

**Updated Biological Technical Report and
MSHCP Consistency Analysis
for the
Sunnymead Master Drainage Plan – Storm Drain
Lines F and F-7 (Project No. 804-0008)**

City of Moreno Valley, Riverside County, California

Assessor Parcel Numbers: 292-022-002, -011, 292-032-011, 292-061-010, 292-241-003,
-006, -015, 292-250-005, -013, and -020

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	Degrees Fahrenheit
APN	Assessor’s Parcel Number
BUOW	Burrowing owl
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database

Term	Definition
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
DBH	diameter at breast height
DPS	Distinct Population Segment
ECORP	ECORP Consulting, Inc.
ESA	Endangered Species Act
FAC	Facultative
FACW	Facultative Wetland
GPS	Global Positioning System
HCP	Habitat Conservation Plan
HUC	Hydrologic Unit Code
I-215	Interstate 215
IA	Implementing Agreement
LBVI	Least Bell's vireo
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
MM	Mitigation Measure
mph	Miles per Hour
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NHD	National Hydrology Dataset
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate
OHWM	Ordinary High Water Mark
RCA	Regional Conservation Authority
RCB	Reinforced Concrete Box
RCFC	Riverside County Flood Control
RCP	Reinforced Concrete Pipe
RCTLMA	Riverside County Transportation and Land Management Agency
RPW	Relatively Permanent Water
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SMART	Stormwater Management and Retention Treatment
SP	Standard Permit
SR-60	State Route 60
SSAR	Study of Amphibians and Reptiles
SSC	California Species of Special Concern
TNW	Traditional Navigable Water
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency

Term	Definition
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WCD	Water Conservation District

1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) was retained by WSP USA, Inc., to provide California Environmental Quality Act (CEQA) services for the proposed Sunnymead Master Drainage Plan (MDP) Lines F and F-7 Project (Project) located in the western part of the City of Moreno Valley, Riverside County, California. The proposed Project consists of storm drain improvements to MDP Line F from Hemlock Avenue south to Eucalyptus Avenue. The Project Footprint consists of both areas anticipated to be impacted as well as non-impacted areas that serve collectively as the Project Footprint. There is one parcel just to the north of Sunnymead Boulevard which is not a part of the Project or this study.

A reconnaissance-level biological survey and formal aquatic resources delineation of the Project Footprint were conducted of the area to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether Project-related impacts would occur to sensitive biological resources, as required under CEQA. Due to the presence of suitable habitat for sensitive species, focused surveys for burrowing owl, least Bell's vireo, and rare plants were conducted in spring and summer of 2024. The biological surveys were conducted in accordance with the respective protocols, and the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside (referred to as Planning Species) and outlines goals for their conservation. Information on the MSHCP can be found at www.rctlma.org (Riverside County Transportation and Land Management Agency [RCTLMA] 2024).

This report provides the results of all of the biological surveys conducted for the proposed Project in order to comply with the requirements of the MSHCP and identify any biological resources that may require mitigation prior to impacts from development. The Project will be subject to County, State, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code. It will also be subject to regulatory stipulations of the federal Clean Water Act.

1.1 Project Location

The Project Footprint consists of an approximately 19.42-acre area located in the western part of the City of Moreno Valley, east of Interstate 215 (I-215) and both north and south of State Route 60 (SR-60) in Riverside County (Figure 1). It is comprised of Assessor's Parcel Numbers (APNs): 292-022-002, -011, 292-032-011, 292-061-010, 292-241-003, -006, -015, 292-250-005, -013, and -020. Project elements are planned to be constructed from Hemlock Avenue west for 1,500 feet, then south to Sunnymead Boulevard, then extending south to join the existing above-ground channel which is located approximately 500 feet north of Eucalyptus Avenue. The Project is located within Section 1 of Township 3 South, Range 4 West and is depicted on the U. S. Geological Survey (USGS) Riverside East 7.5-minute topographic map quadrangle. Elevation at the Project Footprint ranges from 1,615 feet to 1,655 feet (approximately 501 to 504 meters) above mean sea level (amsl; Google Earth 2022).

Figure 1. Project Location and Vicinity

1.2 Project Description

The proposed Project consists of storm drain improvements to MDP Line F from Hemlock Avenue to the north of Eucalyptus Avenue. The proposed improvement would reduce flooding along Hemlock Avenue, Graham Street, Sunnymead Boulevard, and to on-site properties. In addition to addressing flooding issues, the Project would also improve water quality through implementing infiltration elements. The proposed storm drain system is identified in the City of Moreno Valley's Capital Improvement Plan and the Riverside County MDP. The proposed Project will include a total of 5,000 feet of storm drain, 14 catch basins, three (3) infiltration facilities, (2) two diversion structures, two (2) weir structures, one (1) confluence structure, and energy dissipation where necessary. Most of the impacts would be considered temporary.

Project improvements begin at the intersection of Graham Street and Hemlock Avenue with an array of catch basins designed to intersect the heavy flows from north of Graham Street. From here, the flows are conveyed westerly through an underground pipe system in Hemlock Avenue for approximately 1,600 feet, then the system sweeps south (into the Towngate Racquet Club Apartment Complex) capturing the flows from the easterly pipe of the Hemlock culvert using a storm drain lateral. Then, the combined flows continue southerly in a 72-inch pipe that will cross under SR-60 and one private property (APN 292-250-013). When this system reaches Sunnymead Boulevard, it will transition from a 72-inch reinforced concrete pipe (RCP) to a 20 foot by 4-foot reinforced concrete box (RCB) and 10 feet by 8 feet RCB and capture the runoff from the Boulevard by a series of catch basins. The storm drain system will then cross private property (APN 292-250-020) prior to being routed through a Stormwater Management and Retention Treatment (SMART) basin. The basin will allow low flows to flow through into a 72-inch RCP storm drain main and provide detention and infiltration to the high flows. The high flows exiting in the 72-inch RCP are routed 1,500-feet south to a Portland Cement Concrete confluence structure, where they combine with the low flows from the existing natural channel running parallel and east of the storm drain main. Improvements at the south end of the Project include a second detention basin system where existing peak flows from the adjacent Sunnymead Drive neighborhood are reduced and routed through the south basin. A 36-inch RCP storm drainpipe routes the excess flows from the neighborhood and connects into the confluence structure downstream of the south basin overflow weir. From here, the storm water flows confluence together from a concrete box transition structure and enter the existing Riverside County Flood Control and Water Conservation District (RCFC&WCD) concrete trapezoidal channel.

The dual-purpose SMART basin is designed to meet specific RCFC&WCD standards. The SMART basin will include two elements that are necessary to address peak flows and RCFC&WCD standards. The basin will provide flow reduction through detention of the peak flow rate of the 100-year storm, while also providing a high-flow detention element to preserve beneficial uses of the basin area through infiltration and recharge of groundwater. The floor of the basin will be used for detention purposes that will allow for minimal ponding to ensure drawdown of detained runoff within 48-hours. Storage in the basins above the detention volume will reduce peak flow rates of the 100-year storm event. Given the complexity and functionality of the basins that include both retention and detention components, for the purposes of this project, this basin will be referred to as SMART basin.

2.0 REGULATORY FRAMEWORK

These studies were prepared in order to comply with state and federal regulations regarding listed, protected, and sensitive species and for other biological resources such as federal or state jurisdictional waters. The background framework for these regulations is provided in detail below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The federal MBTA implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

This report describes potential Waters of the U.S., including wetlands that may be regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act (CWA). The limit of USACE jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 Code of Federal Regulations 328.4(c)(1) as the “ordinary high-water mark”.

The Ordinary High Water Mark (OHWM) is defined as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

The USACE regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. *Discharges of fill material* is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following:

- Placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction;
- site development fills for recreational, industrial, commercial, residential, and other uses;
- causeways or road fills; and
- fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations Section 328.2(f)].

In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification, “gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into Waters of the U.S.” (33 USC 1251).

The current definition of water of the United States was published in the Federal Register on January 18, 2023, and effective as of March 20, 2023, then amended on August 29, 2023. The amendment was based on the decision in the case of *Sackett v. Environmental Protection Agency*.

In summary, under the conforming rule (as amended), the term waters of the United States means:

- 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;
- The territorial seas;
- Interstate waters;
- Impoundments of waters otherwise defined as waters of the United States under this definition;
- Tributaries of a) 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, b) the territorial seas, and c) interstate waters;

- Wetlands adjacent to a) 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, b) the territorial seas, and c) interstate waters: or
- Wetlands adjacent (defined as having a continuous surface connection) to relatively permanent, standing or continuously flowing bodies of water identified as impoundments of waters and with a continuous surface connection to those waters;
- Intrastate lakes and ponds that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the water previously identified.

Waters excluded from this definition include prior converted cropland (defined by the U.S. Department of the Agriculture), waste treatment systems, ditches (including roadside ditches) excavated wholly in and draining only dry land, artificially irrigated areas that would revert to dry land if the irrigation ceased, artificial lakes or ponds, artificial reflecting pools or swimming pools, waterfilled depressions (e.g. created in dry land incidental to construction activity, pits excavated in dry land for purposes of obtaining fill, sand, or gravel), swales and erosional features (e.g. gullies, small washes) that are characterized by low volume, infrequent, or short duration flow.

Where areas jurisdictional to the USACE are present, and will be impacted by a project, the Project proponent must usually apply for permitting with the agency, which generally consists of submittal of a Pre-Construction Notification under Section 404 of the CWA.

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called “candidates” by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as “fully protected” prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute

(California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 California Fish and Game Code

2.2.4.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). The applicant may then negotiate the terms and language of the SAA with the CDFW, with the goal of coming to a final SAA which both parties are willing to sign.

Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA and a permit with the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA. In these instances, the conditions of Sections 401 and 404 permits and the SAA may overlap.

2.2.4.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in §§ 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds’ nests and also make it unlawful to take these birds. All raptor species are protected from “take” pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.5 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP identifies 146 species, referred to as “Covered Species,” for which the federal and California ESAs “take” authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be “adequately conserved.” The

remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in an efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue “take” authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the county and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with CEQA, National Environmental Policy Act (NEPA), the California ESA, and the ESA will be granted. The Development Mitigation Fee varies according to project size and project description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

2.2.6 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and

- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological surveys, the 2023 biological technical report and MSHCP consistency analysis previously prepared by ECORP for this Project was reviewed. Additionally, an updated literature review using the CDFW's California Natural Diversity Database (CNDDDB; CDFW 2024a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2024a) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project Footprint. ECORP searched CNDDDB and CNPSEI records within the Project Footprint boundaries as depicted on USGS 7.5-minute Riverside East topographic quadrangle, plus the surrounding eight topographic quadrangles including Fontana, San Bernardino South, Redlands, Sunnymead, Perris, Steele Peak, Lake Mathews, and Riverside West. The CNDDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, CDFW Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project. Additional information was gathered from the following sources and includes, but is not limited to:

- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2024b);
- *Special Animals List* (CDFW 2024c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009);
- *A Manual of California Vegetation*, Online Edition (CNPS 2024b); and
- various online websites (e.g., CalFlora 2024).

Using this information and observations in the field, a list of special-status plant and animal species that have potential to occur within the Project Footprint was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are species not adequately conserved under the MSHCP.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the site were assessed for their potential to occur within the Project Footprint based on the following guidelines:

- **Present:** The species was observed on the site during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Project Footprint and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Project Footprint and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Project Footprint.
- **Low:** Limited or marginal habitat for the species occurs within the Project Footprint and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.
- **Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project Footprint.

Note that location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that species.

3.2 Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

Data regarding the Project Footprint was reviewed to determine consistency with the MSHCP. The Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map was queried to determine requirements for habitat assessment(s), focused survey(s), or other issues related to biological resources that could exist on the Project Footprint (Figure 2; RCA 2024).

Section 6.0 of the MSHCP also requires that an assessment of the Project Footprint be completed to identify any potential Project-related effects on biological resources, including burrowing owl, riparian/riverine areas, vernal pools, and fairy shrimp, if applicable.

In addition, the MSHCP requires that an Urban/Wildlands Interface analysis be conducted to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas.

3.3 Field Surveys

3.3.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by ECORP biologists in November 2022. The survey consisted of walking the entire Project Footprint and surrounding areas to identify the vegetation communities and wildlife habitats on the Project Footprint. The biologist(s) documented the plant and wildlife species present on the Project Footprint, and the location and condition of the Project Footprint were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were also taken during the survey to provide visual representation of the various vegetation communities and site conditions within the Project Footprint. The Project Footprint was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. In addition, the biologist mapped the vegetation communities present on the Project Footprint.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR, 2017), *Check-list of North American Birds* (Chesser et al. 2020), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in North American Datum 1983, Universal Transverse Mercator coordinates, Zone 11S.

Figure 2. Western Riverside County MSHCP Designation

3.3.2 Aquatic Resources Delineation

ECORP biologists conducted a desktop review to identify potential streams, lakes, ponds, and other indications of jurisdictional resources on the Project Footprint. This desktop review does not constitute a formal jurisdictional delineation required under regulatory guidelines, but it is intended to provide information that will be useful for planning purposes.

This review followed guidelines of the entailed examination of historic and current aerial photography, USFWS National Wetlands Inventory (NWI) mapping (USFWS 2022), USGS National Hydrology Dataset (NHD; USGS 2022a), and USGS "The National Map" (USGS 2022b) to determine if there were any blue-line streams or drainages that potentially fall under the jurisdiction of either federal or state regulatory agencies. In addition, ECORP biologists examined the soils recorded in the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2022) for the potential presence of hydric soils. The biologists used aerial imagery to digitize potential aquatic resources using ArcGIS[™]. The biologists then analyzed the imagery to identify signs of OHWM, various differences in vegetative cover, the presence of breaks in the slope, and other indications of disturbances caused by water action.

After the literature review was completed, a jurisdictional waters delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). The boundaries of jurisdictional waters were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data was recorded on Arid West OHWM Datasheets and Wetland Determination Data Forms – Arid West Region. A color aerial Google Earth[®] image (photo date: August 2021) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Munsell Color 2009) and the Web Soil Survey (NRCS 2022) were used to aid in identifying hydric soils in the field. *The Jepson Manual, 2nd Edition* (Baldwin et al. 2012) was used for plant nomenclature and identification.

During the 2022 field survey, the biologists walked accessible areas of the Project Footprint to determine the location and extent of jurisdictional waters. Paired locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. Jurisdictional waters within the Project Footprint were recorded in the field using a post-processing capable GPS unit with sub-meter accuracy (e.g., Juniper Geode[™]). Feature characteristics and measurements were recorded directly into the data dictionary in the GPS unit. Characteristics of mapped features were also documented in photographs. Non-wetland features identified as USACE-jurisdictional had observable, physical evidence of flowing water including OHWM, defined bed and bank, scour, vegetation matted down/bent, wrack, change in vegetation in plant community, and/or litter/debris.

Within Title 14, California Code of Regulations, Section 1.72 a stream is defined as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.” However, this definition does not specifically define the terms bed, channel, or bank and does not define related features such as vegetation. It is therefore up to CDFW what constitutes a stream or its associated vegetation. ECORP has mapped limits of CDFW jurisdiction based on common practice and experience through notification processes with the CDFW.

Generally, the limits of CDFW streambeds are defined for this delineation as the limits from top-of-bank to top-of-bank. Vegetation associated with streambeds includes riparian shrubs and trees that are within this streambed area or that are directly adjacent. Trees with a diameter at breast height (DBH) of four inches or greater found within the CDFW jurisdictional areas were mapped along with the extent of their canopy and DBH. The canopy extent was mapped based on field observation.

3.3.3 Least Bell’s Vireo (*Vireo bellii pusillus*) Surveys

Riparian habitat, suitable for sensitive bird species such as least Bell’s vireo (LBVI) occurs within some portions of the Project Footprint; therefore, presence/absence surveys for LBVI were conducted for the Project by a team of qualified biologists who are experienced in surveying for and identifying LBVI. Biologists were familiar with the calls, songs, and plumage characteristics of LBVI and other riparian bird species. Note that one parcel which was surveyed for vireo, APN 292-250-012, has since been removed from being a part of the Project Footprint.

The survey was conducted in accordance with the most current USFWS protocol guidelines (USFWS 2001). A total of eight surveys were conducted between April 23 and July 3, 2024. The protocol recommends that surveys be conducted between dawn and 11 a.m. when weather conditions are favorable. Surveys were not conducted under extreme weather conditions (e.g., dense fog, high winds, rain, or extreme temperatures) that may have reduced the potential for detection of LBVI. The biologists traversed areas of suitable LBVI habitat within the Project Footprint by foot and frequently stopped to look and listen for LBVIs.

Due to safety concerns, the biologists surveyed the disturbed Fremont cottonwood forest and woodland from a distance to listen and scan for LBVI. The biologists surveyed the disturbed Fremont cottonwood forest and woodland from two areas including a parking lot immediately north of the habitat with a wall as a physical safety barrier, and approximately 164 feet (50 meters) south of the habitat to listen and scan for LBVI.

All wildlife species that the biologists detected during surveys were recorded, including special status species and incidental observations of nonnative brown-headed cowbirds (*Molothrus ater*). No recorded vocalizations were broadcasted or played back for the LBVI surveys. Data was collected in the field using the ArcGIS® Field Maps application on a device (i.e., smartphone or tablet) that was connected to a Global Positioning System unit.

3.3.4 Burrowing Owl (*Athene Cunicularia*) Surveys

Due to the presence of marginal suitable habitat for burrowing owl (BUOW) within the Project Footprint, four protocol-level BUOW surveys were conducted on four separate days between May and June 2024, by qualified biologists. The biologists walked pedestrian transects spaced 20-30 meters apart across the entire Project Footprint (Figure 3) where access was permissible. Note that one parcel which was surveyed for burrowing owl, APN 292-250-012, has since been removed from being a part of the Project Footprint.

Surveys were conducted during the burrowing owl breeding season (February 1 - August 31) and in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCTLMA 2006). In locations where the Project Footprint was inaccessible due to unknown property ownership, biologists visually surveyed the area with binoculars. Prior to the start of a transect, biologists visually surveyed the transect and surrounding area. The biologists visually inspected any burrows, rocky areas, or man-made materials within the Project Footprint for potential BUOW occupation. All burrows encountered were inspected for presence or sign of burrowing owl (e.g., whitewash, pellets, feathers, and/or prey remains) and classified according to the guidelines in the *Staff Report* (California Department of Fish and Game [CDFG] 2012).

Data collected for each burrow included the condition and size of the burrow, number of entrances, presence of burrowing owl sign near the burrow, and location. The location was marked using a GPS. Burrows were individually numbered and classified into two categories based on definitions found in the CDFG *Staff Report* (CDFG 2012): occupied burrow or potential burrow. Burrows classified as occupied showed signs (e.g., whitewash, feathers, pellets, and/or bones of prey outside the burrow), indicating BUOW presence and/or use at some point in time. Potential burrows were defined as burrows that are large enough for a burrowing owl but do not show sign of use by the species. Data was recorded on survey sheets and photographs were taken.

Weather data was recorded at the time of the surveys (including time, temperature, cloud cover, and wind speed at the start and end of the survey). Surveys were not conducted during rain, high winds (over 20 miles per hour), dense fog, or temperatures over 90 °F. The surveys were conducted in the morning one hour before sunrise and up to two hours after sunrise. Biologists also recorded the major plant and wildlife species observed or detected during the surveys.

3.3.5 Rare Plant Survey

The rare plant survey was conducted for the proposed Project in September 2024 by qualified ECORP biologists with extensive experience in botanical surveys and knowledge regarding plant taxonomy, plant species in the region, and special-status plant species identification. Note that one parcel which was surveyed for rare plants, APN 292-250-012, has since been removed from being a part of the Project Footprint.

The survey was conducted during the appropriate blooming period for target species such as white rabbit tobacco (*Pseudognaphalium leucocephalum*), smooth tarplant (*Centromadia pungens ssp. laevis*), California satintail (*Imperata brevifolia*), and San Bernardino aster (*Symphyotrichum defoliatum*). The survey was conducted in accordance with the USFWS' Guidelines for Conducting and Reporting Botanical Inventories

for Federally Listed, Proposed, and Candidate Plants (USFWS 1996), CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018), and the CNPS's Botanical Survey Guidelines (CNPS 2001). Biologists conducted the survey by employing systematic field techniques, which included walking transects spaced approximately 32 feet (10 meters) apart, with transect spacing adjusted for vegetation height and density as needed, to provide 100 percent visual coverage of the Project Footprint. Spacing between the biologists was adjusted depending on the vegetation cover, soil-type affinity of the target species, and suitability of habitat for the target species. Biologists documented any detected special-status plant location using ArcGIS Field Maps software enhanced with an external GPS device with sub-meter accuracy. Observed multiple rare plant species individuals were grouped as a population and represented with a polygon. Anything beyond 7 meters from a mapped polygon was recorded as a separate point. Portions of the Project Footprint that were not accessible due to fencing, private property, or safety concerns were surveyed from afar to the greatest extent possible using binoculars.

All plant species observed in the Project Footprint were identified to the lowest taxonomic level possible (i.e., species, subspecies, or variety) based on the diagnostic features present at the time of the survey. Common plant species were identified and recorded to maintain a compendium of plant species that occur in the Survey Area. In some cases, biologists took plant samples from the Project Footprint when a dissecting microscope was necessary for identification. Taxonomy of plant species identified within the Survey Area is based on the following sources: The Jepson Manual (Hickman 1993), The Jepson Manual, 2nd Edition (Baldwin et al. 2012), and the Jepson eFlora (2024).

4.0 RESULTS

Summarized below are the results of the literature review and field surveys, including site characteristics, vegetation communities, plants, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

The updated CNDDDB and CNPSEI searches were conducted on May 3, 2024. The database searches identified 64 special-status plant species and 53 special-status wildlife species that could occur on and/or near the Project Footprint. A list was generated from the results of the literature review and the Project Footprint was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list. Appendix A contains a list of the special-status plant species with potential to occur on and/or near the Project Footprint and Appendix B contains a list of the special-status wildlife species with potential to occur on and/or near the Project Footprint.

4.1.2 U.S. Fish and Wildlife Service Designated Critical Habitat

The Project Footprint is not located within any USFWS-designated critical habitat. The nearest designated critical habitat is located more than 5 miles away.

4.1.3 Aquatic Resources Delineation Literature Review

The Project Footprint is located within the San Jacinto Watershed (Hydrologic Unit Code [HUC]-8 # 18070202) and specifically within the Moreno Valley Subwatershed (HUC-12 # 180702020304; NRCS et al. 2022). The San Jacinto Watershed encompasses over 765 square miles (1,982 square kilometers) and occurs inland, east of the Santa Ana Mountains and extending east over portions of the San Jacinto Mountains. The subwatershed encompasses about 6 percent of the total watershed. There are no named natural streams within the subwatershed, however NHD shows two manmade concrete-lined aquatic features within this subwatershed: Perris Valley Storm Drain and the Governor Edmund G. Brown East Branch California Aqueduct (USGS 2022a).

The literature review shows one primary aquatic resource within the Project Footprint. This tributary is mapped on the NWI and on the NHD as a blue-line stream. Based on a review of NHD, this aquatic resource is an unnamed tributary to the San Jacinto River. San Jacinto River is approximately 14.6 miles downstream from the Project Footprint. From the analysis of aerial photographs of the Project Footprint, presence of OHWM is apparent in some portions of this feature, however, much of the feature appears to have a riparian canopy present making the OHWM not visible.

According to the Web Soil Survey (NRCS 2022), five soil units, or types, have been mapped within the Project Footprint, consisting of Greenfield, Hanford, Monserrate, and Ramona series soil subtypes. The locations of these five soil units are displayed in Figure 4. Of these five soil subtypes, none contain hydric components nor are considered hydric.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on November 1 and 2, 2022, by ECORP biologists Chelsie Brown and Corrina Tapia. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the two surveys are summarized in Table 1. Site conditions were verified or updated during focused surveys in 2024.

Table 1. Weather Conditions During the Survey								
Date	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
11/1/2022	0800	1445	63.2	77.9	20	10	0-1	0-1
11/2/2022	0800	1230	60.0	65.8	100	95	0	0

Note: °F = Degrees Fahrenheit; mph = miles per hour

4.2.1 Property Characteristics

The northern portion of the Project Footprint, north of State Route (SR-) 60 consists of residential development and paved roadways (Hemlock Avenue and SR-60). The central portion of the Project Footprint, bordered to the north by SR-60 and to the south by Sunnymead Boulevard, consists of a paved roadway (Sunnymead Boulevard) and an undeveloped lot composed primarily of disturbed soils and nonnative vegetation. South of Sunnymead Boulevard, the southern portion of the Project Footprint consists of a vacant lot that is heavily disturbed and contains compacted soils. Disturbances observed on the Project Footprint and surrounding 500-foot buffer include trash, unauthorized dumping, pedestrians, homeless encampments, and previous mechanical disturbances (e.g., discing, grading). The Project Footprint is surrounded by residential and commercial development to the north, west, south, and east. The southern portion of the Project Footprint, South of Sunnymead Boulevard, is bordered by fencing on all sides except for the southwestern most tip of the Projects site's boundary which is not fenced. Some native vegetation was identified within the Project Footprint. Multiple aquatic resources and riparian vegetation were also observed during the biological reconnaissance survey within the Project Footprint. Representative site photographs are included in Appendix C.

4.2.2 Soils

According to the NRCS, there are five soil series mapped within the Project Footprint, consisting of Greenfield Sandy Loam, Hanford Coarse Sandy Loam, Monserrate Sandy Loam (two subtypes) and Ramona Sandy Loam (Figure 3). Of these mapped soil units, none have a hydric rating or are known to contain hydric components. Field observations within mapped features were consistent with expectations based on mapped soil units for each of those respective areas.

4.3 Vegetation Communities

ECORP mapped and classified vegetation communities within the Project Footprint and a 500-foot buffer to reflect current conditions during the rare plant survey in September 2024, using the *Manual of California Vegetation, Online Edition* (CNPS 2024b) However, the majority of the Project Footprint is classified as disturbed and developed due to the high levels of disturbance associated with human activities and existing structures present. Within the Project Footprint, three vegetation communities including disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow - red willow riparian woodland and forest, disturbed sandbar willow thickets, and two land cover types are present: disturbed and urban/developed.

The survey buffer consists of one vegetation community: disturbed sandbar willow thickets, and two land cover types: disturbed and urban/developed. Each of these vegetation communities and land cover types are described below and depicted in Figure 4. Table 2 lists the associated acreage for vegetation communities and land cover that occurs on the Project Footprint and the 500-foot survey buffer.

Figure 3. Natural Resources Conservation Service Soil Types

Figure 4. Vegetation Communities and Land Cover Types

Table 2. Vegetation Communities and Land Cover Acreage within Project Footprint	
Land cover type	Acreage¹
Disturbed Fremont cottonwood forest and woodland	0.348
Disturbed Goodding’s willow – red willow riparian woodlands	0.632
Disturbed sandbar willow thickets	0.115
Disturbed	11.530
Urban/Developed	158.253
TOTAL	170.878

¹The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a summation of unrounded values prior to being rounded.

Two sensitive vegetation communities are present on the Project Footprint: disturbed Fremont cottonwood forest and woodland, which has a CDFW State Rarity Rank of S3 (rankings of S1 through S3 are considered sensitive by CDFW) and disturbed Goodding’s willow – red willow riparian woodlands, which has a State Rarity Rank of S3 (CDFW 2023).

4.3.1 Disturbed Fremont Cottonwood Forest and Woodland (*Populus fremontii*-*Fraxinus velutina*-*Salix gooddingii* Forest and Woodland Alliance)

Disturbed Fremont cottonwood forest and woodland is characterized by Fremont’s cottonwood (*Populus fremontii*) as a dominant or codominant species in the tree canopy with ash trees (*Fraxinus* spp.), willows (*Salix* spp.), California sycamore (*Platanus racemosa*), and coast live oak (*Quercus agrifolia*; CNPS 2024b). This community is found on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year (CNPS 2024b). Fremont cottonwood forest and woodland is considered a state-sensitive vegetation community and has a State Rarity Rank of S3, indicating that it is vulnerable (CDFW 2023). The area mapped within the Project Footprint as disturbed Fremont cottonwood forest and woodland mostly has a continuous tree canopy. Toward the southern end of this community, an open tree canopy and an intermittent shrub layer is present. On the Project Footprint, this community is dominated by Fremont’s cottonwood and other species including mulefat (*Baccharis salicifolia*), narrowleaf willow (*Salix exigua*), tamarisk (*Tamarix ramosissima*), broadleaf cattail (*Typha latifolia*), and Mexican fan palm (*Washingtonia robusta*) are present. Disturbances observed within this vegetation community include unauthorized dumping, nonnative species, and homeless encampments.

4.3.2 Disturbed Goodding’s Willow – Red Willow Riparian Woodland (*Salix gooddingii* – *Salix laevigata* Forest and Woodland Alliance)

Disturbed Goodding’s willow – red willow riparian woodland is characterized by black willow (*Salix gooddingii*) and/or red willow (*Salix laevigata*) as a dominant or codominant species in the tree or shrub

canopy with white alder (*Alnus rhombifolia*), foothill pine (*Pinus sabiniana*), California sycamore, Fremont's cottonwood, and oaks (*Quercus* spp.; (CNPS 2024b). Shrubs within this alliance may include mulefat, California wild rose (*Rosa californica*), narrowleaf willow, arroyo willow (*Salix lasiolepis*), and black elderberry (*Sambucus nigra* ssp. *caerulea*). This community is found on terraces along large rivers and canyons and along floodplains of streams, seeps, springs, ditches, lake edges, and low gradient depositions (CNPS 2024b). Goodding's willow – red willow riparian woodland is considered a state-sensitive vegetation community and has a State Rarity Rank of S3, indicating that it is vulnerable (CDFW 2023). On the Project Footprint, this community is dominated by Goodding's willow and occurs in patches north of Sunnymead Boulevard. It is associated with a stream feature located to the west and outside of the Project Footprint on a parcel that is not a part. Additional species present within this community include ash (*Fraxinus* sp.), arroyo willow, mulefat, and Mexican fan palm. Disturbances observed within this alliance include nonnative species, homeless encampments and unauthorized dumping.

4.3.3 Disturbed Sandbar Willow Thickets (*Salix exigua* Shrubland Alliance)

Disturbed sandbar willow thickets are characterized by narrowleaf willow as a dominant or co-dominant species in the shrub canopy with baccharis (*Baccharis* spp.), California wild rose, blackberry shrubs (*Rubus* spp.), and arroyo willow (CNPS 2024b). Shrubs are generally less than 23 feet in height and the canopy is intermittent to continuous. This community is typically found on temporarily flooded floodplains, depositions along rivers and streams, and at springs (CNPS 2024b). Within the Project Footprint, this community has an intermittent to continuous canopy, and shrubs range from 6 feet to 12 feet in height. The disturbed sandbar willow thicket community identified on the Project Footprint is dominated by narrowleaf willow, and no other native species were present within the community at the time of the biological survey. Disturbances observed in this community include nonnative species, pedestrians, feral cats and dogs, and scattered trash. During the presence/absence LBVI surveys, the biologists noticed that this vegetation community was removed by an unknown entity in June 2024; however, this vegetation community was starting to grow back by the time of the rare plant survey in September 2024.

4.3.4 Disturbed

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions such as grading and trash dumping but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Disturbed areas may be actively maintained to be free of vegetation or have been compacted or disked to such a degree that native vegetation is very sparse. The areas mapped as disturbed are largely devoid of native vegetation and are dominated by open areas or non-native weedy and ruderal vegetation. This land cover type occurs throughout the majority of the Project Footprint south of SR-60. Plants present in this land cover type within the Project Footprint include non-native weedy species such as prickly lettuce (*Lactuca serriola*), wild oat (*Avena fatua*), mustard (*Brassica* sp.), Bermuda grass (*Cynodon dactylon*), puncture vine (*Tribulus terrestris*), and Russian thistle (*Salsola tragus*). Native species in this land cover type included vinegar weed (*Trichostema lanceolatum*), rattlesnake sandmat (*Euphorbia albomarginata*), and turkey-mullein (*Croton setiger*). The central portion of the Project Footprint, south of SR-60 and north of Sunnymead Boulevard, appeared the most disturbed based on the large areas of bare ground and

prevalence of weedy vegetation characteristic of disturbed places (i.e., Bermuda grass and Russian thistle), and it appeared the area had been cleared and graded in the past. South of Sunnymead Boulevard, the disturbed area northwest of the drainage also appeared graded, and gravel had been spread over this area. Additionally, the southeast corner of the Project Footprint, east of the large drainage that runs down the Project Footprint, had evidence of grading with compact soils and some portions of this area appeared to have had mulch put down.

4.3.5 Urban/Developed

Urban/Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as urban/developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. On the Project Footprint, portions of the developed areas contain strips of ornamental and landscaped vegetation; however, this land cover type also consists of paved roadways, residential development, and parking lots. The majority of the 500-foot survey buffer is mapped as urban/developed. Ornamental landscaped plants observed during the biological survey include bougainvillea (*Bougainvillea* sp.), Italian cypress (*Cupressus sempervirens*), Bermuda grass, olive trees (*Olea europaea*), Peruvian pepper trees (*Schinus mole*), and pine trees (*Pinus* sp.).

4.4 Least Bell's Vireo Surveys Results

All LBVI surveys were conducted by ECORP staff including Carla Marriner, Corrina Tapia, Christopher Uminski, Carter Warwick, Freddie Olmos, and Shelby Dunn. The surveyors located suitable breeding habitat within the disturbed Fremont cottonwood forest and woodland, disturbed Gooding's willow-red willow riparian woodland, and disturbed sandbar willow thickets. The surveyors did not detect LBVI individuals within or near the Project Footprint during the eight protocol surveys for the species. Therefore, ECORP considers LBVI to be absent from the Project Footprint at this time. A complete report on the results of the LBVI presence/absence surveys that ECORP conducted during the 2024 breeding season is included as Appendix G.

4.5 Burrowing Owl Surveys Results

The protocol-level BUOW surveys were conducted over a series of four field visits by ECORP biologists Eliza McLean, Carly Taylor, Corinna Tapia, Carla Marriner, and Daniel Jaques. Eight potentially suitable burrows (>4 inches in diameter) were observed in the northern portion of the Project Footprint throughout the four focused surveys. However, no BUOW or active signs thereof were observed in the Project Footprint or 500-ft buffer throughout the focused surveys. Based on the lack of any direct or indirect evidence of BUOW presence, these results indicate that the Project Footprint was not occupied by BUOW at the time of the surveys. A full report on the results of the BUOW surveys is included as Appendix H.

4.6 Rare Plant Survey

The focused rare plant survey was performed by ECORP biologists Alexandra Dorough and Daniel Jaques. The biologists did not observe any special-status plant species within the Project Footprint during the

survey. Survey data, including weather conditions are provided in Table 3. A list of all plant species observed during the survey is provided as Appendix D.

Table 3. Rare Plant Survey Data								
Date	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
9/4/24	0715	1230	74	101	0	0	0-1	2-6

Note: °F = Degrees Fahrenheit; mph = miles per hour

4.7 Plants Observed

Plant species observed during surveys were generally characteristic of disturbed urban areas and riparian vegetated drainages. Native plants observed include fiddleneck (*Amsinckia* sp.), mulefat, Fremont’s cottonwood, narrowleaf willow, black willow, and vinegar weed. Nonnative plant species observed include slender wild oat (*Avena barbata*), foxtail chess (*Bromus madritensis*), short-podded mustard (*Hirschfeldia incana*), Russian thistle, tamarisk, and puncture vine. A full list of plant species observed on and immediately adjacent to the Project Footprint during the surveys is included in Appendix D.

4.8 Wildlife Observed

Wildlife species observed and detected on the Project Footprint, or adjacent, within the 500-foot buffer, were characteristic of disturbed habitat as well as urban environments. One reptile species was observed during the biological reconnaissance and focused surveys: western fence lizard (*Sceloporus occidentalis*). Thirty-six bird species were observed including red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), Anna’s hummingbird (*Calypte anna*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), and yellow-rumped warbler (*Setophaga coronate*). Seven mammal species were observed during the surveys including feral cat (*Felis catus*), striped skunk (*Mephitis mephitis*), and Botta’s pocket gopher (*Thomomys bottae*). A complete list of wildlife species observed during the survey is included as Appendix E.

4.9 Potential for Special-Status Species to Occur on the Project Footprint

The literature review and database searches identified 64 special-status plant species and 53 special-status wildlife species that occur on or near the Project Footprint. However, due to the high level of disturbance at the Project Footprint, many of the species are presumed absent.

4.9.1.1 Special-Status Plants

There were 64 special-status plant species (of those, 12 are federally and/or state listed and 40 are covered by the MSHCP) that appeared in the literature review and database searches for the Project Footprint (CDFW 2024a, CNPS 2024a). A list was generated from the results of the literature review and

the Project Footprint was evaluated for suitable habitat that could support any of the special-status plant species on the list.

Of the 64 special-status plants identified in the literature review and based on the habitat found onsite, seven species have a moderate potential to occur, and eight species have a low potential to occur within the Project Footprint or in the immediate area of the site; however, no sensitive plant species were identified during the biological surveys or rare plant survey. The remaining 49 species are presumed absent from the Project Footprint. A table outlining each species, their designations, and the potential for these species to occur on the Project Footprint can be found in Appendix A.

For the purposes of this study, the results of the literature review were limited to plant species occurring within a nine-quadrangle search of the Project Footprint. With various habitat types occurring within the nine-quadrangle search, several species appeared in the literature review results that had no potential to occur on or near the Project Footprint. Additionally, for the purposes of this study, plant species with a CNPS Rare Plant Rank of 4.3 species were eliminated from the analysis because, if present, these species are only expected to occur in low density and Project-related impacts would not be expected to contribute to the overall decline of populations for these species. Therefore, impacts to these species would not be considered significant and additional surveys and mitigation would not be necessary. Descriptions of the CNPS designations can be found in Table 4.

Table 4. California Rare Plant Rank (CRPR) Status Designations	
List Designation	Meaning
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (CDFG 1984). This interpretation is inconsistent with other definitions.

4.9.1.2 **Plant Species with a Moderate Potential to Occur**

Based on the habitat found onsite, the following species have a moderate potential to occur on the Project Footprint or in the immediate area of the site.

- Nevin’s barberry (*Berberis nevinii*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1, MSHCP Covered;
- California satintail (*Imperata brevifolia*), CRPR 2B.1;
- Spreading navarretia (*Navarretia fossalis*), federally listed (threatened), CRPR 1B.1, MSHCP Covered;
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2;
- San Bernardino aster (*Symphotrichum defoliatum*), CRPR 1B.2; and
- Wright’s trichocoronis (*Trichocoronis wrightii* var. *wrightii*), CRPR 2B.1, MSHCP Covered.

Nevin’s barberry (*Berberis nevinii*)

Nevin’s barberry is both federally and state-listed as endangered and has a California Rare Plant Rank (CRPR) status of 1B.1. The plant species is a MSHCP Covered Species and an annual herb that is endemic to California. This species is typically found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitat and is often in sandy or gravelly soils. Suitable riparian woodland habitat is present on the Project Footprint where disturbed Fremont cottonwood forest and woodland and disturbed Goodding’s willow – red willow riparian woodland are present. One recent record (Occurrence # 4) occurs approximately 5 miles away from the Project Footprint in 2009 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint and the recent documented records of the species within 5 miles the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

Smooth tarplant (*Centromadia pungens* ssp. *laevis*)

Smooth tarplant is not a federally or state-listed species but does have a CRPR status of 1B.1. The species is a MSHCP Covered Species and is an annual herb that is endemic to California. This species is typically found in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland with alkaline soils. The disturbed Fremont cottonwood forest and woodland and disturbed Goodding’s willow – red willow riparian woodland vegetation communities present on the Project Footprint provide suitable habitat for the species. This species has been documented approximately 2.5 miles southwest (Occurrence # 88) and approximately 2.6 miles west (Occurrence # 4) of the project in 1995 and 2016, respectively (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint and the recent documented records of the species within 5 miles the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

California satintail (*Imperata brevifolia*)

California satintail is a perennial grasslike herb with a CRPR status of 2B.1. The species is not a federally or state-listed species or a MSHCP Covered Species. This species is typically found in chaparral, coastal scrub, Mojavean desert scrub, alkaline meadows and seeps, and riparian scrub habitats with mesic soils. The disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow – red willow riparian woodland, and disturbed sandbar willow thicket vegetation communities present on the Project Footprint provide suitable habitat for the species. This species has been documented approximately 10 miles northeast (Occurrence # 6) in 1891 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

Spreading navarretia (*Navarretia fossalis*)

Spreading navarretia is state-listed as threatened and has a CRPR status of 1B.1. The species is a MSHCP Covered Species and is an annual herb that is endemic to California and Baja California. This species is typically found in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools. The disturbed sandbar willow thicket vegetation community present on the Project Footprint provides suitable habitat for the species. This species has been documented at multiple locations approximately 9 to 11 miles west and northwest of the project from 1995 to 2020 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint and the recent documented records of the species within the vicinity of the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

White rabbit-tobacco (*Pseudognaphalium leucocephalum*)

White rabbit-tobacco is a perennial herb with a CRPR status of 2B.2. The species is not a federally or state-listed species or a MSHCP Covered Species. This species is typically found in chaparral, cismontane woodland, coastal scrub, and riparian woodland with sandy, gravelly soils. The disturbed Fremont cottonwood forest and woodland and disturbed Goodding's willow – red willow riparian woodland vegetation communities present on the Project Footprint provide suitable habitat for the species. This species has been documented within Temescal Canyon, approximately 16 miles southwest of the project, on multiple occasions from 2004 to 2014 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint and the recent documented records of the species within the vicinity of the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

San Bernardino aster (*Symphyotrichum defoliatum*)

San Bernardino aster is perennial herb with a CRPR status of 2B.2. The species is not a federally or state-listed species or a MSHCP Covered Species. This species is typically found in meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernal mesic valley and foothill grassland. This species is often found in disturbed areas and near ditches, streams, and springs. The disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow – red

willow riparian woodland, and disturbed sandbar willow thicket vegetation communities present on the Project Footprint provide suitable habitat for the species. This species has been documented at multiple locations approximately 7 to 17 miles from the project from 1917 to 1995 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)

Wright's trichocoronis is an annual herb with a CRPR status of 2B.1. The species is not a federally or state-listed species but is a MSHCP Covered Species. This species is typically found in meadows and seeps, marshes and swamps, riparian forest, and vernal pools with alkaline soils. The disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow – red willow riparian woodland, and disturbed sandbar willow thicket vegetation communities present on the Project Footprint provide suitable habitat for the species. This species has been documented along the San Jacinto River, approximately 9 miles northwest of the project, on multiple occasions from 1980 to 2011 (CDFW 2024a). Based on the presence of suitable habitat on the Project Footprint and the recent documented records of the species within the vicinity of the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint. However, no individuals were observed during the biological or rare plant surveys.

4.9.1.3 Plant Species with a Low Potential to Occur

The following species have a low potential to occur on the Project Footprint because limited or marginal habitat for these species occurs on site and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.

- San Diego sagewort (*Artemisia palmeri*), CRPR 4.2;
- Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), CRPR 1A;
- Southern California black walnut (*Juglans californica*), CRPR 4.2, MSHCP Covered;
- Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), CRPR 4.2, MSHCP Covered;
- Lemon lily (*Lilium parryi*), CRPR 1B.2, MSHCP Covered;
- Small-flowered microseris (*Microseris douglasii* ssp. *platycarpa*), CRPR 4.2, MSHCP Covered;
- Engelmann oak (*Quercus engelmannii*), CRPR 4.2, MSHCP Covered;
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*), CRPR 1A; and

4.9.1.4 **Plant Species Presumed Absent**

A total of 49 plant species were presumed absent due to lack of suitable habitat (including elevation and soils) on the Project Footprint or because the Project is located outside of the known range for the species.

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*), CRPR 1B.1;
- Yucaipa onion (*Allium marvinii*), CRPR 1B.2, MSHCP Covered;
- Munz's onion (*Allium munzii*), federally listed (endangered), state-listed (threatened), CRPR 1B.1, MSHCP Covered;
- San Diego ambrosia (*Ambrosia pumila*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Rainbow manzanita (*Arctostaphylos rainbowensis*), CRPR 1B.1, MSHCP Covered;
- Marsh sandwort (*Arenaria paludicola*), federally listed (endangered), state-listed (endangered), CRPR 1B.1;
- Western spleenwort (*Asplenium vespertinum*), CRPR 4.2;
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*), CRPR 1B.1;
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Parish's brittlescale (*Atriplex parishii*), CRPR 1B.1, MSHCP Covered;
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), CRPR 1B.2, MSHCP Covered;
- Three-awned grama (*Bouteloua trifida*), CRPR 2B.3;
- Thread-leaved brodiaea (*Brodiaea filifolia*), federally listed (threatened), state-listed (endangered), CRPR 1B.1, MSHCP Covered;
- Plummer's mariposa lily (*Calochortus plummerae*), CRPR 4.2, MSHCP Covered;
- Bristly sedge (*Carex comosa*), CRPR 2B.1;
- Payson's jewelflower (*Caulanthus simulans*), CRPR 4.2, MSHCP Covered;
- Salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), federally listed (endangered), state-listed (endangered), CRPR 1B.2;
- Peninsular spineflower (*Chorizanthe leptotheca*), CRPR 4.2, MSHCP Covered;
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR 1B.1, MSHCP Covered;
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), CRPR 1B.2, MSHCP Covered;

- White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), CRPR 1B.2;
- Small-flowered morning glory (*Convolvulus simulans*), CRPR 4.2, MSHCP Covered;
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), CRPR 2B.2;
- Mojave tarplant (*Deinandra mohavensis*), state-listed (endangered), CRPR 1B.3, MSHCP Covered;
- Paniculate tarplant (*Deinandra paniculata*), CRPR 4.2;
- Cleveland's bush monkeyflower (*Diplacus clevelandii*), CRPR 4.2, MSHCP Covered;
- Slender-horned spineflower (*Dodecahema leptoceras*), federally listed (endangered), state-listed (endangered), CRPR 1B.1, MSHCP Covered;
- Many-stemmed dudleya (*Dudleya multicaulis*), CRPR 1B.2, MSHCP Covered;
- Sticky-leaved dudleya (*Dudleya viscida*), CRPR 1B.2, MSHCP Covered;
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), federally listed (endangered), state-listed (endangered), CRPR 1B.1, MSHCP Covered;
- Alvin Meadow bedstraw (*Galium californicum* ssp. *primum*), CRPR 1B.2, MSHCP Covered;
- Palmer's grapplinghook (*Harpagonella palmeri*), CRPR 4.2, MSHCP Covered;
- Shaggy-haired alumroot (*Heuchera hirsutissima*), CRPR 1B.3, MSHCP Covered;
- Vernal barley (*Hordeum intercedens*), CRPR 3.2, MSHCP Covered;
- Mesa horkelia (*Horkelia cuneata* var. *puberula*), CRPR 1B.1;
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), CRPR 1B.1, MSHCP Covered;
- Parish's desert-thorn (*Lycium parishii*), CRPR 2B.3;
- California muhly (*Muhlenbergia californica*), CRPR 4.3, MSHCP Covered;
- Little mousetail (*Myosurus minimus* ssp. *apus*), CRPR 3.2 MSHCP Covered;
- Gambel's water cress (*Nasturtium gambelii*), federally listed (threatened), state-listed (endangered), CRPR 1B.1;
- Brand's star phacelia (*Phacelia stellaris*), CRPR 1B.1, MSHCP Covered;
- Cliff cinquefoil (*Potentilla rimicola*), CRPR 2B.3, MSHCP Covered;
- Coulter's Matilija poppy (*Romneya coulteri*), CRPR 4.2, MSHCP Covered;
- Chaparral ragwort (*Senecio aphanactis*), CRPR 2B.2;
- Salt spring checkerbloom (*Sidalcea neomexicana*), CRPR 2B.2;
- Chickweed oxytheca (*Sidotheca caryophylloides*), CRPR 4.3, MSHCP Covered;

- Prairie wedge Grass (*Sphenopholis obtusata*), CRPR 2B.2;
- Woven-spored lichen (*Texosporium sancti-jacobi*), CRPR 3; and
- California screw moss (*Tortula californica*), CRPR 1B.2.

4.10 Potential for Special-Status Wildlife to Occur on the Project Footprint

There were 53 special-status wildlife species (of those, 17 are federally and/or state listed, two are candidates for federal listing, two are candidates for state listing, and 37 are covered by the MSHCP) that appeared in the literature review and database searches for the Project Footprint. Of the 53 special-status wildlife species identified in the literature review, one was present on the site, six have a moderate potential to occur, 13 have a low potential to occur, and the remaining 33 species are presumed absent from the Project Footprint. Previous mechanical disturbances on the site, proximity to urban and residential development, the presence of anthropogenic influences on the site, and the lack of suitable habitat likely preclude many of these species from occurring. A complete list of the 53 special-status wildlife species, with details regarding habitat requirements and potential for occurrence designations, is included as Appendix B.

4.10.1.1 Wildlife Species Present in the Project Footprint

Yellow Warbler (*Setophaga petechia*)

Yellow warbler is a CDFW SSC and MSHCP Covered Species. The yellow warbler occurs in riparian forest, riparian scrub, and riparian woodland habitats. This species is frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. Their diet consists primarily of insects. Suitable riparian scrub and woodland habitat is present on the Project Footprint. The disturbances in these areas decrease the suitability of the habitat for this species. One recent record (Occurrence # 95; CDFW 2024a) from 2015 occurs more than 5 miles away. This species was observed during two least Bell's vireo focused surveys; however, nesting activity was not observed.

4.10.1.2 Wildlife Species with a Moderate Potential to Occur

The following species have a moderate potential to occur on the Project Footprint because either habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the site; a historic documented observation was recorded within 5 miles of the Project Footprint; or a known recently documented occurrence has been reported within 5 miles of the site and marginal or limited amounts of habitat occurs onsite.

Western Spadefoot (*Spea hammondi*)

Western spadefoot is a CDFW SSC and a MSHCP Covered Species. The western spadefoot occurs in open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, sandy washes, river floodplains, alluvial fans, playas, and grasslands. Vernal pools or vernal pool-like features such as road ruts are essential for the breeding and egg-laying of this species. The western spadefoot is almost completely terrestrial, entering water only to breed. The diet of

this species consists of a variety of invertebrates, including ants, crickets, adult beetles, larval and adult moths, flies, earthworms, and crickets. The Project Footprint contains marginally suitable sandy soils, which are favorable for the species to burrow. The sandy soils are present in the intermittent drainage near the disturbed sandbar willow thickets in the southern portion of the Project Footprint. Although vernal pools are not present on the Project Footprint, small pools could form within the drainages that could be suitable for the species to breed. Six recent records are documented within 5 miles of the Project Footprint with the most recent located approximately 4 miles northwest in 2019 (Occurrence # 1378) and the closest being less than one mile northeast in 2003 (Occurrence # 259; CDFW 2024a). Based on the marginally suitable sandy soils, potential for small pools within the drainages that could provide possible breeding habitat, and recent records within 5 miles, this species has a moderate potential to occur on the Project Footprint.

Southern California Legless Lizard (*Anniella stebbinsi*)

Southern California legless lizard is a CDFW SSC and is found in coastal sand dunes and a variety of interior habitats including sandy washes and alluvial fans. The species also occurs in moist warm loose soil with plant cover and sparsely vegetated beach dunes, pine-oak woodlands, desert scrub, chaparral, and stream terraces with sycamores, cottonwoods, or oaks and is sometimes found in suburban gardens. The diet of the species consists of larval insects, beetles, termites, and spiders. Marginally suitable habitat for this species is present in the southern portion of the Project Footprint, south of Sunnymead Boulevard, within the large drainage feature (Feat. 1) where Fremont's cottonwoods are present. Four recent records of this species are documented within 5 miles of the Project Footprint with the closest two records being a little over 3 miles away in 2011 and 2014 (Occurrence # 148 and 151; CDFW 2024a). Due to the presence of marginally suitable stream terrace habitat for this species and the recent documented records near the Project Footprint, this species has been determined to have a moderate potential to occur on the Project Footprint.

Coastal Whiptail (*Aspidoscelis tigris stejnegeri*)

Coastal whiptail is a CDFW SSC and a MSHCP Covered Species. The coastal whiptail is found primarily in hot and dry open areas with sparse vegetation in habitats including chaparral, woodlands, and dry riparian areas. The species primarily feeds on small lizards and small invertebrates including spiders, scorpions, centipedes, and termites. Marginally suitable habitat is present on the Project Footprint in the dry riparian areas along the drainages. Three records of this species are documented within 5 miles of the Project Footprint with two of them being recent from 2007. The two recent records occur approximately 4.7 and 4.9 miles northeast (Occurrence # 89 and 90; CDFW 2024a). The presence of marginally suitable dry riparian habitat and the recent documented records near the Project Footprint resulted in this species having a moderate potential to occur on the Project Footprint.

Least Bell's Vireo (*Vireo bellii pusillus*)

Least Bell's vireo is both federally and state-listed as endangered and also is a MSHCP Covered Species. The least Bell's vireo occurs in riparian forest, riparian scrub, and riparian woodland habitats. The bird is typically a summer resident of southern California in low riparian vegetation in the vicinity of water or in

dry river bottoms. This bird places its nests along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite. Least Bell's vireos eat insects including caterpillars, grasshoppers, moths, and beetles. Marginally suitable nesting and foraging habitat was identified on the Project Footprint in the disturbed Fremont cottonwood forest and woodland and disturbed Goodding's willow – red willow riparian woodland south of SR-60. Eleven records occur within 5 miles, and ten of them are less than 20 years old (CDFW 2024a). Based on the marginally suitable riparian habitat and the recent occurrences within 5 miles, this species has been determined to have a moderate potential to occur on the Project Footprint. However, this species was not observed during the 2024 focused surveys.

Pallid bat (*Antrozous pallidus*)

Pallid bat is a CDFW SSC. The pallid bat is found in chaparral, coastal scrub, desert wash, Great Basin grassland and scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, and valley and foothill grassland habitats. The species is most commonly found in open, dry habitats with rocky areas for roosting. Although the species prefers rocky outcrops for roost, they are crevice roosters that can also roost in live trees and snags that have holes and cavities, in crevices formed by exfoliating tree bark, caves, rock crevices, mines, and buildings. The pallid bat is very sensitive to disturbance of roosting sites. The diet of the species consists mainly of large flying and ground-dwelling insects, moths, spiders, scorpions, and centipedes and will sometimes eat small lizards and mice. Large and small tree cavities are present along the large drainage (Feat. 1) located on the Project Footprint that could provide suitable maternity roosting habitat for the species. Suitable foraging habitat is also present in the form of insects located around the drainages on the Project Footprint. One record of the species was documented approximately 8 miles northeast of the Project Footprint in 1929 (Occurrence # 244; CDFW 2024a). Based on the suitable maternity roosting and foraging habitat present on the Project Footprint and the historical record of the species located more than 5 miles from the Project Footprint, this species has a moderate potential to occur on the Project Footprint.

Western Yellow Bat (*Lasiurus xanthinus*)

The western yellow bat is a CDFW SSC. The western yellow bat is a tree roosting species that is known to roost in native and non-native palm trees as well as cottonwood trees (Western Bat Working Group 2017). Palm trees and Fremont's cottonwood trees are present within the Project Footprint that could offer suitable maternity roosting habitat. The palm trees are located adjacent to Feat. 1 drainage north of SR-60. The locations of the Fremont's cottonwood trees are depicted on Figure 6. This species could foliage roost in the Fremont's cottonwoods and in the fronds or skirts of the palm trees present on the Project Footprint. One historic record of the species has been mapped within 5 miles of the Project Footprint, occurring approximately 3 miles southeast in 1992 (Occurrence # 53, CDFW 2024a). Suitable foraging habitat for western yellow bat also occurs within the Project Footprint in the riparian areas. The presence of suitable maternity roosting and foraging habitat as well as the historic record documented within 5 miles of the Project Footprint resulted in this species having a moderate potential to occur on the Project Footprint.

4.10.1.3 **Wildlife Species with a Low Potential to Occur**

The following species have a low potential to occur on the Project Footprint because either habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the site; a historic documented observation was recorded within 5 miles of the Project Footprint; or a known recently documented occurrence has been reported within 5 miles of the site and marginal or limited amounts of habitat occurs onsite.

- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC;
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered;
- Tricolored blackbird (*Agelaius tricolor*), state-listed (threatened), CDFW SSC, MSHCP Covered;
- Grasshopper sparrow (*Ammodramus savannarum*), CDFW SSC, MSHCP Covered;
- Long-eared owl (*Asio otus*), CDFW SSC, MSHCP Covered;
- Burrowing owl (*Athene cunicularia*), CDFW SSC, MSHCP Covered;
- Swainson's hawk (*Buteo swainsoni*), state-listed (threatened), MSHCP Covered;
- White-tailed kite (*Elanus leucurus*), CDFW Fully Protected, MSHCP Covered;
- Southwestern willow flycatcher (*Empidonax traillii extimus*), federally listed (endangered), state-listed (endangered);
- Yellow-breasted chat (*Icteria virens*), CDFW SSC, MSHCP Covered;
- Loggerhead shrike (*Lanius ludovicianus*), CDFW SSC, MSHCP Covered;
- Lincoln's sparrow (*Melospiza lincolni*), MSHCP Covered; and
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC.

4.10.1.4 **Wildlife Species Presumed Absent**

These species were not present at the site during the site visit and/or habitat was not present or suitable. For some species, there were historic or recent sightings; however, due to the lack of suitable habitat within the Project Footprint, these species are presumed absent:

- Crotch bumble bee (*Bombus crotchii*), Candidate for state-listing;
- Quino checkerspot butterfly (*Euphydryas editha quino*), federally listed (endangered), MSHCP Covered;
- Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), federally listed (endangered), MSHCP Covered;
- Riverside fairy shrimp (*Streptocephalus woottoni*), federally listed (endangered), MSHCP Covered;

- Santa Ana sucker (*Catostomus santaanae*), federally listed (threatened), MSHCP Covered;
- Arroyo chub (*Gila orcutti*), CDFW SSC, MSHCP Covered;
- Steelhead - southern California DPS (*Oncorhynchus mykiss irideus* pop. 10), federally listed (endangered);
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. 8), CDFW SSC;
- Southern mountain yellow-legged frog (*Rana muscosa*), federally listed (endangered), state-listed (endangered), MSHCP Covered;
- Southern rubber boa (*Charina umbratica*), state-listed (threatened), MSHCP Covered;
- San Diego banded gecko (*Coleonyx variegatus abbotti*), CDFW SSC, MSHCP Covered;
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC, MSHCP Covered;
- Western pond turtle (*Emys marmorata*), CDFW SSC, MSHCP Covered;
- San Bernardino Mountain kingsnake (*Lampropeltis zonata parvirubra*), MSHCP Covered;
- San Diego Mountain kingsnake (*Lampropeltis zonata pulchra*), MSHCP Covered;
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*), CDFW SSC;
- Southern sagebrush lizard (*Sceloporus graciosus vandenburgianus*), MSHCP Covered;
- Two-striped gartersnake (*Thamnophis hammondi*), CDFW SSC;
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), federally listed (threatened), state-listed (endangered), MSHCP Covered;
- Yellow rail (*Coturnicops noveboracensis*), CDFW SSC;
- Bald eagle (*Haliaeetus leucocephalus*), federally delisted, state-listed (endangered), CDFW Fully Protected, MSHCP Covered;
- California black rail (*Laterallus jamaicensis coturniculus*), state-listed (threatened), CDFW Fully Protected;
- Coastal California gnatcatcher (*Polioptila californica californica*), federally listed (threatened), CDFW SSC, MSHCP Covered;
- Williamson's sapsucker (*Sphyrapicus thyroideus*), MSHCP Covered;
- California spotted owl (*Strix occidentalis occidentalis*), CDFW SSC, MSHCP Covered;
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*), federally listed (endangered), state-listed (endangered), CDFW SSC, MSHCP Covered;

- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (threatened), state-listed (threatened), MSHCP Covered;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC;
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*), CDFW SSC, MSHCP Covered;
- San Diego desert woodrat (*Neotoma lepida intermedia*), CDFW SSC, MSHCP Covered;
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC;
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), CDFW SSC, MSHCP Covered; and
- American badger (*Taxidea taxus*), CDFW SSC.

4.11 Aquatic Resources Delineation

Potentially jurisdictional Waters of the U.S. and Waters of the State, along with habitat potentially jurisdictional to CDFW, have been mapped within the Project Footprint. There were a total of three aquatic features identified and examined within the Project Footprint, labeled on Figure 5 as Features 1, 3 and 4. These features include a freshwater marsh, an intermittent drainage, and an ephemeral drainage, along with associated riparian habitat features (disturbed Fremont cottonwood forest and woodland and disturbed sandbar willow thickets). The freshwater marsh, found at the outfall below a culvert that traverses underneath Sunnymead Boulevard, is considered to be a federal wetland, having met the three criteria for federal wetlands when it was sampled.

Note that there is also an isolated patch of disturbed Goodding's willow-red willow riparian woodland and forest within the Project Footprint that is associated with a stream which is located on a parcel just to the west that is not a part of the Project. This parcel supports a portion of what is mapped in the Project Footprint as Feature 1.

All of the features mapped for the Project Footprint are described further below and depicted within Figure 5. These results are subject to verification by the USACE, CDFW and RWQCB during the regulatory permitting process for the Project.

Site photographs that provide an overview of this delineation are included within Appendix C of this document. A list of plant species observed within the Project Footprint is included as Appendix D, and the OHWM and wetland determination datasheets are included as Appendix F.

Figure 5. Aquatic Resources Delineation Impacts

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4.11.1 Wetland Waters of the U.S.

4.11.1.1 Feature 4

One federal wetland (Feature 4) was identified within the Project Footprint. The freshwater marsh is located at the outfall below a culvert that traverses underneath Sunnymead Boulevard. The location met all three wetland criteria, and sample point (SP-)1 was collected in this location. The freshwater marsh is dominated by a mix of freshwater wetland species including Fremont's cottonwood (*Populus fremontii*/*Populus deltoides*; FAC), Mexican fan palm (FACW), arroyo willow (FACW), broadleaf cattail (OBL), and an unknown grass species that could not be identified. Soils met the depleted matrix (F3) and redox depressions (F8) hydric soil indicators. Wetland hydrology indicators observed included surface water (A1) present at 5 inches, saturation (A3) present at 7 inches, drift deposits (riverine; B3), and drainage patterns (B10). The upland area adjacent to the freshwater marsh was documented with SP-2. The freshwater marsh is approximately 0.014 acre (608 square feet) and 43 linear feet of the Project Footprint. Other Waters of the U.S./CDFW Jurisdiction

4.11.2 Non-Wetland Waters of the U.S.

4.11.2.1 Feature 1

Feature 1, which runs through most of the Project Footprint, is considered to be an intermittent drainage. Intermittent drainages differ from ephemeral drainages in that they flow for longer duration, typically weeks or months following rainfall events, and are often influenced by groundwater. This usually results in greater quantities and duration of flow relative to ephemeral drainages. The blue line stream appearing on NHD appears to be a historic drainage that has been piped underground through development prior to entering the Project Footprint (USGS 2022a). This drainage outfalls onto the Project Footprint via two culverts just south of Hemlock Avenue. From there, Feat. 1 continues south through the Project Footprint where it is piped underneath SR-60 via a box culvert. South of SR-60, the intermittent drainage continues onto a parcel that is not a part of the Project Footprint. Feat. 1 enters the Project Footprint again south of Sunnymead Boulevard from where it continues to travel south until it leaves the southwest end of the Project Footprint, joining an open, manmade channel.

According to NHD, flow from the feature eventually ends up in the San Jacinto River (USGS 2022a). Both Feat. 1 and the San Jacinto River are Relatively Permanent Waters (RPW) and the San Jacinto River is tributary to Lake Elsinore, which is Traditionally Navigable Waters (TNW) as defined by the Corps of Engineers. Therefore, Feat. 1 likely has a significant nexus (affecting the chemical, physical, or biological integrity) with the downstream TNW, and is likely subject to regulation under Section 404 of the CWA.

Feat. 1 is characterized by relatively dense, mature riparian vegetation within the active floodplain throughout much of the drainage's length and primarily has an unvegetated bed. Limits of the drainage channel were mapped in accordance with the presence of OHWM, evidenced by bed-and-bank topography, scouring effects consistent with water movement through an area, presence of litter/debris, and the changes in vegetative species and cover between the sides of the overall channel and the channel bottom.

The CDFW jurisdictional limits of Feat. 1 were defined by the upper limits of the overall channel, or top of the banks. Other CDFW jurisdiction includes the riparian habitat that is present (disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow-red willow riparian woodland and forest, and disturbed sandbar willow thickets). These vegetation communities are described in greater detail above. Within the mapped riparian habitats associated with Feat. 1, there were also riparian trees, which are shown on Figure 6. Riparian trees mapped within the Project Footprint include 15 Fremont's cottonwood trees and 7 black willows. CDFW streambed and associated riparian habitat accounts for a total of 0.663 acre (28,880 square feet) of the Project Footprint. Feat. 1 is considered to be potentially jurisdictional to the USACE, RWQCB, and CDFW.

4.11.2.2 Feature 3

The channel running in an east to west fashion through the southern portion of the Project Footprint is considered to be an ephemeral drainage, flowing during and immediately after storm events. Feat. 3 appears to be connected to an upstream storm drain system and enters the Project Footprint via a culvert. From the culvert outlet, Feat. 3 travels west until it joins Feat. 1, an RPW. Feat. 3 is a non-navigable tributary that is not relatively permanent and could require a significant nexus evaluation to determine jurisdictional status to USACE. The bed of the drainage is vegetated with Bermuda grass. OHWM limits were mapped by evidence of a defined bed and bank and presence of litter/debris. Feat. 3 encompasses a total of 0.016 acre (695 square feet) and 98 linear feet of the Project Footprint. The CDFW jurisdictional limits of Feat. 3 were defined by the top of the banks of the channel. The CDFW streambed for Feat. 3 totals approximately 0.027 acre (1,176 square feet). Feat. 3 is considered to be potentially jurisdictional to the USACE, RWQCB, and CDFW.

4.12 Raptors, Migratory Birds, and Bat Roosts

Potential nesting habitat for migratory birds and raptors protected by the MBTA (USFWS 1918) and California Fish and Game Code is present in the Project Footprint and adjacent to the site, within the 500-foot survey buffer, in shrubs, ornamental trees, and the riparian vegetation habitat that is present within the Project Footprint and adjacent to the site. Suitable nesting habitat for ground nesting bird species, such as mourning doves, is also present on the Project Footprint. Raptors typically breed between January and August, and songbirds and other passerines generally nest between March and August.

Suitable bat roosting habitat is present on the Project Footprint in the tree cavities along Feat. 1 and the palm thatch and foliage of the Fremont's cottonwood trees. These trees offer potential bat maternity roosting habitat. Bat maternity roosts are considered native wildlife nursery sites.

4.13 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded

in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

The Project Footprint was assessed for its ability to function as a wildlife corridor. The entire Project Footprint is surrounded by urban development. Although the two portions of the Project Footprint south of SR-60 consist of open land that wildlife could use for movement, paved roadways and SR-60 provide a barrier to wildlife movement throughout the Project Footprint. To the immediate north, west, south, and east is residential and commercial development. South of Sunnymead Boulevard, the Project Footprint is bordered by fencing on all sides with the exception of the southwestern most tip of the Project Footprint, where fencing is not present. Fencing could deter larger wildlife from moving through the area. SR-60 bisects the Project Footprint and this likely provides a large barrier to wildlife movement in the region. In addition, Hemlock Avenue and Sunnymead Boulevard are high-trafficked roadways that bisect the Project Footprint and would also provide some barriers to wildlife movement in the area. Additionally, the disturbances from homeless encampments, unauthorized dumping, and pedestrians throughout the Project Footprint lessen the quality of the site's value as a potential corridor. Although the Project does contain an intermittent drainage that runs in a north-south fashion through the Project Footprint, this drainage would not provide movement corridors for wildlife. Therefore, the Project Footprint would not be considered a linkage or corridor between conserved natural habitat areas.

5.0 IMPACT ANALYSIS

Impacts engendered by the Project would entail both temporary and permanent impacts. For the purpose of this report, temporary impacts are considered as portions of the Project that contain no permanent structures or materials and are planned to be restored to topographic pre-Project conditions. Temporary impacts that were evaluated include directional boring locations, portions of stream that will be restored to pre-Project conditions, temporary trenching locations, staging areas, construction access points, and temporary access ways. For the purpose of this report, permanent impacts are considered to be portions of the Project where permanent structures are to be placed. The only permanent impacts associated with the Project are the RCBs, RCPs, and their foundations.

5.1 Vegetation Communities and Special-Status Species

The Project Footprint is generally classified as disturbed and urban/developed land with three riparian vegetation communities present including disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow-red willow riparian woodland and forest, and disturbed sandbar willow thickets. Disturbances observed on the Project Footprint were mainly associated with unauthorized dumping, homeless encampments, pedestrians, and previous mechanical disturbance. An impact analysis was performed using specific design drawings for the Project, located within Project Footprint boundaries but

not encompassing the entire area. In other words, some portions of the Project Footprint are not being impacted by the Project. Expected impacts to vegetation communities are depicted below in Table 5.

Table 5. Impacts to Vegetation Communities and Land Cover Acreage		
Land cover type	Temporary impacts (Ac.)	Permanent Impacts (Ac.)¹
Disturbed Fremont cottonwood forest and woodland	0.149	0.198
Disturbed Goodding’s willow – red willow riparian woodlands	0	0
Disturbed sandbar willow thickets	0.047	0.049
Disturbed	0.839	1.642
Urban/Developed	0.005	0.179
TOTAL	1.040	2.068

¹The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a summation of unrounded values prior to being rounded.

Of the 64 special-status plant species identified in the literature search, seven species were determined to have a moderate potential to occur on the Project Footprint due to the presence of suitable habitat: Nevin’s barberry (federally listed endangered, state-listed endangered, CRPR 1B.1, MSHCP Covered), smooth tarplant (CRPR 1B.1, MSHCP Covered), California satintail (CRPR 2B.1), spreading navarretia (federally listed threatened, CRPR 1B.1, MSHCP Covered), San Bernardino aster (CRPR 1B.2), white rabbit-tobacco (CRPR 2B.2), and Wright’s trichocoronis (CRPR 2B.1, MSHCP Covered). Eight species have a low potential to occur on the Project Footprint: San Diego sagewort (CRPR 4.2), Los Angeles sunflower (CRPR 1A), Southern California black walnut (CRPR 4.2, MSHCP Covered), ocellated Humboldt lily (CRPR 4.2, MSHCP Covered), lemon lily (CRPR 1B.2, MSHCP Covered), small-flowered microseris (CRPR 4.2, MSHCP Covered), Engelmann oak (CRPR 4.2, MSHCP Covered), and Parish’s gooseberry (CRPR 1A). The remaining 49 plant species are presumed absent. If rare, special-status, or narrow endemic plants species occur on the Project Footprint, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality may occur and may be considered significant under CEQA. Within the Western Riverside MSHCP, smooth tarplant and Nevin’s barberry are Criteria Area species and spreading navarretia and Wright’s trichocoronis are Narrow Endemic Plant Species. Impacts to these four species have already been contemplated and addressed under the MSHCP.

Furthermore, the Project Footprint is neither located in a Criteria Area nor a MSHCP-designated Narrow Endemic Plant Species Survey Area. Therefore, additional focused surveys and implementation of mitigation for these four species are not required for this particular Project, which is a covered activity under the MSHCP. Impacts to white rabbit-tobacco, California satintail, and San Bernardino aster may be considered significant under CEQA if these plant species are present on the Project Footprint, as they are not covered species under the MSHCP and have CRPR ranks of 1 and 2. However, no special-status plant species were observed during the biological surveys and/or rare plant survey. Therefore, no additional surveys or mitigation measures for sensitive plant species are recommended at this time.

Of the 53 special-status wildlife species identified in the literature search, one species was present on the Project Footprint: yellow warbler (CDFW SSC and MSHCP Covered Species). Six species were found to have a moderate potential to occur on the Project Footprint: western spadefoot (CDFW SSC and MSHCP Covered Species); southern California legless lizard (CDFW SSC); coastal whiptail (CDFW SSC and MSHCP Covered Species); least Bell's vireo (federally listed endangered state-listed endangered, and MSHCP Covered Species); pallid bat (CDFW SSC); and western yellow bat (CDFW SSC). Of the species with a moderate potential to occur on the Project Footprint, western spadefoot is considered adequately conserved under the MSHCP. Therefore, no further mitigation is required for this species on this Project. Southern California legless lizard and coastal whiptail are CDFW SSC species. Direct impacts to these species could occur in the form of injury or mortality due to vehicle or equipment strike or entombment inside of burrows that are graded over during construction. Indirect impacts may occur in the form of loss of habitat, increased human activity, noise, dust, nighttime lighting, and ground vibrations. If present, these species are not expected to occur at high densities due to the disturbed nature of the Project Footprint and degraded quality of the habitat present. The loss of the SSC individuals, if present, would not contribute to the decline in regional populations and would therefore not be considered a significant impact under CEQA.

Marginally suitable nesting and foraging habitat for least Bell's vireo is present in two locations on the Project Footprint, within the disturbed Fremont cottonwood forest and woodland and disturbed Goodding's willow – red willow riparian woodland vegetation communities. Direct impacts may occur in the form of injury or mortality by moving vehicles and equipment as well as loss of nest or nest occupants if habitat is cleared during the breeding season. Indirect impacts could occur as a result of Project construction in the form of increased human and vehicular activity, noise, dust, ground vibrations, nighttime lighting, and habitat degradation. Least Bell's vireo was not observed during focused surveys. Therefore, ECORP considers LBVI to be absent from the Project Footprint at this time and no further mitigation is required for this species.

Suitable maternity roosting habitat for pallid bat and western yellow bat, both CDFW SSC species, is present on the Project Footprint. The large tree cavities observed along the large drainage (Feat. 1) on the Project Footprint offer suitable maternity roosting habitat for pallid bat. Suitable maternity roosting habitat for the western yellow bat is present in the palm trees and Fremont's cottonwood trees located on the Project Footprint. Title 14, Section 251.1 of the California Code of Regulations prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (i.e., bats), and California Fish and Game Code Section 4150 prohibits take or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (i.e., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered take as defined in Section 86 of the California Fish and Game Code. Impacts to maternity roosting sites of any native bat species, regardless of status, may be considered a significant impact to a "native wildlife nursery site" under CEQA. In order to avoid potentially significant impacts to bats classified as SSC or to maternity colonies of non-SSC bats, it is recommended that Mitigation Measure (MM) BIO-1 be implemented.

Thirteen wildlife species have a low potential to occur on the Project Footprint: California glossy snake (CDFW SSC); coast horned lizard (CDFW SSC, MSHCP Covered Species); tricolored blackbird (state-listed threatened, CDFW SSC, MSHCP Covered Species); grasshopper sparrow (MSHCP Covered Species); long-eared owl (CDFW SSC, MSHCP Covered Species); burrowing owl (CDFW SSC, MSHCP Covered Species); Swainson's hawk (state-listed threatened, MSHCP Covered Species); white-tailed kite (CDFW FP, MSHCP Covered Species); southwestern willow flycatcher (federally listed endangered, state-listed endangered, MSHCP Covered Species); yellow-breasted chat (CDFW SSC, MSHCP Covered Species); loggerhead shrike (CDFW SSC, MSHCP Covered Species); Lincoln's sparrow (MSHCP Covered Species); and southern grasshopper mouse (CDFW SSC). Eleven of these species are covered by the MSHCP. Impacts to these species have already been contemplated and addressed under the MSHCP. Therefore, no further mitigation is required for these eleven species. Eight of these species are CDFW SSC species. If present, these eight CDFW SSC species are not expected to occur at high densities due to the degraded quality of the habitat present due to onsite disturbances. Direct impacts to these species could occur in the form of injury or mortality due to vehicle or equipment strike, entombment inside of burrows that are graded over during construction, and/or loss of nest or nest occupants if habitat is cleared during the breeding season. Indirect impacts may occur in the form of loss of habitat, increased human and vehicular activity, noise, dust, nighttime lighting, and ground vibrations. The loss of the SSC individuals, if present, would not contribute to the decline in regional populations and would therefore not be considered a significant impact under CEQA.

The Project Footprint and surrounding area was surveyed for suitable burrowing owl habitat, and burrowing owl was determined to have a low potential to occur on the Project Footprint. A MSHCP-designated burrowing owl survey area occurs adjacent to the Project Footprint, approximately less than 50 feet west (Figure 3). Burrowing owl was petitioned for listing under the California ESA in August 2024 (CDFW 2024) and advanced to candidacy in October 2024, which awarded the species the same protection as an endangered species. This species is also protected under the Migratory Bird Treaty Act (U.S. Fish and Wildlife Service 1918) and California Fish and Game Code Sections 3503, 3503.5, and 3513.

The northern portion of the Project Footprint provides functionally suitable burrowing owl habitat in the form of low-growing vegetation and friable soil; eight potentially suitable burrows were observed in this area. The central portion of the Project Footprint, east of Feat. 1 drainage also offers functionally suitable burrowing owl habitat; however, no small mammal burrows were present in this location during the focused surveys. The remainder of the Project Footprint does not provide suitable habitat for burrowing owls. The disturbed land adjacent to the Project Footprint contains compacted and rocky soils, not suitable for burrowing owl use. Some small mammal burrows, belonging to Botta's pocket gopher, were observed adjacent to the Project Footprint in the MSHCP-designated burrowing owl survey area but none were suitable for burrowing owl use (incorrect size and orientation). In addition, no burrowing owls or their sign was observed during focused surveys. A few recent records of the species have been documented within 5 miles of the Project Footprint. Even though burrowing owls were not observed using the site during the focused surveys, this species could use the site prior to the start of Project activities due to their mobile and sometimes migratory nature.

If burrowing owls are found to be using or nesting on the Project Footprint prior to the start of construction, direct impacts may occur in the form of mortality or injury from ground disturbing activities, entombment, and/or vegetation removal. Indirect impacts from construction noise, increased human and vehicular activity, dust, habitat loss, and/or ground vibrations may occur. These impacts to the species would be considered significant under CEQA and could require additional coordination with the resource agencies due to its high level of sensitivity. In order to avoid potentially significant impacts to burrowing owl, it is recommended that MM BIO-2 be implemented.

Southwestern willow flycatcher has a low potential to occur on the Project Footprint due to marginally suitable riparian woodland habitat. However, this species is only expected to occur on the site during migration. No direct or indirect impacts are expected during the nesting season. Direct impacts to this species could occur in the form of injury or mortality due to vehicle or equipment strike. Indirect impacts may occur in the form of loss of habitat, increased human and vehicular activity, noise, dust, nighttime lighting, and ground vibrations. Since this species is not expected to occur on the Project Footprint during the breeding season, focused surveys are not required. Implementation of Mitigation Measure BIO-3 and BIO-4 would avoid potentially significant impacts to the species.

The shrubs and trees on and immediately adjacent to the Project Footprint could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. Furthermore, the Project Footprint could provide nesting habitat for ground-nesting bird species. If construction of the proposed Project occurs during the bird breeding season (typically January 15 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Footprint, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of MM BIO-3 and BIO-4.

5.2 Sensitive Natural Communities

Three riparian communities are present on the Project Footprint. Two of these communities are considered sensitive natural communities as defined by CDFW: disturbed Fremont cottonwood forest and woodland and disturbed Goodding's willow – red willow riparian woodlands. Both of these communities are ranked by CDFW as S3, which is defined as vulnerable (CDFW 2023). The third riparian community present on the Project Footprint is disturbed sandbar willow thickets. Sandbar willow thickets is ranked as S4, which is defined as apparently secure and therefore not considered a sensitive natural community (CDFW 2023). The only sensitive natural community impacted by the Project includes approximately 0.347 acre of disturbed Fremont cottonwood forest and woodland, which provides habitat for special-status wildlife species and nesting birds. The Project may result in the permanent loss of riparian and streambed-dependent vegetation communities. Direct impacts to these communities could occur in the form of vegetation removal. Indirect impacts may occur in the form of altering the water source (dewatering) that sustains the disturbed Fremont cottonwood forest and woodland and could result in the permanent loss of these communities.

Permitting conditions to offset these impacts will be identified during coordination through the regulatory permitting process with the regulatory agencies (USACE, RWQCB, and CDFW) and may include

compensatory mitigation, avoidance, or nonnative plant removal within the communities. Additionally, if impacts to these areas are unavoidable, preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be necessary to satisfy MSHCP requirements.

5.3 State or Federally Protected Waters of the United States and Riparian Habitats

Based on a review of the Project plans, impacts to federal (Section 401/404) aquatic resources associated with the Project consist of approximately 0.154 acre of temporary impacts and 0.265 acre of permanent impacts to intermittent drainage and 0.008 acre of permanent impact to ephemeral drainage under USACE/RWQCB jurisdiction. There would also be 0.007 acre of temporary impacts and 0.007 acre of permanent impacts to freshwater marsh under USACE/RWQCB jurisdiction. These impacts would be subject to Section 404 permitting with the USACE and Section 401 Water Quality Certification permitting with the RWQCB.

In addition, the Project would cause approximately temporary and permanent impacts to CDFW jurisdiction including top-of-bank streambed habitat, freshwater marsh, ephemeral drainages, and associated riparian habitat areas (Table 6; disturbed Fremont cottonwood forest and woodland, and disturbed sandbar willow thickets). These impacts would necessitate acquisition of Lake and Streambed Alteration Agreement permitting under Section 1600 of the California Fish and Game Code with the CDFW.

Table 6. Impacts to Waters of the United States and Riparian Habitats		
Category	Temporary impacts (Ac.)	Permanent Impacts (Ac.)¹
Ephemeral Stream	0	0.008
Intermittent Stream	0.154	0.265
Freshwater marsh	0.007	0.007
Disturbed Fremont cottonwood forest and woodland	0.149	0.198
Disturbed sandbar willow thickets	0.047	0.049
TOTAL	0.357	0.527

¹The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a summation of unrounded values prior to being rounded.

Additionally, as mentioned above, preparation of a DBESP will be required to satisfy MSHCP requirements for impacts to the riparian and riverine areas within the Project Footprint.

The acreages presented in this report represent a calculated estimation of the extent of jurisdictional areas within the Project Footprint, and they are subject to modification following agency review and/or the verification process. Regulatory permitting described above could require compensatory mitigation through the permit process. That mitigation could take the form of payment of an in-lieu fee,

participation in a mitigation banking program, or some form of on-site or off-site restoration. The exact details of mitigation, such as type, location, and mitigation ration would be determined through the permit process with the regulatory agencies. Implementation of regulatory permitting and compensatory mitigation, if required, will reduce impacts to wetlands and waters of the United States to a level that is less than significant.

5.4 Wildlife Corridors and Nursery Sites

The Project Footprint is located within and adjacent to areas containing development or existing disturbances (e.g., unauthorized dumping, homeless encampments, and pedestrians). The two portions of the Project Footprint south of SR-60 consist of open and unimpeded land which could provide wildlife movement opportunities. However, a paved road (Sunnymead Boulevard) bisects these two areas of the Project Footprint, and fencing surrounds the majority of the southern portion which could deter large wildlife from moving through the site. Additionally, the Project Footprint's value in providing wildlife movement opportunities is reduced by the fact that it is bordered by residential and commercial development to the north, west, south, and east and exhibits high levels of anthropogenic disturbances. No migratory wildlife corridors were identified within the Project Footprint. No impacts resulting from the Project are expected to occur to wildlife corridors.

Potential for maternity roosting sites is present on the Project Footprint in the tree cavities along Feat. 1, the palm trees with intact thatch, and foliage of the Fremont's cottonwood trees. The presence of maternity roosting sites would need to be confirmed during the maternity season through appropriate focused bat survey efforts. If present, the maternity roosting sites would be considered native wildlife nursery sites. Impacts to nursery sites would be less than significant with the implementation of MM BIO-1.

5.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Project Footprint is located within the planning area for the Western Riverside MSHCP. The Project Footprint is not located within any Conservation Areas, Criteria Cells, or Subunit designations according to the MSHCP.

5.5.1 Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

The Project Footprint is located within the planning area for the MSHCP, but outside of any Cell Groups, Criteria Cells, and Subunit designations. Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources including riparian/riverine areas, vernal pools, and fairy shrimp, burrowing owl, and Narrow Endemic Plant Species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. These resources were assessed during the reconnaissance survey and are discussed below in relation to the Project.

The Proposed Project consists of infrastructure development in the City of Moreno Valley, California consisting of the installation of a total of 5,000 feet of storm drain, 14 catch basins, three (3) infiltration facilities, two (2) diversion structures, two (2) weir structures, one (1) confluence structure, and energy dissipation where necessary. Since infrastructure development on the Project Footprint is a covered activity within the MSHCP, it is an allowable use that has been contemplated within the MSHCP. However, projects that are covered still need to comply with MSHCP requirements.

5.5.1.1 Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Assessment (MSHCP Section 6.1.2)

In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was performed for riparian and riverine communities, vernal pools, and fairy shrimp. The MSHCP defines riparian/riverine areas as lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or that depend upon soil moisture from a nearby fresh water source; or areas with freshwater flow during all or a portion of the year. The Project Footprint, consisting of sandy loam soils in the Greenfield, Hanford, Monserate, and Ramona series soil subtypes, was lacking clay soils and did not contain vernal pool habitat or suitable habitat for fairy shrimp.

Riparian vegetation and riverine features are present on the Project Footprint. The riparian vegetation communities identified on the Project Footprint consist of disturbed Fremont cottonwood forest and woodland and disturbed sandbar willow thickets. Several riverine features and a small wetland were mapped within the Project Footprint including an intermittent drainage, an ephemeral drainage, and a freshwater marsh. While these riverine and riparian areas are subject to disturbances, they provide suitable habitat for special-status wildlife species and can also be utilized by bird and raptor species protected under the MBTA. Direct impacts in the form of habitat loss, mortality, injury, entombment inside of burrows, and/or nest failure could occur if construction activities are performed during the nesting season. Indirect impacts in the form of habitat degradation, increased human activity, noise, dust, nighttime lighting, and/or ground vibrations may also occur. If impacts to these areas are unavoidable, consultation with the agencies regarding regulatory permitting will be required. Preparation of a DBESP will also be required to satisfy MSHCP requirements. Note that a DBESP is required under the MSHCP regardless of agency jurisdiction of aquatic resources and vegetation because the DBESP also addresses the vegetation as habitat for special-status species. Preparation of a DBESP will be required to satisfy MSHCP requirements for impacts to the riparian and riverine areas within the Project Footprint. Additionally, implementation of Mitigation Measures BIO-3 and BIO-4 would reduce these impacts to riparian birds to a level that is less than significant.

5.5.1.2 Narrow Endemic Plant Species (MSHCP Section 6.1.3)

The RCA MSHCP Information Map was reviewed to determine whether the Project Footprint is located within a Narrow Endemic Plant Species Survey Area (NEPSSA), in accordance with Section 6.1.3 of the MSHCP. The Project Footprint is not located within a NEPSSA or a Criteria Area. Therefore, no focused surveys for narrow endemic plant species are warranted, and the Project is consistent with Section 6.1.3 of the MSHCP.

5.5.1.3 Burrowing Owl Habitat Assessment (MSHCP Section 6.3.2)

The RCA MSHCP Information Map was reviewed to identify areas within the Project Footprint that may fall within designated burrowing owl survey areas, in accordance with Section 6.3.2 of the MSHCP. The Project Footprint is not located within a MSHCP-designated burrowing owl survey area (Figure 3).

Land immediately adjacent to the Project Footprint, located south of SR-60 and north of Sunnymead Boulevard, is a burrowing owl survey area as designated by the MSHCP. Due to the close proximity of the burrowing owl survey area to the Project Footprint, this land was assessed during the biological survey for potential burrowing owl habitat. The area designated as a burrowing owl survey area does not offer suitable habitat for burrowing owl because of the compacted soils and lack of ground squirrel activity. Some small mammal burrows were present in this burrowing owl survey area adjacent to the Project Footprint, however, these burrows belonged to Botta's pocket gopher, which is a species that can burrow in a variety of soils including ones that are compact. These small mammal burrows were incorrect size and orientation for burrowing owl use. In addition, no burrowing owls or owl sign was observed in this area.

Focused surveys for burrowing owl were conducted within the Project Footprint in May and June 2024. Eight potentially suitable burrows were observed in the northern portion of the Project Footprint. However, no burrowing owls or owl sign was observed throughout the focused surveys. A preconstruction survey for burrowing owl will be conducted within 30 days of Project implementation to comply with Section 6.3.2 of the MSHCP.

5.5.1.4 Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to the Project Footprint because the Project Footprint is not situated adjacent to any wildlands or MSHCP-designated Conservation Areas. A net long-term increase of edge impacts is not expected as a result of this Project.

5.5.1.5 Additional Surveys (MSHCP Section 6.3.2)

The RCA MSHCP Information Map was reviewed to determine if the Project Footprint was located within any other MSHCP designated survey areas beyond burrowing owl. The Information Map revealed that the Project Footprint is not located within the amphibian species, criteria area species, or mammalian species survey areas. Therefore, no further habitat assessments or surveys are required.

6.0 MITIGATION MEASURES

The following mitigation measures would reduce impacts to sensitive biological resources to a less than significant level.

BIO-1 Preconstruction Bat Surveys. Prior to the initiation of Project activities, a bat habitat assessment will be conducted to examine trees for suitable bat roosting habitat. High quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with

intact thatch, etc.) will be identified and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts).

If trees scheduled for removal/modification (i.e., trimming) are determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities should be scheduled outside of the bat maternity season to the greatest extent feasible: September 1 to October 15 or when evening temperatures are not below 45° F and rain is not over 0.5 inch in 24 hours; or between March 1 and April 1 with the same weather parameters. If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to bat habitat trees can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal during this time frame, removal using the two-step method should be conducted:

As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.

Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice or exfoliating bark habitat on habitat trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.)

If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season or a qualified biological monitor has determined the roost is no longer active.

BIO-2 **Preconstruction Burrowing Owl Survey:** Please note that the burrowing owl was recently listed as a candidate for listing under the state of California Endangered Species Act, and the stipulations included in this mitigation measure are subject to change as a result. A preconstruction survey for burrowing owl shall take place no more than 30 days prior to the start of ground-disturbing activities, regardless of whether Project activities are scheduled to occur during the burrowing owl breeding season (March 1 through August 31) or not. The preconstruction survey shall be performed by a qualified biologist who has experience surveying for and identifying burrowing owl and their sign in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012). The biologist shall survey the Project Footprint and a 500-foot buffer surrounding the site. If preconstruction survey results are

negative (i.e., no occupied burrows or live burrowing owls are detected), no further action is required for protection of burrowing owls. If preconstruction survey results are positive (i.e., presence of occupied burrows with sign present [such as whitewash, feathers, pellets, bones of prey items] or live owls) and impacts to burrowing owls are unavoidable, then additional mitigation measures will need to be implemented to offset impacts to burrowing owl. These measures shall be developed in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012) and may include seasonal work restrictions, establishing a non-disturbance buffer around each burrow location, biological monitoring, or passive relocation.

BIO-3 Preconstruction Survey for Nesting Birds: Whenever feasible, any ground-disturbing activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 14). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513. If activities with the potential to disrupt nesting birds, including southwestern willow flycatcher, are scheduled to occur during the bird breeding season (January 15 through August 31), a preconstruction survey for nesting birds and southwestern willow flycatcher shall be conducted by a qualified biologist who is experienced in conducting nesting bird surveys and the identification of southwestern willow flycatcher and other avian species. The survey should occur no more than three days prior to the start of ground-disturbing activities. The nesting bird survey shall include the Project Footprint and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds or southwestern willow flycatchers are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) or southwestern willow flycatchers are found to be present, avoidance or minimization measures shall be undertaken to avoid potential Project-related impacts. Measures may include seasonal work restrictions or establishment of a non-disturbance buffer around each active nest until nesting has been completed as determined through periodic nest monitoring by the biologist. The size of the non-disturbance buffer will be determined by the Project biologist. Typically, this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for southwestern willow flycatcher and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. Once nesting is deemed complete by the Project biologist, work may resume within the buffer.

BIO-4 Biological Monitoring: A biologist experienced with identification of the least Bell's vireo as well as the sensitive and common biological resources in the region shall be present to monitor all initial ground disturbing and vegetation clearing activities on each portion of the Project Footprint both during and outside of the breeding season (biological monitor). The biological monitor shall perform biological clearance surveys at the start of each workday that ground disturbing activities take place to minimize impacts on special-status species, including the least Bell's vireo. The monitor will be responsible for ensuring that impacts to special-status species will be avoided to the fullest extent possible. The biological monitor shall be present during the initiation of ground disturbing and vegetation clearing activities during each portion of the Project Footprint, and the monitor's presence should continue as necessary to maintain protective measures and to monitor for species in harm's way. These

protection measures may include redirecting wildlife to areas outside the work area. Biological monitoring shall take place until the Project Footprint has been completely cleared of any vegetation and until ground disturbing activities have initiated on each portion of the Project Footprint.


7.0 ADDITIONAL RECOMMENDATIONS/MEASURES

The following recommendations and best management practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to species that have potential to occur on the property, or to comply with existing laws and/or regulations:


- Confine all work activities to a pre-determined work area.
- To prevent inadvertent entrapment of wildlife during the construction phase of a Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored onsite.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the construction or Project Footprint.
- Use of rodenticides and herbicides on the Project Footprint should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife, and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to predatory wildlife.
- Regulatory permitting with the USACE, RWQCB, and CDFW is legally required prior to ground disturbance within the drainage channels and removal of associated stream vegetation. Note that during the permitting process additional recommendations as well as additional mitigation measures or monitoring needs may be identified

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

SIGNED: 
Eliza McLean
Associate Biologist
ECORP Consulting, Inc.

DATE: January 23, 2025

SIGNED: 
Scott Taylor
Senior Biologist and Project Manager
ECORP Consulting, Inc.

DATE: January 23, 2025

9.0

10.0 LITERATURE CITED

- Baldwin, B. G., D.H Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual; Vascular Plants of California, Second Edition*. University of California Press, Berkeley, California. 1,519 pp. + app.
- Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A Cook, R.C. Dowler, C. Jones, D.J Schmidly, F.B. Stangl, Jr., R.A. Van Den Bussche, B. Wursig. 2014. *Revised Checklist of North American Mammals North of Mexico*. Museum of Texas Tech University.
- CalFlora: Information on California plants for education, research and conservation. [Web application]. 2024. Berkeley, California: The CalFlora Database [a non-profit organization]. Available from: <http://www.calflora.org>.
- California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. Dated March 7, 2012.
- _____. 1984. California Endangered Species Act. Fish and Game Code Section 2050-2085.
- California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database. RareFind 6 [computer program]. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife. Accessed on May 3, 2024.
- _____. 2024b. State and Federally Listed Endangered and Threatened Animals of California. State of California, Natural Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Database (CNDDDB).
- _____. 2024c. Special animals list. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife.
- _____. 2023. California Sensitive Natural Communities. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife. Available from: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#natural%20communities%20lists>.
- _____. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. March 20.
- California Native Plant Society (CNPS). 2024a. Inventory of Rare and Endangered Plants (online edition, v7-08c). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Available at: <http://www.cnps.org/inventory>. Accessed on August 28, 2024.
- _____. 2024b. *A Manual of California Vegetation, Online Edition*. California Native Plant Society, Sacramento, CA. <https://vegetation.cnps.org/>. Accessed on August 28, 2024.
- _____. 2001. *CNPS Botanical Survey Guidelines*. California Native Plant Society, Sacramento, CA. December 9, 1983. Revised June 2, 2001.

- Chesser, R. T., K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., D. F. Stotz, and K. Winker. 2020. *Check-list of North American Birds* (online), 7th edition with 61st Supplement. American Ornithological Society. <http://checklist.aou.org/taxa>
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Google Earth. 2022. Version 7.3.6.9326. Moreno Valley 33.938568°, -117.257932°. [Online] Available at: <http://www.google.com/earth/index.html> [Accessed December 16, 2022].
- Hickman, J.C., editor. 1993. *The Jepson Manual*. Berkeley: University of California Press. 1,400 pp.
- Jepson Flora Project (eds.) 2024. *Jepson eFlora*, <https://ucjeps.berkeley.edu/eflora/>.
- Munsell Color. 2009. *Munsell Soil Color Book*. Munsell Color. Grand Rapids, Michigan.
- Natural Resources Conservation Service (NRCS). 2022. "Web Soil Survey" from <http://websoilsurvey.nrcs.usda.gov>. Accessed: October 31, 2022.
- Regional Conservation Authority (RCA). 2024. RCA MSHCP Information Tool. Available at: <https://www.wrc-rca.org/rcamaps/>.
- Riverside Transportation and Land Management Agency (RTLMA). 2024. *Western Riverside County Multiple Species Habitat Conservation Plan*. Available from: <http://rctlma.org/Portals/0/mshcp/volume1/index.html>.
- _____. 2006. *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan*. https://www.rctlma.org/Portals/3/EPD/consultant/burrowing_owl_survey_instructions.pdf.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation, 2nd ed.* California Native Plant Society, Sacramento, CA.
- Skinner, M. W., and Pavlik (eds.). 1994. *Inventory of Rare and Endangered Vascular Plants of California; Fifth Edition*. California Native Plant Society, Sacramento, California.
- Society for the Study of Amphibians and Reptiles (SSAR). 2017. *Scientific and Standard English Names of Amphibians and Reptiles of North American North of Mexico, With Comments Regarding Confidence in our Understanding. Eighth Edition. Committee on Standard English and Scientific Names*.
- _____. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. K.E. Curtis and R.W. Lichvar. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center.
- _____. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

- _____. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. R. W. Lichvar and S. M. McColley. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS). 2022. "National Wetlands Inventory" from <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed: October 31, 2022
- _____. 2001. *Least Bell's Vireo Survey Guidelines*. U.S. Department of the Interior. Carlsbad, CA. 3 pp.
- _____. 1996. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants*. Sacramento, California.
- _____. 1918. Migratory Bird Treaty Act of 1918. Section 16 of the U.S. Code (703-712), as amended 1989.
- U.S. Geological Survey (USGS). 2022a. "The National Hydrography Dataset" from https://www.arcgis.com/home/webmap/viewer.html?url=http://hydro.nationalmap.gov/arcgis/rest/services/NHDPlus_HR/MapServer&source=sd. Accessed: November 8, 2022
- _____. 2022b. "The National Map" from <https://apps.nationalmap.gov/viewer/>. Accessed: October 31, 2022
- Western Bat Working Group (WBWG). 2017. Western Bat Species Accounts. Available from: <http://wbwg.org/western-bat-species/>.
- Zeiner D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, editors (California Department of Fish and Wildlife). 1990. *California's Wildlife. Volume II, Birds*. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife.

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