

Appendix C

Biological Resources Assessment



Casa Loma Siphon No. 1 and San Jacinto Pipeline Project

Biological Resources Assessment

prepared for

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November 2025

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1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) report for The Metropolitan Water District of Southern California (Metropolitan) to document existing conditions and to evaluate the potential for impacts to biological resources during the implementation of the Casa Loma Siphon No. 1 and San Jacinto Project (Project). The Project includes repair activities to provide a permanent engineering solution for the pipeline exposure within the San Jacinto River due to the heavy rains in early 2023. This report is intended to assist Metropolitan with developing its approach to California Environmental Quality Act (CEQA) compliance for the Project and will be updated following development of a specific project description and the findings of additional biological surveys.

1.1 Project Location

The Project site encompasses an approximate 20-acre area located within and adjacent to the San Jacinto River, between Soboba Road and State Street, near the city of San Jacinto, unincorporated Riverside County, California (Figure 1 and Figure 2). The Project site is depicted on the United States Geological Survey (USGS) *San Jacinto, California*, 7.5-minute topographic map within Township 4 South, Range 1 West, Section 15, San Bernardino Baseline and Meridian (33.820600°, -116.969914°).

1.2 Project Description

Metropolitan is a regional water wholesaler for 26 public agency members that provide drinking water to approximately 19 million people in parts of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

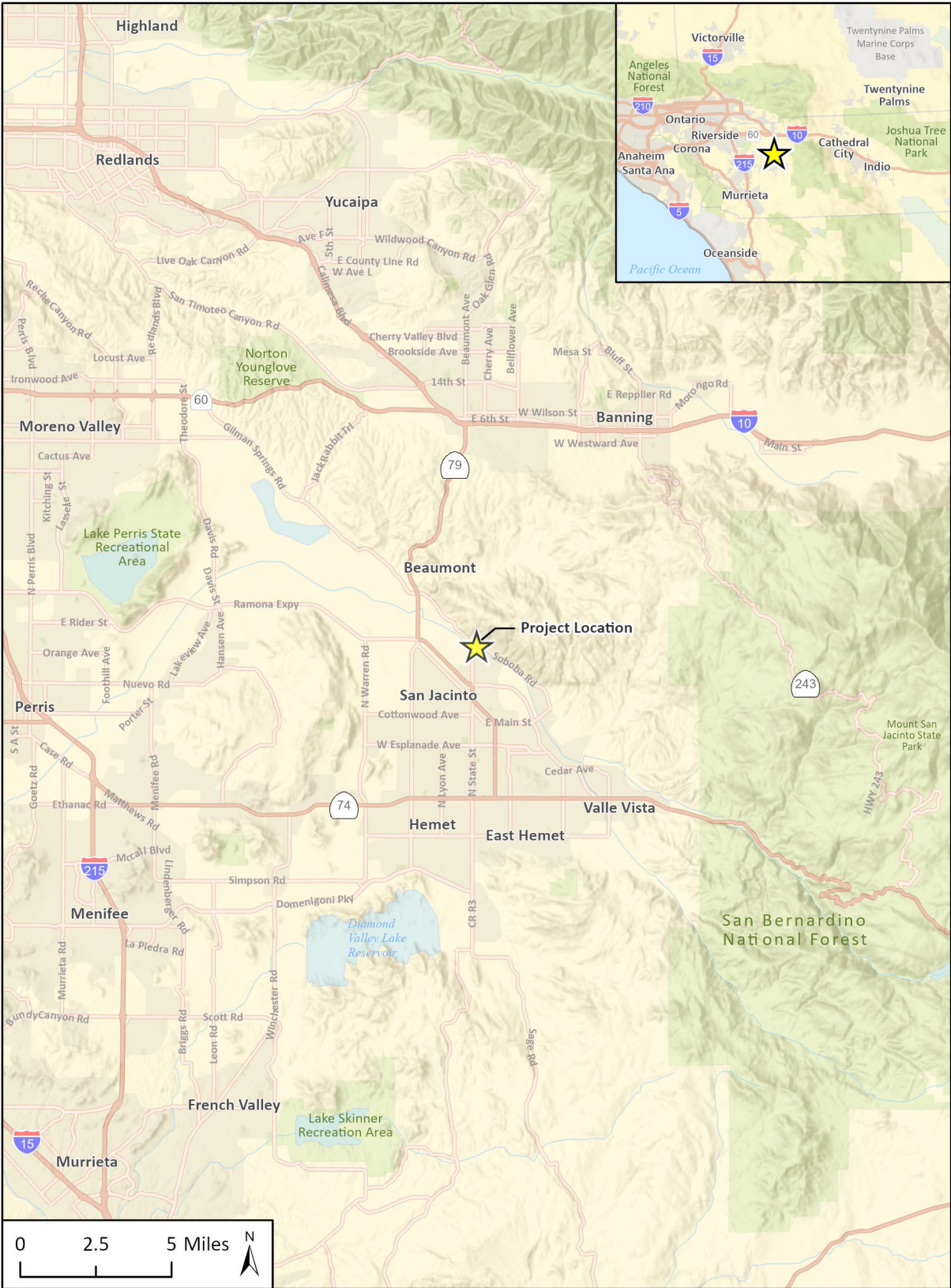
During storm activity in early 2023, accelerated flows within the San Jacinto River exposed an approximate 200-foot-long segment of one of Metropolitan's Casa Loma Siphon No. 1 Pipeline. In response to the emergency, Metropolitan installed protective measures to achieve temporary protection of the pipelines until a permanent solution could be developed. Metropolitan is now proposing a permanent engineering solution within the approximate 20-acre Project site to properly cover the three existing pipelines (CRA Casa Loma Siphon No. 1, CRA Casa Loma Siphon No. 2, San Jacinto Pipeline). Figure 2 below shows the locations of the three pipelines.

1.3 Regulatory Summary

Regulated or sensitive resources studied and analyzed herein include special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, regionally protected resources (e.g., from county-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions. In this instance, Metropolitan is the lead agency for Project implementation and CEQA compliance.

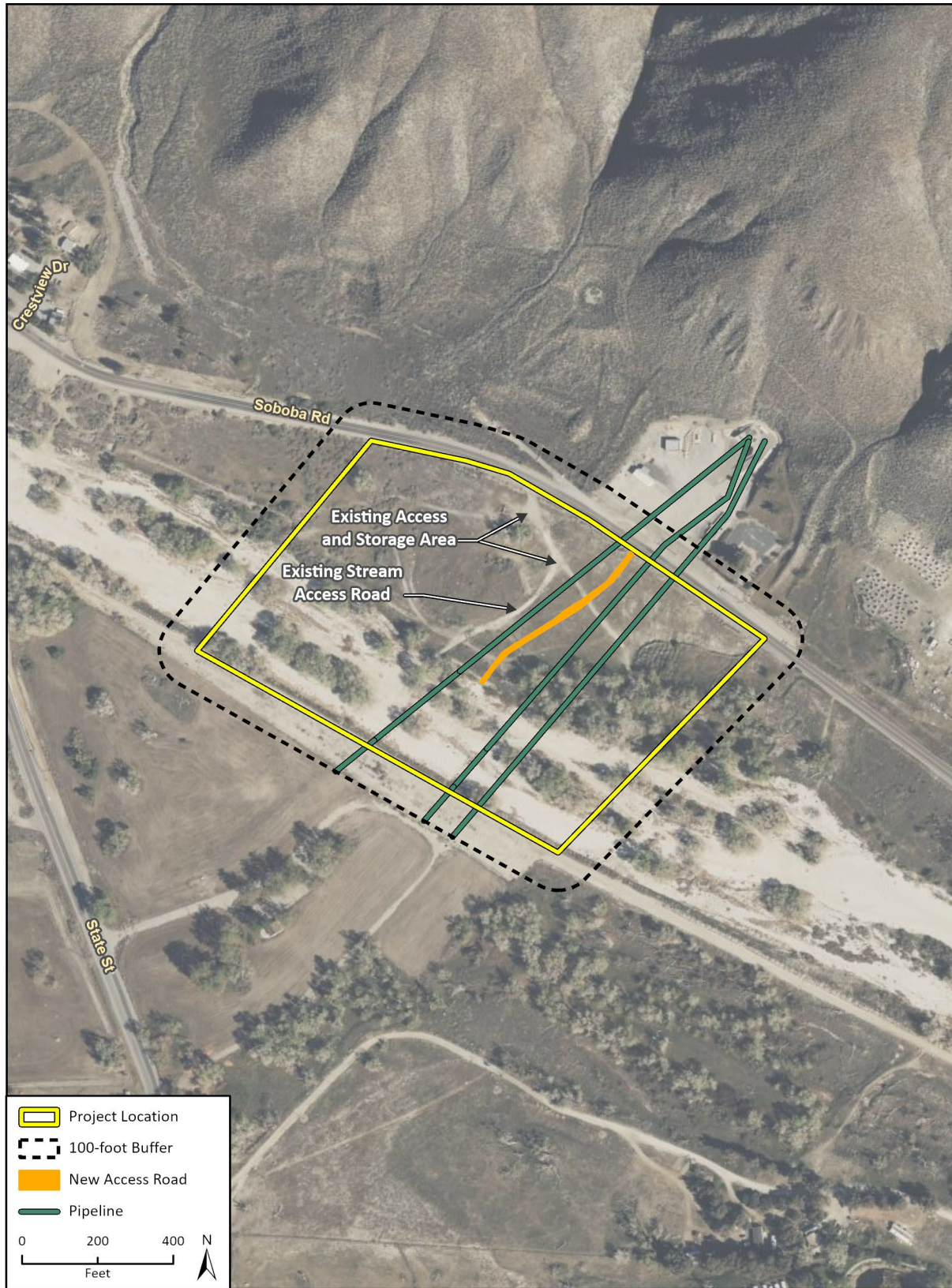
The Metropolitan Water District of Southern California
Casa Loma Siphon No. 1 and San Jacinto Pipeline Project

Figure 1 Regional Location Map



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Fig 1 Regional Location

Figure 2 Project Location Map

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Fig 2 Study Area

1.3.1 Definition of Special Status Species

For the purpose of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA), including proposed and candidate species
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGF) and species designated as Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs, such as Western Riverside Multiple Species Habitat Conservation Plan (MSHCP)

1.3.2 Environmental Statutes

For this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- CEQA
- FESA
- CESA
- Federal Clean Water Act (CWA)
- CFGF
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- Western Riverside County MSHCP
- Riverside County Code of Ordinances

1.3.3 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental impacts. Based on these criteria, the proposed project would have a significant impact on biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.*
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

2 Methodology

Biological conditions were evaluated by confirming applicable regulations, policies, and standards; reviewing biological literature and querying available databases pertinent to the Project site and vicinity (within nine topographic quadrangles for CDFW's California Natural Diversity Data Base [CNDDB] and the CNPS Inventory of Rare and Endangered Plants); and conducting a reconnaissance-level biological survey of the Project site and 100-foot survey buffer. This assessment details the existing biological conditions of the Project site at the time of the literature review and reconnaissance survey. The methods employed are described in detail below. The findings and opinions conveyed in this report are based on this methodology. For purpose of this report, the Biological Survey Area (BSA) is defined as the approximate 20-acre work area where the proposed construction would occur (including two access routes to the work area as well as a staging area) and a 100-foot survey buffer (Figure 2). The BSA is approximately 29.7 acres in total area.

2.1 Literature Review

Rincon conducted a literature review to characterize the nature and extent of biological resources on and adjacent to the BSA. The literature review included an evaluation of current and historical aerial photographs of the site (Google Earth 2023), regional and site-specific topographic maps, and climatic data.

Queries of CDFW's CNDDB (2023a), CNPS's online Inventory of Rare and Endangered Plants of California (2023), and USFWS's Information for Planning and Consultation system (IPaC; USFWS 2023b) were conducted to obtain comprehensive information regarding state and federally listed species and other special status species considered to have potential to occur within the *San Jacinto, California*, USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Beaumont, Blackburn Canyon, Cabazon, El Casco, Hemet, Lake Fulmor, Lakeview, Winchester*). The result of database queries and lists of special status species were reviewed by Rincon's regional biological experts for accuracy and completeness. The final list of special status biological resources (species and sensitive natural communities) was evaluated for potential to occur within the BSA based on documented occurrences within the nine-quadrangle search area and biologists' expert opinions on species known to occur in the region and the surrounding land uses (open space recreation, low density residential and mixed use).

The following resources were reviewed for additional information on existing conditions relating to biological resources within the BSA:

- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (2023a)
- USFWS Critical Habitat Portal (2023b)
- USFWS National Wetlands Inventory (2023c)
- CDFW Special Animals List (2023b)
- CDFW Biogeographic Information and Observation System (2023c)
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (2023d)

2.2 Field Reconnaissance Survey

A field reconnaissance survey was conducted to document existing site conditions and to evaluate the potential presence of regulated biological resources, including special status plant and wildlife species, sensitive plant communities, potentially jurisdictional wetlands and aquatic resources, suitable habitat for federally and state protected species and nesting birds, and locally protected resources. The survey was conducted by Rincon biologists Jared Reed and Kevin Gugerty on October 24, 2023, between 9:50 a.m. and 12:00 p.m. Weather conditions during the survey included temperatures between 61 and 69 degrees Fahrenheit, no wind, and zero percent cloud cover. The biologists used a wandering pedestrian transect approach to survey the BSA. Rincon biologists mapped vegetation and land cover, noted wildlife observations, and took representative photographs within the BSA (Appendix B). Vegetation communities in the BSA were mapped according to *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009). Potentially jurisdictional waters were noted, and a formal jurisdictional delineation is expected to be completed during the 2023/2024 rainy season.

2.3 Special Status Species Assessment

Local, state, and federal agencies regulate special status species and may require an assessment of their presence or potential presence to be conducted on site prior to the approval of a proposed project on a property. Assessments for the potential occurrence of special status species are based on known ranges, habitat preferences for the species, species occurrence records from the CNDDDB and other sources, species occurrence records from other sites near the BSA, previous reports for the BSA, and the results of surveys of the BSA. The evaluation results and justification were compiled into a table, which is included as Appendix C. The potential for each special status species to occur in the BSA was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the BSA is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable in the BSA if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat in and adjacent to the BSA is unsuitable or of very poor quality. The species is not likely to be found in the BSA. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the BSA is unsuitable. The species has a moderate probability of being found in the BSA.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat in or adjacent to the BSA is highly suitable. The species has a high probability of being found in the BSA.
- **Present.** Species was observed in the BSA during reconnaissance / protocol surveys or has been recorded (e.g., CNDDDB, other reports) in the BSA recently (within the last 25 years).

3 Existing Conditions

This section provides an overview of existing conditions within the BSA, including physical characteristics, terrestrial habitat types, and biological resources, such as plant and wildlife species observed during the field survey.

3.1 Physical Characteristics

3.1.1 Topography and Geography

The BSA is located within the San Jacinto River at the north end of the San Jacinto River Valley and has a relatively uniform elevation at approximately 1,500 feet above mean sea level. Topographic features visible from the survey area include the San Jacinto Mountains adjoining the northeast side of the BSA. Existing land use within the BSA consists of recreational open space. Low- and medium-density residential areas are located to the west and south of the BSA, and mixed-use and open space areas are located to the north, northwest, and east of the BSA. Annual precipitation in the city of San Jacinto (the location of the closest monitoring station to the Project site) is typically about 13 inches, with most rainfall received between December and March in typical years. Mean annual temperatures range from 45 to 80°F (Western Regional Climate Center 2023). The BSA has a high level of disturbance, including soil compaction from vehicle use, within the existing storage area (Figure 2) and on the path (south of the river).

3.1.2 Watershed and Drainages

The BSA contains a portion of the San Jacinto River, which is classified by the National Wetlands Inventory as a Riverine System (USFWS 2023c). More specifically, this river is classified as an intermittent streambed that is intermittently flooded. The river is approximately 150 feet wide within the BSA and was dry (not flowing) at the time of the survey, which was conducted during the typical dry season for southern California. The vegetation communities present within the BSA are discussed in further detail below.

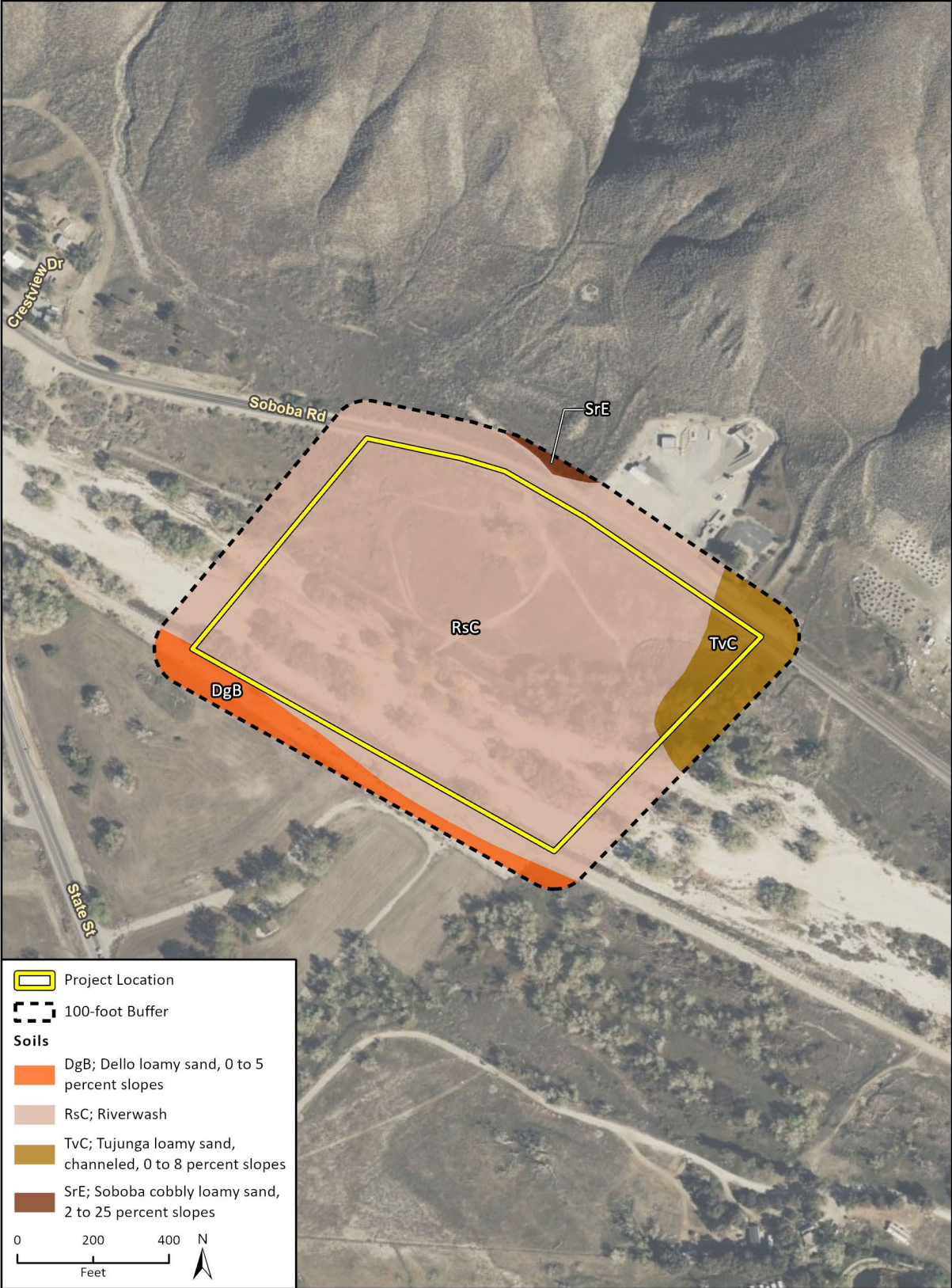
3.1.3 Soils

Four soil types occur within the BSA (USDA NRCS 2023a):

- Dello loamy sand, 0 to 5 percent slopes (DgB)
- Riverwash (RsC)
- Tujunga loamy sand, channeled, 0 to 8 percent slopes (TvC)
- Soboba cobbly loamy sand, 2 to 25 percent slopes (SrE)

The majority of the BSA is mapped as Riverwash, which is considered hydric (USDA NRCS 2023b; Figure 3).

Figure 3 Soils Map



Imagery provided by Microsoft Bing and its licensors © 2023.
Additional data provided by Natural Resource Conservation Service Soil Survey Geography, 2023.

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Fig 3 USGS NRCS Soils Map

3.2 Vegetation and Other Land Cover Types

Vegetation communities documented in the BSA during the reconnaissance survey include Fremont cottonwood woodland, upland mustards, and fourwing saltbush scrub. Developed/disturbed was the only other land cover type documented in the BSA. One special status plant species, chaparral sand verbena (*Abronia villosa* var. *aurita*), was also observed during the field survey. An individual plant as well as a small population of this species were observed in the Fremont cottonwood woodland. Another individual plant was also observed on the edge of a developed/disturbed area adjacent to upland mustards (Figure 4). Brief descriptions of the vegetation communities present in the BSA are provided below.

3.2.1 Fremont Cottonwood Woodland

Fremont cottonwood woodland (*Populus fremontii* Woodland Alliance) is a vegetation community characterized by dominant Fremont cottonwood (*Populus fremontii* ssp. *Fremontii*) in the tree canopy (approximately 10 to 80 percent absolute cover, and greater than 50 percent relative cover, in the tree layer) with willows (*Salix* spp.) and other riparian trees, such as western sycamore (*Platanus racemosa*). The tree canopy is typically continuous to open, the shrub layer intermittent to open, and the herbaceous layer variable (Sawyer et al. 2009). This alliance can be found on floodplains; along low-gradient rivers, perennial or seasonally intermittent streams, and springs; and in canyons, alluvial fans, and valleys with a dependable subsurface water supply that varies considerably during the year. This community is ranked G4S3 and is considered sensitive (CDFW 2023e). Please see Section 4.2, Sensitive Natural Communities and Critical Habitat, for an explanation of this ranking.

Fremont cottonwood woodland is found throughout the BSA, within the San Jacinto River. Fremont cottonwood is dominant in the tree layer, with Goodding's black willow (*Salix gooddingii*) a common species. The shrub layer is not dense and contains large areas of unvegetated river channel with scattered stands of mulefat (*Baccharis salicifolia*). This community comprises approximately 11.77 acres of the BSA.

3.2.2 Upland Mustards

Upland mustards (*Brassica nigra* Herbaceous Semi-Natural Alliance) is a vegetation community typically found in fallow fields, grasslands, roadsides, levee slopes, disturbed coastal scrub, riparian areas, cleared roadsides, and waste places at elevations between 0 and 9,186 feet (0 and 2,800 meters) above mean sea level. Black mustard (*Brassica nigra*), summer mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), or other mustards occur with non-native plants at over 80 percent cover in the herbaceous layer. This vegetation community has a sensitivity ranking of GNASNA (Global/State Ranking Not Applicable; community is not suitable target for conservation) due to the dominance of non-native species and is not considered sensitive (CDFW 2023e).

In the BSA, shortpod mustard (*Hirschfeldia incana*) is co-dominant with Russian thistle (*Salsola tragus*) and common Stork's bill (*Erodium cicutarium*) forming a dense herbaceous layer. This alliance occupies areas outside the main channel of the San Jacinto River that appear to have been disturbed in the past, especially throughout the northeastern portion of the BSA. The BSA contains 6.73 acres of this alliance.

Figure 4 Vegetation Map and Biological Resource Observations



23-15199 BIO
Fig 4 Vegetation Map and Biological Resource Observations

3.2.3 Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) is a vegetation community typically found on playas, old beaches and shores, lake deposits, dissected alluvial fans, rolling hills or channel beds at elevations between 246 and 4,921 feet (74 and 1,500 meters) above mean sea level. Soils are generally carbonate rich, alkaline, sandy, or sandy clay loams. Fourwing saltbush scrub is characterized by an open to intermittent shrub canopy and a variable herbaceous layer composed of seasonal herbs and non-native grasses. Fourwing saltbush has over two percent absolute cover and over 50 percent relative cover in the shrub layer (Sawyer et al. 2009). This community is ranked G5S4 and is not classified as sensitive (CDFW 2023e).

In the BSA, this vegetation community is co-dominated by fourwing saltbush (*Atriplex canescens*), red brome (*Bromus rubens*) and horsewheat (*Triticum aestivum*). It is found in the northwest buffer of the BSA, and in a few areas in the northeast portion of the Project site. This alliance occupies approximately 3.06 acres of the BSA.

3.2.4 Disturbed Fourwing Saltbush Scrub

Stands of disturbed fourwing saltbush scrub occur in the northern portion of the BSA in the buffer area across Soboba Road. This community is similar in species composition to fourwing saltbush scrub, as described above, but is sparser with large areas of bare or disturbed ground between shrubs and herbaceous vegetation. The BSA contains 0.81 acre of disturbed fourwing saltbush scrub.

3.2.5 Developed/Disturbed

The developed/disturbed land cover type typically includes residential buildings, other infrastructure, and paved areas with little to no vegetation (e.g., paved roads). Developed/disturbed areas are present throughout the BSA, specifically within Soboba Road and dirt roads within the Project site as well as along the northern and southern buffers of the BSA. The BSA contains approximately 7.29 acres of developed/disturbed land cover.

3.3 General Wildlife

Rincon's biologists observed several common wildlife species during the field reconnaissance survey, including western fence lizard (*Sceloporus occidentalis*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), Bewick's wren (*Thryomanes bewickii*), Nuttall's woodpecker (*Dryobates nuttallii*), American crow (*Corvus brachyrhynchos*), California towhee (*Melospiza crissalis*), lesser goldfinch (*Spinus psaltria*), red-tailed hawk (*Buteo jamaicensis*), and bushtit (*Psaltirparus minimus*). The biologists also observed several small mammal burrows near the center of the BSA; however, no small mammals or their sign were observed.

4 Regulated Biological Resources

This section discusses special status biological resources observed within the BSA and evaluates the potential for the BSA to support other regulated resources. This assessment is based on the existing biological conditions of the BSA at the time of the literature review and reconnaissance survey.

4.1 Special Status Species

The literature review identified 61 special status plant species and 48 special status wildlife species within the nine quadrangles surrounding the BSA (Appendix C).

4.1.1 Special Status Plant Species

The literature review identified 61 special status plant species within the nine-quadrangle search area of the BSA. One special status plant species, chaparral sand-verbena, was observed in the BSA during the reconnaissance survey conducted on October 24, 2023. Three special status plant species have moderate potential to occur within the BSA due to presence of specific habitat requirements (e.g., riparian woodland, sandy washes), relatively recent occurrences on CNDDDB (<25 years), and/or observations from past project-specific surveys. These species include smooth tarplant (*Centromadia pungens* ssp. *laevis*; CRPR 1B.1), Mojave tarplant (*Deinandra mohavensis*; SE, CRPR 1B.3) and white rabbit-tobacco (*Pseudognaphalium leucocephalum*; CRPR 2B.2). The remaining 57 special status plant species have low potential or are not expected to occur in the BSA.

4.1.2 Special Status Wildlife Species

The literature review identified 48 special status wildlife species within nine quadrangles of the Project site.

Six special status species have a moderate potential to occur within the BSA due to presence of specific habitat requirements (e.g., small mammal burrows, riparian woodland, sandy washes), relatively recent occurrences on CNDDDB (<25 years), and/or observations from past project-specific surveys. These species include least Bell's vireo (*Vireo bellii pusillus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western yellow bat (*Lasiurus xanthinus*) Stephens' kangaroo rat (*Dipodomys stephensi*) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

Two special status wildlife species have high potential to occur within the BSA: San Bernardino kangaroo rat (*Dipodomys merriami parvus*) and Cooper's hawk (*Accipiter cooperii*). The BSA is located within USFWS designated critical habitat for San Bernardino kangaroo rat and several small mammal burrows were observed near the center of the BSA (Figure 4). Such burrows could support San Bernardino kangaroo rat, although no individuals or their sign were observed during the reconnaissance survey. For the Cooper's hawk, the BSA contains suitable nesting trees and there have been several sightings on eBird of this species near the BSA and one within the BSA (eBird 2023).

One special status wildlife species, yellow warbler (*Setophaga petechia*), is present within the BSA. This species was observed during the biological monitoring conducted for the prior emergency repairs on July 25, and July 26, 2023.

The remaining 39 special status wildlife species have low or no potential to occur within the BSA.

Nesting Birds

While common birds are not designated as special status species, destruction of their eggs, active nests, and nestlings is prohibited by federal and state law, specifically the MBTA and CFGC Section 3503. The BSA contains woodland and shrubland communities that could provide suitable nesting habitat for passerine avian species and raptors.

4.2 Sensitive Natural Communities and Critical Habitat

Plant communities are considered sensitive if they have limited distributions, have high wildlife value, include special status species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in the CNDDDB. The CNDDDB vegetation alliances are ranked 1 through 5 based on NatureServe’s (2023) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive, though there are some exceptions. One sensitive natural community was observed within the BSA, Fremont cottonwood woodland, which has a state rarity ranking of S3 and a global rarity ranking of G4. No other sensitive natural communities occur within the BSA.

USFWS designated critical habitat for San Bernardino kangaroo rat occurs within most of the BSA (USFWS 2023a). Suitable habitat for this species occurs within the BSA and small mammal burrows were also observed during the reconnaissance survey.

4.3 Jurisdictional Waters and Wetlands

The United States Army Corp of Engineers (USACE) asserts jurisdiction under Section 404 of the CWA over non-wetland (e.g., streams, lakes, oceans) and wetland (e.g., marshes, estuaries) waters of the U.S. that typically exhibit a hydrologic surface connection to traditionally navigable waters. The limits of jurisdiction extend to the Ordinary High Water Mark (OHWM) for non-tidal waters or High Tide Line (HTL) for tidal waters. The limits of jurisdiction also extend to the edge of those wetlands abutting or, in some cases, adjacent to non-wetland waters of the U.S. that exhibit all three criteria defining federal wetlands: hydric soils, hydrophytic vegetation, and wetland hydrology. Adjacent wetlands are “waters of the U.S.” only if there is a continuous surface connection between the potential wetland and a navigable or relatively permanent water body (USACE et. al 2023). The Santa Ana Regional Water Quality Control Board (RWQCB) has jurisdiction over waters of the U.S. under Section 401 of the CWA. The RWQCB may also assert jurisdiction over waters of the state, typically considered “isolated,” under the Porter-Cologne Water Quality Control Act. The CDFW has regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream, or lake under Section 1600 et seq. of the CFGC. Therefore, perennial, intermittent, and ephemeral streams and associated riparian vegetation also fall under the jurisdiction of the CDFW.

A portion of the BSA contains the San Jacinto River, which is classified as a riverine system. The portions of the BSA in the river are likely considered waters of the U.S. and state and would potentially be subject to the jurisdictions of the USACE, RWQCB, and CDFW. A formal jurisdictional delineation to confirm the location and extent of agency jurisdiction was performed on January 8, 2024. Based on the field delineation, the portion of the San Jacinto River within the BSA is likely subject to the jurisdiction of the USACE, RWQCB, and CDFW. Recommendations for avoidance and

minimization of impacts to jurisdictional waters are discussed in the Jurisdictional Delineation Letter Report prepared for the Project (Rincon 2024).

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between areas of suitable habitat that allow for physical and genetic exchange between otherwise isolated wildlife populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein wildlife periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young wildlife. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project, commissioned by the California Department of Transportation (Caltrans) and CDFW, identifies “Natural Landscape Blocks” which support native biodiversity and the “Essential Connectivity Areas” which link them (Spencer et al. 2010).

The BSA is not in an Essential Connectivity Area; however, it is less than one mile south of the Natural Landscape Block that includes the San Jacinto Mountains. Wildlife associated with riparian and adjacent scrub habitats could move through the BSA as the San Jacinto River serves as a habitat linkage in the area at large. The BSA is surrounded by undeveloped land and open space, including the San Jacinto Mountain foothills, which provide a multitude of regional wildlife movement opportunities within and adjacent to the BSA. Disturbance-tolerant species, such as California ground squirrel (*Spermophilus beecheyi*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*), are most likely to utilize these local wildlife corridors; however, the BSA could also be utilized for movement by special status wildlife species associated with riparian woodland habitats.

4.5 Resources Protected by Local Policies and Ordinances

County of Riverside Ordinance No. 663 (Stephens’ Kangaroo Rat Mitigation Fee Ordinance) is addressed in Section 4.6, *Habitat Conservation Plans*. No other local policies or ordinances protecting sensitive biological resources were determined to be applicable to the Project. Therefore, local policies and ordinances are not analyzed further in this report.

4.6 Habitat Conservation Plans

4.6.1 Stephens’ Kangaroo Rat Habitat Conservation Plan

The proposed Project is located within the Stephens’ Kangaroo Rat HCP, including the Fee Area. County of Riverside Ordinance No. 663 (Stephens’ Kangaroo Rat Mitigation Fee Ordinance) requires all proposed development projects located within the fee area be reviewed to determine the most appropriate course of action to ensure the survival of the species. The applicability of the Stephens’ Kangaroo Rat HCP to the proposed Project is addressed in Section 5.5.1, *Stephen’s Kangaroo Rat Habitat Conservation Plan*.

4.6.2 Western Riverside County Multiple Species Habitat Conservation Plan

The BSA is located within the boundaries of the Western Riverside County MSHCP, specifically within Criteria Cells 2568 and 2569 and within the designated survey areas for burrowing owl, Los Angeles pocket mouse and San Bernardino kangaroo rat, pursuant to MSHCP Section 6.3.2. The BSA is not located within any other designated survey areas, including those for narrow endemic or criteria area plant species. As of December 2023, the BSA is not located within any existing conservation lands, specifically Public/Quasi Public Lands or Additional Reserve Lands. Public/Quasi-Public Lands are located approximately 0.9 mile southeast of the BSA in the San Jacinto River and approximately 1.5 miles northeast of the BSA (Western Riverside County Regional Conservation Authority 2023). Additional Reserve Lands are located approximately 0.7 mile north of the BSA and approximately 1.4 miles southeast of the BSA.

Because Metropolitan is not a Permittee in the MSHCP, nor are they seeking a local discretionary permit from a Permittee in the MSHCP, Metropolitan is not subject to MSHCP policies or payment of standard mitigation fees. However, because Metropolitan is not a Permittee nor seeking a local discretionary permit from a Permittee, if authorization for incidental take of any federally or state-listed species covered under the MSHCP would be needed, additional actions would be required. Please refer to Section 5.5.2, *Western Riverside County Multiple Species Habitat Conservation Plan*, for further discussion.

5 Impact Analysis and Recommendations

This section discusses the potential adverse impacts to regulated biological resources that may occur from implementation of the Project and provides recommendations for additional surveys and actions to further evaluate or avoid/minimize potential impacts.

5.1 Special Status Species

5.1.1 Special Status Plant Species

As discussed in Section 4.1.1, *Special Status Plant Species*, one special status plant species is present within the BSA, chaparral sand-verbena. Three other special status plant species, smooth tarplant, Mojave tarplant, and white rabbit-tobacco, have moderate potential to occur within the BSA. Due to the disturbed nature of much of the BSA, it is generally unsuitable for rare plants that require specialized habitats or minimal disturbance. Furthermore, sandy soils are not suitable for many of the special status plant species with potential to occur within the BSA. Therefore, the remaining special status plant species with potential to occur in the BSA were determined to have low or no potential to occur.

Direct impacts to chaparral sand-verbena or other special status plants, if present, could include removing or running over individual plants during project activities. Indirect impacts could include spreading invasive species or dust, which can negatively impact individual plants or suitable habitat for the species at a later time. The temporary emergency work completed within the BSA did not appear to directly affect the individuals or population of chaparral sand-verbena within the BSA. One rare plant survey between August and September is recommended to document the location and extent of the chaparral sand-verbena population during the blooming season and confirm the presence/absence of smooth tarplant, Mojave tarplant, and white rabbit-tobacco.

5.1.2 Special Status Wildlife Species

As discussed in Section 4.1.2, *Special Status Wildlife Species*, nine special status wildlife species have a moderate or high potential to occur within the BSA or were documented as present (Appendix C). Six special status species have a moderate potential to occur due to presence of specific habitat requirements (e.g., small mammal burrows, riparian woodland, sandy washes), relatively recent occurrences on CNDDB (<25 years), and/or observations from past project-specific surveys. These species include least Bell's vireo, pallid bat, Townsend's big-eared bat, western yellow bat, Stephens' kangaroo rat, and Los Angeles pocket mouse.

Two special status species, San Bernardino kangaroo rat and Cooper's hawk, have high potential to occur on the site. The BSA is located within the USFWS designated critical habitat for San Bernardino kangaroo rat and several small mammal burrows were observed near the center of the BSA within the new access road and upland mustards (Figure 4). Such burrows could support San Bernardino kangaroo rat, although no observations of sign or individuals were made during the reconnaissance survey.

Yellow warbler was observed in the BSA during prior monitoring for emergency repair activities.

Potential impacts to each of these special status wildlife species are described below. In addition, an assessment of burrowing owl is included given its status as a regionally important special status species.

Burrowing Owl

Burrowing owl has low potential to occur within the BSA. Although elements of suitable habitat for this species are present, no suitable burrows (i.e., burrows greater than 4 inches in diameter) or observations of sign or individuals were made within the BSA during the field reconnaissance survey or prior monitoring for emergency repairs. Therefore, the potential for direct and indirect impacts to the species is low. Although currently it is unlikely that burrowing owl would be present within the BSA at the time construction commences, pre-activity surveys, performed as part of Metropolitan's standard contractor specifications, would be conducted within the BSA to confirm the continued absence of this species. Should construction not commence within the next 1 to 2 years, a focused survey for suitable burrows would be recommended followed by a focused survey for owls, if needed.

Cooper's Hawk

Cooper's Hawk has high potential to occur within the BSA. Suitable nesting trees occur within the BSA, and there are 2 recent CNDDDB occurrences approximately 7 miles northwest and 7 miles southwest of the BSA. Furthermore, several sightings of this species are documented on eBird, one of which occurred within the BSA in 2019. Potential direct impacts to the species could include mortality through tree removal that affects active nests. Indirect impacts could include disturbance to active nests or nesting activity through dust, vibration, or noise. Project activities have some potential to impact the species during the nesting season and can be avoided and/or minimized through implementation of pre-activity nesting bird surveys, performed as part of Metropolitan's standard contractor specifications (Standard Specification 1.07 *Migratory Bird Treaty Act and California Fish and Game Code §3503*) within the BSA no more than five days before the start of Project activities, to confirm the presence/absence of this species and avoid or minimize potential impacts.

Yellow Warbler

Yellow warbler was observed during monitoring for the emergency repair activities on July 24, 2023, within the southern buffer of the BSA, outside of the San Jacinto River channel. Yellow warbler was also observed on July 25, 2023, within the San Jacinto River channel in the BSA. Given these observations, yellow warbler is considered present in the BSA. The Fremont cottonwood woodland provides suitable nesting and foraging habitat for this species. Potential direct impacts to the species could include mortality through vegetation or tree removal that affects active nests. Indirect impacts could include disturbance to active nests or nesting activity through dust, vibration, or noise. Project activities have some potential to impact the species during the nesting season and can be avoided and/or minimized through implementation of pre-activity nesting bird surveys, performed as part of Metropolitan's standard contractor specifications (Standard Specification 1.07 *Migratory Bird Treaty Act and California Fish and Game Code §3503*) within the BSA no more than five days before the start of Project activities, to confirm the presence/absence of this species and avoid or minimize potential impacts.

Least Bell's Vireo

Least Bell's vireo has moderate potential to occur within the BSA. Stands of suitable riparian woodland habitat occur within the BSA. There are several recent occurrences documented in the CNDDDB search, one of which from 2011 overlaps with the BSA where 25 individuals were observed. Further, eBird documents sightings of least Bell's vireo two miles downstream and three miles upstream from the Project site in the San Jacinto River from 2019. Potential direct impacts to the species could include mortality if vegetation or trees with active nests are removed. Indirect impacts could include disturbance to active nests or disturbance to breeding, feeding, foraging, or nesting behavior from dust, vibration, or noise. Project activities have some potential to impact least Bell's vireo during the nesting season; therefore, protocol surveys are recommended to determine the presence/absence of the species. The USFWS survey protocol for least Bell's vireo requires eight site visits between April 10 and July 31, each conducted at least 10 days apart (USFWS 2001). Impacts to least Bell's vireo can be avoided or minimized through implementation of avoidance measures, such as conducting Project activities outside of the species' breeding season.

Pallid Bat

Pallid bat has moderate potential to occur within the BSA. The riparian woodland habitat and wash within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake increases the likelihood for this species to occur within the BSA. Potential direct impacts to the species could include mortality through tree removal that affects active roosts. Indirect impacts could include disturbance to active roosts or roosting activity through dust, vibration, or noise. Project activities have some potential to impact this species.

Townsend's Big-Eared Bat

Townsend's big-eared bat has moderate potential to occur within the BSA. The riparian woodland habitat and the wash within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake increases the likelihood for this species to occur within the BSA. Potential direct impacts to the species could include mortality through tree removal that affects active roosts. Indirect impacts could include disturbance to active roosts or roosting activity through dust, vibration, or noise. Project activities have some potential to impact this species.

Western Yellow Bat

Western yellow bat has moderate potential to occur within the BSA. The Fremont cottonwood trees and wash within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake increases the likelihood for this species to occur within the BSA. Potential direct impacts to the species could include mortality through tree removal that affects active roosts. Indirect impacts could include disturbance to active roosts or roosting activity through dust, vibration, or noise. Project activities have some potential to impact this species.

Los Angeles Pocket Mouse

Los Angeles pocket mouse has moderate potential to occur within the BSA. Suitable burrows were observed within the BSA and there are several recent occurrences within the CNDDDB 9-quadrangle search. Direct impacts to Los Angeles pocket mouse may include crushing/killing of individuals with

equipment or vehicles or disturbing existing burrows. Indirect impacts could include increased sound and vibration levels that displace individuals, and exposure to dust. Further, vegetation loss could impact the species by reducing available habitat. Therefore, Project activities have some potential for direct and indirect impacts to the Los Angeles pocket mouse, and protocol small-mammal trapping surveys are recommended to determine presence/absence of the species.

Stephens' Kangaroo Rat

Stephens' kangaroo rat has moderate potential to occur within the BSA. Suitable burrows were observed in the BSA and there are several recent CNDDDB occurrences within the San Jacinto quadrangle. Direct impacts to Stephens' kangaroo rat may include crushing/killing of individuals with equipment or vehicles or disturbing existing burrows. Indirect impacts could include increased sound and vibration levels that displace individuals, as well as exposure to dust. Furthermore, vegetation loss could impact the species by reducing available habitat. Therefore, Project activities have some potential for direct and indirect impacts to Stephen's kangaroo rat, and protocol small-mammal trapping surveys are recommended determine presence/absence of the species.

San Bernardino Kangaroo Rat

San Bernardino kangaroo rat has high potential to occur within the BSA. Suitable burrows were observed within the BSA (Figure 4) and there are several recent CNDDDB occurrences within the San Jacinto quadrangle. In addition, the BSA occurs within USFWS designated critical habitat for this species. Direct impacts to San Bernardino kangaroo rat may include crushing/killing of individuals with equipment or vehicles or disturbing existing burrows. Indirect impacts could include increased sound and vibration levels that displace individuals, and exposure to dust. Furthermore, vegetation loss could impact the species by reducing available habitat. Therefore, Project activities have some potential for direct and indirect impacts to San Bernardino kangaroo rat, and protocol small-mammal trapping surveys are recommended to determine presence/absence of the species.

Nesting Birds

Several common bird species may nest in trees and shrubs within the BSA. While common birds are not special status species, the destruction of active nests, eggs, and nestlings is prohibited by the MBTA and CFGC 3503. Project activities may result in direct or indirect impacts to nesting birds, should they be present within or adjacent to areas of disturbance at the time of construction. Potential direct impacts to nesting birds could include mortality through vegetation or tree removal that affects active nests. Indirect impacts could include disturbance to active nests or nesting activity through dust, vibration, or noise. Therefore, there is some potential for direct and indirect impacts to nesting birds if Project activities occur during the nesting bird season (generally February – August). Impacts can be avoided or minimized through implementation of pre-activity nesting bird surveys, performed as part of Metropolitan's standard contractor specifications (Standard Specification 1.07 *Migratory Bird Treaty Act and California Fish and Game Code §3503*).

5.2 Sensitive Natural Communities and Critical Habitat

The only sensitive natural community observed within the BSA is the Fremont cottonwood woodland, which has a state rarity ranking of S3 and a global rarity ranking of G4. This vegetation community comprises approximately 11.8 acres of the BSA. Tree removal would include up to 17 Fremont cottonwood trees, two Goodding's black willows, four dead/unidentifiable trunks, and

several clusters of tamarisk. Based on the proposed limits of disturbance, the Project is anticipated to impact up to 1.92 acres of Fremont cottonwood woodland, including up to approximately 0.75 acre of permanent impacts and approximately 1.17 acres of temporary impacts. In accordance with Metropolitan standard practice outlined in Section 01065 of the construction contractor specifications (see Section 1.6.7, *Environmental Requirements for Construction*), the Project contractor(s) would be required to avoid or minimize any additional tree disturbances outside of those identified for trimming or removal in construction drawings. No other sensitive natural communities occur within the BSA.

USFWS designated critical habitat for federally listed San Bernardino kangaroo rat (*Dipodomys merriami parvus*) occurs within the BSA (USFWS 2023b). Suitable habitat for this species occurs within the BSA and small mammal burrows were also observed during the reconnaissance survey. This species has high potential to occur within the BSA. Potential effects to critical habitat can be addressed through pre-activity protocol small mammal trapping surveys recommended in Section 5.1, *Special Status Species*, to determine the presence/absence of the species, and either the FESA Section 7 consultation process between USACE and the USFWS during acquisition of a CWA Section 404 permit from the USACE, or Western Riverside County MSHCP compliance (discussed further in Section 5.61).

5.3 Jurisdictional Waters and Wetlands

Portions of the BSA in the San Jacinto River are likely waters of the U.S. and state and would be potentially subject to the jurisdictions of USACE, RWQCB, and CDFW. Project activities are expected to directly and indirectly potentially jurisdictional waters, although impacts would likely be temporary. Direct impacts may include vegetation removal and alteration of the channel of the San Jacinto River by heavy equipment, vehicles, foot traffic, and/or revegetation. Indirect impacts could include water quality effects from spills or sediment runoff from adjacent areas. These impacts would be addressed through the acquisition of regulatory permits and agreements from USACE, RWQCB, and CDFW, and implementation of a restoration plan for impacts to jurisdictional waters, if required. The location and extent of agency jurisdiction and potential impacts will be addressed further in a jurisdictional delineation expected to be completed during the 2023/2024 rainy season.

5.4 Wildlife Movement

The BSA is surrounded by undeveloped land and open space providing a multitude of regional wildlife movement options within and adjacent to the BSA. Permanent direct impacts to wildlife movement include those that fragment the existing habitat within the BSA (i.e., putting up fences), which would not occur as part of the Project. Temporary direct impacts could include the use of lights when working at night. To address this potential temporary impact of light on wildlife movement, Metropolitan would implement standard Best Management Practices (BMPs) (in this case, *Standard Specification 1012. Light Abatement*). Given the significant amount of open space in the surrounding area and the temporary nature of the project, impacts to wildlife movement are expected to be minimal and temporary. Therefore, implementation of the Project would not result in permanent impacts to existing wildlife movement patterns.

5.5 Habitat Conservation Plans

5.5.1 Stephens' Kangaroo Rat Habitat Conservation Plan

The proposed Project is located within the Plan Area of the *Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County California*, a permit/agreement between the Riverside County Habitat Conservation Agency (RCHCA) and USFWS/CDFW. The BSA contains suitable burrows and scrub habitat that could support Stephens' kangaroo rat. The proposed modifications would involve excavation, underground installation, and equipment use that could potentially cause temporary impacts to suitable habitat for Stephens' kangaroo rat, as well as direct impacts on Stephens' kangaroo rat individuals. It is anticipated that disturbed surfaces would be returned to pre-Project conditions following the completion of construction; therefore, the Project is not expected to have permanent impacts to Stephens' kangaroo rat habitat.

The typical approach for water districts that are not Participants in the Stephens' Kangaroo Rat HCP, but need to obtain take authorization for the species, is to establish a "special agreement" with the RCHCA, the agency that oversees implementation of the Stephens' Kangaroo Rat HCP. However, although Metropolitan is not a Participant in the HCP, Metropolitan is covered for Operations and Maintenance activities. The Project is essential to the continued provision of adequate water supplies for present and future residents of western Riverside County, and it can be considered an Operations and Maintenance project because no new development is proposed. This allows for incidental take of Stephens' kangaroo rat occurring in conjunction with all operations and maintenance activities conducted by Metropolitan (County of Riverside 1996).

5.5.2 Western Riverside County Multiple Species Habitat Conservation Plan

The BSA is located within designated survey areas for burrowing owl, Los Angeles pocket mouse, and San Bernardino kangaroo rat. The potential for burrowing owl to occur is low due to the BSA's lack of suitable burrows (i.e., no observed burrows were greater than 4 inches in diameter), and no observations of sign or individuals made during the reconnaissance survey. Although burrowing owl presence is low, pre-activity surveys, performed as part of Metropolitan's standard contractor specifications, would be conducted within the BSA to confirm the continued absence of this species. Should construction not commence within the next 1 to 2 years, a focused survey for suitable burrows would be recommended followed by a focused survey for owls, if needed.

Los Angeles pocket mouse has moderate potential to occur within the BSA, but no observations of sign or individuals were made. The potential for San Bernardino kangaroo rat is high and small mammal burrows were observed within the BSA; however, as previously discussed, no observations of sign or individuals were made. Project activities have some potential to impact Los Angeles pocket mouse and San Bernardino kangaroo rat. Based on the results of protocol small-mammal trapping surveys, if San Bernardino kangaroo rat is determined present within the Project disturbance footprint, and avoidance is not possible, incidental take authorization would be needed. One potential option for obtaining federal incidental take authorization is through the FESA Section 7 consultation process between the USFWS and USACE, as part of acquiring a Section 404 CWA permit from the USACE.

For entities that are not Permittees in the MSHCP, nor seeking a local discretionary permit from a Permittee, the MSHCP offers the Participating Special Entity (PSE) process to obtain take

authorization of 146 species, most being special-status species, including Los Angeles pocket mouse and San Bernardino kangaroo rat. For impacts to some MSHCP-covered species (burrowing owl, Los Angeles pocket mouse, and San Bernardino kangaroo rat) and sensitive habitats (e.g., riparian/riverine resources), mitigation is required to be proposed in the form a Determination of Biologically Equivalent or Superior Preservation (DBESP) report. Relative to regulated waters, a DBESP for riparian/riverine impacts serves as precursor for regulated waters permitting which can result in streamlining the permitting process. Payment of mitigation fees based on a percentage of project capital costs is also required. The PSE process is overseen by the Regional Conservation Authority (RCA), followed by review and approval by CDFW and USFWS, with the permit issued being referred to as a Certificate of Inclusion. Typically, obtaining take authorization pursuant to the PSE process is substantially shorter than going through the FESA Section 7 take authorization process and the California Fish and Game Code Section 2081 subdivision (b).

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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Appendix A

Regulatory Setting

Regulatory Setting

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- National Marine Fisheries Service (marine animals and anadromous fishes);
- Los Angeles Regional Water Quality Control Board (waters of the State);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources); and
- County of Ventura

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years, the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule, 2020 Navigable Waters Protection Rule, and the most recent effort promulgated by the USACE and USEPA on January 18, 2023 (88 FR 3004-3144)), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies' longstanding definition of "waters of the United States," which dates from 1986, remains in effect although it is currently being interpreted consistent with the recent *Sackett v. Environmental Protection Agency* Supreme Court decision as described below. The USACE and USEPA have announced their intent to issue revised regulations defining "waters of the United States" by September 1, 2023.

Waters of the U.S.

In summary, USACE and USEPA regulations define "waters of the United States" as follows:

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

2. All interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. Which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters are defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(c)(1)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(c)(1)). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exert a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurrence in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2020), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands.
- **Facultative (FAC).** Occur in wetlands or non-wetlands.
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands.
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USACE list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5 percent vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction Based on Sackett v. USEPA Supreme Court

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under

what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Prioritizing a need for clarity and regulatory certainty, the Court set forth an interpretation of Clean Water Act jurisdiction that can be applied without the need for lengthy case-by-case evaluations. This interpretation will have the effect of reducing the Clean Water Act's geographic reach.

The Court decided:

- "Adjacent wetlands" are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells."
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. Additionally, the standard includes ecological factors whose use in determining jurisdiction is not supported by the statute.
- Although jurisdiction over tributaries was not addressed by the Court, current agency guidance relies upon the Significant Nexus Standard to establish jurisdiction over tributaries that flow infrequently. In disallowing the use of that standard, the decision suggests that non-relatively permanent tributaries will be non-jurisdictional going forward, stating, "...the [Clean Water Act's] use of 'waters' encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code Section 13050[e]). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a “reasonable period of time” for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected;
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB’s *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear the agency will apply the Porter-Cologne Act’s requirements to discharges of dredge and fill material as well. The *Procedures* state they are to be used in issuing CWA Section 401 Certifications and WDRs and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA’s *Section*

404(b)(1) Guidelines. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not currently established regulations for field determinations of waters of the State except for wetlands. In many cases, the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance, each RWQCB may interpret jurisdictional boundaries within their region, and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

- (i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
- (i) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
- (ii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020) states waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (FESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703 through 711), and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the FESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered animal species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in funding, authorizing, or

carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The Migratory Bird Treaty Reform Act requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

“Disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the California Fish and Game Code and administers several state laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code Section 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA’s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (California Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 California Code of Regulations Section 786.9) under the authority of the NPPA, establishing that the CESA’s permitting procedures would be applied to plants listed under the NPPA’s “Rare.” With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is a situation in which a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the Fully Protected species.

Avian Protection Laws

California Fish and Game Code Sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code Section 1602 states it is unlawful for any person to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake” without first notifying CDFW of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Lake/Streambed Alteration Agreement (LSAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft LSAA. Upon review of the Draft LSAA by the applicant, any problematic terms are negotiated with CDFW and a final LSAA is executed.

The CDFW has not defined the term “stream” for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
 - References “river,” “stream,” and “lake”
 - References “natural flow”
 - References “bed,” “bank,” and “channel”
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987)), which interpreted Section 1602’s use of “stream” to be as defined in common law. The Court indicated that a “stream” is commonly understood to:
 - Have a source and a terminus
 - Have banks and a channel
 - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
 - Represent the depression between the banks worn by the regular and usual flow of the water
 - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
 - Include the land that is covered by the water in its ordinary low stage
 - Include lands below the OHWM

- **CDFW regulations** defining “stream” for other purposes, including sport fishing (14 California Code of Regulations Section 1.72) and streambed alterations associated with cannabis production (14 California Code of Regulations Section 722[c][21]), which indicate that a stream:
 - Flows at least periodically or intermittently
 - Flows through a bed or channel having banks
 - Supports fish or aquatic life
 - Can be dry for a period of time
 - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, including *A Field Guide to Lake and Streambed Alteration Agreements* (CDFW 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
 - A stream may flow perennially or episodically
 - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
 - Width of a stream course can reasonably be identified by physical or biological indicators
 - A stream may have one or more channels (single thread vs. compound form)
 - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
 - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
 - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
 - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. The importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

County of Riverside

Riverside County Code of Ordinances

Ordinance No. 663 (Stephens' Kangaroo Rat Mitigation Fee Ordinance)

The proposed Project is located within the Stephens' Kangaroo Rat HCP, including the Fee Area. This ordinance states that the Stephens' kangaroo rat is listed as a threatened species by the state of California, and the California Department of Fish and Game (now CDFW) has recommended changing its status to endangered and occupied habitat of the species may not be altered without a Section 10(a) permit issued by the Secretary of the Interior. All requests for a Section 10(a) permit

must be accompanied by a Habitat Conservation Plan approved by the USFWS. Said permit will then allow for the loss of occupied habitat due to development on the basis that the Habitat Conservation Plan will provide protection for the species and guarantee its survival.

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Appendix B

Site Photographs



Photograph 1. Fremont cottonwood trees within the San Jacinto River at the southern border of the Project site facing north.



Photograph 2. The location of the proposed access road entrance into the San Jacinto River at the southern border of the Project site facing northeast.



Photograph 3. Fremont cottonwood trees within the San Jacinto River at the southern border of the Project site facing southeast.



Photograph 4. Fremont cottonwood trees and Goodding's black willow trees within the San Jacinto River along the riverbank within the BSA facing northeast.



Photograph 5. The San Jacinto River from the western border of the BSA, facing east.



Photograph 6. Chaparral sand-verbena within the BSA in the Fremont cottonwood woodland in the San Jacinto River.



Photograph 7. Emergent tamarisk within the fourwing saltbush scrub on the western buffer of the BSA.



Photograph 8. View of fourwing saltbush scrub community facing north from the northern half of the western boundary of the BSA looking toward Soboba Road.



Photograph 9. Fourwing saltbush scrub community in the western side of the BSA, facing southeast.



Photograph 10. Fremont cottonwood woodland community facing south from the access road.



Photograph 11. Looking toward Soboba Road showing the fourwing saltbush scrub vegetation community, facing north from the western boundary of the BSA.



Photograph 12. Looking toward Soboba Road showing the disturbed fourwing saltbush scrub vegetation, facing northeast from the western boundary of the BSA.



Photograph 13. The edge of the fourwing saltbush scrub transitioning to upland mustards, facing southeast.



Photograph 14. View of upland mustards community, facing east.



Photograph 15. The upland mustards vegetation community, facing northwest from the access road.



Photograph 16. View of the access road and the upland mustards vegetation community, facing northeast.



Photograph 17. View of the new access road and upland mustards community, facing northeast.



Photograph 18. View of existing access road leading into the San Jacinto River, facing southwest.



Photograph 19. The San Jacinto River from the southeastern edge of the survey area showing Fremont cottonwood woodland, facing northwest.



Photograph 20. The southern boundary of the survey area within the San Jacinto River, showing vegetation on the bank, facing southeast.



Photograph 21. Small mammal burrows near the center of the site within the upland mustards community.

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Appendix C

Special Status Species Evaluation Tables

Special Status Plant Species in the Regional Vicinity of the BSA

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	None/None G5T2?/S2 1B.1	Annual herb. Chaparral, coastal scrub, desert dunes. Sandy. Elevations: 245-5250ft. (75-1600m.) Blooms (Jan)Mar-Sep.	Present	Species was observed in the BSA during a field reconnaissance survey on October 24, 2023.
<i>Allium marvinii</i> Yucaipa onion	None/None G1/S1 1B.2	Perennial bulbiferous herb. Chaparral. In openings on clay soils. Elevations: 2495-3495ft. (760-1065m.) Blooms Apr-May.	Not Expected	No suitable chaparral habitat or clay soils occur within the BSA. The BSA is outside the preferred elevational range of the species. The 3 CNDDDB occurrences that are within 5 miles of the BSA are from 2009, 2010 and 2012; however, all of these occurrences are situated in the mountainous region northeast of the BSA.
<i>Allium munzii</i> Munz's onion	FE/ST G1/S1 1B.1	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Clay, mesic. Elevations: 975-3510ft. (297-1070m.) Blooms Mar-May.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub, juniper woodland or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA; however, the soil is primarily loamy sand and gravelly coarse sand, rather than clay or mesic. The only CNDDDB occurrence within 9-quadrangles is found near Diamond Valley Lake approximately 9 miles southwest of the BSA.
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	None/None GUT1/S1 1B.1	Annual herb. Meadows and seeps, playas. Alkaline, lake margins. Elevations: 195-2790ft. (60-850m.) Blooms May-Oct.	Not Expected	No suitable meadows or alkaline lakes occur within the BSA. The only CNDDDB occurrence is from 1889.
<i>Astragalus lentiginosus</i> var. <i>borreganus</i> Borrego milk-vetch	None/None G5T5?/S4 4.3	Annual herb. Mojavean desert scrub, Sonoran desert scrub. Sandy. Elevations: 100-2935ft. (30-895m.) Blooms Feb-May.	Not Expected	No suitable desert scrub habitat occurs within the BSA. Although soils within the BSA are primarily sandy and the site is within the elevation range of this species, the 9-quad CNDDDB search did not find any occurrences of this species.
<i>Astragalus lentiginosus</i> var. <i>cochellae</i> Coachella Valley milk-vetch	FE/None G5T1/S1 1B.2	Annual/perennial herb. Desert dunes, Sonoran desert scrub. Sandy flats, washes, outwash fans, sometimes on dunes. Elevations: 130-2150ft. (40-655m.) Blooms Feb-May.	Not Expected	No suitable Sonoran desert scrub or dune habitat occurs within the BSA. Although the San Jacinto River does provide a sandy, wash area to potentially support this species, no recent occurrences of this species occur within the 9 quadrangles.

The Metropolitan Water District of Southern California
Casa Loma Siphon No. 1 and San Jacinto Pipeline Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Astragalus pachypus</i> var. <i>jaegeri</i> Jaeger's milk-vetch	None/None G4T1/S1 1B.1	Perennial shrub. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Rocky (sometimes), sandy (sometimes). Elevations: 1200-3200ft. (365-975m.) Blooms Dec-Jun.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA, and the soil is primarily loamy sand and gravelly coarse sand; however, there is only one recent CNDDDB occurrence approximately 12 miles southeast of the BSA.
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crownscale	FE/None G4T1/S1 1B.1	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 455-1640ft. (139-500m.) Blooms Apr-Aug.	Not Expected	No grassland or vernal pool habitat occurs within the BSA.
<i>Atriplex parishii</i> Parish's brittlescale	None/None G1G2/S1 1B.1	Annual herb. Chenopod scrub, playas, vernal pools. Alkaline. Elevations: 80-6235ft. (25-1900m.) Blooms Jun-Oct.	Not Expected	No vernal pools occur within the BSA. The BSA contains loamy sand and gravelly sand rather than alkaline soils.
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscale	None/None G5T1/S1 1B.2	Annual herb. Coastal bluff scrub, coastal scrub. Alkaline. Elevations: 35-655ft. (10-200m.) Blooms Apr-Oct.	Not Expected	No coastal bluff scrub or coastal scrub occurs within the BSA. The BSA contains loamy sand and gravelly sand rather than alkaline soils. There is one recent CNDDDB occurrence approximately 3 miles west of the BSA; however, it is in a highly disturbed agricultural area.
<i>Brodiaea filifolia</i> thread-leaved brodiaea	FT/SE G2/S2 1B.1	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Clay (often). Elevations: 80-3675ft. (25-1120m.) Blooms Mar-Jun.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub, vernal pools or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA; however, the soil is primarily loamy sand and gravelly coarse sand, rather than clay. The recent CNDDDB occurrences are mostly confined to an area near the San Jacinto Wildlife area approximately 8.5 miles northwest of the BSA
<i>Calochortus palmeri</i> var. <i>munzii</i> San Jacinto mariposa-lily	None/None G3T3/S3 1B.2	Perennial bulbiferous herb. Chaparral, lower montane coniferous forest, meadows and seeps. Seen in open Jeffrey pine forest as well as in chaparral. Elevations: 2805-7220ft. (855-2200m.) Blooms Apr-Jul.	Not Expected	No suitable chaparral, mixed chaparral, meadows or coniferous forest habitat occurs within the BSA. The BSA is outside the preferred elevational range of the species

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa-lily	None/None G3T2/S2 1B.2	Perennial bulbiferous herb. Chaparral, lower montane coniferous forest, meadows and seeps. Mesic. Elevations: 2330-7840ft. (710-2390m.) Blooms Apr-Jul.	Not Expected	No suitable chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species
<i>Calochortus plummerae</i> Plummer's mariposa-lily	None/None G4/S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Granitic, rocky. Elevations: 330-5580ft. (100-1700m.) Blooms May-Jul.	Low Potential	No suitable chaparral, mixed chaparral, coastal scrub, lower montane coniferous forest or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA; however, the soil is primarily loamy sand and gravelly coarse sand, rather than rocky. There is a CNDDDB occurrence 3 miles northwest from 2008.
<i>Calochortus weedii</i> var. <i>intermedius</i> intermediate mariposa-lily	None/None G3G4T3/S3 1B.2	Perennial bulbiferous herb. Chaparral, coastal scrub, valley and foothill grassland. Rocky. Elevations: 345-2805ft. (105-855m.) Blooms May-Jul.	Not Expected	No suitable chaparral, coastal scrub or grassland habitat occurs within the BSA. The most recent CNDDDB occurrence is located near Diamond Valley Lake approximately 9 miles southwest of the BSA.
<i>Caulanthus simulans</i> Payson's jewelflower	None/None G4/S4 4.2	Annual herb. Chaparral, coastal scrub. Granitic, sandy. Elevations: 295-7220ft. (90-2200m.) Blooms (Feb)Mar-May(Jun).	Not Expected	No suitable chaparral or coastal scrub habitat occurs within the BSA.
<i>Centromadia pungens</i> ssp. <i>laevis</i> smooth tarplant	None/None G3G4T2/S2 1B.1	Annual herb. Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. Alkaline. Elevations: 0-2100ft. (0-640m.) Blooms Apr-Sep.	Moderate Potential	No suitable meadows, or grasslands occur within the BSA. The Fremont cottonwood habitat within the BSA may provide suitable riparian woodland for this species, as well as the fourwing saltbush scrub. There are several recent CNDDDB occurrences, with the closest being within 1 mile of the BSA
<i>Chorizanthe leptotheca</i> Peninsular spineflower	None/None G3/S3 4.2	Annual herb. Chaparral, coastal scrub, lower montane coniferous forest. Granitic. Elevations: 985-6235ft. (300-1900m.) Blooms May-Aug.	Not Expected	No suitable chaparral, coastal scrub or lower montane coniferous forest habitat occurs within the BSA. There are no recent CNDDDB occurrences within 9 quadrangles of the BSA.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	None/None G3T2/S2 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Openings, Rocky (sometimes), sandy (sometimes). Elevations: 900-4005ft. (275-1220m.) Blooms Apr-Jun.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA, and the soil is primarily loamy sand and gravelly coarse sand. However, rocky soil is not present within the BSA. There are several recent occurrences, but they are mostly concentrated in areas 8-10 miles from the BSA.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	None/None G5T3/S3 1B.2	Annual herb. Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Clay (often). Elevations: 100-5020ft. (30-1530m.) Blooms Apr-Jul.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub, meadows or grassland habitat occurs within the BSA. The BSA does not contain vernal pools.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i> white-bracted spineflower	None/None G4T3/S3 1B.2	Annual herb. Coastal scrub, Mojavean desert scrub, pinyon and juniper woodland. Gravelly (sometimes), sandy (sometimes). Elevations: 985-3935ft. (300-1200m.) Blooms Apr-Jun.	Not Expected	No suitable coastal scrub, desert scrub or juniper woodland occurs within the BSA.
<i>Deinandra mohavensis</i> Mojave tarplant	None/SE G3/S3 1B.3	Annual herb. Chaparral, coastal scrub, riparian scrub. Low sand bars in riverbed; mostly in riparian areas or in ephemeral grassy areas. Elevations: 2100-5250ft. (640-1600m.) Blooms (Jan-May) Jun-Oct.	Moderate Potential	Sandy, dry soils in the San Jacinto River occur within the BSA. The BSA is outside the preferred elevational range of the species; however, there are a few recent occurrences from 2001 approximately 3.5 miles upstream of the BSA.
<i>Deinandra paniculata</i> paniculate tarplant	None/None G4/S4 4.2	Annual herb. Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernal mesic sites. Sometimes in vernal pools or on mima mounds near them. Elevations: 80-3085ft. (25-940m.) Blooms (Mar)Apr-Nov.	Not Expected	No suitable coastal scrub or grassland habitat occurs within the BSA. The BSA does not contain vernal pools.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert larkspur	None/None G4T4/S4 4.3	Perennial herb. Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub. On dry stony fans and slopes. Elevations: 1970-5905ft. (600-1800m.) Blooms Mar-Jun.	Not Expected	No suitable chaparral, mixed chaparral, desert scrub or juniper woodland habitat occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Delphinium parryi</i> ssp. <i>purpureum</i> Mt. Pinos larkspur	None/None G4T4/S4 4.3	Perennial herb. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Elevations: 3280-8530ft. (1000-2600m.) Blooms May-Jun.	Not Expected	No suitable chaparral, desert scrub or juniper woodland habitat occurs within the BSA. The BSA is outside the preferred elevational range of the species.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Diplacus clevelandii</i> Cleveland's bush monkeyflower	None/None G4/S4 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, lower montane coniferous forest. Disturbed gravelly roadsides and slopes. Gabbro soils. Elevations: 1475-6560ft. (450-2000m.) Blooms Apr-Jul.	Not Expected	No suitable chaparral, mixed chaparral or lower montane coniferous forest occurs within the BSA.
<i>Dodecahema leptoceras</i> slender-horned spineflower	FE/SE G1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub. Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. Elevations: 655-2495ft. (200-760m.) Blooms Apr-Jun.	Low Potential	No suitable chaparral, mixed chaparral or coastal scrub habitat occurs within the BSA. The San Jacinto River does provide washes and sandy soils are present throughout the BSA, however the species' preferred habitat, stabilized sandy benches, is not present within the BSA. A few occurrences took place approximately 7 miles upstream in the San Jacinto River, the most recent as 2005.
<i>Erythranthe diffusa</i> Palomar monkeyflower	None/None G4/S3 4.3	Annual herb. Chaparral, lower montane coniferous forest. Sandy or gravelly soils. Elevations: 4005-6005ft. (1220-1830m.) Blooms Apr-Jun.	Not Expected	No suitable chaparral, mixed chaparral or coastal scrub habitat occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Galium angustifolium</i> ssp. <i>jacinticum</i> San Jacinto Mountains bedstraw	None/None G5T2?/S2? 1B.3	Perennial herb. Lower montane coniferous forest. Open mixed forest. Elevations: 4430-6890ft. (1350-2100m.) Blooms Jun-Aug.	Not Expected	No suitable lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Galium californicum</i> ssp. <i>primum</i> Alvin Meadow bedstraw	None/None G5T2/S2 1B.2	Perennial herb. Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. Granitic, sandy soils. Elevations: 4430-5580ft. (1350-1700m.) Blooms May-Jul.	Not Expected	No suitable chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Harpagonella palmeri</i> Palmer's grapplinghook	None/None G4/S3 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. Elevations: 65-3135ft. (20-955m.) Blooms Mar-May.	Not Expected	No suitable chaparral, coastal scrub or grassland habitat occurs within the BSA. The soil within the BSA is sandy rather than clay.
<i>Holocarpha virgata</i> ssp. <i>elongata</i> curving tarplant	None/None G5T3/S3 4.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Elevations: 195-3610ft. (60-1100m.) Blooms May-Nov.	Not Expected	No suitable chaparral, mixed chaparral, coastal scrub or grassland habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA; however, the soil is primarily loamy sand and gravelly coarse sand, which would not support this species

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Hordeum intercedens</i> vernal barley	None/None G3G4/S3S4 3.2	Annual herb. Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools. Vernal pools, dry, saline streambeds, alkaline flats. 5-. Elevations: 15-3280ft. (5-1000m.) Blooms Mar-Jun.	Not Expected	No coastal scrub or grassland habitat occurs within the BSA. The BSA does not contain any vernal pools.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	Not Expected	No suitable chaparral, mixed chaparral or coastal scrub habitat occurs within the BSA. Riparian Fremont cottonwood does occur within the BSA, and the soil is primarily loamy sand and gravelly coarse sand. However, this species is a perennial herb that would have been detected during the reconnaissance field survey and was not observed.
<i>Hulsea vestita</i> ssp. <i>callicarpa</i> beautiful hulsea	None/None G5T4/S4 4.2	Perennial herb. Chaparral, lower montane coniferous forest. Rocky or gravelly, granitic sites. Elevations: 3000-10005ft. (915-3050m.) Blooms May-Oct.	Not Expected	No suitable chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Imperata brevifolia</i> California satintail	None/None G3/S3 2B.1	Perennial rhizomatous herb. Chaparral, coastal scrub, meadows and seeps, Mojavean desert scrub, riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-. Elevations: 0-3985ft. (0-1215m.) Blooms Sep-May.	Not Expected	No suitable chaparral, coastal scrub, meadows or desert scrub habitat occurs within the BSA. No Alkali seeps or mesic soils are present within the BSA.
<i>Juglans californica</i> southern California black walnut	None/None G4/S4 4.2	Perennial deciduous tree. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Slopes, canyons, alluvial habitats. Elevations: 165-2955ft. (50-900m.) Blooms Mar-Aug.	Not Expected	No suitable chaparral, mixed chaparral or coastal scrub habitat occurs within the BSA. Rincon biologists did not observe this species, and this species would be readily observable any time of the year if present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	None/None G4T2/S2 1B.1	Annual herb. Marshes and swamps, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-. Elevations: 5-4005ft. (1-1220m.) Blooms Feb-Jun.	Not Expected	No marshes, swamps or vernal pools occur within the BSA.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	None/None G5T3/S3 4.3	Annual herb. Chaparral, coastal scrub. Dry soils, shrubland. 4-. Elevations: 5-2905ft. (1-885m.) Blooms Jan-Jul.	Not Expected	No suitable chaparral or coastal scrub habitat occurs within the BSA.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Lilium parryi</i> lemon lily	None/None G3/S3 1B.2	Perennial bulbiferous herb. Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy meadows and seeps. Elevations: 4005-9005ft. (1220-2745m.) Blooms Jul-Aug.	Not Expected	The BSA is not wet or mountainous terrain, and no suitable mixed chaparral, meadows, or upper montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Mentzelia tricuspidis</i> spiny-hair blazing star	None/None G4/S2 2B.1	Annual herb. Mojavean desert scrub. Sandy or gravelly slopes and washes. Elevations: 490-4200ft. (150-1280m.) Blooms Mar-May.	Not Expected	No desert scrub habitat occurs within the BSA. The soil within the BSA is primarily loamy sand and gravelly coarse sand.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> small-flowered microseris	None/None G4T4/S4 4.2	Annual herb. Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools. Alkaline clay in river bottoms. Elevations: 50-3510ft. (15-1070m.) Blooms Mar-May.	Not Expected	No suitable mixed chaparral, coastal scrub or grassland habitat occurs within the BSA. The BSA does not contain vernal pools.
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	None/None G5T3/S3 1B.3	Perennial rhizomatous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Dry slopes and ridges in openings. Elevations: 2395-7200ft. (730-2195m.) Blooms Jun-Oct.	Not Expected	No broadleafed upland forest, chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Monardella nana</i> ssp. <i>leptosiphon</i> San Felipe monardella	None/None G4G5T2Q/S2 1B.2	Perennial rhizomatous herb. Chaparral, lower montane coniferous forest. Sometimes in openings and fuelbreaks or in the understory of forest or chaparral. Elevations: 3935-6085ft. (1200-1855m.) Blooms Jun-Jul.	Not Expected	No chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Myosurus minimus</i> ssp. <i>apus</i> little mousetail	None/None G5T2Q/S2 3.1	Annual herb. Valley and foothill grassland, vernal pools. Alkaline soils. Elevations: 65-2100ft. (20-640m.) Blooms Mar-Jun.	Not Expected	No suitable grasslands or vernal pools occur within the BSA.
<i>Nama stenocarpa</i> mud nama	None/None G4G5/S1S2 2B.2	Annual/perennial herb. Marshes and swamps. Lake shores, river banks, intermittently wet areas. Elevations: 15-1640ft. (5-500m.) Blooms Jan-Jul.	Not Expected	No marshes or swamps occur within the BSA.
<i>Navarretia fossalis</i> spreading navarretia	FT/None G2/S2 1B.1	Annual herb. Chenopod scrub, marshes and swamps, playas, vernal pools. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Elevations: 100-2150ft. (30-655m.) Blooms Apr-Jun.	Not Expected	No suitable vernal moist areas occur within the BSA.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Orcuttia californica</i> California Orcutt grass	FE/SE G1/S1 1B.1	Annual herb. Vernal pools. Elevations: 50-2165ft. (15-660m.) Blooms Apr-Aug.	Not Expected	No vernal pools occur within the BSA.
<i>Parkinsonia microphylla</i> little-leaved palo verde	None/None G5/S3 4.3	Perennial deciduous shrub. Mojavean desert scrub. Rocky or gravelly sites. Elevations: 150-3510ft. (45-1070m.) Blooms Apr-May.	Not Expected	No suitable desert scrub habitat occurs within the BSA.
<i>Penstemon californicus</i> California beardtongue	None/None G3/S2 1B.2	Perennial herb. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Stony slopes and shrubby openings; sandy or granitic soils. Elevations: 3840-7545ft. (1170-2300m.) Blooms May-Jun(Aug).	Not Expected	No suitable chaparral, lower montane coniferous forest or juniper woodland occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Petalonyx linearis</i> narrow-leaf sandpaper-plant	None/None G4/S3? 2B.3	Perennial shrub. Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky canyons. Elevations: -80-3660ft. (-25-1115m.) Blooms (Jan-Feb)Mar-May(Jun-Dec).	Not Expected	No suitable desert scrub habitat occurs within the BSA.
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	None/None G4/S2 2B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy, gravelly sites. Elevations: 0-6890ft. (0-2100m.) Blooms (Jul)Aug-Nov(Dec).	Moderate Potential	The Fremont cottonwood habitat within the BSA may serve as suitable riparian woodland for this species. There is one recent CNDDDB occurrence approximately 2.8 miles downstream of the BSA within the San Jacinto River. Furthermore, a population of this species occurred in an open sandy wash that burned in 2003.
<i>Quercus engelmannii</i> Engelmann oak	None/None G3/S3 4.2	Perennial deciduous tree. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Elevations: 165-4265ft. (50-1300m.) Blooms Mar-Jun.	Not Expected	No suitable chaparral, mixed chaparral or grassland habitat occurs within the BSA. The Fremont cottonwood habitat within the BSA may serve as suitable riparian woodland for this species. Rincon biologists did not observe this species, and this species would be readily observable any time of the year if present.
<i>Saltugilia latimeri</i> Latimer's woodland-gilia	None/None G3/S3 1B.2	Annual herb. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Rocky or sandy substrate; sometimes in washes, sometimes limestone. Elevations: 1310-6235ft. (400-1900m.) Blooms Mar-Jun.	Not Expected	No suitable chaparral, desert scrub or juniper woodland habitat occurs within the BSA. There is only one recent CNDDDB occurrence that is over 14 miles from the BSA.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern mountains skullcap	None/None G4T3/S3 1B.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, lower montane coniferous forest. In gravelly soils on streambanks or in mesic sites in oak or pine woodland. Elevations: 1395-6560ft. (425-2000m.) Blooms Jun-Aug.	Not Expected	No suitable chaparral, mixed chaparral or lower montane coniferous forest occurs within the BSA. The Fremont cottonwood habitat within the BSA may serve as suitable riparian woodland for this species; however, no recent occurrences were identified.
<i>Sidalcea neomexicana</i> salt spring checkerbloom	None/None G4/S2 2B.2	Perennial herb. Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas. Alkali springs and marshes. Elevations: 50-5020ft. (15-1530m.) Blooms Mar-Jun.	Not Expected	No suitable alkali springs and marshes occur within the BSA. There are no recent CNDDB occurrences within 9 quadrangles of the BSA.
<i>Sidothea caryophylloides</i> chickweed oxytheca	None/None G4/S4 4.3	Annual herb. Lower montane coniferous forest. Sandy sites. Elevations: 3655-8530ft. (1114-2600m.) Blooms Jul-Sep(Oct).	Not Expected	No suitable lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	None/None G3G4/S3S4 4.3	Perennial herb. Chaparral, lower montane coniferous forest. Clay or decomposed granite soils; sometimes in disturbed areas such as streambanks or roadcuts. Elevations: 2200-8205ft. (670-2500m.) Blooms May-Aug.	Not Expected	No chaparral or lower montane coniferous forest occurs within the BSA. The BSA is outside the preferred elevational range of the species.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	None/None G2/S2 1B.2	Perennial rhizomatous herb. Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, valley and foothill grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas. Elevations: 5-6695ft. (2-2040m.) Blooms Jul-Nov.	Not Expected	No suitable mixed chaparral, coastal scrub, meadows or lower montane coniferous forest occurs within the BSA. The BSA does not contain marshes or swamps.
<i>Tortula californica</i> California screw moss	None/None G2G3/S2? 1B.2	Moss. Chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. Elevations: 35-4790ft. (10-1460m.)	Not Expected	No suitable chenopod scrub or grasslands occur within the BSA. The closest CNDDB occurrence is from 2013 and is approximately 5.5 miles west of the BSA.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	None/None G4T3/S1 2B.1	Annual herb. Marshes and swamps, meadows and seeps, riparian forest, vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. Elevations: 15-1425ft. (5-435m.) Blooms May-Sep.	Not Expected	No marshes, swamps or vernal pools occur within the BSA.
Status (Federal/State) FE = Federal Endangered FT = Federal Threatened FPE = Federal Proposed Endangered FPT = Federal Proposed Threatened FD = Federal Delisted FC = Federal Candidate SE = State Endangered ST = State Threatened SCE = State Candidate Endangered SCT = State Candidate Threatened SR = State Rare SD = State Delisted SSC = CDFW Species of Special Concern FP = CDFW Fully Protected WL = CDFW Watch List		CRPR (CNPS California Rare Plant Rank) 1A = Presumed extirpated in California, and rare or extinct elsewhere 1B = Rare, Threatened, or Endangered in California and elsewhere 2A = Presumed extirpated in California, but common elsewhere 2B = Rare, Threatened, or Endangered in California, but more common elsewhere 3 = Need more information (Review List) 4 = Limited Distribution (Watch List) CRPR Threat Code Extension .1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat) .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat) .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)		
Other Statuses G1 or S1 Critically Imperiled Globally or Subnationally (state) G2 or S2 Imperiled Globally or Subnationally (state) G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state) G4/5 or S4/5 Apparently secure, common and abundant GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery				

Special Status Wildlife Species in the Regional Vicinity of the BSA

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
Invertebrates				
<i>Bombus crotchii</i> Crotch bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Low Potential	Few suitable plants for pollination occur within the BSA. There are 5 recent occurrences in the CNDDDB 9-quadrant search, but none of them are within 8 miles of the BSA.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	No suitable grassland habitat or depression pools occur within the BSA. There is only one recent occurrence in the CNDDDB 9-quadrant search, and it occurs over 8 miles away from the BSA.
<i>Euphydryas editha quino</i> quino checkerspot butterfly	FE/None G5T1T2/S1S2	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants <i>Plantago erecta</i> , <i>P. insularis</i> , and <i>Orthocarpus purpureus</i> .	Not Expected	No suitable chaparral or coastal sage shrublands occur within the BSA. There are 2 recent occurrences in the CNDDDB 9-quadrant search, but they are located over 10 miles from the BSA.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	FE/None G1G2/S2	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	Not Expected	No suitable grasslands or coastal sage scrub habitat occurs within the BSA. No seasonally astatic pools occur within the BSA. There is 1 recent occurrence in the CNDDDB 9-quadrant search. This species is considered extirpated according to the CNDDDB records.
Amphibians				
<i>Anaxyrus californicus</i> arroyo toad	FE/None G2G3/S2 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Low Potential	This species is typically found in alluvial scrub, rather than riparian woodland. The San Jacinto River channel is disturbed, which reduces the potential for this species to occur. Furthermore, there is only one recent occurrence in the CNDDDB 9-quadrant search, but it is over 5 miles from the BSA.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Rana muscosa</i> southern mountain yellow-legged frog	FE/SE G1/S2 WL	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt. May overwinter under frozen lakes. Often encountered within a few feet of water. Tadpoles may require 2-4 years to complete their aquatic development.	Not Expected	The BSA does not contain suitable lake or creek habitat for this species. There are 2 recent occurrences in the CNDDDB 9-quad search, but they are both over 10 miles from the BSA.
<i>Spea hammondi</i> western spadefoot	FPT/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Low Potential	No suitable grassland habitat or vernal pools occurs within the BSA. There are some suitable woodlands in the BSA. There are several recent occurrences within in the San Jacinto quadrangle; however, they are not found in similar habitats to those present within the BSA.
Reptiles				
<i>Anniella stebbinsi</i> Southern California legless lizard	None/None G3/S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Low Potential	Some suitable sandy soil with sparse vegetation occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search. Some of those occurrences take place within the San Jacinto River, but they are over 8 miles away from the BSA. None of the occurrences are within 5 miles of the BSA.
<i>Arizona elegans occidentalis</i> California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low Potential	No suitable scrub or grassland habitat occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search, one of which is within the San Jacinto quadrangle, approximately 4.5 miles downstream of the BSA within the San Jacinto River.
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	None/None G5/S2S3 WL	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Low Potential	No suitable coastal scrub or chaparral habitat occurs within the BSA. There are 8 recent occurrences in the CNDDDB 9-quad search, but they are all over 5 miles from the BSA.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Low Potential	Some suitable woodland areas and areas with firm and sandy soils occur within the BSA. There is only 1 recent occurrence in the CNDDDB 9-quad search, and it is over 10 miles from the BSA.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Charina umbratica</i> southern rubber boa	None/ST G2G3/S2	Found in a variety of montane forest habitats. Previously considered morphologically intermediate, recent (2022) genomic analysis clarifies individuals from Mt Pinos, Tehachapi Mts, and southern Sierra Nevada are southern rubber boa. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter.	No Potential	No suitable montane forest habitat with moist, loose soil occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search, but they are all over 9 miles from the BSA.
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	None/None G5T5/S1S2 SSC	Coastal and cismontane Southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	Not Expected	No suitable coastal scrub or chaparral habitat occurs within the BSA. The only 2 occurrences in the CNDDDB 9-quad search are from 1999.
<i>Crotalus ruber</i> red-diamond rattlesnake	None/None G4/S3 SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Not Expected	No suitable chaparral, woodland or grassland habitat occurs within the BSA. There are 2 recent occurrences in the CNDDDB 9-quad search. The closest occurrence is from 2005 and is approximately 6.5 miles southwest.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G4/S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Low Potential	Some suitable sandy wash habitat occurs within the BSA. There is only one CNDDDB occurrence from 2005 that is relatively close to the BSA, 4 miles upstream in the banks of the San Jacinto River.
Birds				
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	High Potential	Suitable nesting trees occur within the site. There are only 2 recent occurrences in the CNDDDB 9-quad search. However, there are several sightings of this species on eBird, one of which occurred within the BSA in 2019. This species is easily distinguishable from other raptors, so observations within the BSA are most likely accurate.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Low Potential	There are 13 recent occurrences in the CNDDDB 9-quad search, one of which is within the San Jacinto quadrangle approximately 3 miles north of the BSA. Although, no open water occurs within the BSA, there are several occurrences on eBird of this species within 2 miles of the BSA in the San Jacinto River.
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	None/None G5T3/S4 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Not Expected	No suitable coastal sage scrub or chaparral habitat occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search, none of which are within 5 miles of the BSA.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Low Potential	Some suitable nesting trees occur within the BSA; however, adjacent disturbances reduce the potential for nesting. There is one recent occurrence from 2008, approximately 3 miles northeast of the BSA.
<i>Artemisiospiza belli</i> Bell's sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	Not Expected	No suitable chaparral habitat occurs within the BSA. There most recent occurrences in the CNDDDB 9-quad search are all over 8 miles from the BSA.
<i>Athene cunicularia</i> burrowing owl	None/SCE G4/S2 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low Potential	There are several occurrences in the CNDDDB 9-quad search. The most recent occurrence within the San Jacinto quadrangle is from 2006. However, Rincon Biologists made no observations of suitable burrows, of sign or individuals within the BSA.
<i>Buteo regalis</i> ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Low Potential	No suitable grassland or desert scrub occurs within the BSA. The most recent occurrence approximately 1.6 miles from the BSA is from 2006. The other recent occurrence is over 11 miles from the BSA.
<i>Campylorhynchus brunneicapillus</i> <i>sandiegensis</i> coastal cactus wren	None/None G5T3Q/S2 SSC	Southern California coastal sage scrub. Wrens require tall opuntia cactus for nesting and roosting.	Not Expected	No suitable opuntia cactus occurs within the BSA. There is only 1 occurrence from 2001 in the CNDDDB 9-quad search.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Circus hudsonius</i> northern harrier	None/None G5/S3 SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	No suitable freshwater marsh habitat occurs within the BSA. There is only 1 occurrence from 2006 in the CNDDDB 9-quad search.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not Expected	This species has a very particular habitat, and their locations are well-known/mapped. The BSA is not located in an area where this species is found. There are no recent occurrences in the CNDDDB 9-quad search.
<i>Cypseloides niger</i> black swift	None/None G4/S3 SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	Not Expected	No suitable cliff habitat occurs within the BSA. The BSA is not near sea-bluffs nor near canyons with waterfalls. There are no recent occurrences in the CNDDDB 9-quad search.
<i>Elanus leucurus</i> white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Low Potential	No suitable open grasslands, meadows or marshes occur within the BSA. There are 4 recent occurrences in the CNDDDB 9-quad search, 1 of which is 6.5 miles southwest of the BSA and 3 of which are in the same area approximately 11 miles northwest of the BSA.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	FE/SE G5T2/S3	Riparian woodlands in Southern California.	Low Potential	Some suitable riparian woodland habitat occurs within the BSA, but it is not dense enough to support this species. Typically, this species requires open water nearby, which does not exist within the BSA. There are 2 recent occurrences in the CNDDDB 9-quad search, but they are both in the same area approximately 7.5 miles northwest of the BSA.
<i>Eremophila alpestris actia</i> California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Not Expected	No suitable mountain meadows, fallow grain fields or alkali flats occur within the BSA. There are 2 recent occurrences in the CNDDDB 9-quad search, but they are both over 6 miles from the BSA.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Icteria virens</i> yellow-breasted chat	None/None G5/S4 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Low Potential	Elements of suitable habitat occur within the BSA. However, there is only 1 recent occurrence in the CNDDDB 9-quad search, and it is over 8 miles away from the BSA.
<i>Lanius ludovicianus</i> loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low Potential	Some suitable habitat occurs within the BSA. There are 8 recent occurrences in the CNDDDB 9-quad search, none of which are within 5 miles of the BSA.
<i>Plegadis chihi</i> white-faced ibis	None/None G5/S3S4 WL	Shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	Not Expected	No suitable freshwater marsh habitat or tule thicket habitat occurs within the BSA. There is only 1 recent occurrence in the CNDDDB 9-quad search, and it is not within the San Jacinto quadrangle.
<i>Poliophtila californica californica</i> coastal California gnatcatcher	FT/None G4G5T3Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Not Expected	No suitable coastal sage scrub habitat occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search, none of which are within 7 miles of the BSA.
<i>Progne subis</i> purple martin	None/None G5/S3 SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also, in human-made structures. Nest often located in tall, isolated tree/snag.	Not Expected	No suitable habitat occurs within the BSA. There are no recent occurrences in the CNDDDB 9-quad search.
<i>Setophaga petechia</i> yellow warbler	None/None G5/S3 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Present	This species was observed on July 25, and July 26, 2023, in the Fremont cottonwood woodland within the BSA. There are also 4 recent occurrences in the CNDDDB 9-quad search, one of which is from 2014 and is approximately 2 miles downstream of the BSA.
<i>Toxostoma lecontei</i> Le Conte's thrasher	None/None G4/S3 SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Not Expected	No suitable desert scrub, alkali desert scrub or desert succulent scrub habitat occurs within the BSA. There are no recent occurrences in the CNDDDB 9-quad search.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE G5T2/S3	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Moderate Potential	Some suitable habitat occurs within the BSA. There are several recent occurrences in the CNDDDB 9-quad search, one of which from 2011 overlaps with the BSA where 25 individuals were observed. Furthermore, eBird also has sightings of least Bell's 2 miles downstream and 3 miles upstream from the Project site in the San Jacinto River from 2019. Both locations confirmed breeding (pairs and fledglings) and were observed by someone who works closely with a local bird organization and for the Santa Ana Watershed Association.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along the borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not Expected	No deep-water features occur within the BSA. There are no recent occurrences in the CNDDDB 9-quad search.
Mammals				
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Moderate Potential	No rocky roosting areas occur within the BSA; however, the riparian woodland habitat and the wash area within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake makes it more likely for this species to occur within the BSA. There is one recent occurrence in the CNDDDB 9-quad search that is approximately 3.5 miles north of the BSA.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls and ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Moderate Potential	The riparian woodland habitat and the wash area within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake makes it more likely for this species to occur within the BSA. There is one occurrence that is approximately 2 miles north of the BSA, but it is from 1997.

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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	FE/SCE G5T1/S1 SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	High Potential	Suitable small mammal burrows were observed within the BSA. Critical Habitat occurs within the BSA. There is one occurrence from 2006 that overlaps with the BSA. There are several other recent occurrences in the San Jacinto River channel within 2 miles of the BSA.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	FT/ST G2/S3	Found primarily in annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass & filaree. Will burrow into firm soil and use the burrows of California ground squirrels and pocket gophers. Occurs only in southern California.	Moderate Potential	Suitable small mammal burrows were observed within the BSA. There are several recent occurrences in the CNDDDB 9-quad search. A large area was mapped as inhabited by the Stephens' kangaroo approximately 2 miles north of the BSA with several occurrences from 2005-2018 within that area. Furthermore, there was another occurrence in the San Jacinto River channel approximately 1.8 miles northwest of the BSA.
<i>Lasiurus xanthinus</i> western yellow bat	None/None G4G5/S3 SSC	Occurs in arid regions of the southwestern United States. Typically found in riparian woodlands, oak or pinyon-juniper woodland, desert wash, palm oasis habitats, and urban or suburban areas. Roosts in trees, often between palm fronds.	Moderate Potential	The riparian woodland habitat and the wash area within the BSA could support seasonal roosting and foraging of this species. The BSA's proximity to Lake Perris and Diamond Valley Lake makes it more likely for this species to occur within the BSA. Although, there are no recent occurrences in the CNDDDB 9-quad search, this species is found in the general area of Riverside County.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	None/None G5T3T4/S3S4 SSC	Occurs in scrub habitats of southern California from San Luis Obispo County to San Diego County.	Low Potential	Suitable small mammal burrows were observed within the BSA; however, woodrat species create middens for nesting that were not observed during the reconnaissance survey. Scrub habitat does not occur within the BSA. There are 9 recent occurrences in the CNDDDB 9-quad search.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/Observations
<i>Onychomys torridus ramona</i> southern grasshopper mouse	None/None G5T3/S3 SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Expected	No suitable habitat occurs within the BSA. There are only historical occurrences in the CNDDDB 9-quadrant search (from 1908 and 1938).
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	None/None G5T2/S1S2 SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Moderate Potential	No grassland or coastal sage communities occur within the BSA. However, there are several occurrences in the CNDDDB 9-quadrant search, one of which, from 2002, occurred within BSA. Furthermore, there is another CNDDDB occurrence from 2001 approximately 1.5 miles northwest of the BSA within the San Jacinto River Channel.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low Potential	No suitable burrows occur within the BSA. There is limited friable soil in the fourwing saltbush scrub, where soils are more compact. The upland mustards containing Russian thistle are not expected to support this species. There are no recent occurrences in the CNDDDB 9-quadrant search.

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<i>Xerospemophilus tereticaudus chlorus</i> Palm Springs round-tailed ground squirrel	None/None G5T2Q/S2 SSC	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.	Not Expected	This species is restricted to the Coachella Valley, so it will not occur near the BSA. There are no recent occurrences in the CNDDb 9-quad search.
Status (Federal/State)		CRPR (CNPS California Rare Plant Rank)		
FE = Federal Endangered		1A = Presumed extirpated in California, and rare or extinct elsewhere		
FT = Federal Threatened		1B = Rare, Threatened, or Endangered in California and elsewhere		
FPE = Federal Proposed Endangered		2A = Presumed extirpated in California, but common elsewhere		
FPT = Federal Proposed Threatened		2B = Rare, Threatened, or Endangered in California, but more common elsewhere		
FD = Federal Delisted		3 = Need more information (Review List)		
FC = Federal Candidate		4 = Limited Distribution (Watch List)		
SE = State Endangered		CRPR Threat Code Extension		
ST = State Threatened		.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)		
SCE = State Candidate Endangered		.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)		
SCT = State Candidate Threatened		.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)		
SR = State Rare				
SD = State Delisted				
SSC = CDFW Species of Special Concern				
FP = CDFW Fully Protected				
WL = CDFW Watch List				
Other Statuses				
G1 or S1 Critically Imperiled Globally or Subnationally (state)				
G2 or S2 Imperiled Globally or Subnationally (state)				
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)				
G4/5 or S4/5 Apparently secure, common and abundant				
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery				