. Therefore, a discussion related to riparian birds and the proposed project is not warranted.

4.5 PROTECTION OF NARROW ENDEMIC PLANT SPECIES

According to the RCA's online MSHCP Information Application (RCA 2021) and Figure 6-1 of the MSHCP, the proposed project is located within the designated survey area for the following Narrow Endemic Plant Species: San Diego Ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).

Literature Review and Habitat Assessment Results

San Diego Ambrosia

San Diego ambrosia is a member of the genus *Ambrosia* in the family Asteraceae. According to Volume 2 of the MSHCP, San Diego ambrosia occurs in open floodplain terraces or in the watershed margins of vernal pools (Dudek & Associates Inc. 2003). In addition, San Diego ambrosia occurs in a variety of associations that are dominated by sparse, non-native grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas (Dudek & Associates Inc. 2003). Within Riverside County, extant populations of San Diego ambrosia are found on Garretson gravelly fine sandy loams in association with

floodplains and on Las Posas loam in close proximity to silty, alkaline soils of the Willows series at Skunk Hollow (Dudek & Associates Inc. 2003). San Diego ambrosia is generally found at low elevations that are less than 1,600 feet in Riverside County and at elevations less than 600 feet in San Diego County (Dudek & Associates, Inc. 2003). The blooming period for San Diego ambrosia is April through October.

The majority of populations of San Diego ambrosia in California occur in San Diego County and there are three known extant populations for this species in the MSHCP Plan Area: Alberhill near Nichols Road, east of Lake Street in the City of Lake Elsinore, and Skunk Hollow (Dudek & Associates Inc. 2003). In terms of seed dispersal of San Diego ambrosia, dispersal mechanisms are unknown, however, the lack of armed involucre bracts makes it less likely that the species disperses by attaching to animals (Dudek & Associates Inc. 2003). San Diego ambrosia has a natural tendency to reproduce asexually which suggests that the most common form of dispersal may be through movement of rhizome-like structures either by short distances by growth or longer distance by flood disturbance (Dudek & Associates Inc. 2003).

According to the CNDDDB, there is one (1) occurrence record for San Diego ambrosia within the USGS *Riverside West, California* 7.5-minute quadrangle. This occurrence record is approximately 9 miles southwest of the survey area; however, this record is extirpated from the area (CDFW 2021a). There are no occurrence records for San Diego ambrosia within the USGS *Fontana, California* 7.5-minute quadrangle. Calflora records show this species occurred approximately 4.60 miles south of the project site; however, there is no date given for this occurrence and Google Earth aerial imagery shows that the area surrounding the occurrence record consists of residential development (Calflora 2021). According to Calflora records, most of the occurrence records for this species in Riverside County occur to the east and west of Interstate 15 in Lake Elsinore and Murrieta (Calflora 2021). As such, dispersal of this species to the project site through growth and/or flood disturbance from occurrence records 4.60 miles south of the project site and in Lake Elsinore and Murrieta is unlikely due to the presence of surrounding development (i.e., State Route 60, Interstate 15, Interstate 215, residential land uses). Based on the habitat description provided in Volume 2 of the MSHCP document, this species is unlikely to occur within the project site due to the lack of open floodplain terraces and vernal pools. Garretson gravelly fine sandy loams and Las Posas loam soils are not present within the project site. In addition, this species was not incidentally observed during the field survey conducted on October 28, 2021. Based on the information above and due to the lack of specific habitat associations (i.e., floodplain terraces, vernal pools, and alkali playas) within the boundaries of the proposed project, soils this species typically occurs on, and occurrence records within the surrounding areas, San Diego ambrosia is not expected to occur and focused surveys are not recommended.

Brand's Phacelia

Brand's phacelia is a member of the genus *Phacelia* in the family Boraginaceae. This annual herb produces a spreading, branching stem up to about 25 centimeters in length and is lightly hairy in texture. According to Volume 2 of the MSHCP, Brand's phacelia is primarily associated with coastal dunes and/or coastal scrub between 16 and 1,312 feet AMSL and typically occurs in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers (Dudek & Associates Inc. 2003). The blooming period for Brand's phacelia is March through June. No seed dispersal mechanism is known for Brand's phacelia (Dudek & Associates Inc. 2003). Volume 2 of the MSHCP states that there are only two known occurrences of this

species within the Plan Area; one at Fairmont Park in 1925 and a 2002 observation in the Santa Ana Wilderness Area near County Parks headquarters (Dudek & Associates Inc. 2003). In addition, according to Volume 2 of the MSHCP this species is extremely rare and is restricted to sandy washes and/or benches on alluvial flood plains within the Plan Area (Dudek & Associates Inc. 2003).

According to the CNDDDB, there is one (1) occurrence record for Brand's phacelia within the USGS *Riverside West, California* 7.5-minute quadrangle. This occurrence record is approximately 2.00 miles southeast of the survey area (CDFW 2021a). There are no occurrence records for this species within the USGS *Fontana, California* 7.5-minute quadrangle. According to Calflora records, most of the occurrence records in Riverside County occur adjacent to the portion of the Santa Ana River located south of State Route 60 (Calflora 2021). Based on the habitat description provided in Volume 2 of the MSHCP document, this species is unlikely to occur within the boundaries of the project site due to the lack of coastal dunes and/or coastal scrub with sandy openings, sandy benches, dunes, sandy washes and river flood plains. Although sandy loam soils occur within the project site, the soils within these areas are heavily disturbed and compacted as a result of anthropogenic activities. Based on the information above, and due to the lack of specific habitat associations (i.e., coastal dunes and/or coastal scrub with sandy openings, sandy benches, dunes, sandy washes and river flood plains) within the proposed project, undisturbed soils this species typically occurs on, and occurrence records within the surrounding areas, Brand's phacelia is not expected to occur and focused surveys are not recommended.

San Miguel Savory

San Miguel savory is a member of the genus *Clinopodium*, in the family Lamiaceae. This species is a low-growing, fragrant, spreading perennial herb that prefers regular water and some shade. This species has white flowers with small, toothed or wavy-edged leaves. According to Volume 2 of the MSHCP, San Miguel savory is associated with rocky, gabbroic and metavolcanic substrates in coastal sage scrub (CSS), chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands (Dudek & Associates Inc. 2003). Information regarding dispersal of San Miguel savory has not been reviewed (Dudek & Associates Inc. 2003). The blooming period for San Miguel savory is March through July. In addition, this species occurs at elevations ranging from 394 to 3,297 feet AMSL (Dudek & Associates Inc. 2003). Volume 2 of the MSHCP states the majority of the populations/individuals of San Miguel savory are associated with the Santa Rosa Plateau and the Santa Ana Mountains (Dudek & Associates Inc. 2003). Specifically, known populations within western Riverside County occur one mile west of Murrieta on Tenaja Road, ten miles west of Murrieta (vicinity of Tenaja guard station), three miles south of Murrieta near De Luz Road, and three miles southwest of Murrieta near Warner's Ranch (Dudek & Associates Inc. 2003).

According to the CNDDDB, there are no occurrence records for San Miguel savory within the USGS *Fontana* and *Riverside West, California* 7.5-minute quadrangles. In addition, there are no occurrence records of this species within 5 miles of the project site and according to Calflora records, most of the occurrence records in Riverside County occur to the east and west of Interstate 15 in Lake Elsinore, Murrieta, Temecula, and the Santa Rose Plateau (Calflora 2021). Based on the habitat description provided in Volume 2 of the MSHCP document, this species is unlikely to occur within the project site due to the lack of rocky, gabbroic

and metavolcanic substrates located in CSS, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands. This species was not incidentally observed during the field survey conducted on October 28, 2021. Based on the information above, and due to the lack of specific habitat associations (i.e., rocky, gabbroic and metavolcanic substrates located in CSS, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands) within the boundaries of the project site, soils this species typically occurs on, and occurrence records within the surrounding areas, San Miguel savory is not expected to occur and focused surveys are not recommended.

4.6 ADDITIONAL SURVEY NEEDS AND PROCEDURES

4.6.1 CRITERIA AREA PLANT SPECIES

Based on a desktop review of the RCA's online MSHCP Information Application (RCA 2021) and Figure 6-2 of the MSHCP, the proposed project is not located within a mapped survey area for Criteria Area plant species. Therefore, a discussion related to the proposed project and any associated Criteria Area plant species is not warranted.

4.6.2 AMPHIBIANS

Based on a desktop review of the RCA's online MSHCP Information Application (RCA 2021) and Figure 6-3 of the MSHCP, the proposed project is not located within a mapped survey area for amphibians. Therefore, a discussion related to the proposed project and MSHCP amphibian species is not warranted.

4.6.3 BURROWING OWL

According to the RCA's online MSHCP Information Application (RCA 2021) and Figure 6-4 of the MSHCP, the proposed project is located within a mapped survey area for BUOW.

Literature Review and Habitat Assessment Results

The BUOW 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. BUOWs use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant *et al.* 1999). BUOWs are dependent upon the presence of burrowing mammals (e.g., California ground squirrels [*Otospermophilus beecheyi*], coyotes, American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting. The presence or absence of mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. BUOWs may also burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing open line-of-sight of the surrounding habitat to forage as well as watch for predators.

According to the CNDDDB, there are six (6) occurrence records for BUOW within the USGS *Fontana and Riverside West, California* 7.5-minute quadrangles. The closest occurrence (Occurrence Number 1938) was recorded in 2000, approximately 4.40 miles west of the project site; up to seven (7) BUOWs were observed during Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) surveys in ruderal vegetation on sandy soils along a flood control channel (CDFW 2021a). Michael Baker biologists surveyed 100% of the project site and areas within 500 feet during the field survey and no BUOWs, sign (i.e., pellets, feathers, castings, or white wash), occupied burrows, or remnant burrows were observed. The project site and areas within 500 feet are primarily developed and sparsely vegetated with a variety of low-growing plant species that allow for open line-of-sight and foraging opportunities for BUOW. However, due to the routine weed abatement, surface soils within the project site are heavily disturbed/compacted and lack suitable burrows (> 4 inches in diameter) that are needed to provide roosting and nesting opportunities. In addition, the presence of telephone and light poles are expected to further decrease the likelihood that BUOWs would roost or nest within the project site as these features provide perching opportunities for larger raptors (e.g., red-tailed hawk [*Buteo jamaicensis*]) that are known to prey on BUOWs. As such, BUOW is not expected to nest or roost in the project site and areas within 500 feet; however, the species still has the potential to forage within the project site.

Additional Survey and Mitigation Requirements

Although no BUOWs, sign, or suitable burrows were observed during the field survey, the project site does contain foraging habitat and may become occupied prior to construction. Therefore, in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006), a pre-construction clearance survey should be conducted to ensure that project-related activities avoid direct take of BUOWs that may be located on or within 500 feet of the project impact area. In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006), one (1) pre-construction clearance survey would need to be conducted no more than thirty (30) days prior to initiating ground disturbance activities to avoid direct take of BUOW. If BUOWs or occupied burrows are found during the pre-construction clearance survey, a BUOW avoidance and minimization plan would need to be prepared and submitted to the RCA and the CDFW for approval prior to initiating project activities.

4.6.4 MAMMALS

The proposed project is not located within a mapped survey area for mammal species according to the RCA's online MSHCP Information Application (RCA 2021) and Figure 6-5 of the MSHCP. Therefore, a discussion related to the proposed project and MSHCP mammal species is not warranted.

4.7 INFORMATION ON OTHER SPECIES

4.7.1 DELHI SANDS FLOWER-LOVING FLY

According to the RCA's online MSHCP Information Application (RCA 2021) and the *Custom Soil Resources Report for the Western Riverside Area, California* (USDA 2021), the project site is not underlain by and does not fall within an area containing Delhi Sand soils. Therefore, no direct or indirect impacts are expected to occur, and no further discussion related to the proposed project and the Delhi Sands flower-loving fly is warranted.

4.7.2 SPECIES NOT ADEQUATELY CONSERVED

As described in Section 2.1.4 of the MSHCP, of the one hundred and forty-six (146) Covered Species addressed in the MSHCP, one-hundred and eighteen (118) species are considered to be adequately conserved. The remaining twenty-eight (28) Covered Species will be considered to be adequately conserved when certain conservation requirements are met as identified in the species-specific conservation objectives listed in Table 9-3 of the MSHCP dated December 1, 2020.

None of the species listed in Table 9-3 of the MSHCP were observed within the project site during the field survey. All remaining species listed in Table 9-3 of the MSHCP are not expected to occur within the project site based on existing site conditions and a review of specific habitat requirements, occurrence records, and known distributions.

4.8 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE

The urban/wildlands interface guidelines presented in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with new development in proximity to MSHCP Conservation Areas. The project site is not located adjacent to any Criteria Cells, Conservation Areas, Cores/Linkages, or P/QP lands identified by the MSHCP. Therefore, a discussion related to the proposed project and the urban/wildlands interface guidelines presented in Section 6.1.4 of the MSHCP is not warranted.

4.9 STANDARD BEST MANAGEMENT PRACTICES

In accordance with Appendix C of the MSHCP, the following standard best management practices (BMPs) would be implemented to reduce project-related impacts:

- A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the FESA and the MSHCP, the need to adhere to the provisions of the FESA and the MSHCP, the penalties associated with violating the provisions of the FESA, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within

which the project activities must be accomplished.

- Water pollution and erosion control plans shall be developed and implemented in accordance with Regional Board requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian identified in MSHCP Global Species Objective No. 7.
- When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to the applicable jurisdictional city, USFWS, and CDFW, and the Regional Board and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.

- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
- The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

Section 5 Conclusion

The survey area is located within a heavily developed portion of the City of Jurupa Valley. Natural habitats within the survey area have been eliminated due to routine weed abatement activities (i.e., disking, tilling) and residential/commercial development resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The survey area is comprised of disturbed habitat that is dominated by ruderal/weedy, low-growing plant species and ornamental tree species. In addition, developed areas were also observed surrounding the project site, within the northern, eastern, southern, and western portions of the survey area.

No special-status plant species were observed during the field survey. The survey area is primarily comprised of development and a disturbed parcel characterized by heavily disturbed/compacted soils and ornamental vegetation. Additionally, the routine weed abatement within the project site and surrounding developed land uses have reduced the potential for the survey area to provide suitable habitat for special-status plant species. Based on existing site conditions and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the special-status plant species identified by the CNDDDB and CNPS databases either have a low potential or are not expected to occur within the survey area.

No special-status wildlife species were observed during the field survey. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that all special-status wildlife species identified by the CNDDDB either have a low potential to occur or are not expected to occur within the survey area. With the incorporation of the standard BMPs summarized in Section 4.9 above and the Avoidance and Minimization Measures (AMMs) provided below, the proposed project is not expected to result in significant impacts to special-status wildlife species or their habitats.

In order to avoid and/or minimize potential impacts to biological resources, it is recommended that the following AMMs be implemented:

AMM BIO-1: Prior to initiating project activities, a qualified biologist shall prepare and present a Workers Environmental Awareness Program (WEAP) training for all contractors, subcontractors, and workers expected to be on-site throughout the entire construction period. The WEAP shall include a brief review of any special-status species, including habitat requirements and where they might be found, and other sensitive biological resources that could occur in and adjacent to the project, including those not covered by the MSHCP. The WEAP shall address the biological mitigation measures listed in the project's approved Mitigation Monitoring and Reporting Program, as well as applicable conditions and provisions of any associated environmental permits, including but not limited to pre-construction biological surveys, pre-construction installation of perimeter sediment and erosion control best management practices, and any recurrent nesting bird surveys (as needed).

AMM BIO-2: If project-related activities are to be initiated during the nesting season (January 1st to

August 31st), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than three (3) days prior to the start of any vegetation removal or ground disturbing activities. The qualified biologist shall survey all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. If no active nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization measures would be required. If an active nest is found, the bird species shall be identified and a “no-disturbance” buffer shall be established around the active nest. The size of the “no-disturbance” buffer shall be increased or decreased based on the judgement of the qualified biologist and level of activity and sensitivity of the species. It is further recommended that the qualified biologist periodically monitor any active nests to determine if project-related activities occurring outside the “no-disturbance” buffer disturb the birds and if the buffer shall be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the “no-disturbance” buffer may occur following an additional survey by the qualified biologist to search for any new nests in the restricted area.

AMM BIO-3: Due to the presence of suitable foraging habitat for BUOW, a pre-construction clearance survey shall be conducted to ensure that project-related activities avoid direct take of BUOWs that may be located on or within 500 feet of the project impact area in accordance with *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan* (RCA 2006). The pre-construction clearance survey should be conducted no more than thirty (30) days prior to any ground disturbance or vegetation removal activities. If BUOWs or occupied burrows are found during the pre-construction clearance survey, a BUOW avoidance and minimization plan would need to be prepared and submitted to the RCA for approval prior to initiating project activities.

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Appendix A Site Photographs



Photograph 1: Standing in the northern portion of the survey area, facing northwest.



Photograph 2: Standing at the southwest portion of the survey area, facing south.



Photograph 3: Standing in the eastern portion of the survey area, facing west.



Photograph 4: Standing in the western portion of the survey area, facing east.



Photograph 5: Standing in the southern portion of the survey area, facing west.



Photograph 6: Standing in the western portion of the survey area, facing east.



Photograph 7: Standing in the northern portion of the survey area, facing south.

Appendix B Plant and Wildlife Species Observed List

Table B-1: Plant and Wildlife Species Observed List

<i>Scientific Name*</i>	Common Name	Cal-IPC Rating**	Special-Status Rank***
Plants			
<i>Avena fatua*</i>	wild oat	Moderate	
<i>Cynodon dactylon*</i>	bermuda grass	Moderate	
<i>Datura wrightii</i>	jimson weed		
<i>Encelia californica</i>	bush sunflower		
<i>Salsola tragus*</i>	Russian thistle	Limited	
<i>Lactuca serriola*</i>	prickly lettuce		
<i>Malva parviflora*</i>	cheeseweed		
<i>Plantago</i> sp.	plantain		
<i>Tribulus terrestris*</i>	puncture vine	Limited	
<i>Washingtonia robusta*</i>	Mexican fan palm	Moderate	
Birds			
<i>Anthus rubescens</i>	American pipit		
<i>Buteo jamaicensis</i>	red-tailed hawk		
<i>Calypte anna</i>	Anna's hummingbird		
<i>Charadrius vociferus</i>	killdeer		
<i>Columba livia*</i>	rock pigeon		
<i>Corvus brachyrhynchos</i>	American crow		
<i>Haemorhous mexicanus</i>	house finch		
<i>Passer domesticus*</i>	house sparrow		
<i>Sayornis saya</i>	Say's phoebe		
<i>Setophaga coronata auduboni</i>	Audubon's yellow-rumped warbler		
<i>Sialia mexicana</i>	western bluebird		
<i>Sturnus vulgaris*</i>	European starling		
<i>Zenaida macroura</i>	mourning dove		

* **Non-native species**

** **California Invasive Plant Council (Cal-IPC) Ratings**

Moderate These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Appendix C Potentially Occurring Special-Status Biological Resources

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

Scientific Name Common Name	Special- Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES					
<i>Accipiter cooperii</i> Cooper's hawk	WL G5 S4	Yearlong resident of California. Generally, found in forested areas up to 3,000 feet above mean sea level (amsl) in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	Yes	No	Low (Foraging): The survey area provides suitable foraging habitat for this species. This species is not expected to nest within the survey area due to the lack of tall trees.
<i>Accipiter striatus</i> sharp-shinned hawk	WL G5 S4	Winter resident of southern California. Found in pine (<i>Pinus</i> spp.), fir (<i>Abies</i> spp.), and aspen (<i>Populus tremuloides</i>) forests. They can be found hunting in forest interior and edges from sea level to near alpine areas. Can also be found in rural, suburban and agricultural areas, where they often hunt at bird feeders. This species does not breed in California.	Yes	No	Low (Foraging): The survey area provides marginal foraging habitat for this species, however, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021). This species does not breed in California and is not expected to nest within the survey area.
<i>Agelaius tricolor</i> tricolored blackbird	ST SSC G1G2 S1S2	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, protected nesting substrate freshwater marsh dominated by tall, dense cattails (<i>Typha</i> spp.), willow (<i>Salix</i> spp.) thickets, and bulrushes (<i>Schoenoplectus</i> spp.), and either flooded or thorny/spiny vegetation and suitable foraging space providing adequate insect prey.	Yes	No	Not Expected: The survey area does not contain the wetland habitat that this species typically nests in, nor suitable grassland habitat for foraging.
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	WL G5T3 S3	Yearlong resident that is typically found between 3,000 and 6,000 feet amsl. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (<i>Artemisia californica</i>), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	Yes	No	Not Expected: The survey area does not contain the scrubland habitats that this species typically nests in, nor suitable grassland habitat for foraging. Further, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Ammodramus savannarum</i> grasshopper sparrow	SSC G5 S3	Yearlong resident along the coast of southern California. Occurs in grassland, upland meadow, pasture, hayfield, and old field habitats. Optimal habitat contains short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs. May inhabit thickets, weedy lawns, vegetated landfills, fence rows, open fields, or grasslands.	Yes	No	Not Expected: Suitable grassland, upland meadow, pasture, hayfield, and old field habitats preferred by this species for foraging and nesting are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Anniella stebbinsi</i> southern California legless lizard	SSC G3 S3	Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport.	No	No	Low: The survey area provides marginal habitat for this species. Additionally, there are numerous CNDDDB occurrence records for this species within the surrounding area (CNDDDB 2021).
<i>Aquila chrysaetos</i> golden eagle	FP WL G5 S3	Yearlong resident of California. Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	Yes	No	Not Expected: The survey area does not provide suitable habitat for this species. In addition, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021). This species is not expected to nest within the survey area due to the lack of secluded cliffs with overhanging ledges.
<i>Arizona elegans occidentalis</i> California glossy snake	SSC G5T2 S2	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	No	No	Low: The survey area provides marginal habitat for this species.
<i>Artemisospiza belli belli</i> Bell's sage sparrow	WL G5T2T3 S3	This species has a wide, but sparse distribution in western Riverside County, specifically within the "Riverside lowlands, San Jacinto Foothills, Santa Ana Mountains, and Desert Transition Bioregions. Yearlong resident on the coastal side of southern California mountains. Breeds in coastal sage scrub and chaparral habitats from February to August. They require semi-open habitats with evenly spaced shrubs one to two meters high. Occurs in chaparral dominated by fairly dense stands of chamise (<i>Adenostoma fasciculatum</i>).	Yes	No	Not Expected: The survey area does not contain the scrubland habitats that this species typically nests in, nor suitable grassland habitat for foraging.

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Asio otus</i> long-eared owl	SSC G5 S3?	Nests in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands. Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas.	No	No	Not Expected: Suitable conifer, oak, riparian, pinyon-juniper, and desert woodland habitats preferred by this species for foraging and nesting are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	WL G5 S2S3	Uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties. Also occurs in southwestern San Bernardino County near Colton. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	Yes	No	Low: The survey area provides marginal habitat for this species.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	SSC G5T5 S3	This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Ranges south into Baja California. Found in a variety of ecosystems, primarily hot and dry open areas with sparse vegetation in chaparral, woodland, and riparian areas. Associated with rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations.	Yes	No	Low: The survey area provides marginal habitat for this species.
<i>Athene cunicularia</i> burrowing owl	SSC G4 S3	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	Low (Foraging): The survey area provides suitable foraging and nesting habitat for this species. However, the survey area does not provide suitable burrows (< 4 inches in diameter) capable of providing suitable roosting and nesting habitat.
<i>Bombus crotchii</i> Crotch bumble bee	CSE G3G4 S1S2	Primarily occurs in California, including the Mediterranean region, Pacific coast, western desert, great valley, and adjacent foothills through most of southwestern California. Has also been recorded in Baja California, Baja California Sur, and in southwest Nevada. Inhabits open grassland and scrub habitats. Primarily nests underground. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	No	No	Not Expected: Suitable habitats and food plant genera preferred by this species are not present within the survey area.

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

Scientific Name Common Name	Special- Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	FE G2 S2	Crustaceans endemic to San Diego and Orange County mesas and found in vernal pools.	No	No	Not Expected: There is no suitable vernal pool habitat within or adjacent to the survey area. The mapped soils within the survey area primarily consist of rocky sandy loam/sandy loam textures which do not support the formation of vernal pools or ponds. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021) and the survey area is not located within federally designated Critical Habitat for this species.
<i>Buteo swainsoni</i> Swainson's hawk	ST G5 S3	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	Not Expected: This species occurs in this area strictly as a migrant. While it may fly over the survey area on its way north or south during migration, it would not be expected to land anywhere in the survey area, which does not contain suitable foraging and nesting habitat. In addition, this species is possibly extirpated from the area (CNDDDB 2021).
<i>Catostomus santaanae</i> Santa Ana sucker	FT G1 S1	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Streams 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 (a)	No	Not Expected: Suitable perennial stream habitat is not present within the survey area. Additionally, the survey area is not located within federally designated Critical Habitat for this species.
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	SSC G5T3T4 S3S4	Found terrestrially in a wide variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Open habitat on the Pacific slope from southwestern San Bernardino County to northwestern Baja California. Habitat types include coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil to dig burrows.	Yes	No	Not Expected: The survey area does not contain suitable habitats preferred by this species.

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Chaetura vauxi</i> Vaux's swift	SSC G5 S2S3	Summer resident of northern California. Hollow trees are its favored nesting and roosting sites (chimneys are used on occasion), making this swift vulnerable to loss of old-growth forest. Breeds from southwestern Canada through the western United States to Mexico, Central America, and northern Venezuela. In winter, northern migrant populations of this species overlap southern residents.	No	No	Not Expected: This species does not nest in southern California and only migrates through. Suitable foraging habitat for migrating birds is not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Circus hudsonius</i> northern harrier	SSC G5 S3	Yearlong resident of California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded area. In general, it prefers saltwater marshes, wet meadows, sloughs, and bogs for nesting and foraging. Nests on the ground in shrubby vegetation or patches of dense vegetation, usually at the marsh edge.	Yes	No	Low (Foraging): The survey area provides marginal foraging habitat for this species, however, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021). This species is not expected to nest within the survey area due to the lack of marsh and wet meadow habitats.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT SE G5T2T3 S1	In California, the breeding distribution 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	Not Expected: Willow-cottonwood riparian forest preferred by this species for foraging and nesting is not present within the survey area. Additionally, the survey area is not located within federally designated Critical Habitat for this species.
<i>Coleonyx variegatus abboti</i> San Diego banded gecko	SSC G5T5 S1S2	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	Low: The survey area provides marginal habitat for this species.
<i>Contopus cooperi</i> olive-sided flycatcher	SSC G4 S3	Uncommon to common, summer resident in a wide variety of forest and woodland habitats below 9,000 feet amsl throughout California exclusive of the deserts, the Central Valley, and other lowland valleys and basins. Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglas fir (<i>Pseudotsuga menziesii</i>), redwood (<i>Sequoiadendron giganteum</i>), red fir (<i>Abies magnifica</i>), and lodgepole pine (<i>Pinus contorta</i>).	No	No	Not Expected: This species is not expected to occur within the survey area due to the lack of suitable habitat. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Coturnicops noveboracensis</i> yellow rail	SSC G4 S1S2	Precise breeding and wintering ranges and relative abundances difficult to discern fully because of the species' secretive behavior within its marsh habitat. This species occurs year-round in California as a very local breeder in northeastern interior and as a winter visitor (early October to mid-April). Require sedge marshes/meadows with moist soil or shallow standing water.	No	No	Not Expected: There are no suitable marshes/meadows with standing water habitats present within the survey area.
<i>Crotalus ruber</i> red-diamond rattlesnake	SSC G4 S3	Found in southwestern California, from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California. It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet amsl), 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, boulders associated coastal sage scrub, oak/pine woodlands, and desert slope scrub associations; however, chamise and red shank (<i>Adenostoma sparsifolium</i>) associations may offer better structural habitat for refuges and food resources for this species than other habitats.	Yes	No	Low: The survey area provides marginal habitat for this species.
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	FE CSE SSC G5T1 S1	Primarily found in Riversidian alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidian upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidian alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	Yes (c)	No	Not Expected: Suitable alluvial habitat preferred by this species is not present within the survey area. In addition, the closest occurrence record (occurrence record 54) in the Jurupa Mountains was last collected in 1909 and is possibly extirpated (CNDDDB 2021). Further, the survey area has been cut off from known populations that occur more than 5 miles to the north and east by State Route 60, Interstate 215, Interstate 10, and surrounding development. Lastly, the survey area is not located within federally designated Critical Habitat for this species.

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Scientific Name Common Name	Special- Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	FE ST G2 S2	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	Not Expected: Suitable habitats preferred by this species are not present within the survey area. Additionally, the survey area has been cut off from known populations that occur more than 5 miles to the south and east by State Route 60, Interstate 215, and surrounding development. Further, the survey area is not located within federally designated Critical Habitat for this species.
<i>Elanus leucurus</i> white-tailed kite	FP G5 S3S4	Yearlong resident along the coastal ranges and valleys of California. Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole (<i>Microtus californicus</i>). Nests in tall (20 to 50 feet) coast live oaks (<i>Quercus agrifolia</i>).	Yes	No	Not Expected: The survey area does not contain suitable habitats preferred by this species.
<i>Empidonax traillii</i> willow flycatcher	SE G5 S1S2	A rare summer resident of California with currently known breeding locations restricted primarily to the Sierra Nevada/Cascade region, near Buelton in Santa Barbara County; Prado Basin in Riverside County; and several locations in San Diego County. In California, the species is restricted to thickets of willows, whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes.	No	No	Not Expected: Suitable thickets of willows near a stream preferred by this species for foraging and nesting are not present in the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	FE SE G5T2 S1	Uncommon summer resident in southern California primarily found in lower elevation riparian habitats occurring along streams or in meadows. The structure of suitable breeding habitat typically consists of a dense mid-story and understory and can also include a dense canopy. Nest sites are generally located near surface water or saturated soils. The presence of surface water, swampy conditions, standing or flowing water under the riparian canopy are preferred.	Yes (a)	No	Not Expected: Suitable riparian habitat consisting of a dense mid-story and understory is not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021) and the survey area is not located within federally designated Critical Habitat for this species.

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Emys marmorata</i> western pond turtle	SSC G3G4 S3	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 amsl.	Yes	No	Not Expected: There is not suitable aquatic habitat within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Eremophila alpestris actia</i> California horned lark	WL G5T4Q S4	Yearlong resident of California. This subspecies is typically found in coastal regions. Breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Nests on the open ground.	Yes	No	Low (Foraging/Nesting): The survey area provides marginal foraging and nesting habitat for this species.
<i>Eumops perotis californicus</i> western mastiff bat	SSC G4G5T4 S3S4	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 3 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	Not Expected: Suitable foraging and roosting habitat preferred by this species is not present within the project site.
<i>Euphydryas editha quino</i> quino checkerspot butterfly	FE G5T1T2 S1S2	Occupies a variety of habitat types that support California plantain (<i>Plantago erecta</i>), the species primary larval host plant, including grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Can also be found in desert canyons and washes at the lower edge of chaparral habitats.	Yes	No	Not Expected: The species primary larval host plant California plantain was not observed within the survey area. Additionally, this species is considered extirpated/possibly extirpated from the area (CNDDDB 2021). Further, the survey area is not located within the recommended survey area for this species (USFWS 2014) or federally designated Critical Habitat for this species.
<i>Falco columbarius</i> merlin	WL G5 S3S4	Winter resident of southern California. Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds. This species does not breed in California.	Yes	No	Not Expected: Suitable wintering habitat preferred by this species is not present within the survey area. In addition, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021). This species does not breed in California and is not expected to nest within the survey area.

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Falco peregrinus anatum</i> American peregrine falcon	FP G4T4 S3S4	This species breeds and winters throughout California, with the exception of desert areas. Use a large variety of open habitats for foraging, including tundra, marshes, seacoasts, savannahs, grasslands, meadows, open woodlands, and agricultural areas. Sites are often located near rivers or lakes. Riparian areas, as well as coastal and inland wetlands, are also important habitats year-round for this species. The species breeds mostly in woodland, forest, and coastal habitats. The nest is typically a scrape or depression dug in gravel on a cliff ledge or on manmade structures, including skyscraper ledges, tall towers, and bridges. Within southern California, peregrine falcons are primarily found at coastal estuaries and inland oases where ever a food source is located.	Yes	No	Low (Foraging): The survey area provides marginal foraging habitat for this species. This species is not expected to nest within the project site due to the lack of cliff ledges or tall manmade structures.
<i>Gila orcuttii</i> arroyo chub	SSC G2 S2	Native to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers and to Malibu and San Juan creeks. This species has been introduced and have successfully established populations in the Santa Ynez, Santa Maria, Cuyama and Mojave river systems as well as smaller coastal streams such as Arroyo Grande Creek and Chorro Creek in San Luis Obispo County. 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 16 inches.	Yes	No	Not Expected: There is no suitable aquatic habitat within the survey area.
<i>Icteria virens</i> yellow-breasted chat	SSC G5 S3	Summer resident of California. Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Breeding habitat within southern California primarily consists of dense, 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. It winters south the Central America. Found at elevations ranging from 820 to 2,625 feet amsl.	Yes	No	Not Expected: Suitable riparian habitat preferred by this species for foraging and nesting is not present in the survey area.

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Lanius ludovicianus</i> loggerhead shrike	SSC G4 S4	Yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover including open-canopied valley foothill hardwood, riparian, pinyon-juniper desert riparian, creosote bush scrub, and Joshua tree woodland. Requires suitable perches including trees, posts, fences, utility lines, or other perches. Nests in branches up to 14 feet above the ground frequently in a shrub with thorns or with tangled branching habitats.	Yes	No	Low (Foraging): The survey area provides marginal foraging habitat for this species. This species is not expected to nest within the survey area due to the lack of tangled branching habitats.
<i>Larus californicus</i> California gull	WL G5 S4	Require isolated islands in rivers, reservoirs and natural lakes for nesting, where predations pressures from terrestrial mammals are diminished. Uses both fresh and saline aquatic habitats at variable elevations and degrees of aridity for nesting and for opportunistic foraging.	No	No	Not Expected: This species may fly over the survey area, but there is no suitable foraging or roosting habitat and this is outside of this species' breeding range.
<i>Lasiurus xanthinus</i> western yellow bat	SSC G4G5 S3	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	No	Not Expected: Suitable habitats preferred by this species for foraging and roosting are not present within the survey area.
<i>Laterallus jamaicensis coturniculus</i> California black rail	ST FP G3G4T1 S1	Suitable habitat generally includes salt marshes, freshwater marshes, and wet meadows. Typical associated vegetation includes pickle weed (<i>Salicornia virginica</i>), in salt marshes and bulrush (<i>Scirpus</i> spp.) in less saline habitats.	No	No	Not Expected: There are no suitable salt marsh, freshwater marsh or wet meadow habitats present within the survey area.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	SSC G5T3T4 S3S4	Occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats, agricultural fields, or sparse coastal scrub.	Yes	No	Low: The survey area provides marginal habitat for this species.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	SSC G5T3T4 S3S4	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Woodrats often are associated with cholla cactus which they use for water and dens or boulders and boulder piles. The most common natural habitats for records are chaparral, coastal sage scrub (including RSS and Diegan coastal sage scrub) and grassland.	Yes	No	Not Expected: The survey area does not contain suitable habitats preferred by this species. In addition, there are no occurrence records for this species within 5 miles of the survey area (CNDDB 2021).

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	SSC G5 S3	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree (<i>Yucca brevifolia</i>) woodland, and palm oasis habitats. Prefers rocky desert areas with high cliffs or rock outcrops, which are used as roosting sites.	No	No	Not Expected: There are no suitable desert type habitats preferred by this species for foraging and roosting located within the survey area.
<i>Oncorhynchus mykiss irideus</i> pop. 10 steelhead - southern California DPS	FE G5T1Q S1	Steelhead can survive in a wide range of temperature conditions. Species is found where dissolved oxygen concentration is at least 7 parts per million. In streams, deep low-velocity pools are important wintering habitats. Spawning habitat consists of gravel substrates free of excessive silt.	No	No	Not Expected: There is no suitable aquatic habitat within the survey area. Additionally, the survey area is not located within federally designated Critical Habitat for this species.
<i>Pandion haliaetus</i> osprey	WL G5 S4	Winter resident of southern California. Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Uses large trees, snags, and dead-topped trees in open forest habitats for cover and nesting. Requires open, clear waters for foraging and uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	Yes	No	Not Expected: The survey area does not contain suitable nesting or foraging habitat for this species. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	SSC G5T2 S1S2	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	Yes (c)	No	Not Expected: Suitable coastal sage scrub habitat preferred by this species is not present within the survey area. Additionally, the survey area has been cut off from known populations that occur to the north and east by State Route 60, Interstate 215, Interstate 10, and surrounding development.
<i>Phalacrocorax auritus</i> double-crested cormorant	WL G5 S4	Yearlong resident of California. Prefers water less than 30 feet deep with rocky or gravel bottom. Rests in daytime and roosts overnight beside water on offshore rocks, islands, cliffs, dead branches of trees, wharfs, jetties, or even transmission lines. Occupies diverse aquatic habitats in all seasons. In California, most individuals are found nesting in coastal regions. Requires suitable places for daytime resting (e.g., rocks, sandbars, pilings). Forage in shallow water (< 30 feet deep).	Yes	No	Not Expected: There is no suitable foraging or nesting habitat for this species within the survey area. The survey area lacks any open waters or any notable expansive open fields and lacks any rookery trees.

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Phrynosoma blainvillii</i> coast horned lizard	SSC G3G4 S3S4	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. Its elevational range extends up to 4,000 feet in the Sierra Nevada foothills and up to 6,000 feet in the mountains of southern California. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g. fire, floods, unimproved roads, grazing lands, and 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	Low: The survey area provides marginal habitat for this species.
<i>Plegadis chihi</i> white-faced ibis	WL G5 S3S4	Locally rare resident/migrant in southern California. Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetland.	Yes	No	Not Expected: Suitable foraging and nesting habitats preferred by this species are not present within the survey area.
<i>Polioptila californica californica</i> coastal California gnatcatcher	FT SSC G4G5T3Q S2	Yearlong resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet amsl in coastal regions and below 1,500 feet amsl 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	Not Expected: Suitable habitats preferred by this species are not present within the survey area.
<i>Pyrocephalus rubinus</i> vermillion flycatcher	SSC G5 S2S3	Occurs in a variety of open habitats including open woodland, clearings, desert scrub, savannah, agricultural land, golf courses, and recreational parks. The species tends to stay near water, often occurring in riparian vegetation characterized by Fremont cottonwoods (<i>Populus fremontii</i>), mesquite (<i>Prosopis</i> ssp.), willows, and California sycamores (<i>Platanus racemosa</i>).	No	No	Not Expected: Suitable foraging and nesting habitat preferred by this species is not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).

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Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Rana draytonii</i> California red-legged frog	FT SSC G2G3 S2S3	Breeding sites are in a variety of aquatic habitats including streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and artificial impoundments (i.e., stock ponds). Breeding adults are often associated with deep (greater than 2 feet) still or slow-moving water and dense shrubby riparian or emergent vegetation.	Yes (a,c)	No	Not Expected: Suitable habitats preferred by this species are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021) and the survey area is not located within federally designated Critical Habitat for this species.
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	FE G1T1 S1	Restricted to areas that include Delhi fine sand, an aeolian (wind-deposited) soil types. The highest density of this species has been found in habitat that includes a variety of plants including California buckwheat (<i>Eriogonum fasciculatum</i>), California croton (<i>Croton californicus</i>), deerweed (<i>Acmispon glaber</i>), and telegraph weed (<i>Heterotheca grandiflora</i>).	Yes	No	Not Expected: Suitable Delhi fine sand soils are not present within the survey area. In addition, the survey area is not located within federally designated Critical Habitat for this species.
<i>Rhinichthys osculus ssp. 3</i> Santa Ana speckled dace	SSC G5T1 S1	Requires permanent flowing streams with summer water temperatures of 62 – 68 degrees Fahrenheit. Inhabits shallow cobble and gravel riffles and small streams that flow through steep, rocky canyons with chaparral covered walls.	No	No	Not Expected: There is no suitable aquatic habitat within the survey area.
<i>Salvadora hexalepis virgulata</i> coast patch-nosed snake	SSC G5T4 S2S3	Occurs in brushy vegetation including coastal scrub and chaparral from the coast to the mountains. Takes refuge in existing small mammal burrows.	No	No	Not Expected: Suitable habitats preferred by this species are not present within the survey area.
<i>Setophaga petechia</i> yellow warbler	SSC G5 S3S4	Yearlong resident along the southern coast of California with the remainder of the State being occupied during the summer. The species also winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, California sycamores, or alders (<i>Alnus</i> spp.) or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	Yes	No	Not Expected: Suitable riparian habitat preferred by this species for foraging and nesting are not present within the project site.
<i>Taxidea taxus</i> American badger	SSC G5 S3	Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. Require dry, friable, often sandy soil to dig burrows for cover, food storage, and giving birth. Occasionally found in riparian zones and open chaparral with less than 50% plant cover.	No	No	Not Expected: Suitable habitat preferred by this species is not present within the survey area.

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Thamnophis hammondi</i> two-striped gartersnake	SSC G4 S3S4	Occurs in or near permanent fresh water, often along streams with rocky beds and riparian growth up to 7,000 feet amsl.	No	No	Not Expected: Suitable riparian habitat near permanent fresh water is not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Thamnophis sirtalis pop. 1</i> south coast gartersnake	SSC G5T1T2 S1S2	Utilizes a wide variety of habitats - forests, mixed woodlands, grassland, chaparral, farmlands, often near ponds, marshes, or streams.	No	No	Not Expected: Suitable habitats preferred by this species are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Vireo bellii pusillus</i> least Bell's vireo	FE SE G5T2 S2	Summer resident in southern California. Breeding habitat generally consists of dense, low, shrubby vegetation in riparian areas, and mesquite brushlands, often near water in arid regions. Early successional cottonwood-willow riparian groves are preferred for nesting. The most critical structural component of nesting habitat in California is a dense shrub layer that is 2 to 10 feet (0.6 to 3.0 meters) above ground. The presence of water, including ponded surface water or moist soil conditions, may also be a key component for nesting habitat.	Yes (a)	No	Not Expected: Suitable riparian habitats preferred by this species for foraging and nesting are not present within the survey area. In addition, the survey area is not located within federally designated Critical Habitat for this species.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	SSC G5 S3	Locally common yearlong resident in California. Occurs in freshwater emergent wetlands, and moist, open areas along croplands and mud flats of lacustrine habitats. Prefers to nest in dense wetland vegetation characterized by tules, cattails, or other similar plant species along the border of lakes and ponds.	No	No	Not Expected: Suitable habitats preferred by this species for foraging and nesting are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
SPECIAL-STATUS PLANT SPECIES					
<i>Ambrosia pumila</i> San Diego ambrosia	FE 1B.1 G1 S1	Perennial rhizomatous herb. Occurs on sandy loam or clay soils (often in disturbed areas) and sometimes alkaline soils. Habitats include chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Grows in elevation ranging from 66 to 1,362 feet amsl. Blooming period is April through October.	Yes (b)	No	Not Expected: Suitable habitats preferred by this species are not present within the survey area. Additionally, this species is extirpated from the area (CNDDDB 2021) and the survey area is not located within federally designated Critical Habitat for this species.
<i>Arenaria paludicola</i> marsh sandwort	FE SE 1B.1 G1 S1	Perennial stoloniferous herb. Found on sandy, openings within marshes and swamps (freshwater or brackish). Found at elevations ranging from 12 to 558 feet amsl. Blooming period is May through August.	No	No	Not Expected: The survey area is outside of the known elevation range for this species.

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

Scientific Name Common Name	Special- Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Calochortus plummerae</i> Plummer's mariposa-lily	4.2 G4 S4	Perennial bulbiferous herb. Occurs on granitic and rocky soils within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley/foothill grassland. Grows in elevations ranging from 328 to 5,577 feet amsl. Blooming period is May through July.	Yes	No	Not Expected: The survey area is comprised of disturbed and developed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	FE SE 1B.2 G4?T1 S1	Annual herb (hemiparasitic). Occurs on coastal dunes and marshes and swamps (coastal salt). Found at elevations ranging from 0 to 98 feet amsl. Blooming period is May through October (November).	No	No	Not Expected: The survey area is outside of the known elevation range for this species.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	1B.1 G3T2 S2	Annual herb. Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 through 3,773 feet amsl. Blooming period is April through June.	No	No	Not Expected: Suitable alluvial habitats and soils preferred by this species are not present within the survey area.
<i>Deinandra paniculata</i> paniculate tarplant	4.2 G4 S4	Annual herb. Occurs in coastal scrub, vernal pools, and valley/foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet amsl. Blooming period is April through November.	No	No	Low: The survey area provides marginal habitat for this species, however, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	FE SE 1B.1 G4T1 S1	Perennial herb. Grows on sandy or gravelly soils within chaparral and coastal scrub (alluvial fan) habitats. Found at elevations ranging from 298 to 2,001 feet amsl. Blooming period is April through September.	Yes (a)	No	Not Expected: Suitable alluvial habitats and soils preferred by this species are not present within the survey area. Additionally, the survey area is not located within federally designated Critical Habitat for this species.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	1B.1 G4T1 S1	Perennial herb. Found in sandy or gravelly soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 230 to 2,657 feet amsl. Blooming period is February through September.	No	No	Not Expected: The survey area is comprised of disturbed and developed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring.
<i>Juglans californica</i> southern California black walnut	4.2 G4 S4	Perennial deciduous tree. Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet amsl. Blooming period is March through August.	Yes (a)	No	Not Expected: This species was not observed within the survey area during the field survey.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	1B.1 G4T2 S2	Annual herb. Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet amsl. Blooming period is February through June.	Yes (c)	No	Not Expected: Suitable habitats preferred by this species are not present within the survey area. Additionally, there are no occurrence records for this species within 5 miles of the survey area (CNDDDB 2021).

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	4.3 G5T3 S3	Annual herb. Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 66 to 4,396 feet amsl. Blooming period is January through July.	No	No	Not Expected: The survey area is comprised of disturbed and developed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring.
<i>Lycium parishii</i> Parish's desert-thorn	2B.3 G4 S1	Perennial shrub. Grows in coastal scrub and Sonoran Desert scrub habitats. Found at elevations ranging from 443 to 3,281 feet amsl. Blooming period is March through April.	No	No	Not Expected: The survey area is comprised of disturbed and developed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring.
<i>Malacothamnus parishii</i> Parish's bush-mallow	1A GXQ SX	Perennial deciduous shrub. Found in chaparral and coastal scrub habitats. Found at elevations ranging from 1,000 to 1,493 feet amsl. Blooming period is June through July.	No	No	Not Expected: The survey area is outside of the known elevation range for this species.
<i>Monardella pringlei</i> Pringle's monardella	1A GX SX	Annual herb. Found on sandy soils within coastal scrub habitats. Found at elevations ranging from 984 to 1,312 feet amsl. Blooming period is May through June.	Yes	No	Not Expected: The survey area is outside of the known elevation range for this species.
<i>Phacelia stellaris</i> Brand's star phacelia	1B.1 G1 S1	Annual herb. Found in coastal dunes and coastal scrub habitats. Found at elevations ranging from 3 to 1,312 feet amsl. Blooming period is March through June.	Yes (a,b)	No	Not Expected: Suitable habitats consisting of coastal dunes and/or coastal scrub with sandy openings, sandy benches, dunes, sandy washes and river flood plains preferred by this species are not present within the survey area.
<i>Senecio aphanactis</i> chaparral ragwort	2B.2 G3 S2	Annual herb. Grows on alkaline soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 49 to 2,625 feet amsl. Blooming period is January through April (May).	No	No	Not Expected: Suitable habitats and alkaline soils preferred by this species are not present within the survey area.
<i>Sphenopholis obtusata</i> prairie wedge grass	2B.2 G5 S2	Perennial herb. Occurs in cismontane woodland and meadows and seeps within mesic soils. Found at elevations ranging from 984 to 6,562 feet amsl. Blooming period is April through July.	No	No	Not Expected: Suitable habitats and mesic soils preferred by this species are not present within the survey area.
<i>Symphotrichum defoliatum</i> San Bernardino aster	1B.2 G2 S2	Perennial rhizomatous herb. Occurs near ditches, streams, and springs within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, marshes, and valley/foothill grassland. Grows in elevations ranging from 0 to 6,700 feet amsl. Blooming period is July through November.	No	No	Not Expected: The survey area is comprised of disturbed and developed habitat that is subject to routine weed abatement, resulting in heavily disturbed and compacted surface soils which likely precludes this species from occurring.

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

Scientific Name Common Name	Special- Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
SPECIAL-STATUS VEGETATION COMMUNITIES					
<u>CNDDDB/Holland (1986)</u> Riversidian Alluvial Fan Sage Scrub <u>MCV (1995)</u> Scalebroom Series <u>NVCS (2009)</u> <i>Lepidospartum squamatum</i> intermittently flooded Shrubland Alliance	G3 S3	Found at elevations ranging from 164 to 4,922 feet amsl on intermittently or rarely flooded, low-gradient alluvial deposits along streams, washes, and fans. Scalebroom (<i>Lepidospartum squamatum</i>) is dominant, co-dominant, or conspicuous in the shrub canopy with burrobrush (<i>Ambrosia salsola</i>), California sagebrush, mule fat (<i>Baccharis salicifolia</i>), bladderpod (<i>Cleome isomeris</i>), California cholla (<i>Cylindropuntia californica</i>), brittlebush (<i>Encelia farinosa</i>), thick leaved yerba santa (<i>Eriodictyon crassifolium</i>), hairy yerba santa (<i>Eriodictyon trichocalyx</i>), California buckwheat, chaparral yucca (<i>Hesperoyucca whipplei</i>), deerweed, laurel sumac (<i>Malosma laurina</i>), prickly-pear cactus (<i>Opuntia</i> sp.), lemonade berry (<i>Rhus integrifolia</i>), sugar bush (<i>Rhus ovata</i>), skunkbrush (<i>Rhus aromatica</i>), and poison oak (<i>Toxicodendron diversilobum</i>). Emergent trees or tall shrubs may be present at low cover, including mountain mahogany (<i>Cercocarpus betuloides</i>), southern California black walnut, California juniper (<i>Juniperus californica</i>), California sycamore, Fremont cottonwood, or black elderberry (<i>Sambucus nigra</i>). Shrubs are less than 7 feet tall; canopy is open to continuous, and two tiered. Herbaceous is layer variable and may be grassy.	-	No	Absent: This vegetation community does not occur within the survey area.
<u>CNDDDB/Holland (1986)</u> Southern California Arroyo Chub/Santa Ana Sucker Stream <u>MCV (1995)</u> Not Identified <u>NVCS (2009)</u> Not Identified	N/A N/A	Characterized by a functioning hydrological system that experiences peaks and ebbs in 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 with 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, emergent aquatic vegetation, macroinvertebrates, and riparian vegetation.	-	No	Absent: This vegetation community does not occur within the survey area.

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

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Covered by MSHCP**	Observed On-site	Potential to Occur
<u>CNDDDB/Holland (1986)</u> Southern Cottonwood Willow Riparian Forest <u>MCV (1995)</u> Fremont Cottonwood Series <u>NVCS (2009)</u> <i>Populus fremontii</i> Forest Alliance	G4 S3.2	Found at elevations ranging from sea level to 7,874 feet amsl on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood is a dominant or co-dominant in the tree canopy with box elder (<i>Acer negundo</i>), desert baccharis (<i>Baccharis sergiloides</i>), Oregon ash (<i>Fraxinus latifolia</i>), northern California black walnut (<i>Juglans hindsii</i>), California sycamore, coast live oak (<i>Quercus agrifolia</i>), narrowleaf willow (<i>Salix exigua</i>), Goodding's willow (<i>Salix goodingii</i>), polished willow (<i>Salix laevigata</i>), arroyo willow (<i>Salix lasiolepis</i>), pacific willow (<i>Salix lasiandra</i> ssp. <i>lasiandra</i>), and yellow willow (<i>Salix lutea</i>). Trees and less than 25 meters tall; canopy is continuous to open. Shrub layer is intermittent to open. Herbaceous layer is variable.	-	No	Absent: This vegetation community does not occur within the survey area.
<u>CNDDDB/Holland (1986)</u> Southern Willow Scrub <u>MCV (1995)</u> N/A <u>NVCS (2009)</u> N/A	N/A N/A	Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat and scattered emergent cottonwood and western sycamores. This vegetation community occurs on loose, sandy or fine, gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland, 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest.	-	No	Absent: This vegetation community does not occur within the survey area.

* U.S. Fish and Wildlife Service (USFWS)

FE Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

FT Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

California Department of Fish and Wildlife (CDFW)

SE Endangered – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST Threatened – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required under the California Endangered Species Act.

CSE Candidate State Endangered – The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the

Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.

- FP Fully Protected – any native species or subspecies of bird, mammal, fish, amphibian, or reptile that were determined by the State of California to be rare or face possible extinction.
- SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria: is extirpated from California or, in the case of birds, in its primary seasonal or breeding role; is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.
- WL Watch List - taxa that were previously designated as “Species of Special Concern” but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

California Native Plant Society (CNPS) California Rare Plant Rank

- 1A 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 – Watch List.

Threat Ranks

- .1 Seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat).
- .2 Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).
- .3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

NatureServe Conservation Status Rank

The Global Rank (G#) reflects the overall condition and imperilment of a species throughout its global range. The Intraspecific Taxon Rank (T#) reflects the global situation of just the subspecies or variety. The State Rank (S#) reflects the condition and imperilment of an element throughout its range within California. (G#Q) reflects that the element is very rare but there are taxonomic questions associated with it; the calculated G rank is qualified by adding a Q after the G#. Adding a ? to a rank expresses uncertainty about the rank.

- G1/T1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2/T2 Imperiled— At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3/T3 Vulnerable— At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4/T4 Apparently Secure— Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5/T5 Secure – Common; widespread and abundant.
- S1 Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
- S2 Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or State.
- S3 Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**** Western Riverside County Multiple Species Habitat Conservation Plan**

- Yes – Fully Covered.
- No – Not Covered.
- Yes (a) – May require additional surveys pursuant to Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*.
- Yes (b) – May require additional surveys pursuant to Section 6.1.3, *Protection of Narrow Endemic Plant Species*.
- Yes (c) – May require additional surveys pursuant to Section 6.3.2, *Additional Survey Needs and Procedures*.

Appendix D USFWS IPaC Species List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Riverside County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📅 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

<http://www.fws.gov/carlsbad/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
<https://ecos.fws.gov/ecp/species/2060>

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker <i>Catostomus santaanae</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly <i>Rhaphiomidas terminatus abdominalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1540	Endangered

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Flowering Plants

NAME

STATUS

San Diego Ambrosia *Ambrosia pumila*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8287>

Santa Ana River Woolly-star *Eriastrum densifolium* ssp.
sanctorum

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6575>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/>

[conservation-measures.php](#)

- Nationwide conservation measures for birds

<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

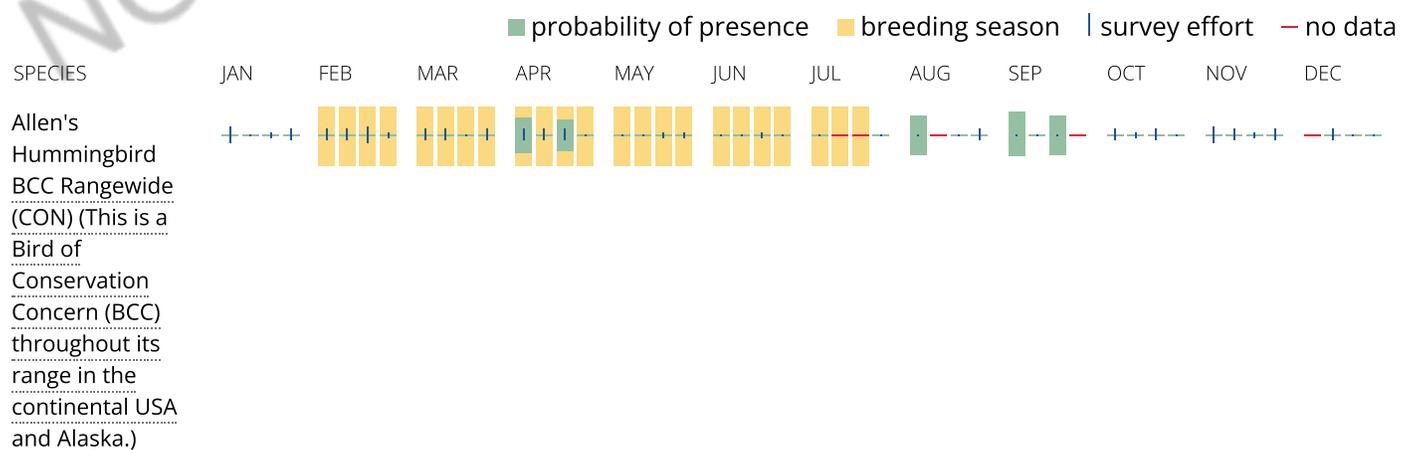
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

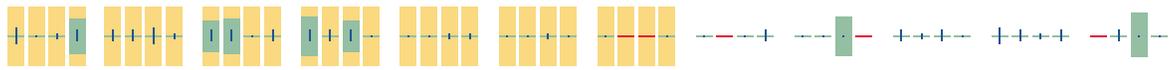
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

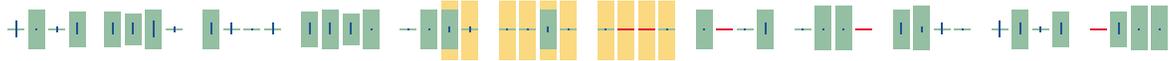
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



California Thrasher
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



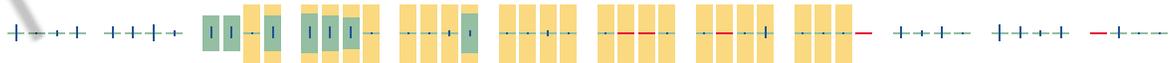
Common
 Yellowthroat
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



Golden Eagle
 Non-BCC
 Vulnerable (This is
 not a Bird of
 Conservation
 Concern (BCC) in
 this area, but
 warrants attention
 because of the
 Eagle Act or for
 potential
 susceptibilities in
 offshore areas
 from certain types
 of development or
 activities.)



Lawrence's
 Goldfinch
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



NOT FOR CONSULTATION



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.