

Biological Technical Report

Mojave Booster Station Project

San Bernardino County, California

Prepared For:

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ECORP Consulting, Inc. has assisted public and private land owners with environmental regulation compliance since 1987. We offer full service capability, from initial baseline environmental studies through environmental planning review, permitting negotiation, liaison to obtain legal agreements, mitigation design, construction monitoring, and compliance reporting.

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1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) conducted a biological reconnaissance survey for Golden State Water Company's (GSWC) Mojave Booster Station (Project). The survey of the Project site was conducted to identify 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 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 Location and Setting

The Project site consists of approximately 0.923 acres of property located in Morongo Valley (Figure 1). The Project site is located in the southern half of Section 29 of Township 1 South, Range 4 East, San Bernardino Base and Meridian as depicted on the 1997 Morongo Valley, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figures 1 and 2). The Project site (APN 058-318-104) is located on an undeveloped property within a rural residential neighborhood bounded by Mojave Drive to the north, Juniper Avenue to the west, a municipal water tank and residential property to the east, and undeveloped desert to the south in Morongo Valley, California. The elevation of the Project site ranges from 2,690 feet above mean sea level (AMSL) to 2,700 feet AMSL. The Project site is relatively level, consisting of mostly sandy soils.

1.2 Project Description and Purpose

Golden State Water Company (GSWC) proposes to construct a 0.4 million-gallon (MG) water storage tank and booster station at the southeast corner of Juniper Avenue and Mojave Drive in Morongo Valley, San Bernardino County, California. The proposed water storage tank and booster station would replace the existing 0.1 MG bolted steel water storage tank and booster located at the current Mojave Plant. The existing storage tank and booster station are in poor condition and in need of replacement. Replacement of these facilities is essential for the purveyance of water supplies to the Mojave Tank Zone and the Macelle Tank Zone. The proposed tank would provide an additional 0.3 MG of new water storage capacity within the Mojave Tank Zone. Construction of the proposed booster station will require the construction of new SCE electrical service connections at the project site.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

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

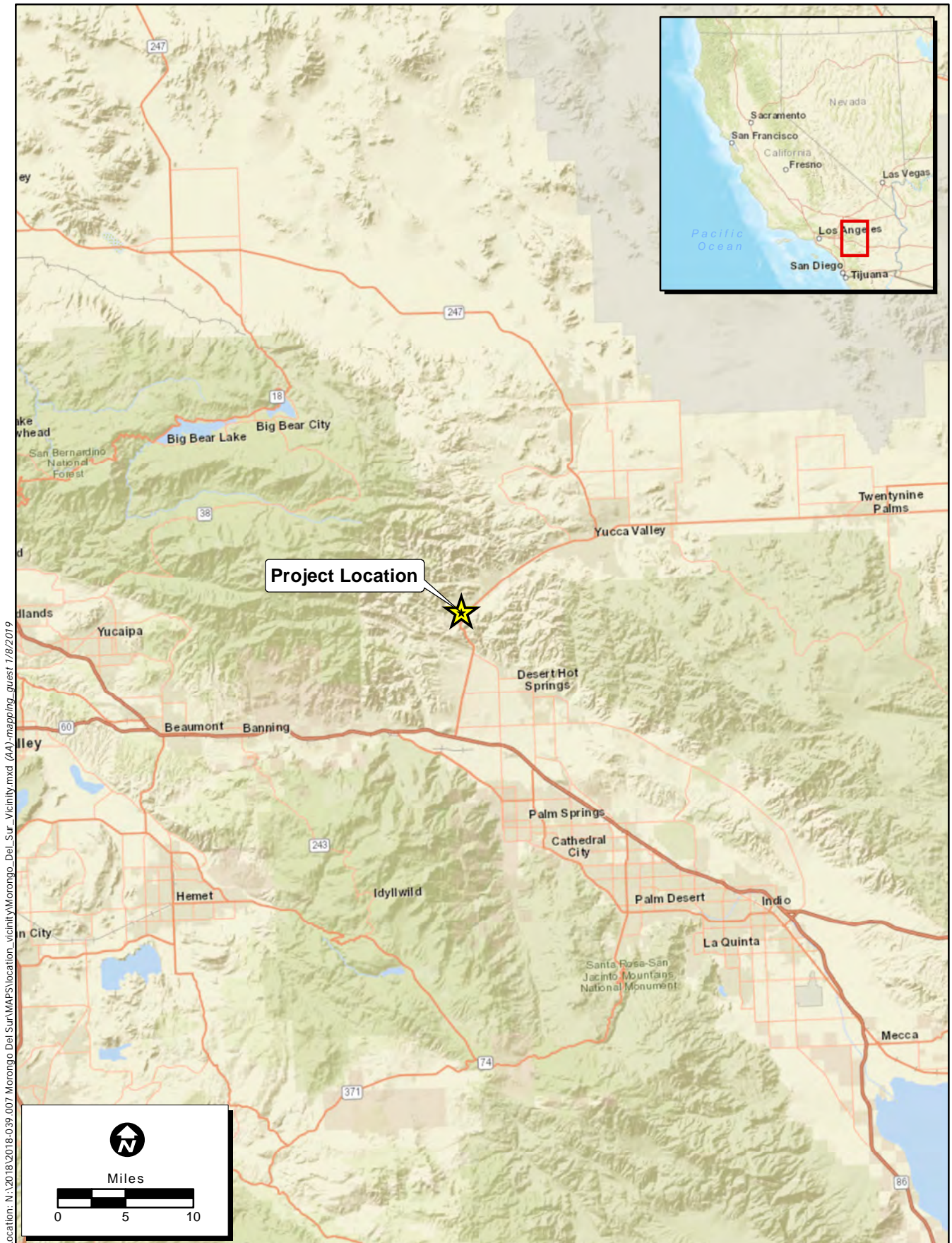


Figure 1. Project Vicinity

2018-039.007 Morongo Del Sur



Map Date: 1/8/2019

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Figure 2. Project Location

2018-039.007 Morongo Del Sur

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The ESA protects plants and animals that are listed as endangered or threatened by the United States 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 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 United States 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 federal Clean Water Act's (CWA) purpose 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 United States (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 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. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Quality Control Board, administered by each of nine California Regional Water Quality Control Boards.

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

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

2.2.2 Fully Protected Species

The State of California first began to designate species as “fully protected” prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

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

2.2.4 California Fish and Game Code

Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.*” The CDFW reviews the

proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

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.

2.2.5 CEQA 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 (NCCP), or other approved local, regional or state HCP.

An evaluation of whether an impact to biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would

obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDDB; CDFW 2018a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2018) to determine the special-status plant and wildlife species that have been documented near the Project site. The CNDDDB and CNPSEI database searches were conducted on December 19, 2018. ECORP searched CNDDDB and CNPSEI records within the Project site boundaries as depicted on USGS 7.5-minute Morongo Valley topographic quadrangle, plus the surrounding eight topographic quadrangles, including Onyx Peak, Rimrock, Yucca Valley North, Catclaw Flat, Yucca Valley South, White Water, Desert Hot Springs, Seven Palms Valley. The CNDDDB 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), and/or other special-status species or habitat that may occur within or near the Project site. Additional information was gathered from the following sources and includes, but is not limited to:

- Natural Resources Conservation Service *Web Soil Survey* (NRCS 2018);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2018b);
- *Special Animals List* (CDFW 2018c);
- *The Jepson Manual* (Hickman 1993);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., Calflora 2018).

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

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; and/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 site 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 on site and a known occurrence has been recorded within five miles of the site.

Moderate: Either habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site, or a known occurrence occurs within five miles of the site and marginal or limited amounts of habitat occurs on site.

Low: Limited habitat for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site, or suitable habitat strongly associated with the species occurs on site, but no records were found in the database search.

Presumed Absent: Focused surveys were conducted, and the species was not found, or species was found in the database search but habitat (including soils and elevation factors) is not present on site, or the known geographic range of the species does not include the survey 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 enough 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 desktop review of the Natural Resources Conservation Service's Web Soil Survey (NRCS 2018) and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages that might fall under the jurisdiction of either federal or state agencies were present on the Project site.

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire Project site to determine the vegetation communities and wildlife habitats on the site. The biologist documented the plant and wildlife species, including any special-status species that were observed during the survey. In instances where a special-status species was observed, the date, species, location and habitat, and global positioning system (GPS) coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in NAD 83, Universal Transverse Mercator coordinates, Zone 11S. Photographs were also taken during the survey to provide visual representation of the various vegetation communities within the Project site. The Project site 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 noted the vegetation communities present on the Project site.

Plant and wildlife species, including any special-status species that were observed during the survey, were documented. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR; SSAR 2018), *Check-list of North American Birds* (American Ornithologist's Union [AOU] 2016), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

3.2.2 Preliminary Jurisdictional Delineation

A desktop review was conducted to identify potential streams and hydric soils on the property. This entailed examination of the NRCS Soil Mapper (2018), National Wetland Inventory (NWI) mapping, and the USGS topographic mapping of the Project site to aid in identifying potential biological constraints to the Project due to jurisdictional streams. A preliminary jurisdictional delineation of the site was conducted in the field. The property was walked to look for signs of Ordinary High-Water Mark (OHWM) as defined by the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008). The boundaries of potential Waters of the U.S. and Waters of the State were identified through aerial photograph interpretation and standard field methods including identification of water sources and examination of topography. Boundaries of potential jurisdictional areas were not formally delineated.

3.3 Focused Protocol Rare Plant Survey

3.3.1 Reference Population Assessment

Several populations for the identified special-status plants are located within ten miles of the Project site (CDFW 2018a). Three of these locations were visited on April 19, 2019, two weeks prior to the survey. If plants were located during reference population assessments, then information about their development (e.g., in flower; 50 percent of population with flower buds, but no flowers) was noted, and photo documentation was performed. The status of reference populations and vegetation communities that occur near the Project site were used to assist with planning the optimal time to conduct surveys.

3.3.2 Focused Rare Plant Survey

A focused rare plant survey was conducted by qualified biologists with extensive experience conducting botanical surveys and knowledge regarding plant taxonomy, plant species in the region, and sensitive plant species. The purpose of the surveys was to determine the presence or absence, number of individuals if present, and acreages of sensitive plant species within the project site. Rare plant species are those federal or state-listed as threatened or endangered under the state and federal Endangered Species Acts, considered sensitive by BLM, or those considered rare by the California Native Plant Society (CNPS).

Survey methods were devised with consideration of the following resources: 1) USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996), 2) CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2009), and 3) CNPS Botanical Survey Guidelines (CNPS 2001). The surveys were scheduled to coincide with the target species blooming periods and take place

during a period when target species were readily identifiable which was, in part, based on the results of assessments of reference plant populations.

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 searched identified 50 special-status plant species and 32 special-status wildlife species that occur near the Project site. A list was generated from the results of the literature review and the Project site 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 site is not located near any USFWS designated Critical Habitat.

4.1.3 Jurisdictional Drainages

The desktop review of the NRCS (2018), NWI, and the USGS topographic map did not identify any potentially jurisdictional features, hydric soils, or wetlands present on the Project site. The Big Morongo Creek is located approximately 2 miles east of the project, east of California State route 62.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on December 20, 2018, by ECORP senior wildlife biologist, Phillip Wasz. Mr. Wasz has more than nine years of experience conducting surveys and habitat assessments for special-status plant and wildlife species of San Bernardino County, including burrowing owl (*Athene cunicularia*). 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). 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 (mph)	
	Start	end	Min	Max	min	max	min	max
12/20/2018	0900	1100	48	54	20	30	0	5

4.2.1 Property Characteristics

The Project site consists of undisturbed land bounded by Juniper Avenue to the west, a dirt road and beyond that a residence to the north, a residence to the east, and open undisturbed land to the south. The Project site is situated in a rural residential area with the surrounding land use consisting mostly of residential buildings. However, a review of historical images revealed that the Project site has remained relatively undisturbed dating back as far as 1970. The Project site was relatively flat consisting of mostly sandy soils, elevation at the site is approximately 820 meters. Representative site photographs are presented in Appendix A.

4.2.2 Vegetation Communities

The Project site contained one native vegetation community, cheesebush scrub. Within the Little San Bernardino mountains, cheesebush scrub typically occupies washes. The community present in the Project site is no exception, as the Big Morongo Creek once flowed through the Big Morongo Valley (Evens and Hartman 2007).

4.2.3 Plants

Plant species observed on the Project site were typical of the cheesebush scrub present on the Project site and for the time of the year in which the survey was conducted, including cheesebush (*Ambrosia salsola*), ephedra (*Ephedra californica*), Silver cholla (*Cylindropuntia echinocarpa*), Mojave Yucca (*Yucca schidigera*), catclaw (*Senegalia greggii*), California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia farinosa*), and creosote bush (*Larrea tridentata*). A full list of plant species observed on or immediately adjacent to the Project site is included in Appendix B.

4.2.4 Wildlife

The wildlife observed in the Project site were typical of the rural residential setting and the habitat observed in the Project site. Wildlife species observed during the biological reconnaissance survey included white-tailed antelope squirrel (*Ammospermophilus leucurus*), California towhee (*Melospiza crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), Anna's humming bird (*Calypte anna*), mourning dove (*Zenaidura macroura*), house finch (*Haemorhous mexicanus*) and American crow (*Corvus brachyrhynchos*). A complete list of wildlife species observed on or immediately adjacent to the Project site is included in Appendix C.

4.2.5 Potential for Special-Status Plant and Wildlife Species to Occur on the Project Site

The literature review and database searches identified 50 special-status plant species and 32 special-status wildlife species that occur on or near the Project site. Based on the habitat present on the site and the locations of species records in the vicinity of the Project site, four special-status plant species and three special-status wildlife species have a high potential to occur in the Project site. However, with the San Bernardino Mountains to the east and the Little San Bernardino Mountains to the west, many of the other species that appeared in the literature review were outside of the elevation range of the Project site and are thus presumed absent because they only occur at higher elevations.

Special-Status Plants

Of the 50 special-status plants identified, four species have a high potential to occur within the Project site. A brief natural history and discussion of the three special-status plant species with high potential to occur in the Project site can be found below. Nine of the remaining 48 species have a low potential to occur, and the remaining 39 are presumed absent from the Project site. Table 2 identifies California Native Plant Society (CNPS) status designations and their descriptions

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 we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

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 FGC (CDFW 1984). This interpretation is inconsistent with other definitions.

Plant Species with High Potential to Occur

Triple-ribbed milk-vetch (*Astragalus tricarlinatus*). Triple Ribbed milk-vetch is not a federally or state-listed species but does have a CNPS status of 1B.2 (plants rare, threatened, or endangered in California) (CNPS 2018). It is a perennial herb native to California. This species is typically found in desert scrub communities. This species has been documented near the Project site (CDFW 2018a). Based on the presence of desert scrub habitats and sandy soils in the Project site, and the documented record of the species near the Project site, this species has been determined to have a high potential to occur within the Project site.

Lincoln Rockcress (*Boechera lincolnensis*). Lincoln rockcress is not a federally or state-listed species but does have a CNPS status of 2B.3 (plants rare, threatened, or endangered in California, but more common elsewhere) (CNPS 2018). It is a perennial herb native to California. This species is typically found in desert scrub communities. This species has been documented near the Project site (CDFW 2018a). Based on the presence of desert scrub habitats and sandy soils in the Project site, and the documented record of the species near the Project site, this species has been determined to have a high potential to occur within the Project site.

White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*). White-bracted sunflower is not a federally or state-listed species but does have a CNPS status of 1B.2 (plants rare, threatened, or endangered in California) (CNPS 2018). It is an annual herb that is endemic to the Coachella Valley. This species is typically found in coastal scrub (alluvian fans), Mojavean desert scrub, and pinyon and juniper woodland with sandy or gravelly soils. This species has been documented near the Project site (CDFW 2018a). Based on the presence of desert scrub habitats and sandy soils in the Project site, and the documented record of the species near the Project site, this species has been determined to have a high potential to occur within the Project site.

Little San Bernardino Mountains linanthus (*Linanthus maculatus*). Little San Bernardino Mountains linanthus is not a federally or state-listed species but does have a CNPS status of 1B.2 (CNPS 2018). It is an annual herb that is endemic to the Coachella Valley. This species is typically found in desert dunes, Joshua tree woodland, Mojavean desert scrub, and Sonoran Desert scrub with sandy soils. This species has been documented near the Project site (CDFW 2018a). Based on the presence of desert scrub habitats and sandy soils in the Project site, and the documented record of the species near the Project site, this species has been determined to have a high potential to occur within the Project site.

Plant Species with Low potential to Occur

The following species are presumed to have a low potential to occur on the Project site. Although habitat may occur on site, occurrences are greater than five miles from the project site or have records which are greater than 50 years old:

- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*) CNPS 1B.2, Federally listed Endangered
- pinyon rockcress (*Boechera dispar*) CNPS 2B.3
- Parish's daisy (*Erigeron parishii*) CNPS 1B.1, Fe
- cliff spurge (*Euphorbia misera*) CNPS 2B.2
- spiny-hair blazing star (*Mentzelia tricuspidis*) CNPS 2B.1
- slender cottonheads (*Nemacaulis denudata* var. *gracilis*) CNPS 2B.2
- desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*) CNPS 2B.2
- Latimer's woodland-gilia (*Saltugilia latimerid*) CNPS 1B.2
- desert spike-moss (*Selaginella eremophila*) CNPS 2B.2

Plant Species Presumed Absent

The following species are presumed absent from the Project site due to the lack of suitable habitat, soil type, and/or elevation range at the Project site:

- chaparral sand-verbena (*Abronia villosa* var. *aurita*) CNPS 1B.1
- Cienega Seca oxytheca (*Acanthoscyphus parishii* var. *cienegensis*) CNPS 1B.3
- Cushenbury oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*) CNPS 1B.1
Federally listed Endangered
- San Bernardino milk-vetch (*Astragalus bernardinus*) CNPS 1B.2

- Big Bear Valley milk-vetch (*Astragalus lentiginosus* var. *sierra*) CNPS 1B.2
- Big Bear Valley woollypod (*Astragalus leucolobus*) CNPS 1B.2
- Fremont barberry (*Berberis fremontii*) CNPS 2B.3
- Parish's rockcress (*Boechera parishii*) CNPS 1B.2
- Shockley's rockcress (*Boechera shockleyi*) CNPS 2B.2
- scalloped moonwort (*Botrychium crenulatum*) CNPS 2B.2
- Palmer's mariposa lily (*Calochortus palmeri* var. *palmeri*) CNPS 1B.2
- western sedge (*Carex occidentalis*) CNPS 2B.3
- ash-gray paintbrush (*Castilleja cinerea*) CNPS 1B.2, Federally listed Threatened
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CNPS 1B.1
- slender-horned spineflower (*Dodecahema leptoceras*) CNPS 1B.1, Federally and State Listed Endangered
- San Bernardino Mountains dudleya (*Dudleya abramsii* ssp. *affinis*) CNPS 1B.2
- Big Bear Valley sandwort (*Eremogone ursina*) CNPS 1B.2, Federally listed Threatened
- Harwood's eriastrum (*Eriastrum harwoodii*) CNPS 1B.2
- southern mountain buckwheat (*Eriogonum kennedyi* var. *austromontanum*) CNPS 1B.2, Federally listed Threatened
- Johnston's buckwheat (*Eriogonum microthecum* var. *johnstonii*) CNPS 1B.3
- Cushenbury buckwheat (*Eriogonum ovalifolium* var. *vineum*) CNPS 1B.1, Federally listed Endangered
- San Bernardino gilia (*Gilia leptantha* ssp. *leptantha*) CNPS 1B.3
- Parish's alumroot (*Heuchera parishii*) CNPS 1B.3
- California satintail (*Imperata brevifolia*) CNPS 2B.1
- silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*) CNPS 1B.2
- lemon lily (*Lilium parryi*) CNPS 1B.2
- Pioneertown linanthus (*Linanthus bernardinus*) CNPS 1B.2
- Baldwin Lake linanthus (*Linanthus killipii*) CNPS 1B.2
- Orcutt's linanthus (*Linanthus orcuttii*) CNPS 1B.3
- Robison's monardella (*Monardella robisonii*) CNPS 1B.3
- Big Bear Valley phlox (*Phlox dolichantha*) CNPS 1B.2
- San Bernardino Mountains bladderpod (*Physaria kingii* ssp. *Bernardina*) CNPS 1B.1, Federally listed Endangered
- San Bernardino blue grass (*Poa atropurpurea*) CNPS 1B.2, Federally listed Endangered
- Bear Valley pyrrocoma (*Pyrrocoma uniflora* var. *gossypina*) CNPS 1B.2
- Bear Valley checkerbloom (*Sidalcea malviflora* ssp. *dolosa*) CNPS 1B.2
- southern jewelflower (*Streptanthus campestris*) CNPS 1B.3

- California dandelion (*Taraxacum californicum*) CNPS 1B.1, Federally listed Endangered

Special-Status Wildlife

Of the 32 special-status wildlife identified, three species have a high potential to occur in the Project site. A brief natural history and discussion of the three special-status wildlife species with high potential to occur in the Project site can be found below. The remaining 29 species were presumed absent from the Project site due to lack of suitable habitat.

Wildlife Species with High Potential to Occur

Burrowing owl (*Athene cunicularia*). The burrowing owl is a CDFW Species of Special Concern (SSC, CDFW 2018a). It is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests. It primarily feeds on large insects and small mammals but will also eat birds and amphibians. The Project site contained suitable habitat with soils suitable for burrowing, however, no burrows of adequate size were observed during the surveys. Documented records of this species were identified near the Project site (CDFW 2018). The presence of suitable habitat and the documented records near the Project site resulted in this species having a high potential to occur in the Project site.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a CDFW SSC (CDFW 2018b). It prefers open areas with scattered trees and shrubs including savanna, desert scrub, and open woodland habitats. Its diet includes large insects and other invertebrates, but it will also prey upon small mammals, lizards, and snakes. Suitable foraging and nesting habitat is present throughout the Project site. Documented records of this species were identified near the Project site (CDFW 2018a). The Project site provides suitable foraging and nesting habitat for this species. The presence of suitable habitat and the documented records near the Project site resulted in this species having a high potential to occur in the Project site.

American badger (*Taxidea taxus*). The American badger is a CDFW SSC (CDFW 2018b). This mammal species prefers habitat that includes dry open areas consisting of shrubs, forest, and herbaceous habitats, with loose soils for digging burrows (NatureServe 2018). This species is typically solitary and is scattered at low densities throughout the Colorado Desert, but can move long distances to find suitable habitat and mates. The Project site contains suitable habitat within the scrub vegetation on site. Documented records of this species were identified near the Project site. The presence of suitable habitat and the documented records near the Project site resulted in this species having a high potential to occur in the Project site.

Wildlife Species Presumed Absent

The following species are presumed absent from the project due their elevation range being outside of Project site and the lack of suitable habitat on the Project site. Although foraging habitat exists for special status plants, no roosting habitat is present on or near the Project site, and these species were presumed absent:

- southern California legless lizard (*Anniella stebbinsi*) CDFW SSC
- pallid bat (*Antrozous pallidus*) CDFW SSC

- golden eagle (*Aquila chrysaetos*) CDFW Fully Protected
- California glossy snake (*Arizona elegans occidentalis*) CDFW SSC
- long-eared owl (*Asio otus*) CDFW SSC
- pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) CDFW SSC
- southern rubber boa (*Charina umbratica*) State listed threatened
- Townsend's big-eared bat (*Corynorhinus townsendii*) CDFW SSC
- red-diamond rattlesnake (*Crotalus ruber*) CDFW SSC
- Casey's June beetle (*Dinacoma caseyi*) Federally listed endangered
- desert tortoise (*Gopherus agassizii*) Federally listed endangered, State listed threatened
- yellow-breasted chat (*Icteria virens*) CDFW SSC
- western yellow bat (*Lasiurus xanthines*) CDFW SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) CDFW SSC
- desert bighorn sheep (*Ovis canadensis nelson*) CDFW Fully Protected
- Peninsular bighorn sheep DPS (*Ovis canadensis nelsoni* pop. 2) Federally listed endangered, State listed threatened, CDFW Fully Protected
- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) CDFW SSC
- summer tanager (*Piranga rubra*) CDFW SSC
- vermilion flycatcher (*Pyrocephalus rubinus*) CDFW SSC
- coast horned lizard (*Phrynosoma blainvillii*) CDFW SSC
- flat-tailed horned lizard (*Phrynosoma mcallii*) CDFW SSC
- California red-legged frog (*Rana draytonii*) Federally listed threatened, CDFW SSC
- Southern mountain yellow-legged frog (*Rana muscosa*) Federally and State listed endangered
- yellow warbler (*Setophaga petechia*) CDFW SSC
- two-striped gartersnake (*Thamnophis hammondi*) CDFW SSC
- Le Conte's thrasher (*Toxostoma lecontei*) CDFW SSC
- Coachella Valley fringe-toed lizard (*Uma inornata*) Federally and State listed endangered
- least Bell's vireo (*Vireo bellii pusillus*) Federally and State listed endangered
- Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*) CDFW SSC

4.2.6 Potentially Jurisdictional Drainages

The desktop review of the NRCS (2018), NWI, and the USGS topographic map did not identify any potentially jurisdictional features, hydric soils, or wetlands present in the Project site. No hydric soils, jurisdictional drainages, stream courses, and/or other water features were identified in the Project site during the biological reconnaissance surveys. Therefore, a formal delineation was not conducted.

4.2.7 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and CDFG Code was present in the Project site within the trees and shrubs. Other areas adjacent to the Project site that could provide nesting habitat for migratory birds and raptors included the adjacent scrubs, trees, adjacent power poles, and buildings. Raptors typically breed between February and August, while song birds and other passerines generally nest between March and August.

4.2.8 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 site was assessed for its ability to function as a wildlife corridor. Although, the project site contained native cheesbush scrub and is within a rural area, the project is surrounded by residential developments. Additionally, the Project site did not contain any features that typically are associated with facilitating wildlife movement, including drainages, riverbeds, etc. Therefore, the Project site would not be considered a linkage or corridor between conserved natural habitat areas.

4.2.9 Focused Protocol Rare Plant Survey

The Project site contained suitable habitat for special-status plant species and during the literature review four species were determined to have a high potential to occur on the Project site. Therefore, it was recommended that a focused protocol rare plant survey be conducted during the appropriate blooming period to determine if any special-status plants were present on the Project site. The rare plant survey was conducted by Torrey Rotellini on May 3, 2019, two weeks following the reference population checks. Torrey Rotellini is experienced with rare plant surveys within the inland empire and adjacent areas, and a holder of a CDFW rare plant collecting permit (2018(a)-18-090-V). Additional technical oversight was provided by ECORP senior wildlife biologist, Phillip Wasz, and ECORP senior restoration ecologist/botanist, Josh Corona-Bennett.

The survey commenced on May 3, 2019 with the walking of transects lines spaced at 2-meter intervals providing 100% coverage of the site and a 100-foot buffer. The small nature of the project site and the morphological structure of the Little San Bernardino Mountains linanthus determined the need for small-spaced transects to ensure thorough coverage. Weather conditions during the survey were generally hot

with temperatures ranging between 89- and 93-degrees Fahrenheit, wind speeds ranging from 2 to 4 mph, and clear skies with 5% cloud cover.

No special-status plant species were observed within the Project site or the 100-ft buffer during the survey. Private property areas and roads occupied majority of the buffer and were not surveyed, as access was not granted by the property owner. However, much of the vegetation on the Project site was only mildly disturbed with some foot paths and small amounts of trash from the surrounding communities. Habitat on site was indicative of cheesbush scrub, and despite the isolated nature of the property from other cheesbush scrub plant communities, the larger native species on site were flourishing. Groundcover was dominated by non-native brome grasses and red filaree (*Erodium cicutarium*). Survey results indicated these non-native species likely pushed out the three smaller target species of the rare plant survey, excluding the triple-ribbed milkvetch. No astragalus species related to the triple ribbed milkvetch were identified; the morphological size and structure of astragalus species' flowers and leaves are easily identifiable and would have been observed if they were on site. A complete list of plant species observed during the original biological reconnaissance survey and focused rare plant survey can be found in Attachment B.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The Project site consists of native cheesbush scrub habitat. No special-status plant species were observed during the biological reconnaissance surveys of the Project site; however, suitable habitat for special-status plant species was present within the Project site. The Project site provides suitable habitat for four special-status plant species that have a high potential to occur in the Project site based on the presence of suitable habitat and documented observations in the area, including Triple-ribbed milk-vetch, Lincoln rockcress, white-bracted spineflower, and little San Bernardino linanthus. However, the results of the focused protocol rare plant survey did not identify any special-status or rare plants on the Project site. The non-native ground cover likely pushed out the smaller native target species, and the isolated nature of the Project site from other native plant communities significantly decreases potential for any native species to re-establish. Utilizing these survey results as evidence, no direct or indirect impacts to targeted special-status plant species would occur if the property were developed. Therefore, no avoidance, minimization, or mitigation measure are recommended for special-status plant species.

The Project site also provides suitable habitat for three wildlife species that have a high potential to occur in the Project site based on the presence of suitable habitat and documented observations, including burrowing owl, loggerhead shrike, and American badger. Direct impacts to special-status wildlife species could occur by mortality and habitat loss during ground disturbance and indirect impacts could occur from construction noise and vibrations. However, impacts to species regulated under CEQA would be less than significant with the implementation of Mitigation Measures BIO-1 and BIO-2.

The vegetation in the Project site could provide nesting habitat for songbirds 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 birds protected by the MBTA and their nests through the removal of habitat in the Project site and indirectly through increased noise, vibrations, and increased human activity. Therefore, if construction is

initiated between February 1 and August 31, impacts to species regulated under CEQA would be less than significant with the implementation of Mitigation Measures BIO-2.

The special-status plant and wildlife species with high potential to occur do not include any federally or state-listed species. Therefore, it is not likely that the Proposed Project would need to acquire a mechanism for “take” of federally or state-listed plant or wildlife species.

The Project site does not support riparian habitat, sensitive natural communities, wetlands, or trees that would need to be preserved and no Project related impacts are anticipated for these resources. Additionally, no jurisdictional drainages were observed on or adjacent to the Project site.

5.2 Sensitive Natural Communities

The Project site contains one native vegetation type, cheesebush scrub, however this community is considered secure by CNPS and not in need of any protections. The Project site did not contain any riparian habitat or sensitive natural communities that would need to be preserved and no project-related impacts to these types of resources are anticipated with the development of the Project.

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

The Project site did not contain any State or federally protected wetlands or Waters of the United States. As currently designed the development of the Project site will not result in impacts to State or federally protected wetlands or Waters of the United States.

5.4 Wildlife Corridors and Nursery Sites

The Project site is located within and adjacent to areas containing existing disturbances (e.g., paved roads and residential developments). No features that typically are associated with facilitating wildlife movement (drainages, riverbeds, etc.). No migratory wildlife corridors or native wildlife nursery sites were identified within the Project site. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur during the development of the Project site.

5.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Project site is not located within an HCP or NCCP. Therefore, development of the Project site will not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state HCP.

6.0 RECOMMENDATIONS

The following mitigation measures and best management practices are recommended prior to and during project implementation:

BIO-1 – Pre-construction Surveys for Burrowing Owl and American Badger: Pre-construction surveys for burrowing owl and American Badger shall be conducted prior to the initial clearing of the Project site. The surveys shall follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Two surveys shall be conducted, with the first survey being conducted between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If

burrowing owls, suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains), and/or American Badger are identified in the Project site during the survey and impacts to those features are unavoidable, consultation with the CDFW shall be conducted and the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) for avoidance and/or passive relocation shall be followed.

BIO-2 – Pre-construction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (February through August for raptors and March through August for the majority of migratory bird species), a pre-construction nesting bird survey shall be conducted by a qualified biologist to ensure that active bird nests, including those for the loggerhead shrike, will not be disturbed or destroyed. The survey shall be completed no more than 14 days prior to initial ground disturbance. The nesting bird survey shall include the Project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, a qualified 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 biologist.

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 pre-determined work area;
- To prevent inadvertent entrapment of wildlife during the construction phase of a Project, all excavated, steep-walled holes or trenches more than two 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 four 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 a construction or Project site; and
- Use of rodenticides and herbicides on Project site should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife, including burrowing owl and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to burrowing owl.

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: 

Phillip Wasz
Senior Wildlife Biologist
ECORP Consulting, Inc.

DATE:

January 9, 2019

8.0 LITERATURE CITED

- [AOU] American Ornithologists' Union. 2016. Checklist of North American Birds, 7th edition with 57th Supplement.
- Baldwin, B.G., G.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, Eds. 2012. The Jepson Manual; Vascular Plants of California, Second Edition. Berkeley, CA, University of California Press.
- Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A Cook, R.C. Dowler, C. Jones, D.J Schmidly, F.B. Stangl, Jr., R.A. Van Den Bussche, B. Wursig. 2014. Revised Checklist of North American Mammals North of Mexico. Museum of Texas Tech University.
- Calflora. 2018. Information on California plants for education, research and conservation. [Web application]. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <http://www.calflora.org/>. Accessed: February 2018.
- [CCR] 2017. California Code of Regulations. Title 14, Chapter 5, Section 460. California Office of Administrative Law. Sacramento, CA
- [CDFG] California Department of Fish and Game. 1984. California Endangered Species Act. Fish and Game Code Section 2050-2085.
- [CDFW] California Department of Fish and Wildlife. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Sacramento, CA: California Department of Fish and Game, November 24, 2009.
- [CDFW] California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation. State of California, Natural Resources Agency, Department of Fish and Wildlife.
- [CDFW] California Department of Fish and Wildlife. 2018a. RareFind California Department of Fish and Game Natural Diversity Database (CNDDDB). California. Sacramento, CA, California Department of Fish and Wildlife, Biogeographic Data Branch.
- [CDFW] California Department of Fish and Wildlife. 2018b. State and Federally Listed Endangered and Threatened Animals of California. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife.
- [CDFW] California Department of Fish and Wildlife. 2018c. Special Animals List. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Game. Available: www.dfg.ca.gov/bdb/pdfs/SPAnimals.pdf. Accessed: February 2018
- [CNPS] California Native Plant Society, Rare Plant Program. 2001. CNPS Botanical Survey Guidelines. California Native Plant Society, Sacramento, CA.
- [CNPS] California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org>. Accessed: February 2018.

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Evens, J. M., and S. Hartman. 2007. Vegetation survey and classification for the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO). CNPS Vegetation Program, Sacramento, CA.
- Hickman, J.C., editor. 1993. The Jepson Manual. Berkeley: University of California Press. 1,400 pp.
- [NETR] Nationwide Environmental Title Research, LLC 2018. Historic Aerials. Available at: <https://www.historicaerials.com/viewer>. Accessed: February 2018.
- [NRCS] Natural Resources Conservation Service. 2018. "Web Soil Survey" from <http://websoilsurvey.nrcs.usda.gov>. Accessed: February 201
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society, Sacramento, CA. Sibley, D. A. (2003). The Sibley Field Guide to Birds of North America New York.
- Skinner, M.W., and B.M. Pavlik, eds. 1994. California Native Plant Society's inventory of rare and endangered vascular plants of California. Fifth edition. Spec. Publ. No. 1, California Native Plant Society, Sacramento, CA, 338 pp.
- [SSAR] Society for the Study of Amphibians and Reptiles. 2018. Scientific and Standard English Names of Amphibians and Reptiles of North American North of Mexico, With Comments Regarding Confidence in our Understanding. Eighth Edition. Committee on Standard English and Scientific Names.
- [USACE] U.S. Army Corps of Engineers. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- [USFWS] United States Fish and Wildlife Service 1918. Migratory Bird Treaty Act. Section 16 of the U.S. Code (703-712), as amended 1989.
- [USFWS] United States Fish and Wildlife Service 1996. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. Sacramento, California.

LIST OF APPENDICES

Appendix A –Representative Project Site Photographs

Appendix B –Plant Species Compendium

Appendix C –Wildlife Species Compendium

APPENDIX A

Representative Project Site Photographs



Photo 1: North border of the project site looking south



Photo 2: South border of the Project site looking north.

APPENDIX B

Plant Species Compendium

SCIENTIFIC NAME	COMMON NAME
<i>Ambrosia salsola</i>	cheesebush
<i>Avena fatua</i> *	wildoats
<i>Bromus hordeaceus</i> *	soft chess
<i>Bromus madritensis</i> *	foxtail chess
<i>Centaurea melitensis</i> *	Tocalote
<i>Chenopodium album</i> *	lamb's quarters
<i>Cryptantha pterocarya</i>	wingnut cryptantha
<i>Cylindropuntia acanthocarpa</i>	buck horn cholla
<i>Cylindropuntia echinocarpa</i>	silver cholla
<i>Ephedra californica</i>	desert tea
<i>Erodium cicutarium</i> *	red filaree
<i>Encelia farinosa</i>	brittlebush
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Ferocactus cylindraceus</i>	California barrel cactus
<i>Larrea tridentata</i>	creosote bush
<i>Lupinus bicolor</i>	miniature lupine
<i>Parkinsonia aculeata</i>	Mexican palo verde
<i>Phoradendron californicum</i>	desert mistletoe
<i>Psoralea argophylla</i>	Mojave indigo-bush
<i>Salsola australis</i>	Russian thisle
<i>Senecio jacobinae</i>	catclaw
<i>Yucca brevifolia</i>	joshua tree
<i>Yucca schottlandii</i>	Mojave yucca

APPENDIX C

Wildlife Species Compendium

SCIENTIFIC NAME	COMMON NAME
<i>Ammospermophilus leucurus</i>	white-tailed antelope squirrel
<i>Melospiza crissalis</i>	California towhee
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
<i>Calypte anna</i>	Anna's humming bird
<i>Zenaidura macroura</i>	mourning dove
<i>Haemorhous mexicanus</i>	house finch
<i>Corvus brachyrhynchos</i>	American crow