Biological Technical Report
for the
10 to 11 Recycled Water Pressure Zone Project

Riverside County, California

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
ARD	Aquatic Resources Delineation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	CNPS Electronic Inventory
CWA	Clean Water Act
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Project	10 to 11 Recycled Water Pressure Zone Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
YVWD	Yucaipa Valley Water District

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey for the Yucaipa Valley Water District's (YVWD) proposed 10 to 11 Recycled Water Pressure Zone Project (Project) in the City of Calimesa, Riverside County, California. The survey was conducted to identify any potential biological resources that could be affected by the Proposed Project, pursuant to the terms of the California Environmental Quality Act (CEQA) and for the purposes of identifying any biological constraints that would affect the proposed site plan for the Project. 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.

1.1 Project Location

The Project Area is located in the city of Calimesa, Riverside County (Figure 1). The Project Area, as depicted on the U.S. Geological Survey (USGS) 7.5-minute El Casco and Yucaipa topographic quadrangles, lies within Sections 15 and 24 of Township 2 South, and Range 2 West. The Project is located approximately 2.2 miles northwest of Highway 60, and approximately 3.7 miles southwest of the foothills of the San Bernardino National Forest (Figure 2). The topography in the region consists of gently to moderately rolling hills and ridgelines, separated by broad valleys and narrow ravines, all scattered with oak trees and scrub vegetation. These valleys and ravines act as natural drainage courses and contain several streambeds. The elevation of the Project Area ranges from approximately 2,200 feet to 2,500 feet above mean sea level.

1.2 Project Description

The YVWD proposes the expansion of the recycled water system within the City of Calimesa, Riverside County, California. This Project would extend the Zone 11 system to make recycled water service available for current and future customers and developments in the area, including the approved Mesa Verde Estates Specific Plan and Summerwind Ranch at Oak Valley Specific Plan. This Project also would add a booster that is designed to pump from Zone 10 to Zone 11 within the recycled water system.

1.2.1 New Booster Station

The Project includes installation of a new recycled water booster station (B10.3.3) to the existing recycled water 10.3 reservoir and booster complex adjacent to the YVWD's Henry N. Wochholz Regional Water Recycling Facility, located at 880 West County Line Road, Calimesa, California 92320 (Figure 3). The existing 10.3 reservoir and booster complex includes the R-10.3.1 and R-10.3.2 recycled water tanks, each with a capacity of one million gallons. The two boosters on-site (B10.3.1, B-10.3.2) both pump to Zone 12. This proposed booster would be designed to pump to Zone 11 within the recycled system. The existing electrical system at the site would be upgraded to accommodate for the new pumping equipment. No emergency backup generator will be required. Approximately 0.6 acre would be disturbed for the construction of the new booster station.

Location: N:\2018\2018-057.009 YVWD WIFIA\MAPS\location_vicinity\WIFIA_Vicinity_V1_PZ_10_11.mxd (TR)-trotellini 10/26/2022

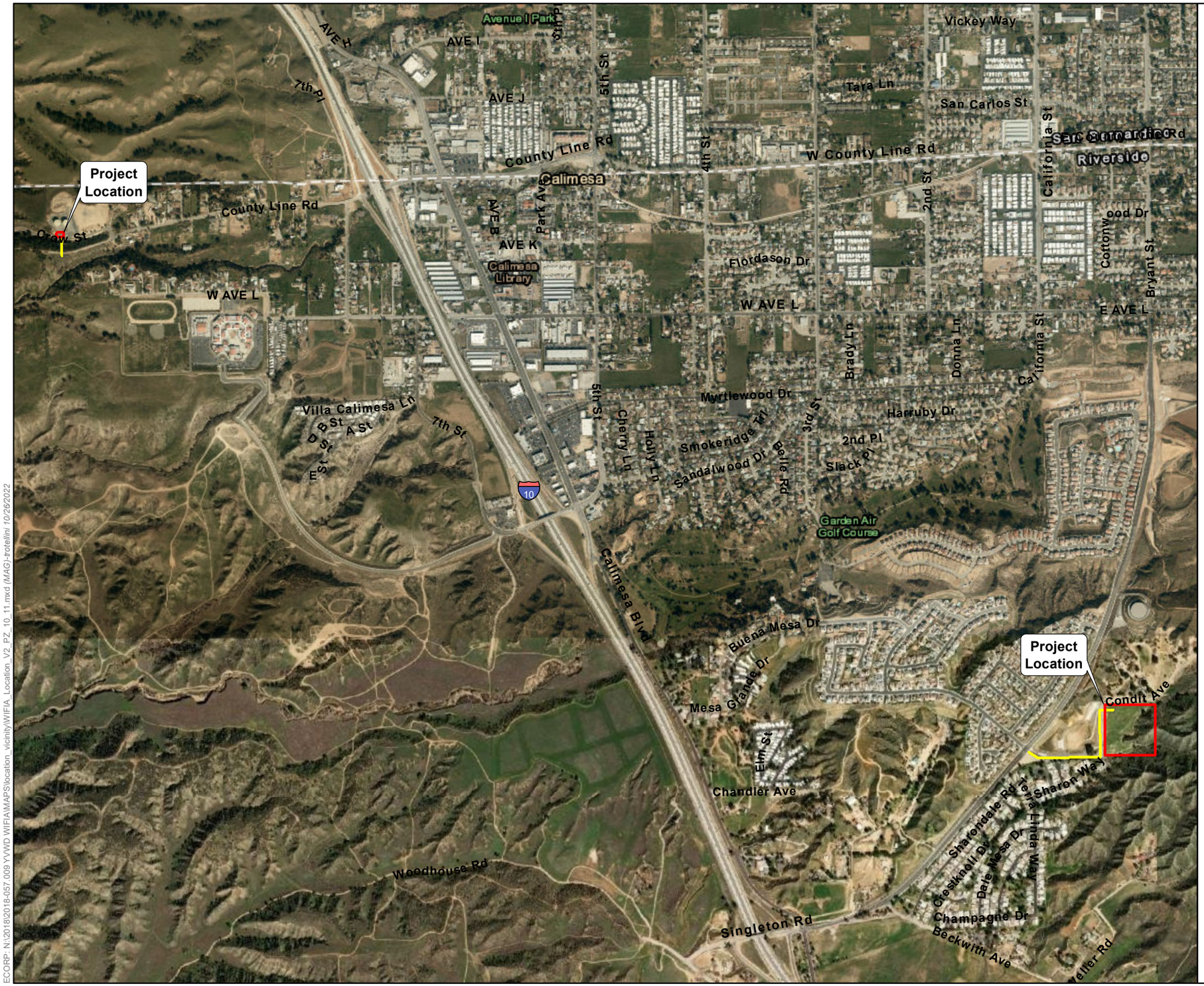
Map Date: 10/26/2022

Sources:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1. Project Vicinity

2018-057.009 YVWD WIFIA - Pressure Zone 10 to 11



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Map Date: 4/14/2022

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Feet
0 1,200

Figure 2. Project Locations

2018-057.009 YVWD WIFIA - Pressure Zone 10 to 11

Map Features

- B10.3.3 Booster Station Project Area
- Pipeline Alignment

NWI Features

- Riverine

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

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Map Date: 11/16/2022

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Scale in Feet
0 150

Figure 3. Project Detail
Sheet 1 of 2
2018-057.009 WIFIA Projects - Pressure Zone 10 to 11

Map Features

R-11.4 Reservoir Complex Project Area

Pipeline Alignment

NWI Features

Riverine

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Map Date: 11/16/2022

ECORP Consulting, Inc.
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Scale in Feet
0 150

Figure 3. Project Detail
Sheet 2 of 2
2018-057.009 WIFIA Projects - Pressure Zone 10 to 11

1.2.2 New Concrete Reservoirs

The Project would include two new recycled water reservoirs within the R-11.4 reservoir complex, including a 5-million-gallon reservoir and a 5.5-million-gallon reservoir. The approximately 11.7-acre footprint for the proposed complex is located on YVWD property, however the site is currently undeveloped (Figure 3). The elevation of the reservoir site would need to be adjusted to meet the existing high-water level of the existing Zone 11, but it is assumed that cut and fill would be balanced, and no soil import or export would be required.

1.2.3 Recycled Water Pipeline

A total of approximately 0.35 mile of recycled water pipeline would connect the new booster and recycled water reservoirs to approved and existing recycled water systems. Approximately 234 linear feet of pipeline would connect the proposed B10.3.3 Booster to pipelines within the approved Mesa Verde Estates Specific Plan and Summerwind Ranch at Oak Valley Specific Plan (Figure 3). Approximately 1,600 linear feet of pipeline in Condit Avenue and Sharon Way would connect the proposed R-11.4 recycled water reservoir complex to the existing recycled water line in Singleton Road (Figure 3). Approximately 3.3 miles of 24-inch recycled water pipeline was considered and analyzed in the EIRs for the approved Mesa Verde Estates and Summerwind Ranch at Oak Valley Specific Plans and is not included in the Proposed Project.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

This biological reconnaissance survey was conducted to identify potential biological resource constraints and ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The regulations are detailed below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal 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 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 (ITPs) where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities including 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

The purpose of the federal Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and also reviews USACE permit applications.

The USACE regulates "fill" or dredging of fill material within its jurisdictional features. "Fill material" means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. Per regulations passed in 2020, called the Navigable Waters Protection Rule, the USACE no longer takes jurisdiction over Waters of the U.S. that are deemed as ephemeral in hydrological regime.

The Regional Water Quality Control Board (RWQCB) regulates water quality issues under Section 401 of the CWA. For instances where a Section 404 permit is required, the permit is called a Water Quality Certification. If a Section 404 permit is not required, the RWQCB may issue either a Notice of Applicability or a Report of Waste Discharges under the Porter-Cologne Water Quality Control Act.

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 the 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 the federal 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 ITPs 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 California Fish and Game Commission (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 draft Streambed Alteration Agreement (SAA) for measures to protect affected fish and wildlife resources. The final SAA is obtained once the measures contained within are mutually agreed upon by CDFW and the applicant.

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 California Environmental Quality Act Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds 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 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

ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2022a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2022) to determine the special-status plant and wildlife species that have been documented near

the Project Area. ECORP searched CNDDB and CNPSEI records within the Project Area boundaries as depicted on USGS 7.5-minute El Casco topographic quadrangles, plus the surrounding eight topographic quadrangles including Redlands, Forest Falls, Sunnymead, Beaumont, Perris, Lake View, San Jacinto, and Yucaipa. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), or other special-status species or habitat that may occur within or near 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 2022b);
- Special Animals List (CDFW 2022c);
- The Jepson Manual: Vascular Plants of California (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., Calflora 2022; USFWS 2022b).

Using this information and observations in the field, a list of special-status plant and animal species that have the potential to occur on or near the Project Area 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, or are protected under either the federal ESA or California ESA;
- 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; or
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

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 Area based on the following guidelines:

Present: The species was observed on site during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs within the Project Area 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 Area 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 Area; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Project Area.

Low: Limited or marginal habitat for the species occurs within the Project Area 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 Area; 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 (if it was a species expected to be observed) or during 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 Area.

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.

A review of the Natural Resources Conservation Service (NRCS 2022) National Wetlands Inventory (NWI; (USFWS 2022a), National Hydrology Dataset (USGS 2022), and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages present on the Project Area that potentially fall under the jurisdiction of either federal or state agencies.

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking all areas of the Project alignment to determine the vegetation communities and wildlife habitats present on and adjacent to the site. Areas that were not accessible by foot were scanned using binoculars for suitable habitat. The biologist documented the plant and animal species present on the Project Area, and the location and condition of the Project Area 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 conditions within the Project Area. The Project Area 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 documented the vegetation communities present on the Project Area.

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 (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 ArcGIS™ Field Maps on a device (smartphone or tablet).

4.0 RESULTS

Summarized below are the results of the literature review and field surveys including site characteristics, vegetation communities, 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 literature review and database searches identified 45 special-status plant species and 45 special-status wildlife species that could occur near the Project Area. A list was generated from the results of the literature review and the Project Area was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list.

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

The Project Area is not located within any USFWS-designated critical habitat. No impacts to critical habitat are expected because no critical habitat is present within the Project Area.

4.1.3 State- or Federally Protected Wetlands and Waters of the United States

The desktop review of the NWI identified two mapped aquatic features adjacent to the Project components, including an unnamed drainage located approximately 200 feet south of the proposed pipeline for the new B10.3.3 booster station and another unnamed drainage located approximately 100 feet to the north of the northern edge of the property boundary for the proposed R-11.4 reservoir complex (Figure 3). The NWI mapping designation (R4SBA) for these two features indicates a riverine, intermittent streambed that is temporarily flooded (USFWS 2022a). These features were also confirmed in the field.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on October 27, 2022, by ECORP wildlife biologist Alexandra Dorough. Ms. Dorough has experience conducting reconnaissance- and protocol-level surveys for wildlife and plant species in southern California. Summarized below are the results of the biological reconnaissance survey including site characteristics, plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 1.

Table 1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (Miles per Hour)	
	Start	end	Min	Max	min	max	min	max
10/27/2022	0755	1130	55	64	0	40	0	4

4.2.1 Property Characteristics

4.2.1.1 B10.3.3 Booster Station and Pipeline

The proposed B10.3.3 booster station will be constructed within YVWD's existing 10.3 reservoir and booster complex and adjacent to existing boosters and reservoirs. The new booster station location is completely disturbed and covered in gravel. No vegetation was present within the proposed B10.3.3 booster station area (Figure 3). The proposed B10.3.3 booster station will be connected to the water system within the approved Mesa Verde Estates and Summerwind Ranch at Oak Valley Specific Plan areas via an approximately 234-foot 24-inch recycled water pipeline (Figure 3). The pipeline alignment will extend south from the new booster station. The pipeline will cross West County Line Road before traversing through some oak woodland and grassland habitat before connecting with existing or proposed pipelines covered by the Mesa Verde Estates and Summerwind Ranch at Oak Valley Specific Plans. Surrounding land uses include the existing recycled water facility, residential developments, commercial developments, roadways, and open undeveloped land. Approximately 3.3 miles of 24-inch recycled water pipeline was considered and analyzed in the EIRs for the approved Mesa Verde Estates and Summerwind Ranch at Oak Valley Specific Plans and is not included in the Proposed Project. Representative site photographs of the proposed B10.3.3 booster station are presented in Appendix A.

4.2.1.2 R-11.4 Reservoir Complex and Pipeline

The proposed R-11.4 reservoir complex will be constructed within an approximately 11.7-acre undeveloped property owned by YVWD (Figure 3). The western half of the property is mostly flat and consists of disturbed land that was mostly devoid of vegetation. The western half of the site showed evidence of historic and recent disturbances associated with discing or grading, likely performed for weed abatement purposes. The eastern half of the property includes slopes that contained oak woodland vegetation on the north faces, brittlebush scrub on the south faces, and nonnative grassland intermixed throughout. The proposed R-11.4 reservoir complex will be connected to the existing water system via an approximately 1,600 foot 24-inch recycled water pipeline (Figure 3). The pipeline will extend from the northwest corner of the property and then continue along Condit Ave south and then west, before connecting to existing pipelines within Singleton Road. Surrounding land uses include residential developments, commercial developments, roadways, and open undeveloped land. Representative site photographs of the proposed R-11.4 reservoir complex are presented in Appendix A.

4.2.2 Vegetation Communities

Vegetation communities present on the Project Areas nonnative grassland, oak woodland, and brittlebush scrub. There were also two land cover types, developed and disturbed, present within the Project Areas. These plant communities are briefly described below. A full list of plant species observed on and immediately adjacent to the Project Area is included in Appendix B.

4.2.2.1 Brittlebush Scrub

Brittlebush scrub was present on the south facing slopes within the eastern half of the proposed R-11.4 reservoir complex property. Brittlebush scrub is characterized by brittlebush as the dominant or codominant species in an open to intermittent shrub canopy. This community is often found in alluvial fans, bajadas, rocky hillsides, slopes of small washes, and rills found at elevations 246 to 4,593 feet (75 to 1,400 meters) amsl (Sawyer et al. 2009). Plants present in this community onsite included primarily brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), and slender buckwheat (*Eriogonum gracile*).

4.2.2.2 Oak Woodland

Oak woodland vegetation was present within and adjacent to the pipeline alignment for the new B10.3.3 booster station and within the eastern half of the R-11.4 reservoir complex property on the at the north facing slopes. Oak woodland is characterized by oak trees as a dominant or codominant species in an open to continuous tree canopy. It is found in alluvial terraces, canyon bottoms, stream banks, slopes, and flats in elevations ranging from sea level to 3,937 feet (0 to 1200 meters) amsl (Sawyer et al. 2009). This vegetation community was dominated by coast live oak (*Quercus agrifolia*), which had a mostly grassy understory of bromegrass (*Bromus diandrus*), cheatgrass (*Bromus tectorum*), and California buckwheat.

4.2.2.3 Nonnative Grassland

Nonnative grassland was present within and adjacent to the pipeline alignment for the new B10.3.3 booster station and on the slopes of the eastern half of the R-11.4 reservoir complex property. Nonnative grassland communities are largely devoid of native vegetation due to human disturbance and are dominated by open areas of nonnative grasses including nonnative weedy and ruderal vegetation. Vegetation height at the time of survey ranged from approximately 6-12 inches. Plants present in this community onsite included primarily nonnative grass species such as slender oat (*Avena barbata*), bromegrass, foxtail brome (*Bromus madritensis*), cheatgrass, jimsonweed (*Datura wrightii*), and Russian thistle (*Salsola tragus*). Soils within this community appeared mechanically disturbed (e.g., disced) and were loose and friable at the time of the survey.

4.2.2.4 Developed

Developed land was present within and adjacent to the proposed B10.3.3 booster station location. Additionally, the roads near the B10.3.3 booster station and the R-11.4 reservoir complex were considered developed as well. Developed is not a vegetation classification, but rather a land cover type. Areas identified as developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. Areas classified as developed were heavily disturbed with existing water recycling facilities or paved roads.

4.2.2.5 Disturbed

Disturbed land was present within and adjacent to the proposed R-11.4 reservoir complex and made up the majority of the flat portion of the property. Additional disturbed land was also present adjacent to the proposed B10.3.3 booster station. The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and off-road use, but lacks development. Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. The majority of the western half of the R-11.4 reservoir complex property was disturbed and mostly devoid of vegetation. Disturbed areas were also located adjacent to the proposed B10.3.3 booster station. In areas classified as disturbed, vegetation was absent or sparse and consisted primarily of nonnative species, such as Russian thistle, foxtail brome, and cheatgrass.

4.2.3 Wildlife

Wildlife species observed and detected on the Project Areas, or adjacent, were characteristic of brittlebush scrub, oak woodland, nonnative grassland habitat as well as the developed areas. Three mammal species were detected on and in the vicinity of the Project Area: coyote (*Canis latrans*), Botta's pocket gopher (*Thomomys bottae*), and California ground squirrel (*Otospermophilus beecheyi*). Numerous bird species were also detected on and in the vicinity of the Project Areas including, but not limited to, Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), acorn woodpecker (*Melanerpes formicivorus*), and California towhee (*Melozone crissalis*). Due to the level of human activity and the disturbed/developed nature of the sites, the properties represent relatively low-quality habitat for most wildlife species. A complete list of wildlife species observed on or immediately adjacent to the Project Area is included in Appendix C.

4.2.4 Potential for Special-Status Plant and Wildlife Species to Occur on the Project Area

The literature review and database searches identified 45 special-status plant species and 45 special-status wildlife species that could occur on or near the Project Area. However, due to the disturbed and developed nature of the Project Areas, many of the species are presumed absent from the Project Area.

4.2.4.1 Special-Status Plants

No special-status plant species were observed during the biological survey. There were 45 special-status plant species that appeared in the literature review and database searches for the Project Area (CDFW 2022a; CNPS 2022). A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. Of the 45 special-status plants identified, one species was determined to a moderate potential and four species have a low potential to occur on the Project Area. The remaining species identified in the literature review are presumed absent from the Project Area, due to a lack of suitable habitat, including vegetation, soils, and elevation.

For the purposes of this study, the results of the literature review were limited to vascular plant species occurring within a 9-quadrangle search of the Project Areas. With various habitat types occurring within the 9-quadrangle search, several species appeared in the literature review results that had no potential to occur on or near the Project Area. Additionally, for the purposes of this study, plant species with a CNPS Rare Plant Rank of 1A were eliminated from the analysis because they are presumed to be extirpated from California. Additionally, CNPS Rare Plant Rank 3 or 4 species were eliminated from the analysis because these rankings are considered a review list and a watch list, respectively, and if present these Rank 3 and 4 species are not expected to occur in high density due to the lack of suitable habitat and the limited size of the Project Areas. Descriptions of the CNPS designations can be found in Table 2.

Table 2. CNPS 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 more information is needed; 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 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)

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 (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

4.2.4.2 Plant Species with a Moderate Potential to Occur

One plant species was found to have a moderate potential to occur on the R-11.4 reservoir complex Project Area. The site provides marginal or limited amounts of habitat (including soils and elevation factors) onsite in the brittlebush scrub vegetation and recently documented observations occur within 5 miles of the Project Area. The special-status plant species with a moderate potential occur is listed below and detailed in Appendix D.

- Yucaipa onion (*Allium marvinii*), CNPS 1B.2

4.2.4.3 Plant Species with a Low Potential to Occur

The following species has a low potential to occur on the R-11.4 reservoir complex Project Area 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 Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search. The special-status plant species with low potential to occur is listed below and detailed in Appendix D.

- Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*), CNPS 1B.1
- California satintail (*Imperata brevifolia*), CNPS 2B.1
- Salt spring checkerbloom (*Sidalcea neomexicana*), CNPS 2B.2
- San Bernardino aster (*Symphyotrichum defoliatum*), CNPS 1B.2

4.2.4.4 Special-Status Wildlife

No special-status wildlife species were observed during the survey of the site. Of the 45 special-status wildlife species identified in the literature review, one was found have a high potential to occur, four have a moderate potential to occur, and seven have a low potential to occur on the Project Area. The remaining species are presumed absent from the Project Area.

4.2.4.5 Wildlife Species with a High Potential to Occur

One special-status wildlife species was determined to have a high potential to occur on the Project Areas because habitat for the species occurs within the Project Areas and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area. The special-status wildlife species with a high potential to occur is described below and detailed in Appendix E.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

Northwestern San Diego pocket mouse is a CDFW SSC that is typically found in sandy desert fans and shrub communities such as coastal sage scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland habitats. Suitable habitat for this species is present in the scrub and nonnative grassland habitats on the Project Areas. Multiple records of this species are documented within 5 miles of the Project Area with the closest record being a polygon that overlaps with the B10.3.3 Project Area (Occurrence #52) identified in 2002 (CDFW 2022a). Due to the presence of suitable habitat for this species and the recent documented records near the Project Area, this species has been determined to have a high potential to occur on the Project Area within the scrub and nonnative grassland habitats.

4.2.4.6 Wildlife Species with a Moderate Potential to Occur

Four special-status wildlife species were found to have a moderate potential to occur on the Project Area. The site provides marginal or limited amounts of habitat (including soils and elevation factors) onsite and recently documented observations occur within 5 miles of the Project Area; or a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area. The special-status wildlife species with moderate potential are listed below and detailed in Appendix E.

- Southern California legless lizard (*Anniella stebbinsi*), CDFW SSC
- Coastal whiptail (Aspidoscelis tigris stejnegeri), CDFW SSC
- White-tailed kite (*Elanus leucurus*), CDFW Fully Protected
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*), CDFW SSC

4.2.4.7 Wildlife Species with a Low Potential to Occur

The following seven species have a low potential to occur on the Project Area 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 Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search. The special-status wildlife species with low potential to occur are listed below and detailed in Appendix E.

- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC
- Burrowing owl (*Athene cunicularia*), CDFW SSC
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC
- Loggerhead shrike (*Lanius ludovicianus*), CDFW SSC
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC
- Western spadefoot (*Spea hammondii*), CDFW SSC

4.2.5 Raptors and Migratory Birds

Suitable nesting habitat for migratory birds protected under the federal MBTA and California Fish and Game Code is present on the Project Areas in some of the larger trees and shrubs in the undisturbed areas. Therefore, nesting birds could use the Project Area during the nesting bird season (typically February 1 through August 31).

4.2.6 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 varies, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. 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. The nature of corridor usage and wildlife movement patterns vary greatly among species.

The Project Area was assessed for its ability to function as a wildlife corridor. Both the B10.3.3 booster station and the R-11.4 reservoir complex Project Areas likely provide wildlife movement opportunities because the consists of open and unimpeded land. However, there is limited cover to facilitate movement of larger animals. Additionally, both sites are bounded by roads and urban development, which lessens the site's value as a corridor. Although wildlife could traverse through both Project Areas, neither is situated along any major drainages or washes that would be considered movement corridors for wildlife. Additionally, anthropogenically disturbances from vehicles and residents in the area could deter wildlife from moving through the Project Areas. Therefore, the Project Areas would not be considered a linkage or corridor between natural habitat areas.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The B10.3.3 booster station Project Area is generally classified as developed land with a small pipeline that goes through a patch of oak woodland before continuing though an area of nonnative grassland. The R-11.4 reservoir complex Project Area consists of flat disturbed, mechanically altered, land in the western half, while the easter half of the site consists of slopes that contain a mix of oak woodland, brittlebush scrub, and nonnative grassland. The literature review and database searches identified 45 special-status plant species that could occur in the vicinity of the Project Area. Of the special-status plant species identified in the literature review and database searches, only one of the species, Yucaipa onion, was determined to have a moderate potential to occur, and four species, Jaeger's milk-vetch, California satintail, salt spring checkerbloom, and San Bernardino aster, were considered as low potential based on the available habitat and records in the vicinity of the Project Area. However, none of these species are state or federally listed and are of relative low levels of sensitivity. Additionally, due to the anthropogenic disturbances on the Project Areas and the generally small Project Area footprints, the Project Areas are not expected to support large numbers of either species. Therefore, impacts to these species due to the Project implementation, though adverse, would not be expected to be significant under CEQA and additional surveys and mitigation are not necessary.

The literature review and database searches identified 45 special-status wildlife species that could occur in the vicinity of the Project Area. Of those 45 species, one species, northwestern San Diego pocket mouse, was determined to have a high potential to occur within the scrub and nonnative grassland habitats on the Project Areas. If present, this CDFW SSC species could be subject to direct impacts through ground disturbance and indirect impacts from construction noise, vibrations, and increased human activity related to the development of the Project Area. However, due to the lack of high-quality habitat within the impact area, the site's long history of anthropogenic disturbances, and the presence of urban development immediately adjacent to the Project Area, this species is only expected to occur in low density, if present, and Project-related impacts would not be expected to contribute to the overall decline of populations for these species. Therefore, impacts to northwestern San Diego pocket mouse would not be considered significant and additional surveys and mitigation are not necessary.

A total of eight CDFW SSC species were determined to have moderate or low potential to occur on the Project Area: Southern California legless lizard, coastal whiptail, coast patch-nosed snake, California glossy snake, red-diamond rattlesnake, southern grasshopper mouse, coast horned lizard, and western spadefoot. If present, these CDFW SSC species could be subject to direct impacts through ground disturbance and indirect impacts from construction noise, vibrations, and increased human activity related to the development of the Project Area. However, due to the lack of high-quality habitat within the impact area, the site's long history of anthropogenic disturbances, the presence of urban development immediately adjacent to the Project Areas, and the relatively small footprints of the Project Areas, these species are only expected to occur in very low density, if present, and Project-related impacts would not be expected to contribute to the overall decline of populations for these species. Therefore, impacts to Southern California legless lizard, coastal whiptail, and coast patch-nosed snake would not be considered significant and additional surveys and mitigation are not necessary.

One CDFW Fully Protected bird species, white-tailed kite, was determined to have a moderate potential to occur on the Project Area and two CDFW SSC bird species, burrowing owl and loggerhead shrike were determined to have low potential to occur on the Project Areas. Marginally suitable nesting and foraging habitat for these species is present within and adjacent to the Project Areas. However, due to the lack of high-quality habitat within the impact area, the site's long history of anthropogenic disturbances, and the presence of urban development immediately adjacent to the Project Area, these species are not likely to occur. If present, these species and their nests could be subject to direct impacts through ground disturbance and indirect impacts from construction noise, vibrations, and increased human activity related to the development of the Project Area. Impacts to white-tailed kite, burrowing owl, and loggerhead shrike could be considered significant under CEQA; however, implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 will reduce impacts to a level that is less than significant.

Large shrubs and trees and some of the grassland habitat on the Project Area could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect nesting birds and other birds protected by the MBTA and their nests through the removal of habitat on the Project Area, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-2 and BIO-3.

5.2 Sensitive Natural Communities

The vegetation communities and land cover types on the Project Area included nonnative grassland, brittlebush scrub, oak woodland and disturbed/developed areas. None of these vegetation communities or land cover types are considered sensitive natural communities. Therefore, no impacts to sensitive natural communities are anticipated to result from the development of this Project.

5.3 State and Federally Protected Wetlands and Waters of the United States

Two aquatic features were identified adjacent to the Project components, including an unnamed drainage located approximately 200 feet south of the proposed pipeline for the new B10.3.3 booster station and another unnamed drainage located approximately 100 feet to the north of the northern edge of the property boundary for the proposed R-11.4 reservoir complex (Figure 3). The NWI mapping designation (R4SBA) for these two features indicates a riverine, intermittent streambed that is temporarily flooded (USFWS 2022a). Although a formal delineation was not performed, the reconnaissance survey confirmed that these two features could be considered aquatic resources jurisdictional to the USACE, CDFW, and RWQCB. No impacts to these features are expected at this time, however, should impacts to these features be necessary, a formal aquatics resources delineation should be conducted to determine if they are subject to the jurisdiction of USACE, CDFW, or RWQCB. If these features are determined to be jurisdictional and avoidance is not possible, coordination with the regulatory agencies (USACE, CDFW, RWQCB) regarding regulatory permitting will be required.

5.4 Wildlife Corridors and Nursery Sites

Most of the land comprising the Project Areas consists of disturbed/developed land and the portions of the sites that are not disturbed or developed are heavily influenced by adjacent anthropogenic disturbances such as paved roads and residential developments. Although, portions of the Project Areas likely provide wildlife movement opportunities because they consist of open and unimpeded land, the sites' value as a corridor is lessened by the fact that it borders residential developments and is moderately disturbed due to anthropogenic factors. Additionally, the disturbances from vehicles on the paved roads and adjacent residential and commercial developments would likely deter wildlife from moving through the area. Therefore, the Project Areas would not be considered a wildlife corridor. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project Areas. No impacts to wildlife corridors or nursery sites are expected to occur during the development of the Project Areas, and due to the overall small footprint of the booster and tank sites and the fact that they are unmanned and no lit with night lighting, the Projects themselves are not likely to affect wildlife movement in the area.

6.0 RECOMMENDATIONS

The following Mitigation Measures are recommended prior to Project implementation:

BIO-1: **Preconstruction Burrowing Owl Surveys:** Two preconstruction burrowing owl survey shall be conducted prior to Project-related ground disturbance. The first survey shall be conducted between 30 to 14 days prior to initial ground disturbance (grading, grubbing, and construction) and the second survey should be conducted within 24 hours of initial ground disturbance. The surveys shall be conducted in accordance with the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Typically, if burrowing owls or active burrowing owl burrows are identified on a Project Area during the survey, these features must be completely avoided during the owl breeding season (March 1 through August 31). If impacts to those features are unavoidable, then the YVWD must also develop an owl mitigation plan

in consultation with CDFW. Mitigation methods may include passive relocation (conducted between September 1 and February 28) outside of the owl breeding season. If an active burrowing owl burrow is identified, and construction is to proceed, then a qualified biologist (with two or more years of owl experience) shall establish an appropriate disturbance-limit buffer around the burrow using flagging or staking. The buffer limit size can be at the biologist's discretion based on topography of the site and other conditions. Construction activities shall not occur within any buffer zones until the burrow is deemed inactive by the qualified biologist through a minimum of weekly biological monitoring.

BIO-2: **Preconstruction Nesting Bird Survey:** If construction or other Project activities are scheduled to occur during the bird breeding season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified biologist to ensure that active bird nests will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting bird survey shall include the Project Area and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity, noise, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriate disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified avian biologist through a minimum of weekly biological monitoring.

BIO-3: **Biological Monitoring:** A qualified biologist shall be present to monitor all initial ground-disturbing and vegetation clearing performed within areas that contain suitable habitat for special-status plant and wildlife species. During each monitoring day, the biological monitor shall perform clearance survey "sweeps" at the start of each workday that vegetation clearing takes place to minimize impacts on special-status species with potential to occur. The monitor will be responsible for ensuring that impacts to special-status species, nesting birds, and active nests will be avoided to the greatest extent possible. Biological monitoring shall take place until the Project Area has been completely cleared of any vegetation. If an active nest is identified, the biological monitor shall establish an appropriate disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed no longer active by the biologist. If special-status wildlife species are detected during biological monitoring activities, then consultation with the USFWS and/or CDFW shall be conducted, and a mitigation plan shall be developed to avoid and offset impacts to these species. Mitigation measures may consist of work restrictions or additional biological monitoring activities after ground-disturbing activities are complete.

6.1 Additional Recommendations

6.1.1 Aquatic Resources Delineation (ARD)

Two aquatic drainage features were identified outside of the proposed impact areas, adjacent the Project Areas. Impact are not currently proposed for these areas, however, if avoidance is not possible and

impacts to these features are necessary, a formal aquatic resources delineation is recommended to delineate potential Waters of the U.S. and map limits of CDFW jurisdiction. The ARD shall be conducted based on the guidelines presented in the USACE *1987 Wetlands Delineation Manual* as well as the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*, September 2008. The delineation shall also comply with the standards required by CDFW and the RWQCB.

If there are any planned Project-related impacts to jurisdictional streams, regulatory permitting will likely be required in advance for these impacts, including submittal and processing of a Pre-Construction Notification with the USACE, a Notification of Lake or Streambed Alteration with the CDFW, and a Section 401 Water Quality Certification with the RWQCB. The preparation and processing of these permits usually costs between $8,000 and $20,000, depending on the extent and acreage of the impacts, and the processing time runs from four months to six months. If compensatory mitigation is required during permit processing, that adds an expense for finding and setting aside lands for mitigation.

The following Best Management Practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a predetermined 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 Area.
- Use of rodenticides and herbicides on the Project Area 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 USEPA, 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.

7.0 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: DATE: 11/18/2022

Phillip Wasz
Senior Wildlife Biologist
ECORP Consulting, Inc.

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LIST OF APPENDICES

APPENDIX A

Representative Site Photographs

Photo 1. Proposed B10.3.3 booster location at existing YVWD water facility with developed land cover, facing southwest.

Photo 2. Representative photo of oak woodland within pipeline alignment for B10.3.3.

Photo 3. Representative photo of existing facilities adjacent to the B10.3.3 booster site.

Photo 4. Southeast corner of the R-11.4 reservoir complex site looking northwest.

Photo 5. Southwest corner of the R-11.4 reservoir complex site looking north.

Photo 6. Northeast corner of the R-11.4 reservoir complex site looking southwest.

Photo 7. Middle of the R-11.4 reservoir complex site looking northeast.

Photo 8. Middle of the R-11.4 reservoir complex site looking southeast.

Photo 9. Oak woodland and brittlebrush scrub on the slopes R-11.4 southeast corner.

Photo 10. Representative photo of oak woodland on slopes of the R-11.4 reservoir complex site.

Photo 11. Representative photo of manmade channel adjacent to the R-11.4 reservoir complex site.

Photo 12. Representative photo of the detention basin west of the R-11.4 reservoir complex site.

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
Adenostoma fasciculatum	Chamise
*Ailanthus altissima**	Tree of Heaven
*Avena fatua**	Wild oat
*Bromus diandrus**	Bromegrass
Bromus madritensis	Spanish brome
*Bromus tectorum**	Cheatgrass
Ceanothus sp.	Buck brush
*Centaurea melitensis**	Tocalote
Corethrogyne filaginifolia	California aster
Croton californica	California croton
Datura wrightii	Jimson weed
Encelia farinosa	brittlebush
Erigeron canadensis	Canada horseweed
Eriogonum elongatum	Longstem buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	Slender buckwheat
Hazardia squarrosa	Saw toothed goldenbush
Heteromeles arbutifolia	Toyon
*Hirschfeldia incana**	Short-podded mustard
Lepidospartum squamatum	Scale broom
Lonicera sp.	honeysuckle
*Marrubium vulgare**	White horehound
*Nicotiana glauca**	Tree tobacco
*Olea europaea**	Common olive
Opuntia sp.	Prickly pear
Quercus agrifolia	Coast live oak
Quercus berberidifolia	Scrub oak
Rhus ovata	Sugar bush
*Salsola tragus**	Russian thistle
Salvia mellifera	Black sage
Sambucus mexicana	Blue elderberry
Stephanomeria virgata	Rod wirelettuce
Tetradymia comosa	Cottonthorn
Toxicodendron diversilobum	Pacific poison oak

*Nonnative species

APPENDIX C

Wildlife Species Observed

SCIENTIFIC NAME	COMMON NAME
AVES	**BIRDS**
Aphelocoma californica	California scrub-jay
Callipepla californica	California quail
Calypte anna	Anna's hummingbird
Corvus corax	Common raven
Haemorhous mexicanus	House finch
Melanerpes formicivorus	Acorn woodpecker
Melozone crissalis	California towhee
Mimus polyglottos	Northern mockingbird
Thryomanes bewickii	Bewick's wren
Zonotrichia leucophrys	White-crowned sparrow
MAMMALIA	**MAMMALS**
Canis latrans	Coyote

APPENDIX D

Potential for Occurrence of Sensitive Plant Species

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Abronia villosa var. ***aurita*** Chaparral sand-verbena	Fed: Ca: CNPS:	none none 1B.1	(Jan) Mar-Sept 75-1600	Occurs in chaparral, coastal scrub, and desert dune habitats. Often found in sandy soil.	**Presumed Absent:** No suitable chaparral, coastal scrub, or desert scrub habitat was present. No records were identifed within five miles of the sites.
Allium marvinii Yucaipa onion	Fed: Ca: CRPR:	none none 1B.2	Apr-May 2495-3495	Occurs in chaparral. Often found in openings on clay soils.	**Moderate:** Multiple records of this species have been recorded within five miles of the Project sites. Marginally suitable habitat was present on the slopes of the R-11.4 reservoir complex site, no suitable habitat was present at the B10.3.3 booster site.
Arenaria lanuginosa var. ***saxosa*** rock sandwort	Fed: Ca: CRPR:	none none 2B.3	Jul-Aug 4775-8530	Occurs in subalpine and upper montane coniferous forest. Often found in mesic, sandy soils.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Arenaria paludicola marsh sandwort	Fed: Ca: CRPR:	**END** **END** 1B.1	May-Aug 10-560	Occurs in freshwater or brackish marshes and swamps in sandy openings. Known only from two natural occurrences in Black Lake Canyon and at Oso Flaco Lake.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Astragalus hornii var. ***hornii*** Horn's milk-vetch	Fed: Ca: CNPS:	none none 1B.1	May-Oct 60-850	Occurs in meadows and seeps and playas. Often found along lake margins in alkaline soils.	**Presumed Absent:** No suitable meadow and seep, playa, or lake habitat was present on the Project sites. No alkaline soils were observed on the sites.
Astragalus lentiginosus var. ***coachellae*** Coachella Valley milk-vetch	Fed: Ca: CNPS:	**END** none 1B.2	Feb-May 40-655	Occurs in desert dunes and sandy areas of Sonoran desert scrub.	**Presumed Absent:** No suitable dune or desert scrub habitat was present on the Project sites. No records were identifed within five miles of the sites.
Astragalus pachypus var. ***jaegeri*** Jaeger's milk-vetch	Fed: Ca: CNPS:	none none 1B.1	Dec-Jun 365-975	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Often found in sandy or rocky soils.	**Low:** One record of this species was identified within five miles of the R-11.4 reservoir complex in 1897. Marginally suitable habitat was present on the slopes of the R-11.4 reservoir complex site. No suitable habitat was present at the B10.3.3 booster station site.
Atriplex coronata var. ***notatior*** San Jacinto Valley crownscale	Fed: Ca: CNPS:	**END** none 1B.1	Apr-Aug 139-500	Occurs in playas, valley and foothill grasslands, and vernal pools in alkaline soils.	**Presumed absent:** No suitable playa, valley and foothill grassland, or vernal pool habitat was present on the sites and suitable alkaline soils were not observed on the sites. No records were identifed within five miles of the sites..
Atriplex parishii Parish's brittlescale	Fed: Ca: CNPS:	none none 1B.1	Jun-Oct 25-1900	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	**Presumed Absent:** No suitable chenopod scrub, playa, or vernal pool habitats are present on the Project sites. No records were identifed within five miles of the sites.
Atriplex serenana var. ***davidsonii*** Davidson's saltscale	Fed: Ca: CRPR:	none none 1B.2	Apr-Oct 35-655	Occurs in coastal bluff scrub and coastal scrub in alkaline soils.	**Presumed Absent:** The Project sites do not occur within the elevation requirements of the species and there are no records within five miles.
Berberis nevinii Nevin's barberry	Fed: Ca: CNPS:	**END** **END** 1B.1	(Feb) Mar-Jun 70-825	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland in sandy or gravelly soils.	**Presumed Absent:** No suitable chaparral, cismontane woodland, coastal scrub, or riparian woodland habitat was present on the sites. No records were identifed within five miles of the sites.
Botrychium crenulatum scalloped moonwort	Fed: Ca: CRPR:	none none 2B.2	Jun-Sep 4160-10,760	Occurs in bogs, fens, meadows, seeps, marshes, freshwater swamps, and upper and lower montane coniferous forest.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Brodiaea filifolia thread-leaved brodiaea	Fed: Ca: CNPS:	**THR** **END** 1B.1	Mar-Jun 25-1120	Occurs in cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools, and in openings of chaparral. Often found in clay soils.	**Presumed absent:** No suitable chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pool habitat was present on the sites. No records were identifed within five miles of the sites.
Calochortus palmeri var. ***palmeri*** Palmer's mariposa-lily	Fed: Ca: CNPS:	none none 1B.2	Apr-Jul 710-2390	Occurs in mesic soils in chaparral, lower montane coniferous forest, and meadow and seep habitats.	**Presumed absent:** No suitable chaparral, coniferous forest, meadow, or seep habitat was present on the sites. Suitable mesic soils were not observed on the sites. No records were identifed within five miles of the sites.
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	Fed: Ca: CRPR:	none none 1B.2	May-Aug 4265-7840	Occurs in mesic soils in chaparral, meadows and seeps, pebble (pavement) plains, riparian woodlands, and upper montane coniferous forest habitats.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Centromadia pungens ssp. ***Laevis*** smooth tarplant	Fed: Ca: CRPR:	none none 1B.1	Apr-Sep 0-2100	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland habitats. Often found in alkaline soil.	**Presumed Absent:** Although multiple records were identified within five miles of the Project sites. No suitable chenopod scrub, meadow, seep, playa, riparian woodland, or valley foothill grassland habitat was observed within the Project sites. No alkaline soils were present on the Project sites.
Chloropyron maritimum ssp. ***maritimum*** salt marsh bird's-beak	Fed: Ca: CRPR:	**END** **END** 1B.2	May-Oct (Nov) 0-100	Occurs in coastal dunes and in coastal salt marshes and swamps.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Chorizanthe parryi var. ***parryi*** Parry's spineflower	Fed: Ca: CNPS:	none none 1B.1	Apr-Jun 275-1220	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitat. Often found in sandy or rocky openings. Generally associated with larger alluvial plains.	**Presumed Absent:** Although there are records within five miles of the sites, this plant is generally associated with larger alluvial floodplains and that type of habitat is absent from the Project sites.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation** (meters)	**Habitat Requirements**	**Potential for Occurrence**
Chorizanthe polygonoides var. ***longispina*** long-spined spineflower	Fed: Ca: CNPS:	none none 1B.2	Apr-Jul 30-1530	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pool habitat. Often found in clay soil.	**Presumed Absent:** No suitable chaparral, coastal scrub, meadow, or seep habitat was present on the Project sites and no records of this species were identified within five miles of the Project sites.
Chorizanthe xanti var. ***leucotheca*** white-bracted spineflower	Fed: Ca: CRPR:	none none 1B.2	Apr-Jun 985-3935	Occurs in sandy or gravelly soils on alluvial fans in coastal scrub habitats, and in Mojavean desert scrub and pinyon and juniper woodland habitats.	**Presumed Absent:** No suitable coastal scrub or Mojavean desert scrub habitat is present on the Project sites and no records of this species were identified within five miles.
Cuscuta obtusiflora var. ***glandulosa*** Peruvian dodder	Fed: Ca: CRPR:	none none 2B.2	Jul-Oct 50-920	Occurs in freshwater marshes and swamps.	**Presumed Absent:** No suitable freshwater marsh or swamp habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Deinandra mohavensis Mojave tarplant	Fed: Ca: CNPS:	none **END** 1B.3	(Jan-May) Jun-Oct 640-1600	Occurs in chaparral, coastal scrub, and riparian scrub. Most commonly found in riparian areas or in ephemeral grassy areas. Often found in mesic soils.	**Presumed absent:** No suitable chaparral, coastal scrub, or riparian scrub habitat is present on the Project sites and no records of this species were identified within five miles**.** Suitable mesic soils and ephemeral areas typically associated with this species were also not observed.
Dodecahema leptoceras slender-horned spineflower	Fed: Ca: CNPS:	**END** **END** 1B.1	Apr-Jun 200-760	Occurs in alluvial floodplains with chaparral, cismontane woodland and coastal scrub vegetation. Often found in sandy soil.	**Presumed Absent:** Only known from large alluvial floodplains.
Eriastrum densifolium ssp. ***sanctorum*** Santa Ana River woollystar	Fed: Ca: CNPS:	**END** **END** 1B.1	Apr-Sep 91-610	Occurs in chaparral and alluvial fan coastal scrub in sandy or gravelly soils. Generally only located in large alluvial systems.	**Presumed Absent:** Only known from large alluvial floodplains.
Gilia leptantha ssp. ***leptantha*** San Bernardino gilia	Fed: Ca: CRPR:	none none 1B.3	Jun-Aug 4920-8400	Occurs in gravelly, sandy soils of lower montane coniferous forest.	**Presumed Absent**: The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Heuchera parishii Parish's alumroot	Fed: Ca: CRPR:	none none 1B.3	Jun-Aug 4920-12470	Occurs in rocky, sometimes carbonate soils in alpine boulder and rock fields, lower montane coniferous forests, subalpine coniferous forests, and upper montane coniferous forests.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Horkelia cuneata var. ***puberula*** mesa horkelia	Fed: Ca: CNPS:	none none 1B.1	Feb-Jul (Sep) 70-810	Occurs in cismontane woodland, coastal scrub, and maritime chaparral in sandy or gravelly soils.	**Presumed Absent:** No suitable cismontane woodland, coastal scrub, or maritime chaparral habitat was present on the Project sites. No records were identifed within five miles of the sites.
Imperata brevifolia California satintail	Fed: Ca: CNPS:	none none 2B.1	Sep-May 0-1215	Occurs in chaparral, coastal scrub, Mojavean desert scrub, alkaline meadows and seeps, and riparian scrub habitats in mesic soils.	**Low:** One record of this species (1891) was identified within five miles of the Project sites. The R-11.4 reservoir complex site site contained marginally suitable habitat, but mesic soils, which typically support this species, were not observed on the Project site.
Lasthenia glabrata ssp. ***coulteri*** Coulter's goldfields	Fed: Ca: CNPS:	none none 1B.1	Feb-Jun 1-1220	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	**Presumed Absent:** No suitable coastal salt marsh, swamp, playa, or vernal pool habitat is present on the Project sites. No records were identifed within five miles of the sites.
Lilium parryi lemon lily	Fed: Ca: CRPR:	none none 1B.2	Jul-Aug 4005-9005	Occurs in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest. Often found in mesic soils.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Mentzelia tricuspis spiny-hair blazing star	Fed: Ca: CNPS:	none none 2B.1	Mar-May 150-1280	Occurs in Mojavean desert scrub. Often found in sandy, gravelly soils along slopes and in washes.	**Presumed Absent:** No suitable desert scrub habitat was present on the Project sites.
Monardella macrantha ssp. ***hallii*** Hall's monardella	Fed: Ca: CRPR:	none none 1B.3	Jun-Oct 2395-7200	Occurs in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats.	**Presumed Absent:** No suitable broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, or valley and foothill grassland habitat was present on the sites. No records were identifed within five miles of the sites**.**
Nama stenocarpa mud nama	Fed: Ca: CRPR:	none none 2B.2	Jan-Jul 15-1640	Occurs in lake margins, riverbanks, marshes, and swamps.	**Presumed Absent:** No suitable lake, river, marsh, or swamp habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Navarretia fossalis spreading navarretia	Fed: Ca: CNPS:	**THR** none 1B.1	Apr-Jun 30-655	Occurs in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable chenopod scrub, marsh, playa, or vernal pool habitat is present on the Project sites.No records were identifed within five miles of the sites.
Oxytropis oreophila var. ***oreophila*** rock-loving oxytrope	Fed: Ca: CRPR:	none none 2B.3	Jun-Sep 11,155-12,470	Occurs in alpine boulder and rock fields and in subalpine coniferous forest.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Parnassia cirrata var. ***cirrata*** San Bernardino grass-of-Parnassus	Fed: Ca: CRPR:	none none 1B.3	Aug-Sep 4100-8005	Occurs in upper and lower montane coniferous forest and in meadows and seeps. Often found in mesic, sometimes calcareous soils along streamsides.	**Presumed Absent:** The Project site is outside of this species' elevation range and no suitable habitat was observed within the Project sites. No records were identifed within five miles of the sites.
Petalonyx linearis narrow-leaf sandpaper-plant	Fed: Ca: CNPS:	none none 2B.3	(Jan-Feb) Mar-May (Jun-Dec) -25-1115	Occurs in Mojavean and Sonoran desert scrub. Often found in sandy or rocky canyons.	**Presumed Absent:** No suitable desert scrub habitat was present on the Project sites and there are no records within five miles.

Scientific Name Common Name	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: Ca: CNPS:	none none 2B.2	(Jul)Aug-Nov(Dec) 0-2100	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Often found in sandy, gravelly soils.	**Presumed Absent:** No suitable chaparral, cismontane woodland, coastal scrub, or riparian woodland habitat is present on the Project sites and there are no records within five miles.
Sidalcea hickmanii ssp. ***parishii*** Parish's checkerbloom	Fed: Ca: CRPR:	none none 1B.2	(May) Jun-Aug 3280-8200	Occurs in chaparral, cismontane woodland, and lower montane coniferous forest habitats.	**Presumed Absent:** The Project sites are outside of this species' elevation range and no suitable chaparral, cismontane woodland, or coniferous forest habitats were present on the Project sites and there are no records within five miles.
Sidalcea neomexicana salt spring checkerbloom	Fed: Ca: CRPR:	none none 2B.2	Mar-Jun 50-5020	Occurs in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Often found in alkaline and mesic soils.	**Low:** Two records of this species were identified within five miles and marginally suitable habitat is present on the slopes of the R-11.4 reservoir complex site but no alkaline or mesic soils were present on the site. No suitable habitat was present at the B10.3.3 Project site.
Streptanthus campestris southern jewelflower	Fed: Ca: CRPR:	none none 1B.3	(Apr) May-Jul 2955-7545	Occurs in rocky soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland habitats.	**Presumed Absent:** No suitable chaparral, lower montane coniferous forest, or pinyon and juniper woodland habitat was present on the Project sites and there are no records of the species within five miles.
Symphyotrichum defoliatum San Bernardino aster	Fed: Ca: CNPS:	none none 1B.2	Jul-Nov 2-2040	Occurs in meadows and seeps, marshes, and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernally mesic valley and foothill grassland. Often found in disturbed areas and near ditches, streams, and springs.	**Low:** One record of this species was identified within five miles (1951) and marginally suitable habitat was present on the slopes of the R-11.4 reservoir Project site.
Tortula californica California screw moss	Fed: Ca: CNPS:	none none 1B.2	Moss 10-1460	Occurs in sandy soil of chenopod scrub and valley and foothill grassland.	**Presumed Absent:** No suitable chenopod scrub or valley foothill grassland habitat with sandy soils were present on the Project sites. No records were identifed within five miles of the sites.
Trichocoronis wrightii var. ***wrightii*** Wright's trichocoronis	Fed: Ca: CRPR:	none none 2B.1	May-Sep 15-1425	Occurs in meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Often found in alkaline soils.	**Presumed Absent:** No suitable meadow, seep, marsh, swamp, riparian forest, or vernal pool habitat was observed within the Project sites. No alkaline soils were observed. No records were identifed within five miles of the sites.
Bouteloua trifida three-awned grama	Fed: Ca: CNPS:	none none 2B.3	(Apr) May-Sep 700-2000	Occurs in carbonate, rocky soils of Mojavean desert scrub.	**Presumed Absent:** No suitable Mojavean desert scrub habitat was present on the Project sites. No records were identifed within five miles of the sites..

Federal Designations:

(Federal Endangered Species Act, USFWS)

END: federally listed, endangered

THR: federally listed, threatened

State designations:

(California Endangered Species Act, CDFG)

END: state-listed, endangered

THR: state-listed, threatened

CAN: Candidate for state listing

FP: Fully Protected Species

SSC: Species of Special Concern

CNPS Ranking

1A: Presumed extinct

1B: Rare, threatened, or endangered in California and elsewhere

2B: Rare, threatened, or endangered in California, but more common elsewhere

3: Review list of plants requiring more study

4: Plants of limited distribution watch list

CNPS Threat Code

0.1: Seriously threatened in California

0.2: Fairly threatened in California

0.3: Not very threatened in California

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI) Yucaipa, El Casco, Forest Falls, Beaumont, San Jacinto, Lakeview, Perris, Sunnymead, and Redlands 7.5-minute quads.

APPENDIX E

Potential for Occurrence of Sensitive Wildlife Species

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA:	**none** **THR**/SSC	Occurs in freshwater marsh, swamp, and wetland habitats. Largely endemic to California. Highly colonial species, most numerous in Central Valley & vicinity. Requires open water, protected nesting substrate, and foraging area with insect prep within a few kilometers of the colony. Forages in open habitat such as cultivated fields and pastures.	**Presumed Absent:** Although one record occurs within five miles of the Project site from 2013 at a freshwater marsh at Halo Resorts Fisherman's Retreat, no suitable freshwater marsh nesting habitat is present on the Project site.
Anniella stebbinsi southern California legless lizard	Fed: CA:	none SSC	Coastal sand dunes and variety of interior habitats including sandy washes and alluvial fans. 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. Sometimes found in suburban gardens.	**Moderate Potential to Occur:** Marginally suitable habitat for this species is present on the Project sites. Multiple records of this species are documented within five miles of the Project site with the closest records being located less than a mile away from B10.3.3 booster station and the R-11.4 reservoir complex.
Antrozous pallidus pallid bat	Fed: CA:	none SSC	Occurs in chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, and valley & foothill grassland habitats. Most commonly found in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Presumed Absent:** Marginal foraging habitat was present on the Project sites, but roosting activities are not expected on this site because there are no rocky areas that would protect them from high temperatures. There are no records within five miles of the project site.
Aquila chrysaetos golden eagle (nesting & wintering)	Fed: CA:	none FP	Occurs in broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinon & juniper woodlands, upper montane coniferous forest, and valley & foothill grassland habitats. Found in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also large trees such as eucalyptus or oak in open areas.	**Presumed Absent:** Although marginally suitable foraging habitat occurs on the Project site, nesting activities are not expected on this site because no cliff-walled canyons or large tress suitable for nesting eagles are located on the Project site.
Arizona elegans occidentalis California glossy snake	Fed: CA:	none SSC	Most common in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral. Prefers washes and sandy areas with patchy brush and rocks.	**Low Potential to Occur:** Limited and marginally suitable habitat for this species is present in the undisturbed portions of the in R-11.4 reservoir compled and B10.3.3 booster station Project sites. No records occur within five miles of the Project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA:	none SSC	Arid habitats including chaparral, woodlands, and dry riparian areas.	**Moderate Potential to Occur:** Suitable habitats occur on the Project site. Two records exist within five miles of the Project sited with the closest being.
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA:	none SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Occurs in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley & foothill grassland habitats. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Also found in vacant lots and airports.	**Low Potential to Occur:** Marginally suitable grassland habitat occurs on the Project site. The grassland habitat is very dense and this limits the likelihood that the species would burrow on the Project site. The species are mobile and can fly over the Project site at any time. No suitable burrows were observed during the biological survey. There were no records identified within five miles.
Bombus crotchii Crotch bumble bee	Fed: CA:	none **CAN**	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats. Prefers a diet consisting of certain plant species including milkweeds, sages, dusty maidens, lupines, medics, phacelias, clarkias, and poppies, and wild buckwheats. Nests are often located underground in abandoned rodent nests or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	**Presumed Absent:** The Project sites are very disturbed and represent low quality habitat for pollinators. Most of the preferred speceis of plants were absent from the Project sites.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA:	none **THR**	Occurs in Great Basin grassland, riparian forest, riparian woodland, and valley & foothill grassland habitats. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Nests in solitary bush or tree, or in small groves. Requires adjacent suitable foraging areas such as grasslands or alfalfa/grain fields supporting rodent populations.	**Presumed Absent:** The Project Sites does not represent quality foraging habitat for this species and this species is not expected to nest on the Project sites due to the lack of large trees.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	Fed: CA:	none SSC	Coastal sage scrub with tall opuntia cacti. Nests in opuntia cactus.	**Presumed Absent:** No suitable coastal sage scrub habitat with opuntia cacti is present on the Project site and there are no records within five miles.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: CA:	none SSC	Chaparral, coastal scrub, and desert grasslands in San Diego county along the U.S.-Mexico border.	**Presumed Absent:** Although marginally suitable habitat is present on the Project site, the site is outside of the known range for this species.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: CA:	none SSC	Sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California. Primarily occurs in arid coastal and desert borders. Typical habitats include sandy desert fans and shrub communities such as coastal sage scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland.	**High Potential to Occur:** Marginally suitable habitat is present within the undisturbed portions of the R-11.4 reservoir complex Project site and multiple occurences were identified within five miles of the Project site.
Charina umbratica southern rubber boa	Fed: CA:	none **THR**	Under rocks, woody debris, or in crevices in conifer or conifer-mixed semi-open forests and woodlands, patchy chaparral/shrublands, and meadows.	**Presumed Absent:** Project site is outside of species' known range.
Coccyzus americanus occidentalis western yellow-billed cuckoo (nesting)	Fed: CA:	THR END	Occurs in riparian forest habitat. Nests along the broad, lower floodbottoms of larger river systems in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Presumed Absent:** No suitable habitat was present on the Project Site. Typically occurs in riparian forest habitat. No large river systems are within five miles. No records occur within five miles.
Corynorhinus townsendii Townsend's big-eared bat	Fed: CA:	none SSC	Occurs in broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, and valley & foothill grassland habitats. Found throughout California, most commonly in mesic sites. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.	**Presumed Absent:** Some marginal scrub habitat was present on the Project sites for foraging. Roosting activities are not expected on this site because there are structures on site. No records occur within five miles.
Crotalus ruber red-diamond rattlesnake	Fed: CA:	none SSC	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats. Diet consists of birds, lizards, and small mammals including ground squirrels, wood rats, and rabbits.	**Low Potential to Occur:** Suitable scrub habitat is present within the undisturbed portions of the R-11.4 reservoir complex Project site. Foraging is possible on the Project sites as lizards, birds, and small mammals were observed during the reconnaissance survey. There is one record (Occ # 177) within five miles from 2016.
Cypseloides niger black swift (nesting)	Fed: CA:	none SSC	Coastal belt of Santa Cruz and Monterey counties; central & southern Sierra Nevada; San Bernardino & San Jacinto mountains. Often breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	**Presumed Absent:** No suitable mountain habitat is present on the Project site. There are also no cliffs or waterfalls present to provide breeding habitat. No records occur within five miles.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: CA:	**END** CAN/SSC	Gentle slopes of alluvial fans, on flood plains, along washes, and on adjacent upland areas with soils containing sand, loam, and gravel deposited by rivers and streams. Can also be found in sandy soils that are wind deposited. Found in alluvial sage scrub, coastal sage scrub, and chaparral vegetation.	**Presumed Absent:** No Riversidean alluvial fan sage scrub was present on the Project Site and the Site occurs outside of the known species range.
Dipodomys stephensi Stephen's kangaroo rat	Fed: CA:	**END** **THR**	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain. Prefer open habitats with less than 50% protective cover.	**Presumed Absent:** No suitable habitat and the Site occurs outside of the known species range.
Elanus leucurus white-tailed kite (nesting)	Fed: CA:	none FP	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in trees, riparian scrub areas, oak woodlands, and other similar habitats.	**Moderate Potential to Occur:** Marginal suitable nesting habitat is present on the Project site in the some of the trees present at the Project sites. Three records occur within five miles from 2006 & 2016.
Empidonax traillii extimus southwestern willow flycatcher (nesting)	Fed: CA:	**END** **END**	Occurs in riparian woodland habitat in Southern California. Nests in densest areas of riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. Nests are found within larger riparian floodplains, typically in vegetation stands of with ahigh structural diversity.	**Presumed Absent:** No suitable riparian habitat is present on the Project site. Two records occur within five miles of the project site from 2004, likely of migrating individuals.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Emys marmorata western pond turtle	Fed: CA:	none SSC	Occurs in aquatic, artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Needs basking sites (logs, rocks, and exposed banks) and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Presumed Absent:** No suitable standing water or wetlands are on the Project Site.
Eumops perotis californicus western mastiff bat	Fed: CA:	none SSC	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	**Presumed Absent:** No suitable rock or cliff habitat is present on the Project site. There are no records within five miles.
Glaucomys sabrinus californicus San Bernardino flying squirrel	Fed: CA:	none SSC	Mixed conifer forests of white fir, Jeffery pine, and black oak with many snags and fallen logs. Prefers forests with a relatively closed canopy and open or sparse undergrowth.	**Presumed Absent:** No suitable conifer forest habitat is present on the Project site, no records occur within five miles, and the Site is outside of the known species range.
Icteria virens yellow-breasted chat	Fed: CA:	none SSC	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Nests in low, dense riparian, consisting of willow, blackberry, wild grape along streams or at the edges of ponds or swamps. Forages and nests within 10 ft of ground.	**Presumed Absent:** No suitable riparian habitat was present on the Project Site. One recent occurrence (Occ # 116) occurs within five miles from 2016.
Lanius ludovicianus loggerhead shrike (nesting)	Fed: CA:	none SSC	Occurs in a wide variety of open scrub habitats. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low Potential to occur:** Suuitable scrub habitat was present on the R-11.4 reservoir complex Project site. No records were identified within five miles of the Project sites.
Lasiurus xanthinus western yellow bat	Fed: CA:	none SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats and human developed areas. Roosts in trees, particularly palms. Forages over water and among trees.	**Presumed Absent:** Although there have been two occurrences (Occ # 41 and #51) of this species approximately identified within five miles of the Project site; the occurrence was recorded in 1991 and 1989 and are considered historic. No suitable riparian habitat is present on the Project site. No palm trees were observed during the reconnaissance survey, whcih can provide roosting habitat for this species.
Leptonycteris yerbabuenae lesser long-nosed bat	Fed: CA:	DL SSC	Roosts in caves and mines. Occurs in arid regions including desert grasslands and shrub lands. Requires suitable concentration of columnar cacti and agave food sources.	**Presumed Absent:** Although limited suitable grassland habitat is present on the Project site, there were no suitable food sources observed during the reconnaissance survey. No caves or mines are present for roosting. One record (Occ # 1) was observed within five miles of the Project sites over 20 years ago.
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA:	none SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Also found in coastal chaparral, sagebrush scrub, sandy desert, Joshua tree woodland, pinyon-juniper pine, and boulder habitats. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops & rocky cliffs & slopes.	**Presumed Absent:** Although limited suitable chaparral scrub and woodland habitat was present on the Project sites, the sites are disturbed and lack moderate to dense canopies and rocky habitats, typical of the species. One record occurs within five miles but is over 20 years old, and may have been misidentified.Thus the species was presumed absent.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA:	none SSC	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings.	**Presumed Absent:** No suitable rugged canyon, cliff, or rock outcropping habitat is present on the Project site and no records occur within five miles.
Oncorhynchus mykiss irideus pop. ***10*** steelhead - southern California DPS	Fed: CA:	**END** none	Typically occurs in very large and historically slow water steams or rivers with permanent water	**Presumed Absent:** No suitable habitat for this species is present on the Project site.
Onychomys torridus ramona southern grasshopper mouse	Fed: CA:	none SSC	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	**Low Potential to Occur:** Marginally suitable grassland and scrub habitat was present on the Project sites. One historic record of this species have been identified within five miles of the site, however, it is over 75 years old.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: CA:	none SSC	Lower elevation grasslands, alluvial sage scrub, and coastal sage communities in and around the Los Angeles Basin. Highly associated with open bare ground with fine sandy soils, usually associated with washes or dunes. May hide under weeds and dead leaves in addition to digging burrows.	**Presumed Absent:** No suitable scrub habitat was present on the Project sites, as the high density of grasses in the undisturbed portions of the project site likely preclude the speices. One recent record (Occ # 61), observed in 2016, was identified within five miles of the R-11.4 Project site.

Scientific Name Common Name	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Phrynosoma blainvillii coast horned lizard	Fed: CA:	none SSC	Occurs in chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinyon & juniper woodlands, riparian scrub, riparian woodland, and valley & foothill grassland habitats. Requires open areas for sunning, bushes to provide cover, and loose soil for burial. Diet consists mainly of ants and also small invertebrates. Most commonly found in lowlands along sandy washes with scattered low bushes.	**Low Potential to Occur:** Marginally suitable scrub habitat was present within the undisturbed portions of the R-11.4 reservoir complex Project site. However, the high grass desity in these areas could preclude the speceis. Two recent records occur within five miles from 2004 & 2005.
Polioptila californica californica coastal California gnatcatcher	Fed: CA:	**THR** SSC	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub including California sagebrush, California buckwheat, salvia, and prickly pear cactus. Moves about actively in shrubs and low trees to forage. Generally found at elevations below 3,000 ft.	**Presumed Absent:** Although some suitable scrub habitat is present on the Project site in the California buckwheat and chaparral vegetation, the species has not been recorded from either Yucaipa or Calimesa for a long time and is generally considered to be extirpated from the area.
Progne subis purple martin (nesting)	Fed: CA:	none SSC	Woodlands, broadleaved upland forest, and lower montane coniferous forest, particularly low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly: also in human-made structures. Nest often located in tall, isolated tree/snag.	**Presumed Absent:** No suitable habitat was present on the Project site. Occurs in low elevation coniferous forest and broadleaved upland forest. One record occurs within five miles but is over 100 years old.
Rana muscosa southern mountain yellow-legged frog	Fed: CA:	**END** **END**	Ponds, streams, lakes, and isolated pools in southern Sierra Nevada Mountains and rocky streams within narrow canyons and the chaparral belt in Southern California mountains.	**Presumed Absent:** No suitable pond, stream, lake, or pool habitat was present on the Project sites.
Rhinichthys osculus ssp. ***8*** Santa Ana speckled dace	Fed: CA:	none SSC	Permanent flowing creeks and streams with shallow gravel and cobble riffles.	**Presumed Absent:** No suitable creek or stream habitat habitat for this species is present on the Project sites.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: CA:	none SSC	Coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites. Diet consists mostly of lizards, along with small mammals.	**Moderate Potential to Occur:** Suitable scrub habitat is present on the R-11.4 reservoir complex Project site. Two records occur within five miles from 2014 & 2016.
Setophaga petechia yellow warbler (nesting)	Fed: CA:	none SSC	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. Diet consists primarily of insects.	**Presumed Absent:** No suitable riparian habitat was present on the Project sites.
Spea hammondii western spadefoot	Fed: CA:	none SSC	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 are essential for breeding and egg-laying. The species is almost completely terrestrial, entering water only to breed.	**Low Potential to Occur:** Marginally suitable upland habitat for this species is present on the Project site but no ponds, temporary pools or vernal pools are present for breeding. Multiple recent records of this species are documented within five miles of the Project site.
Taxidea taxus American badger	Fed: CA:	none SSC	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs. Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow. Young are born in underground burrows.	**Presumed Absent:** Very limited suitable scrub and grassland habitats occur on the Project sites but the proximity to urban development likely preculdes the species. There are no records within five miles and all of the records greater than five miles away are more than 100 years old.
Thamnophis hammondii two-striped gartersnake	Fed: CA:	none SSC	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests. Found in coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Hunts in water.	**Presumed Absent:** No suitable aquatic habitats were found on the Project Site.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA:	**END** **END**	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Summer resident of southern California in low riparian vegetation in the vicinity of water or in dry river bottoms, below 2,000 ft msl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite.	**Presumed Absent:** No suitable riparian habitat is present on the Project site.
Xanthocephalus xanthocephalus yellow-headed blackbird	Fed: CA:	none SSC	Marshes, swamps, and wetlands. Frequently found nesting in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	**Presumed Absent:** No suitable riparian habitat is present on the Project site. There are no records within five miles.

Federal Designations:
(Federal Endangered Species Act, U.S. Fish and Wildlife Service)

State designations:
(California Endangered Species Act, CDFW)

Scientific Name Common Name	Status	Habitat Requirements	Potential for Occurrence

END: Federally-listed, Endangered
THR: Federally-listed, Threatened
FC: Federal Candidate Species
DL: Federally-delisted

END: State-listed, Endangered
THR: State-listed, Threatened
CAN: Candidate for state listing
SSC: Species of Special Concern
FP: Fully Protected Species
WL: Watch List Species

Source: California Natural Diversity Data Base (CNDDB) Yucaipa, El Casco, Forest Falls, Beaumont, San Jacinto, Lakeview, Perris, Sunnymead, and Redlands 7.5-minute quads.