Biological Technical Report

Sunburst Avenue Bike Trail

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, and construction monitoring and reporting.

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1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) conducted a biological reconnaissance survey for the proposed Sunburst Avenue Bike Trail Project site (Project). The Project site consists of a two-mile portion of Sunburst Avenue between Twentynine Palms Highway (State Highway 62), and Calle Los Amigos in the community of Joshua Tree, San Bernardino County, California. 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

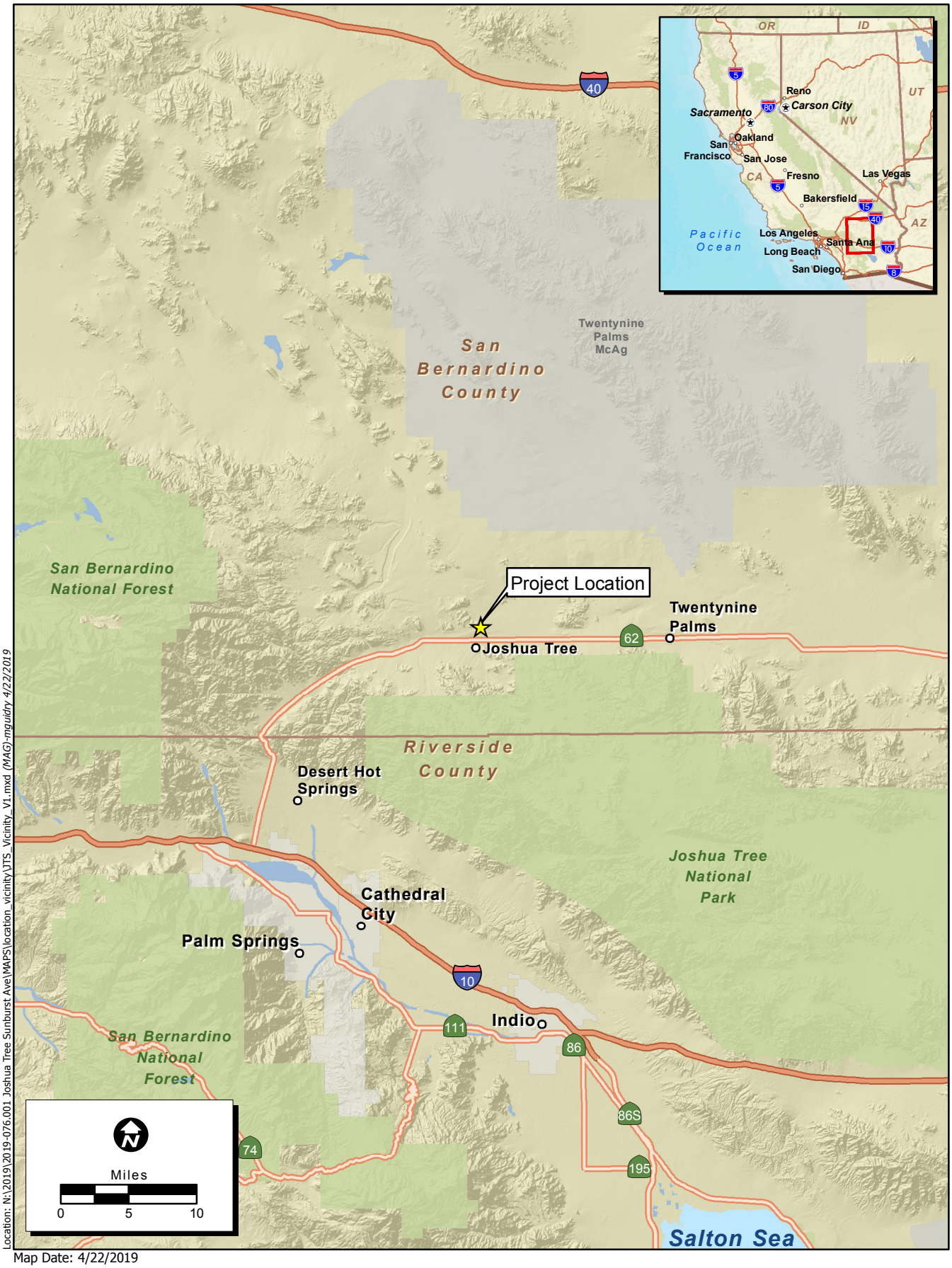
The Project site is located along the eastern and western portions of Sunburst Avenue in the community of Joshua Tree, San Bernardino County, California (Figure 1). The Project site is bounded by Calle Los Amigos to the north; residences, Sportsman's Park, and undeveloped parcels to the east; State Highway 62 to the south; and residences, Joshua Tree Elementary School, undeveloped parcels, and the Bartlett Mountains to the west. The Project site is located entirely within the existing right-of-way of Sunburst Avenue. The Project site, as depicted on the United States Geological Survey (USGS) 7.5-minute Joshua Tree North topographic quadrangle, runs north and south along the center of both Section 24 of Township 1 North, Range 6 East and Section 25 of Township 1 North, Range 6 East, San Bernardino Baseline and Meridian (Figure 2). The elevation of the Project site is approximately 2,750 feet above mean sea level.

1.2 Project Description and Purpose

The County of San Bernardino (County) proposes to rehabilitate and extend an existing bike lane along the eastern edge of Sunburst Avenue and create a new bike lane along the western edge between the intersection of State Route 62 and Calle Los Amigos. The western bike trail includes a 4- to 5-foot concrete paved trail running along the entire 2-mile stretch, while the eastern portion is separated into two segments. The first segment occurs between State Route 62 and South Oleander Drive and includes rehabilitation of an existing bike lane. This portion will include a 6.5-foot shoulder between the road and the trail, an 8-foot paved concrete bike trail, and a two-foot shoulder along the eastern edge of the bike trail. The second portion occurs between South Oleander Drive and Calle Los Amigos, including a 4- to 5-foot bike trail adjacent to the road and a 2-foot shoulder along the eastern edge of the new bike trail. The bikeways will enhance access to recreational opportunities in the region by: (a) providing neighborhood links to green space and natural areas, and (b) providing connections with city urban trails that provide safe travel to parks, community recreation facilities, and tourist attractions.

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.



Location: N:\2019\2019-076.001 Joshua Tree Sunburst Ave\MAPS\location_vicinity\JTS_Vicinity_V1.mxd (MAG)-mguidry 4/22/2019

Map Date: 4/22/2019

Service Layer Credits: Sources: Esri, USGS, NOAA

Figure 1. Project Vicinity

2019-076.001 Joshua Tree Sunburst Ave

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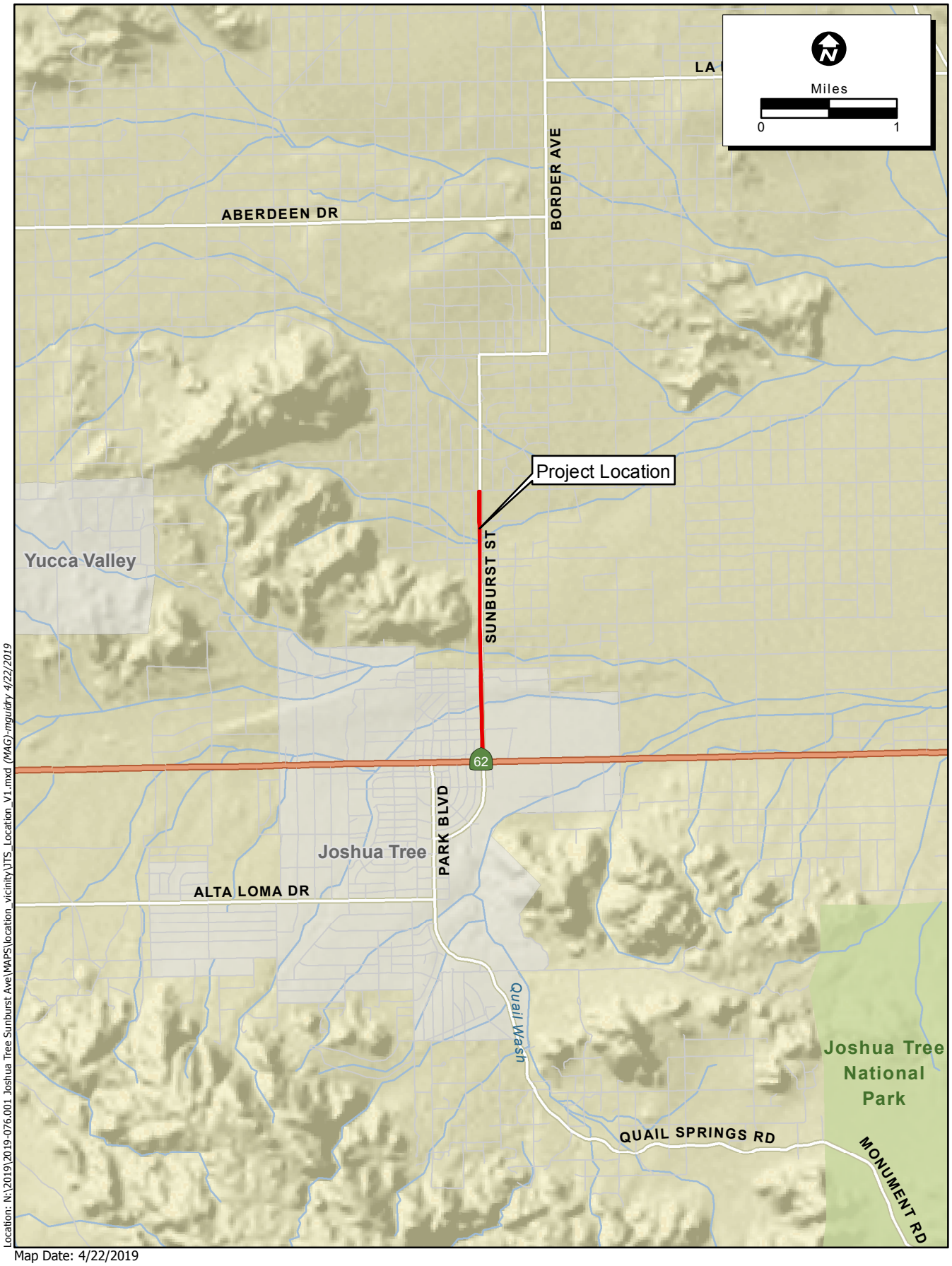

Location: N:\2019\2019-076.001 Joshua Tree Sunburst Ave\MAPS\location_vicinity\JTS_Location_V1.mxd *(MAG)-mguidry 4/22/2019*

Map Date: 4/22/2019
Source: ESRI

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Figure 2. Project Location

2019-076.001 Joshua Tree Sunburst Ave

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the 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.

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

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2019a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2019) to determine the special-status plant and wildlife species that have been documented near the Project site. The CNDDB and CNPSEI database searches were conducted on July 24, 2018. ECORP searched CNDDB and CNPSEI records within the Project site boundaries as depicted on USGS 7.5-minute Joshua Tree North topographic quadrangle, plus the surrounding eight topographic quadrangles, including Deadman Lake SW, Goat Mountain, Sunfair, Indian Cove, Joshua Tree South, Landers, Yucca Valley North, and Yucca Valley South. 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), and/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:

- Natural Resources Conservation Service *Web Soil Survey* (NRCS 2019);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2019b);
- *Special Animals List* (CDFW 2019c);
- *The Jepson Manual* (Hickman 1993);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., Calflora 2019).

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 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 formal jurisdictional delineation was conducted for this project, results of which are detailed under a separate cover (ECORP 2019, in prep).

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 Project site. The biologist documented the plant and wildlife species present on the Project site, and the location and condition of the Project site were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were also taken during the survey to provide visual representation of the various vegetation communities 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 recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR; 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).

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

The literature review and database searches resulted in records for five special-status plant species and four special-status wildlife species that could occur on and/or near the Project site.

4.1.1 Special-Status Plants and Wildlife

The literature review and database searched identified five special-status plant species and four special-status wildlife species that have been documented 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. Potential for special-status plant and wildlife species to occur on or near the Project site is discussed in more detail in Sections 4.2.5 and 4.2.6.

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

The Project site is not located within any USFWS-designated critical habitat. The closest designated critical habitat for desert tortoise (*Gopherus agassizii*) is the Pinto Mountains unit located approximately 16 miles southeast of the Project site.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on May 3, 2019, by ECORP wildlife biologist Mandy Wegmann. Ms. Wegmann has more than five years of experience conducting surveys and habitat assessments for the special-status plant and wildlife species including desert tortoise and 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). 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
5/3/19	1040	1230	79	84	50	60	5	5

4.2.1 Property Characteristics

The Project site consists of an existing paved roadway that has residential and commercial developments occurring along the boundaries of the roadway. Disturbed areas that contain little to no vegetation are interspersed throughout the boundaries of the Project site. Unauthorized trash dumping and OHV use are prevalent in the surrounding areas, degrading the quality of vegetation located in adjacent areas. The topography of the Project site is relatively flat; however, a small mountain range is located just west of the central portion of the Project site. Three drainages running in a west-east direction cross the Project site. No riparian habitat is associated with these drainages and no riparian habitat was identified within the Project site. Some willows were observed in a front yard of an adjacent residence, but these willows appeared to have been planted as ornamental plantings and did not comprise an area that would be classified as riparian habitat. Representative site photographs taken during the survey are included in Appendix A.

4.2.2 Vegetation Communities

Vegetation communities and other land cover types observed within and adjacent to the project were typical of those found in the Mojave Desert: disturbed lands, developed areas, and disturbed Mojave creosote bush scrub (Figure 3). The entire Project site was classified as either disturbed or developed. Disturbed Mojave creosote bush scrub was mapped in areas immediately adjacent to the Project site. Some portions of the project boundaries were disturbed from unauthorized trash dumping and off-highway vehicle (OHV) use. No special-status habitats or vegetation communities were observed within or adjacent to the Project boundaries. Descriptions of each vegetation community and land cover type that were mapped, as well as representative photos, are provided below.

Map Features

- Project Boundary
- Study Area - 300' Buffer

Vegetation Community

- Creosote Bush Scrub
- Disturbed
- Developed

CALLE Los Amigos

Dennis Ave

Hacienda Dr

Two Mile Rd

Crestview Dr

Hilltop Dr

Verbena Rd

29 Palms Hwy 62

Sunburst Cir

Scale in Feet

0 400 800

Location: N:\2019\2019-076.001 Joshua Tree Sunburst Ave\MAPS\vegetation_and_landcover\Sunburst_Veg_V1.mxd (MAG)-mguidry 5/31/2019

Map Date: 5/23/2019

Photo Source: NAIP 2018

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Figure 3. Vegetation Communities

2019-076.001 Joshua Tree Sunburst Ave

Disturbed

The disturbed land classification includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and OHV use, but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Disturbed land is located within the project boundaries and includes areas adjacent to roads and along OHV trails. In areas classified as disturbed land, vegetation was absent or consisted primarily of non-native species, such as common Mediterranean grass (*Schismus barbatus*). An example of a disturbed area in the project boundaries is depicted in Figure 4.

Figure 4. Recently disturbed land with OHV use and sparse vegetation.

Developed

Areas designated as developed land have infrastructure present and any vegetation in the immediate surroundings is composed of ornamental landscaping or nonnative plant growth. Developed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Developed areas were located within the project boundaries and included paved roads, residences, Joshua Tree Elementary School, and Sportsman's Park. Often these developed areas were located adjacent to disturbed lands.

Disturbed Mojave Creosote Bush Scrub

Mojave creosote bush scrub is a native desert scrub community that is common to the Mojave Desert and generally consists of relatively open stands of the dominant shrub, creosote bush. Typically, this community occurs in well-drained, sandy soils 246 feet below and 3,280 feet above mean sea level (msl). This community was not present within the Project boundaries but was mapped in areas immediately adjacent to the Project boundaries (see Figure 3). These areas exhibited high levels of disturbances, such

as unauthorized trash dumping and OHV use, which degraded the quality of the community. In the areas where this community was mapped, plant species associated with this vegetation community included creosote bush (*Larrea tridentata*), burrobush (*Ambrosia dumosa*), Joshua tree (*Yucca brevifolia*), and cholla (*Cylindropuntia* sp.) (Figure 5).

Figure 5. Disturbed Mojave creosote bush scrub adjacent to the Project boundaries.

4.2.3 Plants

The Project site, consisting of disturbed land and compacted soils, was mostly devoid of vegetation. The vegetation in undeveloped areas and on the land adjacent to the Project site consisted of a mixture of native and nonnative species, including creosote bush, tamarisk (*Tamarix* ssp.), willow (*Salix* ssp.), Joshua tree, cholla, and nonnative grasses (including *Schismus barbatus* and *Bromus* ssp.). A full list of plant species observed on or immediately adjacent to the Project site is included in Appendix B.

4.2.4 Wildlife

Due to its disturbed and developed nature, the Project site did not provide much habitat for wildlife species. Though, the Project site is adjacent to areas that may represent suitable habitat for many species, including nesting birds. Wildlife species that were observed during the survey included common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California ground squirrel (*Otospermophilus beecheyi*), mourning dove (*Zenaida macroura*), desert cottontail (*Sylvilagus audubonii*), and desert iguana (*Dipsosaurus dorsalis*). 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 16 special-status plant species and 19 special-status wildlife species that occur on near the Project site. However, due to the Project site's long history of being heavily disturbed and developed and the current lack of suitable habitat for the special-status plant and wildlife species, many of the species are presumed absent from the Project site.

Special-Status Plants

Although 16 special-status plant species appeared in the literature search, due to the Project site's current condition of being heavily disturbed and developed, the fact that the Project site was completely graded and/or paved with very compacted soils, and the current lack of suitable habitat for the special-status plant species identified in the literature review and database searches, all of the 16 species are presumed to be absent from the Project site. Descriptions of the CNPS designations are found in Table 2 and a list of the 16 special-status plant species identified in the literature review is presented below.

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 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:

- San Bernardino milk-vetch (*Astragalus bernardinus*) CNPS 1B.2
- triple-ribbed milk-vetch (*Astragalus tricarinatus*) CNPS 1B.2
- Fremont barberry (*Berberis fremontii*) CNPS 2B.3
- pinyon rockcress (*Boechera dispar*) CNPS 2B.3
- alkali mariposa lily (*Calochortus striatus*) CNPS 1B.2
- purple-nerve cymopterus (*Cymopterus multinervatus*) CNPS 2B.2
- Parish's daisy (*Erigeron parishii*) CNPS 1B.1

- Parish's club-cholla (*Grusonia parishii*) CNPS 2B.2
- Rau's jaffueliobryum moss (*Jaffueliobryum raui*) CNPS 2B.3
- Pioneertown linanthus (*Linanthus bernardinus*) CNPS 1B.2
- Little San Bernardino Mtns. linanthus (*Linanthus maculatus* ssp. *maculatus*) CNPS 1B.2
- Spear-leaf matelea (Matelea parvifolia) CNPS 2B.3
- Robison's monardella (*Monardella robisonii*) CNPS 1B.3
- appressed muhly (*Muhlenbergia appressa*) CNPS 2B.2
- Latimer's woodland-gilia (*Saltugilia latimeri*) CNPS 1B.2
- Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) CNPS 1B.2
- southern jewelflower (*Streptanthus campestris*) CNPS 1B.3
- jackass-clover (*Wislizenia refracta* ssp. *refracta*) CNPS 2B.2

Special-Status Wildlife

Although 19 special-status wildlife species appeared in the literature search, due to the Project site's current condition of being heavily disturbed and developed, the fact that the Project site was completely graded and/or paved with very compacted soils, and the current lack of suitable habitat for the special-status wildlife species identified in the literature review and database searches, all but three of the 19 species are presumed absent.

Wildlife Species with Low Potential to Occur

Three species were found to have a low potential to occur due to recently documented observations located less than five miles from the Project site. The Project site itself does not provide suitable habitat for any of these species due to the presence of disturbances and developed areas. However, these species do have potential to occur in the immediate vicinity of the Project site due to presence of low-quality suitable habitat in the form of disturbed Mojave creosote bush scrub. Furthermore, there is potential for these species to occur on or adjacent to the Project site due to their mobile nature.

- burrowing owl (*Athene cunicularia*), CDFW SSC. Multiple burrowing owls and active burrows were documented in 2005 less than one mile northwest of the Project site (Occurrences 965 through 968; CDFW 2019a). No suitable burrowing owl burrows were identified within or immediately adjacent to the Project boundaries, but the adjacent disturbed Mojave creosote bush scrub provides suitable habitat for this species.

- desert tortoise (*Gopherus agassizii*), federally-listed (threatened) and state-listed (threatened). In October 1991, densities of approximately 20 to 50 desert tortoises per square mile were estimated in the Project site and surrounding areas (Occurrence 22; CDFW 2019a). The nearest recent observation of desert tortoise was recorded in March 2008 where one adult male and one sub adult were documented approximately 1.75 miles west of the Project site (Occurrence 251; CDFW 2019a). The Project site does not provide suitable habitat for desert tortoise, but the adjacent disturbed Mojave creosote bush scrub provides low-quality suitable habitat for the species.

- Le Conte's thrasher (*Toxostoma lecontei*), CDFW SSC. Many observations of Le Conte's thrasher have been documented within five miles of the Project site, the nearest was documented in May 2010 and located within the Project boundaries near the intersection of Sunburst Avenue and

Shadow Mountain Avenue (Occurrence 248; CDFW 2019a). The Project site does not provide suitable habitat for Le Conte's thrasher, but the adjacent disturbed Mojave creosote bush scrub provides low-quality suitable habitat for the species.

Wildlife Species Presumed Absent

The following species are presumed absent from the project due to the lack of suitable habitat on the Project site:

- southern California legless lizard *(Anniella stebbinsi*) CDFW SSC
- pallid bat (*Antrozous pallidus*) CDFW SSC
- golden eagle (*Aquila chrysaetos*) CDFW SSC and CDFW Fully Protected
- pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) CDFW SSC
- red-diamond rattlesnake (*Crotalus ruber*) CDFW SSC
- western mastiff bat (*Eumops perotis californicus*) CDFW SSC
- western yellow bat (*Lasiurus xanthinus*) CDFW SSC
- pocketed free-tailed bat (*Nyctinomops femorosaccus*) CDFW SSC
- big free-tailed bat (*Nyctinomops macrotis*) CDFW SSC
- desert bighorn sheep (*Ovis canadensis nelson*) CDFW SSC and CDFW Fully Protected
- coast horned lizard (*Phrynosoma blainvillii*) CDFW SSC
- yellow warbler (*Setophaga petechia*) CDFW SSC
- American badger (*Taxidea taxus*) CDFW SSC
- Bendire's thrasher (*Toxostoma bendirei*) CDFW SSC
- Mojave fringe-toed lizard (*Uma scoparia*) CDFW SSC
- least Bell's vireo (*Vireo bellii pusillus*) Federally Endangered and State Endangered

4.2.6 Potentially Jurisdictional Drainages

The Project site crosses three washes. Features potentially jurisdictional to USACE, CDFW, and/or RWQCB were identified and mapped during a formal jurisdictional delineation and results are provided under a separate cover (ECORP 2019, in prep).

4.2.7 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code was not present on the Project site, but vegetation and structures suitable for nesting birds (e.g., buildings, wooden electrical poles) were observed in the areas surrounding the Project site. Construction of the Project could indirectly affect nesting birds. Raptors typically breed between February and August, and songbirds 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. The Project site was disturbed and located in an urban setting surrounded by residential developments as well as undeveloped parcels and naturally occurring washes. The Project site itself did not contain suitable vegetation or cover to support wildlife movement opportunities. The undeveloped parcels and washes could facilitate local wildlife movement; however, due to the developed and disturbed nature of the area and the presence of anthropogenic disturbances, the Project and surrounding areas do not serve as a wildlife movement corridor or linkage. The Project site is also not located adjacent to any such corridor or linkage.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The Project site, consisting mainly of an existing paved road and disturbed shoulder areas, was flat with very compacted or paved soil and was almost completely devoid of vegetation. Minor amounts of trash, adjacent to the Project site and OHV use was prevalent in the area. Residential and commercial developments are located adjacent to the Project site.

The literature review identified 16 special-status plant species that could occur in the area of the Project site but, due to lack of suitable habitat, compacted soils, and the site's current condition of being heavily disturbed and developed, all of the special-status plant species identified in the literature review were presumed absent from the Project site. Construction of the Project will not contribute to the overall decline of any of the special-status plant species identified in the literature review and no impacts to special-status plant species are anticipated to result from this Project.

The literature review identified 19 special-status wildlife species that occur near the Project site, but due to the Project site's current condition of being heavily disturbed and developed, the fact that the Project site was completely graded and/or paved with very compacted soils, and the current lack of suitable habitat, all but three of the 19 special-status wildlife species identified in the literature review were presumed absent from the Project site. Construction of the Project will not contribute to the overall decline of any of the special-status wildlife species that have been presumed absent from the site, and no impacts to these species are anticipated to result from this Project.

Three special-status wildlife species were found to have a low potential to occur within the Project boundaries: burrowing owl, desert tortoise, and Le Conte's thrasher. The Project site does not provide suitable habitat for any of these three species. However, these species were all recently documented within one to two miles of the Project site and the disturbed Mojave creosote bush scrub in the immediately adjacent areas provides low-quality suitable habitat for these species. Furthermore, there is potential for these species to occur on or adjacent to the Project site due to their mobile nature (for example, a desert tortoise could occur on the Project site if it was trying to cross Sunburst Avenue from

one area of disturbed Mojave creosote bush scrub to another). If these species were to occur on or adjacent to the Project site, direct impacts in the form of mortality or injury could occur in the form of vehicle or equipment strike. Indirect impacts could occur in the form of increased human/vehicular activity, noise, ground vibration, and increased dust as a result of construction activities. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce these potential project-related impacts to a less than significant level.

Although no suitable habitat for nesting birds and raptors was identified on the Project site, the disturbed Mojave creosote bush scrub and structures immediately adjacent to the Project site (e.g., buildings, wooden electrical poles) could provide nesting habitat for songbirds protected by the MBTA and California Fish and Game Code, including burrowing owl and Le Conte's thrasher. If construction of the Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could indirectly affect birds protected by the MBTA and their nests increased human/vehicular activity, noise, ground vibration, and increased dust. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-3.

5.2 Sensitive Natural Communities

In general, the Project site consisted of disturbed and developed land that supported mostly nonnative grass and forb species. No riparian habitat was identified within the Project site. Although three drainages cross the Project site, there is no riparian habitat associated with these drainages. Some willows were observed in a front yard of an adjacent residence, but these willows appeared to have been planted as ornamental plantings and did not comprise an area that would be classified as riparian habitat. 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- and/or Federally-Protected Wetlands and Waters

The Project crosses three washes. Impacts to state- and/or federally-protected wetlands and waters are discussed in the aquatic resources delineation report (ECORP 2019, in prep).

5.4 Wildlife Corridors and Nursery Sites

The Project site is located within and adjacent to areas containing existing disturbances (i.e., paved roads and residential and commercial developments). The Project site is heavily disturbed and/or developed and does not provide suitable habitat or cover that is conducive to the movement of wildlife. 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 a 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 are recommended prior to project implementation:

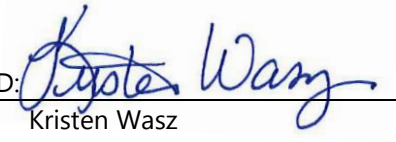
BIO-1 – Pre-construction Survey for Burrowing Owl: A pre-construction survey for burrowing owl shall be conducted within Project site and adjacent areas prior to the start of construction. The survey shall follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The pre-construction burrowing owl survey shall be conducted between 30 and 14 days prior to initial ground disturbance (grading, grubbing, and construction). If burrowing owls or their sign (e.g., burrows with whitewash, pellets, bones of prey items) are identified during the pre-construction survey, then a second pre-construction survey will be conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project site during the survey(s) 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 Survey for Desert Tortoise: A pre-construction survey for desert tortoise shall be conducted prior to the start of ground-disturbing activities in accordance with the protocol methods outlined in *Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise* (USFWS 2018). If desert tortoises or desert tortoise sign (e.g., burrows, carcasses, scat) are observed on or immediately adjacent to the Project Site, then coordination with USFWS and CDFW will need to occur and avoidance or minimization measures, such as biological monitoring and no disturbance buffers around burrows, may need to be implemented. If project-related impacts to the desert tortoise are found to be unavoidable and significant following the pre-construction survey, then the necessary state and federal permits will need to be obtained from CDFW and USFWS prior to the start of project activities.

BIO-3 – Pre-construction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a pre-construction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the Le Conte's thrasher, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance and may be combined with the second burrowing owl survey identified in Mitigation Measure BIO-1 if a second pre-construction burrowing owl survey is conducted on site. 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, the biologist shall establish an appropriately-sized 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.

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: June 4, 2019

Kristen Wasz
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ECORP Consulting, Inc.

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LIST OF APPENDICES

Appendix A – Representative Project Site Photographs

Appendix B – Plant Species List

Appendix C – Wildlife Species List

APPENDIX A

Representative Project Site Photographs

Photo 1: Intersection of Sunburst Ave. and Hwy 62 facing south.

Photo 2: Intersection of Sunburst Ave. and Hwy 62 facing east.

Photo 3: Intersection of Sunburst Ave. and Verbena Rd. facing north includes existing bike path.

Photo 4: Intersection of Sunburst Ave. and Verbena Rd. facing south.

Photo 5: Southern-most wash on Sunburst Ave. facing east.

Photo 6: Sunburst Ave. facing north.

Photo 7: Intersection of Sunburst Ave and Hilltop Dr. facing east including wash.

Photo 8: Intersection of Sunburst Ave. and Crestview Dr. facing east.

Photo 9: Sunburst Ave. facing west.

Photo 10: Intersection of Sunburst Ave. and Calle los Amigos facing west.

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
Ambrosia dumosa	burrobush
*Bromus ssp.**	brome grass
Cylindropuntia ssp.	cholla species
Larrea tridentata	creosote bush
Malacothrix glabrata	desert dandelion
Salix ssp.	willow species
*Schismus barbatus**	Mediterranean grass
Sphaeralcea ambigua	desert mallow
Tamarix ssp.	tamarisk
Yucca brevifolia	Joshua tree

*Nonnative species

APPENDIX C

Wildlife Species List

SCIENTIFIC NAME	COMMON NAME
Aspidoscelis tigris	western whiptail lizard
Callipepla californica	California quail
Corvus corax	common raven
Dipsosaurus dorsalis	desert iguana
Haemorhous mexicanus	house finch
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	desert cottontail
Zenaida macroura	mourning dove