Biological Technical Report

Stoddard Wells Road Project

San Bernardino County, California

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LIST OF ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Victorville
CNPS	California Native Plant Society
CNPSEI	CNPS Electronic Inventory
CWA	Clean Water Act
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat conservation plan
MBTA	Migratory Bird Treaty Act
msl	Mean sea level
NCCP	Natural Community Conservation Plan
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
Project	Mediterranean Village Apartments Project
SAA	Streambed Alteration Agreement
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey and aquatic resources delineation for the Town of Apple Valley's proposed Stoddard Wells Road Project Area (Project). The Proposed Project would be located along an approximately 1.6-mile section of Stoddard Wells Road in the Town of Apple Valley, San Bernardino County, California. The survey of the Project Area 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 is 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. These regulations are discussed in further detail below.

1.1 Location and Setting

The Project Area is located east of Interstate 15 along an approximately 1.6-mile section of Stoddard Wells Road from within the Town of Apple Valley San Bernardino County, California (Figure 1). The project will run from Interstate 15 to Johnson Road. Surrounding land uses consisted of undeveloped land with some disturbed areas. The Project Area, as depicted on the U.S. Geological Survey (USGS) 7.5-minute Apple Valley North topographic quadrangle, lies within Section 24 of Township 6 North, and Range 4 West and Section 19 of Township 6 North, and Range 3 West (Figure 2). The elevation of the Project Area is approximately 2,930 feet above mean sea level (msl).

1.2 Project Description and Purpose

The Proposed Project would repair and widen Stoddard Wells Road, which has been damaged by heavy truck and vehicle use. The Proposed repairs to Stoddard Wells Road include increasing the road width to 26 feet and establish a 12-foot shoulder on either side.

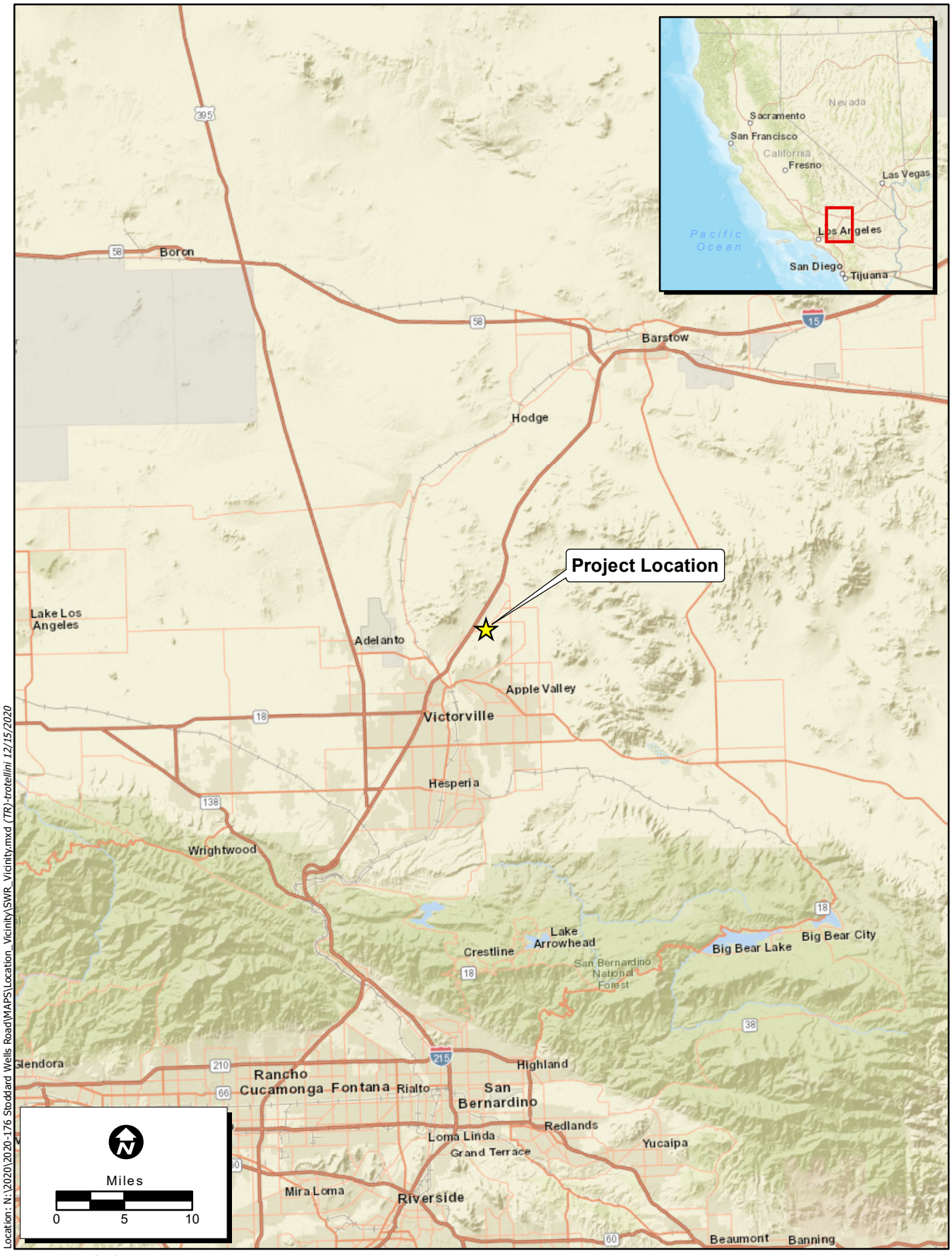
2.0 REGULATORY FRAMEWORK

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.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "*harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct*" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538).



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Map Date: 12/15/2020

Sources:

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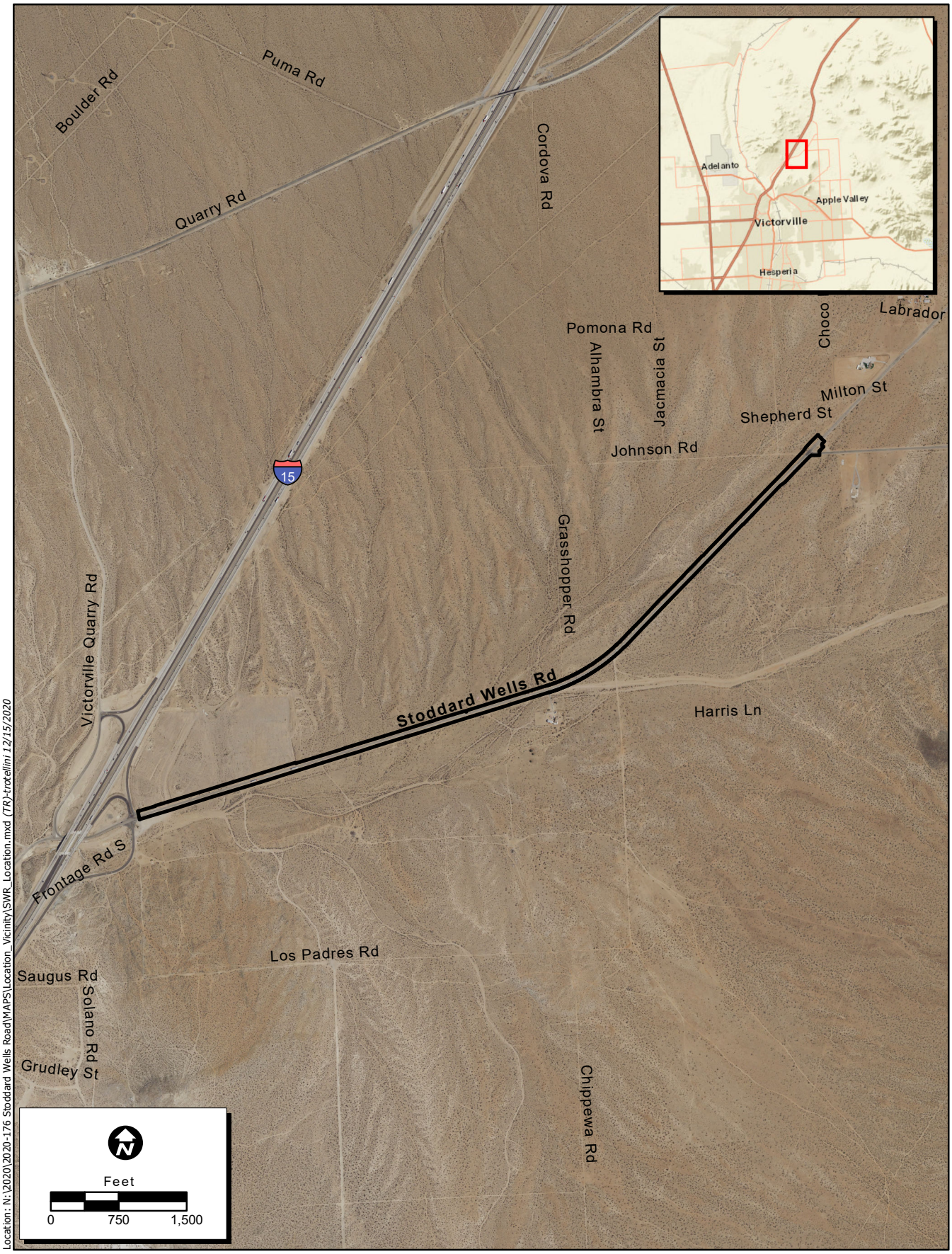
Figure 1. Project Vicinity

2020-176 Stoddard Wells Road



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Map Date: 12/15/2020 NAIP (2018)

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

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Figure 2. Project Location

2020-176 Stoddard Wells Road

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

2.1.3 Federal Clean Water Act

The 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 U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "*that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) acts as a cooperating agency to set policy, guidance and criteria for use in evaluation permit applications and also reviews USACE permit applications.

The USACE regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. "Discharges of fill material" is defined as the addition of fill material into Waters of the U.S., including, but not limited to, the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines" (33 Code of Federal Regulations [CFR] § 328.2(f)). In addition, Section 401 of the CWA (33 U.S. Code 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetlands (over 0.5 acre of impact) may require an individual permit. Projects that only minimally affect wetlands (less than 0.5 acre of impact) 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 Regional Water Quality Control Board (RWQCB) which, in this case, is the Lahontan RWQCB.

According to the Navigable Waters Protection Rule, which came into effect June 22, 2020, the agencies interpret the term "waters of the United States" to encompass:

- The territorial seas and traditional navigable waters;
- Perennial and intermittent tributaries that contribute surface water flow to such waters;
- Certain lakes, ponds, and impoundments of jurisdictional waters; and
- Wetlands adjacent to other jurisdictional waters.

The final rule also details 12 categories of exclusions, features that are not "waters of the United States," such as features that only contain water in direct response to rainfall (e.g., ephemeral features); groundwater; many ditches; prior converted cropland; and waste treatment systems.

The final rule clarifies key elements related to the scope of federal Clean Water Act jurisdiction, including:

- Providing clarity and consistency by removing the proposed separate categories for jurisdictional ditches and impoundments.
- Refining the proposed definition of "typical year," which provides important regional and temporal flexibility and ensures jurisdiction is being accurately determined in times that are not too wet and not too dry.
- Defining "adjacent wetlands" as wetlands that are meaningfully connected to other jurisdictional waters, for example, by directly abutting or having regular surface water communication with jurisdictional waters."

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 Town of Apple Valley Joshua Tree Ordinance

The Town of Apple Valley (Town) has a Joshua tree protection ordinance that protects Joshua trees on undeveloped land (Section 9.76.040). If the project will result in impacts to any Joshua trees on site, then approval must be obtained from the Town prior to removal of the trees. Prior to seeking Town approval, a Joshua tree inventory will need to be conducted to document the size, location, and general health of all Joshua trees that will be affected by the project. There should be a detailed plan that includes protecting, preserving, or relocating the tree that may be affected by the proposed project.

2.2.6 California Environmental Quality Act Significance Criteria

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

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (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

ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2020a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2020) to determine the special-status plant and wildlife species that have been documented near the Project Area. ECORP searched CNDDB and CNPSEI records within the Project Area boundaries as depicted on USGS 7.5-minute Apple Valley North topographic quadrangle, plus the surrounding eight

topographic quadrangles, including Helendale, Turtle Valley, Stoddard Well, Victorville, Fairview Valley, Hesperia, Apple Valley South, and Fifteenmile Valley. 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:

- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2020b);
- *Special Animals List* (CDFW 2020c);
- *The Jepson Manual* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., Calflora 2020).

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

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, 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 Area based on the following guidelines:

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

High: Habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the Project Area and a documented observation occurs within the database search, but not within five miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the Project Area; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the Project Area.

Low: Limited or marginal habitat for the species occurs within the Project Area and a recently documented observation occurs within the database search, but not within five miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the Project Area; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.

Presumed Absent: Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project 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 desktop review of the Natural Resources Conservation Service's (NRCS') Web Soil Survey (NRCS 2019) and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages that might potentially fall under the jurisdiction of either federal or State agencies were present on the Project Area.

3.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire Project Area to determine the vegetation communities and wildlife habitats on the Project Area. The biologist documented the plant and animal species present on the Project Area, and the location and condition of the Project Area were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were also taken during the survey to provide visual representation of the conditions within the Project Area. In addition, the biologist documented the vegetation communities present on the Project Area.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR; SSAR 2017), *Check-list of North American Birds* (Chesser et al. 2019), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in NAD 83, Universal Transverse Mercator coordinates, Zone 11S.

3.3 Aquatic Resources Delineation

This aquatic resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008). The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data were recorded on Wetland Determination Data Forms - Arid West Region (Attachment B). A color aerial photograph (1"=400' scale, NAIP 2018) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co.

1990) and the Web Soil Survey (NRCS 2021) were used to aid in identifying hydric soils in the field. The Jepson Manual, 2nd Edition (Baldwin et al. 2012) was used for plant nomenclature and identification.

Field surveys were conducted on January 22, 2021 by ECORP biologist Scott Taylor. Mr. Taylor walked and drove the entire Project Area to determine the location and extent of aquatic resources. Paired locations were sampled, if wetlands were suspected, to evaluate whether or not the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. Additional non-paired locations were sampled to document marginal areas that were determined not to be aquatic resources because they lacked hydrophytic vegetation, hydric soils, and/or wetland hydrology. Aquatic resources within the Project Area were recorded in the field using a post-processing capable global positioning system unit with sub-meter accuracy (Trimble GeoXT).

To document the locations of OHWM, Arid West Ephemeral and Intermittent Streams OHWM Datasheets were used. These forms document the resources used to make the determination of OHWM, a cross-sectional view of the stream in question, and field characteristics at the OHWM location.

3.3.1 Routine Determinations for Wetlands

To be determined a wetland, the following three criteria must be met:

- A majority of dominant vegetation species are wetland-associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "*a prevalence of vegetation typically adapted for life in saturated soil conditions*." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each sampling point location. The "50/20 rule" was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional species that individually comprise 20 percent or more of the total cover in the stratum (USACE 1992, USACE 2008).

Dominant plant species observed at each sampling point were then classified according to their indicator status (probability of occurrence in wetlands, Table 1), *North American Digital Flora: National Wetland Plant List* (Lichvar et al. 2016). If the majority (more than 50 percent) of the dominant vegetation on a site

are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), the site was considered to be dominated by hydrophytic vegetation.

Table 1. Classification of Wetland-Associated Plant Species

Plant Species Classification	Abbreviation[1]	Probability of Occurring in Wetland
Obligate	OBL	Almost always occur in wetlands
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands
Upland	UPL	Almost never occur in wetlands
Plants That Are Not Listed (assumed upland species)	N/L	Does not occur in wetlands in any region.

[1]Source: Lichvar et al. 2016

In instances where indicators of hydric soil and wetland hydrology were present, but the plant community failed the dominance test, the vegetation was re-evaluated using the Prevalence Index. The Prevalence Index is a weighted-average wetland indicator status of all plant species in the sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the Prevalence Index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2003). Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

At each sampling point a soil pit was excavated to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each sampling point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990). Hydric soils are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. These processes and the features in the soil that develop can be identified by looking at the color and texture of the soils.

Hydrology

Wetlands, by definition, are seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include, but are not limited to: visual observation of saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators

are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to: drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard.

3.3.2 RWQCB Jurisdiction

As mentioned above, the RWQCB does not publish a delineation method for identifying their jurisdictional limits, but in general their jurisdictional limits are identified. Section 401 identifies jurisdictional limits as any "surface water or groundwater, including saline waters, within the boundaries of the state." For the purposes of this delineation, the limits of RWQCB jurisdiction generally follow those of the USACE jurisdiction under Section 404. But based on the Porter-Cologne Water Quality Control Act where beneficial uses are designated or derived from areas outside of USACE jurisdiction additional areas, such as CDFW jurisdictional areas, may be mapped as well.

3.3.3 CDFW Jurisdiction

The delineation of CDFW jurisdiction follows the guidance and definitions contained within Section 1600 of the California Fish and Game Code, which connotes jurisdiction as a "river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." Delineators also used *A Review of Stream Processes and Forms in Dryland Watersheds* (Vyverberg 2010), which is a science based technical reference on dryland stream forms and processes, and MESA – Mapping Episodic Stream Activity (Vyverberg and Brady 2013) to aid in determining the CDFW jurisdictional limits for the delineation. MESA is intended to assist in identification and mapping of episodic streams when water has perhaps been absent for several years.

Based the aforementioned guidance and experience, the limits of CDFW jurisdiction were mapped where there appeared to be regular surface flow that met a broad definition of stream or lake, based on physical and vegetative characteristics. CDFW jurisdiction may include jurisdictional habitat (riparian habitat), functionally related swales, first-order streams (Strahler 1952), single-thread channels, compound channels, braided channels, discontinuous and distributary channels, drainage networks, and floodplains. CDFW streambed widths were mapped to the nearest foot along each channel.

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.

4.1 Literature Review

The literature review and database searches resulted in records for 21 special-status plant species and 26 special-status wildlife species that could occur on and/or near the Project Area.

4.1.1 Special-Status Plants and Wildlife

The literature review and database searched identified 21 special-status plant species (Appendix D) and 26 special-status wildlife species (Appendix E) that could occur near the Project Area. A list was generated from the results of the literature review and the Project Area was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list.

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

The Project Area is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for southwestern willow flycatcher (*Empidonax traillii extimus*) and is located approximately two miles east of the Project Area near the Mojave River.

4.1.3 National Wetland Inventory

The National Wetland Inventory (NWI) is a publicly available national dataset that provides detailed information on the abundance, characteristics, and distribution of US wetlands (USFWS 2019). NWI includes aquatic resource features mapped using a variety of remote sensing and modeling techniques. As such, these aquatic features may or may not exist as represented. In addition, NWI data varies in detail, accuracy, and age, and is meant to be used as a tool to assist with an aquatic resource delineation but not to serve as the only source of information. Data contained within the NWI can be historical in nature at times, having been modified by recent development or by other factors.

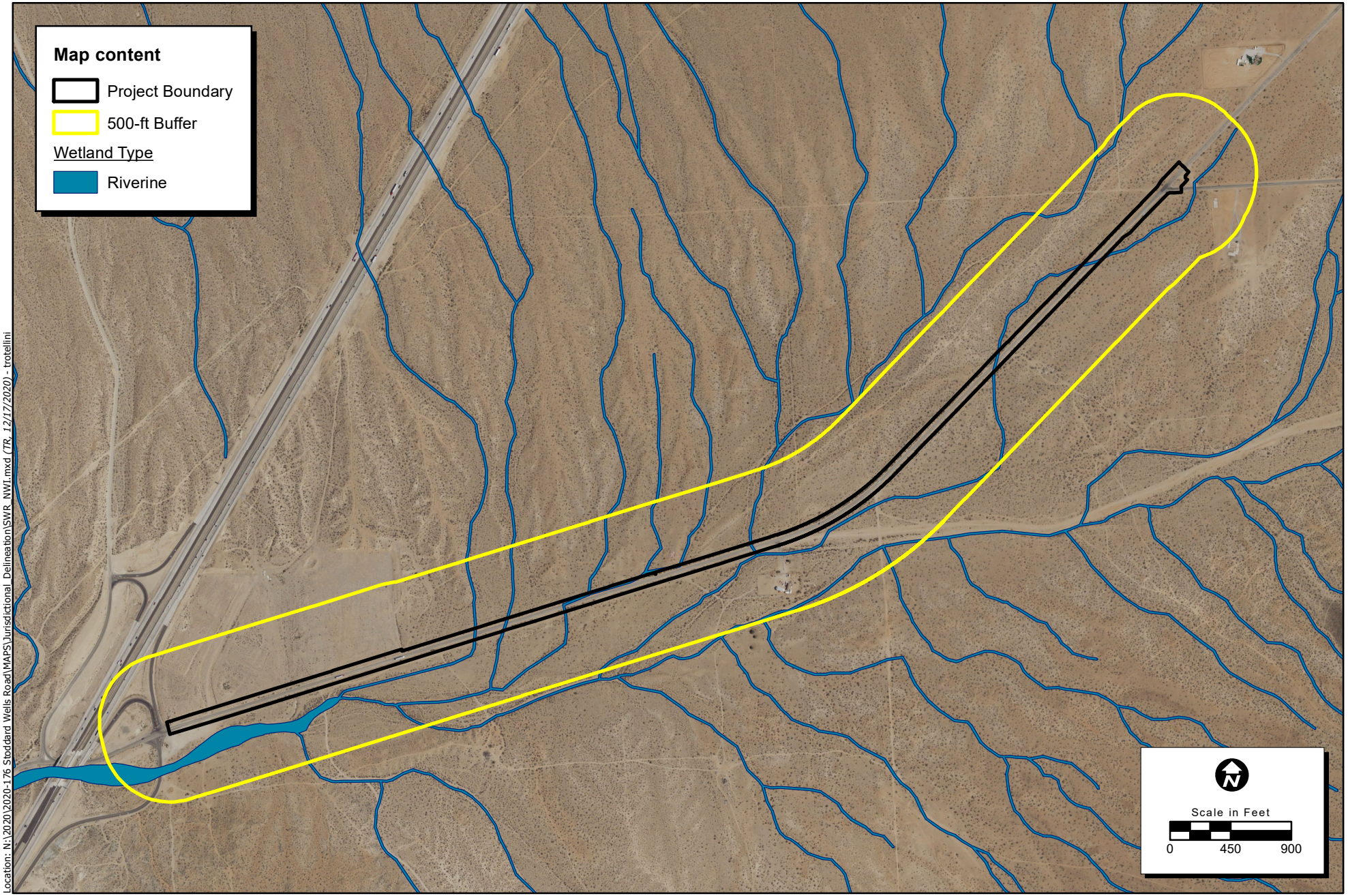
According to the NWI, there are aquatic features mapped within the Project Area (Figure 3. *National Wetlands Inventory*), crossing Stoddard Wells Road at six locations, and flowing into Bell Mountain Wash that runs south of the Project Area and flows underneath Interstate 15 in a westward direction. All features mapped are classified as Riverine and R4SBJ (USFWS 2009), which represents Riverine (R), Intermittent (4), Streambed (UB), and Intermittently Flooded (J). This classification indicates that while there is a potential to convey water each year, inundation events may be separated by weeks, months or even years. The locations of the mapped features on NWI generally correspond with the findings of the delineation.

4.1.4 Watersheds

All of the Project Area is located within the Mojave Watershed (Hydrologic Unit Code [HUC] 18090208) and within the Bell Mountain Wash Subwatershed (HUC 180902080705).

The Mojave Watershed encompasses over 2,955,000 acres spanning mountain and desert parts of San Bernardino County. The upper elevation portions of the watershed are in the San Bernardino Mountains while the lower elevations are near the town of Baker and dry lake beds near the southernmost portions of Fort Irwin. Larger named streamcourses are generally absent from much of the watershed, favoring instead many smaller drainage courses that collect local runoff from singular isolated mountain ranges and direct them towards the Mojave River.

Bell Mountain Wash is one of the named washes within the overall watershed, named for the mountain just south of the Project Area. The Bell Mountain Wash Subwatershed encompasses about 23,000 acres and runs between the top of Bell Mountain to the south and the top of Quartzite Mountain to the north, running approximately parallel to Interstate 15 for about nine miles. The Project Area is in the middle elevation, central part of the Bell Mountain Wash Subwatershed and the direction of water flow is east to west through the Project Area, towards the Mojave River. The Mojave River is approximately four miles downstream from the Project Area.



Location: N:\2020\2020-176 Stoddard Wells Road\MAPS\Jurisdictional Delineation\SWR_NWI.mxd (TR, 12/17/2020) - trotellini

Map Date: 12/17/2020
Photo Source: NAIP (2018)

Figure 3. National Wetlands Inventory

2020-176 Stoddard Wells Road

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4.1.5 Soils

Surface sediments within the Project Area consist of Holocene alluvial silt, sand, and gravel (Qa) and Pleistocene alluvial sand and gravel (Dibblee 1967). Soils within the Project Area are highly disturbed due to road construction and road shoulder maintenance, along with some trash dumping. The NRCS soil survey notes the presence of four soil types within the Project Area: Cajon, Arizo, Helendale and Bryman. These soil types occur as complexes, which are designated such because the major component types cannot be delineated separately at the mapping scale. None of these soil units is considered hydric or has hydric components (NRCS 2019) (Figure 4. *Natural Resources Conservation Service Soil Types* and Table 2. *Natural Resources Conservation Service Soil Types*).

Table 2. Natural Resources Conservation Service Soil Types

Soil Unit	Hydric?	Hydric Components (NRCS 2019)
118-Cajon-Arizo complex, 2 to 15 percent slopes	No	None
133-Helendale-Bryman loamy sands, 2 to 5 percent slopes	No	None

Cajon series sediments consist of deep, excessively drained soils formed in sandy alluvium from granitic sources. These soils are located on alluvial fans, alluvial aprons, and river terraces with slopes ranging from 0 to 15 percent. The A horizon (0 to 2 inches) coarse sand and loamy sand directly overlies the C horizon.

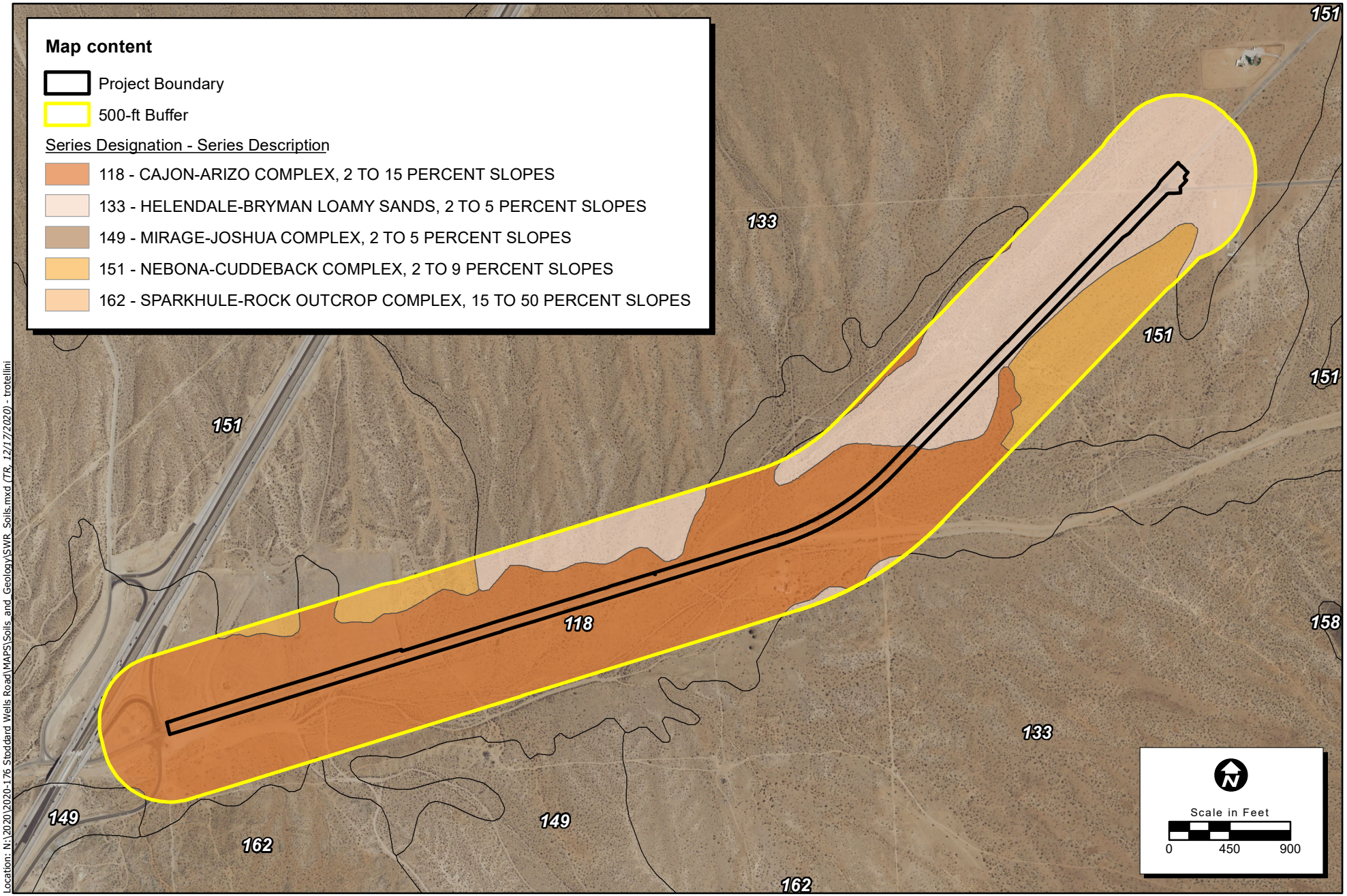
Arizo series sediments consist of excessively drained soils that formed in mixed alluvium. These soils are found on alluvial fans, stream terraces, floodplains, and channels with a slope ranging from 0 to 15 percent. The A horizon (0 to 8 inches) consists of very fine gravely sand and the B horizon (8 to 36 inches) consists of extremely gravelly sand.

The Helendale series sediments consist of well drained soils formed in alluvium from granitic rocks. These soils are found on alluvial fans, fan remnants, and fan piedmonts on slopes ranging from 0 to 15 percent. The A horizon (0 to 10 inches) is composed of moist loamy sand and the B horizon (4 to 66 inches) is composed of sandy loam.

The Bryman series soils consist of well drained soils formed in alluvium from granitic sources. These soils are found on terraces and old alluvial fans with slopes of 0 to 15 percent. The A horizon (0 to 9 inches) is composed of loamy fine sand and the B horizon (9 to 80 inches) is composed of sandy clay loam (Soilweb 2020).

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on October 29, 2020, by ECORP biologist Philip Wasz. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plant communities, wildlife, special-status species, and special-status habitats. Weather conditions during the survey are summarized in Table 1.



Location: N:\2020\2020-176 Stoddard Wells Road\MAPS\Soils_and_Geology\SWR_Soils.mxd (TR, 12/17/2020) - trotellini

Map Date: 12/17/2020
Photo Source: NAIP (2018)

Figure 4. National Resources Conservation Service Soil Types

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Table 3. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	end	Min	Max	min	max	min	max
10/29/20	1200	1300	80	85	0	0	1-3	1-3

4.2.1 Property Characteristics

The Project Area consists of a portion of Stoddard Wells Road in Apple Valley, CA surrounded by creosote bush (*Larrea tridentata*) scrub that was disturbed by substantial amounts of trash dumping and heavy vehicle use on Stoddard Wells Road and Interstate 15, which borders the southwest boundary of the Project Area. The Project Area was bounded by primarily undeveloped land to the north, an existing Walmart Distribution Center to the east, Bell Mountain to the southeast, Osborne Airport to the southwest, and Interstate 15 to the west. Representative site photographs are presented in Appendix A.

4.2.2 Vegetation Communities

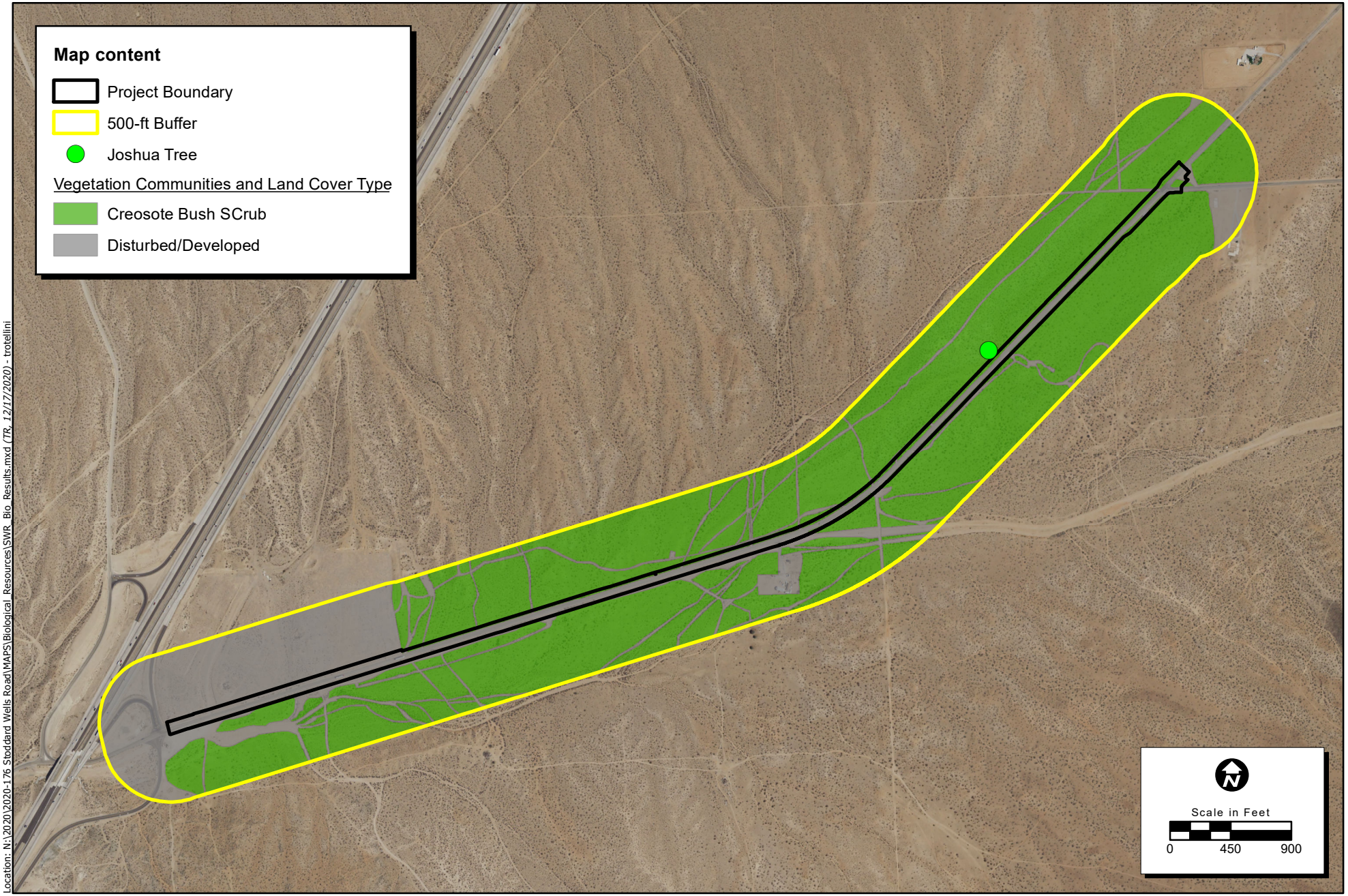
Native vegetation communities present on the Project Area included disturbed Mojave creosote bush scrub and disturbed habitat (Figure 5. *Biological Reconnaissance Survey Results*).

Mojave Creosote Bush Scrub

The entirety of the Project Area consisted of disturbed 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 at elevations 246 feet below to 4,000 feet above msl. Within the Project Area, additional plant species associated with this vegetation community include burrobush (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), Joshua tree (*Yucca brevifolia*), and Nevada ephedra (*Ephedra nevadensis*). No special-status habitats or vegetation communities were observed on or in the vicinity of the Project Area.

4.2.3 Plants

Plant species observed on the Project Area were typical of the Mojave creosote bush scrub community and disturbed land present on the Project Area for the time of the year in which the survey was conducted. Dominant species included creosote bush (*Larrea tridentata*), saltbush (*Atriplex canescens*), and rabbitbrush (*Ericameria* sp.). Nonnative species observed on the Project Area included Russian thistle (*Salsola tragus*), red-stemmed filaree (*Erodium cicutarium*), and brome grasses (*Bromus* sp.) A full list of plant species observed on or immediately adjacent to the Project Area is included in Appendix B.



Location: N:\2020\2020-176 Stoddard Wells Road\MAPS\Biological Resources\SWR_Bio_Results.mxd (TR, 12/17/2020) - trotellini

Map Date: 12/17/2020
Photo Source: NAIP (2018)

Figure 5. Biological Reconnaissance Survey Results

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4.2.4 Wildlife

Wildlife species observed and detected on the Project Area were characteristic of disturbed creosote bush scrub habitat and urban development in the region. One mammal species was detected on the Project Area: white-tailed antelope squirrel (*Ammospermophilus leucurus*); however, coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), and rodent species such as kangaroo rat (*Dipodomys* sp.) and deer mouse (*Peromyscus maniculatus*) are also expected to occur. Four bird species were also detected on the Project Area, including Cooper's hawk (*Accipiter cooperii*), western meadowlark (*Sturnella neglecta*), common raven (*Corvus corax*), and horned lark (*Eremophila alpestris*). One reptile species was observed on site: western whiptail (*Cnemidophorus tigris*). Although not observed on site, other reptile species expected to occur include gopher snake (*Pituophis catenifer*) and Mojave green rattlesnake (*Crotalus scutulatus*). Due to the high level of human activity in the area and the disturbed nature of the Project Area, the property represents relative low-quality habitat for most wildlife species. A complete list of wildlife species observed on or immediately adjacent to the Project Area is included in Appendix C.

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

There were 21 special-status plant species that appeared in the literature review and database searches for the Project Area (CDFW 2020a; CNPS 2020). A list was generated from the results of the literature review and the project was evaluated for suitable habitat that could support any of the special-status plant species on the list (Appendix D). Descriptions of the CNPS designations are found in Table 3. Of the 21 special-status plants identified, one is present, one has a high potential to occur, three have a moderate potential to occur, and eleven have a low potential to occur on the Project Area. The remaining five species identified in the literature review are presumed absent from the Project Area.

Table 4. 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 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)

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

Plant Species Present on the Project Site

The following species was determined present on the Project Area because it was observed on a site visit or focused survey.

Western Joshua tree

The Western Joshua tree (*Yucca Brevifolia*) is a CDFW Candidate Threatened Species indicating that California Department of Fish and Wildlife Commission is currently evaluating the species for its addition to the list of threatened species (FGC § 2068). The western Joshua tree is a monocotyledonous tree species that blooms from March to June. This species is found throughout the Mojave Desert in silts, loams, or sandy soils, that are well drained or gravelly. One western Joshua tree was observed on the Project Area during the Biological Reconnaissance Survey. Since this species was recently listed, the literature review did not identify any records of the western Joshua tree, however, this species is known to occur in the area.

Plant Species with a High Potential to Occur

The following species has a high potential to occur on the Project Area because habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within five miles of the Project Area.

Beaver Dam Breadroot

Beaver dam breadroot (*Pediomelum castoreum*) is a CNPS 1B.2 species, indicating that it is fairly endangered in California and rare or endangered elsewhere (CNPS 2020). Beaver dam breadroot is a perennial herb species that blooms from April to May. It is found in sandy soils, often within washes and roadcuts in Joshua tree woodland and Mojavean desert scrub habitats. Suitable habitat for this species was present within the roadcuts and the disturbed creosote bush scrub habitat on the Project Area. The literature review identified two records of beaver dam breadroot within five miles of the Project Area. One record was historic (older than 20 years), and one was recorded four miles west of the Project Area in 2008. This species was not observed during the reconnaissance survey.

Plant Species with a Moderate Potential to Occur

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

White pygmy-poppy

White pygmy-poppy (*Canbya candida*) is a CNPS 4.2 species, indicating that there is a limited distribution in California, and it is fairly endangered in California (CNPS 2020). White pygmy-poppy is an annual herb species that blooms from March to June. It is found in gravelly, sandy, granitic soils, in Joshua tree woodland, Mojavean desert scrub, and Pinyon and juniper woodland habitats. Marginally suitable habitat for this species was present within the disturbed creosote bush scrub habitat on the Project Area. The

literature review identified one record of white pygmy-poppy within five miles of the Project Area. The record was historic (older than 20 years), recorded 3.6 miles southwest of the Project Area in 2008. This species was not observed during the reconnaissance survey.

Mojave monkeyflower

Mojave monkeyflower (*Mimulus mohavensis*) is a CNPS 1B.2 species, indicating that it is fairly endangered in California and rare or endangered elsewhere (CNPS 2019). Mojave monkeyflower is an annual herb species that blooms from April to June. It is found in sandy or gravelly soils, often within washes in Joshua tree woodland and Mojavean desert scrub habitats. Suitable habitat for this species was present within the disturbed creosote bush scrub habitat on the Project Area. The literature review identified eight records of Mojave monkeyflower within five miles of the Project Area, however, all eight occurrences are over 20 years old and are considered historic. This species was not observed during the reconnaissance survey.

Booth's evening primrose

Booth's evening primrose (*Eremothera boothii* ssp. *boothii*) is a CNPS 2B.3 species, indicating that it is rare or endangered in California, common elsewhere (CNPS 2020). Booth's evening primrose is an annual herb species that blooms from April to September. It is found in Joshua tree woodland and Pinyon and juniper woodland habitats. Suitable habitat for this species was present within the disturbed creosote bush scrub habitat on the Project Area. The literature review identified four records of Booth's evening primrose within five miles of the Project Area. Two records were historic (older than 20 years), and two occurrences were recorded approximately three miles southwest of the Project Area in 2012 and 2014. This species was not observed during the reconnaissance survey.

Plant Species with a Low Potential to Occur

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

- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) CNPS 1B.2
- Mojave fish-hook cactus (*Sclerocactus polyancistrus*) CNPS 4.2
- pinyon rockcress (*Boechera dispar*) CNPS 2B.3
- Plummer's mariposa lily (*Calochortus plummerae*) CNPS 4.2
- Mojave spineflower *(Chorizanthe spinosa*) CNPS 4.2
- purple-nerve cymopterus (*Cymopterus multinervatus*) CNPS 2B.2
- Torrey's box-thorn (*Lycium torreyi*) CNPS 4.2
- crowned muilla (*Muilla coronata*) CNPS 4.2
- Latimer's woodland-gilia (*Saltugilia latimeri*) CNPS 1B.2

- Barstow woolly sunflower (*Eriophyllum mohavense*) CNPS 1B.2
- desert cymopterus (*Cymopterus deserticola*) CNPS 1B.2

Plant Species Presumed Absent

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

- Cushenbury oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*) CNPS 1B.1
- California androsace (*Androsace elongate* ssp. *acuta*) CNPS 4.2
- San Bernardino Mountains dudleya (*Dudleya abramsii* ssp. *affinis*) CNPS 1B.2
- southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*) CNPS 1B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) CNPS 1B.2

Special-Status Wildlife

Of the 27 special-status wildlife species identified in the literature review, three were found to have a high potential to occur; one was found to have a moderate potential to occur; eight were found to have a low potential to occur; the remaining 15 species are presumed absent from the Project Area. A brief natural history and discussion of the four special-status wildlife species found to have a moderate potential to occur on the Project Area are provided below. None of the sensitive wildlife species with a potential to occur in the area were observed during the reconnaissance survey.

Wildlife Species with a High Potential to Occur

The following species have a high potential to occur on the Project Area because habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within five miles of the Project Area.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a CDFW SSC (CDFW 2020c). Burrowing owls prefer habitat that includes open, sparsely vegetated scrublands and grasslands. Burrowing owls are often documented occupying abandoned mammal burrows and can be associated with the presence of California ground squirrel colonies. Although the creosote bush scrub habitat on site is disturbed, it provides suitable habitat for burrowing owl. The literature review identified multiple records of recent burrowing owl observations within five miles of the Project Area (CDFW 2020a). Although burrowing owls and sign of burrowing owl were not identified during the survey, the Project Area provides suitable burrowing owl habitat. Therefore, this species has been given a high potential to occur on the Project Area.

Desert tortoise

Desert tortoise (*Gopherus agassizii*), is a Federally and State-listed Threatened species. The desert tortoise is found in desert valleys with vegetation communities such as alluvial fan, saltbush, creosote bush, desert scrub, and tree yuccas. This species typically burrows in soil, under rocks, and along washes. Although the creosote bush scrub habitat on site is disturbed, it provides suitable habitat for desert tortoise. The

literature review identified three records of recent desert tortoise observations within five miles of the Project Area (CDFW 2020a). Although desert tortoise and sign of desert tortoise were not identified during the survey. Due to the presence of suitable habitat and several recently documented records two miles from the Project Area, this species has been given a high potential for occurrence on the Project Area.

Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is a CDFW SSC (CDFW 2020c). Suitable habitat for loggerhead shrike was present on the Project Area. This species prefers habitat that includes grasslands and open desert areas with scattered trees and shrubs for foraging and nesting. The Project Area provided suitable foraging and nesting habitat for this species within the disturbed creosote bush scrub; however, the level of disturbance at the site may preclude this species from occurring. The literature review identified two recent records of loggerhead shrike within five miles of the Project Area (CDFW 2020a). Due to the presence of suitable habitat and several recently documented records within five miles of the Project Area, this species has been given a high potential for occurrence on the Project Area.

Wildlife Species with a Moderate Potential to Occur

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

Desert Kit Fox

Desert kit fox (*Vulpes macrotis arsipus*) is a fur-bearing mammal that is protected under the CCR Title 14, Chapter 5, § 460, which prohibits take of the species at any time. Therefore, CDFW does not have a mechanism for take (e.g., permit) of the species by development projects. The desert kit fox is found in desert habitats that include creosote bush, shadscale, greasewood, and sagebrush. It feeds primarily on nocturnal rodents and rabbits, but will opportunistically take birds, reptiles, and insects. This species is not currently tracked in the CNDDB database and no records of this species were revealed in the literature review. Suitable foraging habitat for this species was present throughout the Project Area and could utilize the Project Area while foraging or while moving through the area. Due to the disturbed nature of the Project Area, it is unlikely that this species would den on the Project Area. Therefore, this species has a moderate potential to occur on the Project Area.

Wildlife Species with a Low Potential to Occur

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

- golden eagle (*Aquila chrysaetos*), CDFW fully protected
- pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), CDFW SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), federally listed Threatened and State-listed Endangered
- Mohave river vole (*Microtus californicus mohavensis*), CDFW SSC
- yellow warbler (*Setophaga petechia*), CDFW SSC
- Bendire's thrasher (*Toxostoma bendirei*), CDFW SSC
- least Bell's vireo (*Vireo bellii pusillus*), federally listed Endangered and State-listed Endangered
- Mohave ground squirrel (*Xerospermophilus mohavensis*), State-listed Threatened

Wildlife Species Presumed Absent

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

- tricolored blackbird (*Agelaius tricolor*), State-listed Threatened and CDFW SSC
- arroyo toad (*Anaxyrus californicus*), federally listed Endangered and CDFW SSC
- long-eared owl (*Asio otus*), CDFW SSC
- Crotch bumble bee (*Bombus crotchii*), State Candidate Endangered
- Swainson's hawk (*Buteo swainsoni*), State-listed Threatened
- pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), CDFW SSC
- Townsend's big-eared bat (*Corynorhinus townsendii*), CDFW SSC
- southwestern willow flycatcher (*Empidonax traillii extimus*), federally listed Endangered and State-listed Endangered
- western pond turtle (*Emys marmorata*), CDFW SSC
- yellow-breasted chat (*Icteria virens*), CDFW SSC
- coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC
- summer tanager (*Piranga rubra*), CDFW SSC
- California red-legged frog (*Rana draytonii*), federally listed Threatened and CDFW SSC
- Mohave tui chub (*Siphateles bicolor mohavensis*), federally listed Endangered, State-listed Endangered, and CDFW fully protected
- gray vireo (*Vireo vicinior*), CDFW SSC

4.2.6 Raptors and Migratory Birds

Suitable nesting habitat for numerous species of migratory birds protected under the federal MBTA and California Fish and Game Code is present surrounding the Project Area in some of the shrubs, Joshua trees, and anthropogenic structures (e.g., utility poles). Therefore, nesting birds could use the Project Area during the nesting bird season (typically February 15 through August 31).

4.2.7 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor varies, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor usage and wildlife movement patterns vary greatly among species.

The Project Area was assessed for its ability to function as a wildlife corridor. The Project Area provides wildlife movement opportunities because it is surrounded by undeveloped land. However, it is not situated along any major drainages or washes that would be considered movement corridors for wildlife. Since the Project Area includes an already existing road, it would not be considered a necessary linkage between conserved natural habitat areas.

4.2.8 Local Policies and Ordinances

Town of Apple Valley Joshua Tree Ordinance

One Joshua tree was identified within the Project Area during the reconnaissance survey that is considered protected by the Town of Apple Valley Joshua Tree Ordinance. An official Joshua tree inventory was not conducted during the reconnaissance survey.

4.3 Aquatic Resources

A total of 0.24 acre of aquatic resources with none of the areas considered to be potentially jurisdictional to the USACE due to their being excluded from jurisdiction due to being ephemeral washes, an excluded category (Table 4). See Figure 6. *Aquatic Resources Delineation*.

Table 5. Aquatic Resources

Type/Identifier	Acreage and Linear Feet[1]	Cowardin Type	OHWM/Wetland Presence	Dominant Vegetation	Latitude and Longitude
USACE Wetlands					
Not Applicable	-	-	-	-	-
USACE Non-Wetland Waters					
Ephemeral Drainage (Non-jurisdictional)	0.024/274	R4SBJ	OHWM	Non-vegetated	34.594079, --117.243114

[1]Acreages represent a calculated estimation and are subject to modification following the USACE verification process.

Figure 6.
Aquatic Resources Delineation
Sheet 1 of 2

Map Features

- Project Boundary

Waters of the US

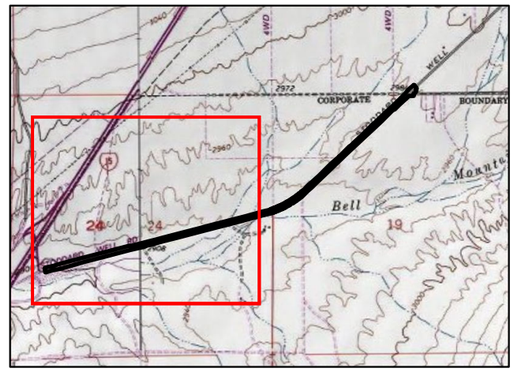
- Ephemeral Drainage (0.24 ac.)

Waters of the State

- Streambed (0.48 ac.)

[1] *Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Los Angeles District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.*

** The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.*



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2020-176 Stoddard Wells Road

Scale in Feet
0 200 400

Photo Source: NAIP (2020)
Boundary Source: Onward Engineering
Delineator: STaylor
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

Map Date: 3/30/2021

ECORP: N:\2020\2020-176 STODDARD WELLS ROAD\MAPS\JURISDICTIONAL_DELINEATION\SWR_ARD_V2.MXD-MGUIDRY 3/30/2021

Figure 6.
Aquatic Resources Delineation
Sheet 2 of 2

Map Features

Project Boundary

Waters of the US

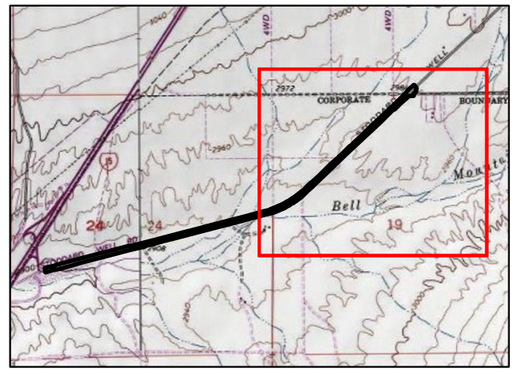
Ephemeral Drainage (0.24 ac.)

Waters of the State

Streambed (0.48 ac.)

[1] *Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Los Angeles District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.*

** The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.*



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ECORP: N:\2020\2020-176 STODDARD WELLS ROAD\MAPS\JURISDICTIONAL_DELINEATION\SWR_ARD_V2.MXD-MGUIDRY 3/30/2021

2020-176 Stoddard Wells Road

Scale in Feet
0 200 400

Photo Source: NAIP (2020)
Boundary Source: Onward Engineering
Delineator: STaylor
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

Map Date: 3/30/2021

All mapped features are considered to be state-only jurisdiction. The mapped features include two smaller features (Drainages 1 and 2) as well as Bell Mountain Wash. Most of the well-defined portions of these features are located within the 50-foot buffer of the Project Area but within the area of direct Project impacts the features occasionally sheet flow across the paved road. Impacts to these features are discussed in greater detail below. Within the Project Area, the recorded natural features were either partially or fully exposed to road use by vehicles or road maintenance activities, including pavement rehabilitation activities, creation of road berms and flattening of road shoulders. A discussion of the aquatic resources is presented below.

4.3.1 USACE Waters of the U.S./Wetlands

Ephemeral drainages were suspected or recorded within the Project Area. The hydrologic regime of each feature is considered to consist of flow only during and immediately after storm events.

Ephemeral Drainage

There is one larger ephemeral stream, Bell Mountain Wash, located within the Project Area. This feature is natural, with some developed portions associated with Stoddard Wells Road and berms along the road edge. The smaller drainages (Drainages 1 and 2) are also considered ephemeral and consist of single, unvegetated channels. Bell Mountain Wash is the widest stream channel in the Project Area, with an OHWM measuring approximately six to eight feet wide and a depth of five to ten inches. The smaller drainage features vary in width from one to three feet and have a depth that is approximately one to three inches.

Drainages 1 and 2 are connected to each other outside of the Project Area but are identified separately here due to their differing position with respect to Stoddard Wells Road. Historically, the feature originated to the east of the Project Area and flowed uninterrupted west towards Bell Mountain Wash. However now with the existing roadways, Stoddard Wells Road and Johnson Road, the historic alignment of the stream is diverted to flow along Johnson Road instead of across it, cutting off a portion of the drainage that used to run from Johnson to Stoddard Wells Road. Currently the drainage begins along the north side of Stoddard Wells Road (Drainage 2 location), flows north, curves to the west and south, then curves back to cross over Stoddard Wells Road (Drainage 1 location).

The ephemeral drainages onsite were delineated based on the presence of an OHWM, presence of a bed-and-bank, debris deposits, and eroded banks/shelving.

Wetlands

During the delineation there were no suspected wetlands observed.

Other Potential Aquatic Features

During the delineation there were no erosional features, upland swales, ditches and other potential aquatic features considered but not included in the delineation.

USACE Jurisdictional Assessment

The ephemeral drainages onsite are not considered to be jurisdictional to the USACE, due to being in the category of features excluded from the definition of waters of the U.S. under the Navigable Waters Protection Rule, which became effective on June 22, 2020.

Approved jurisdictional determinations (AJDs) and PJDs are tools used by the USACE to help implement Section 404 of the CWA and Sections 9 and 10 of the Rivers and Harbors Act of 1899. As per Regulatory Guidance Letter 16-01, an applicant may request a PJD "in order to move ahead expeditiously to obtain a Corps permit authorization where the requestor determin*es that it is in his or her best interest to do so … even where initial indications are that the aquatic resources on a parcel may not be jurisdictional*" (USACE 2016). A significant nexus evaluation is not necessary to obtain a PJD. An AJD is an official USACE determination that Waters of the U.S. are either present or absent on a particular site. An approved JD precisely identifies the limits of those waters on the project site determined to be jurisdictional under the CWA, and a significant nexus determination is required to obtain an AJD.

4.3.2 RWQCB Jurisdiction

The limits of RWQCB jurisdiction are presumed to generally follow those of the Waters of the U.S., or USACE jurisdiction, under Section 404 of the CWA. As such, no jurisdiction for the RWCB is presumed to be present. However, under the Porter-Cologne Water Quality Control Act where beneficial uses are designated or derived from areas outside of USACE jurisdiction additional areas, such as CDFW jurisdictional areas, these areas may be considered jurisdictional as well.

4.3.3 CDFW Jurisdiction

CDFW jurisdiction encompasses all features mapped within the Project Area, consisting of Bell Mountain Wash and Drainages 1 and 2. The limits of CDFW jurisdiction include the limits of the extent of each stream's larger floodplain where flows are not regular but only occur during larger storm events. The CDFW areas also include jurisdictional habitat such as riparian trees, where present, but none of these habitats were present within the Project Area. The breakdown of CDFW jurisdiction, in terms of acreages of habitats present within the Project Area, is provided below (Table 6).

Table 6. CDFW Jurisdictional Streambeds

Type	Acreage
Bell Mountain Wash	0.027
Drainage 1	0.021
Drainage 2	0.001
Total	0.049

Unvegetated Streambeds

All of the features within the Project Area consist of unvegetated streambeds along with some associated upland vegetation types. Below are additional details regarding each of these features.

Bell Mountain Wash

This is the widest stream channel in the Project Area, with an overall floodplain width of 12 to 15 feet. Surrounding vegetation, along the banks and on the mounds above the flow channels, consisted of creosote bush scrub primarily. Soils within the feature were sandy along the bottom with more typical desert cobbles and loams along the adjacent uplands. There were several typical elements indicating regular surface flow – ripples, sediment splays, and a defined bed and bank.

Where Bell Mountain Wash crosses Stoddard Wells Road, it sheet flows with no culvert, undercrossing or defined bed and bank. The edges of the road shoulder are maintained after flood events to remove sediment and re-establish the road shoulder. The natural portions of streambed are located beyond the existing road shoulder.

Drainages 1 and 2

Because of their connection, both drainages are similar, having an unvegetated planar bottom with creosote bush scrub along the banks. Soils within the features were marginally sandy, with few splays of sand present. Upland vegetation was growing within the streambeds and there was little distinction between them and the surrounding upland areas.

Where these drainages cross Stoddard Wells Road, they sheet flow with no culvert, undercrossing or defined bed and bank. The edges of the road shoulder are maintained after flood events to remove sediment and re-establish the road shoulder. The natural portions of streambed are located beyond the existing road shoulder.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The Project Area is generally classified as disturbed creosote bush scrub habitat. One special-status plant species was observed during the biological survey; however, no special status wildlife species were observed. The literature review and database searches identified 21 special-status plant species, but based on the condition of the Project Area and the available habitat, only one species (beaver dam breadroot) was determined to have a high potential to occur and three species (white pygmy-poppy, Mojave monkeyflower, and Booth's evening primrose) were determined have a moderate potential to occur on the Project Area. One special status plant species was observed on the site. The low-quality disturbed creosote bush scrub surrounding the approximately 1.6-mile road improvement project would not be expected to contribute substantially to the overall decline of these species. As such, impacts to beaver dam breadroot, white pygmy-poppy, Mojave monkeyflower, and Booth's evening primrose would be less than significant.

The literature review and database searches identified 27 special-status wildlife species that occur in the vicinity of the Project Area but based on condition of the Project Area and the available habitat, only three species were determined have high potential to occur on the Project Area (burrowing owl, loggerhead shrike, and desert tortoise) and may require mitigation and/or avoidance measures. One species (desert kit fox) was determined to have a moderate potential to occur and the remaining 23 species identified in the literature review and database searches are low potential to occur or presumed absent from the

Project Area due to the absence of records in the vicinity and/or lack of suitable habitat on the Project Area.

Burrowing owl was identified to have a high potential to occur of the Project Area. The disturbed creosote bush scrub habitat on site provides suitable habitat for burrowing owl. Although burrowing owls may not have been present when the survey was conducted, the species is mobile and could take up residence at any time. Direct impacts in the form of habitat loss and indirect impacts in the form of construction noise and ground vibrations may occur. Impacts to burrowing owl would be less than significant with the implementation of Mitigation Measure BIO-1.

Loggerhead shrike, a CDFW SSC, was also determined to have a high potential to occur on the Project Area due to the presence of suitable foraging and nesting habitat. Direct impacts to nesting loggerhead shrike may occur through removal of the Joshua tree and larger shrubs in the Project Area. Impacts to loggerhead shrike would be less than significant with the implementation of Mitigation Measure BIO-2.

Desert tortoise was identified to have a high potential to occur of the Project Area. The creosote bush scrub habitat on site provides suitable habitat for desert tortoise. Although desert tortoise sign was not observed when the survey was conducted, the recent CNDDB tortoise records two miles from the project site indicate a nearby population. Direct impacts in the form of habitat loss and indirect impacts in the form of construction noise and ground vibrations may occur. Impacts to desert tortoise would be less than significant with the implementation of Mitigation Measure BIO-3.

Desert kit fox was found to have a moderate potential to occur on the Project Area while moving through the area, but due to the nearby highly trafficked road, it is unlikely that this species would den on the Project Area. This species does not currently have a special-status designation from CDFW or USFWS but is regulated by CDFW as a fur-bearing mammal. As a fur-bearing mammal, the desert kit fox is protected under the CCR Title 14, Chapter 5, § 460, which prohibits "take" of the species at any time. Although there are no formal regulations published by CDFW regarding desert kit fox protection measures at the time this report was written, it is likely that CDFW could require avoidance, mitigation, and minimization measures to be built into the Project's environmental documents to ensure that impacts to desert kit fox are less than significant. Direct impacts in the form of habitat loss and injury or death may occur. Impacts to desert kit fox would be less than significant with the implementation of Mitigation Measure BIO-3.

Of the eight species that have a low potential to occur on the Project Area, three of them are federally and/or State-listed species: western yellow billed cuckoo, least bell's vireo, and Mohave ground squirrel; however, presence of these species is likely precluded due to the lack of quality habitat and the close proximity to anthropogenic disturbances. Project-related impacts to western yellow billed cuckoo, least bell's vireo, and Mohave ground squirrel, if present, would be considered significant because they are federally and/or State-listed species. Although these species are not expected to occur on or adjacent to the Project Area, impacts could occur in the form of injury or mortality, loss of habitat, ground vibrations, increased human activity, and noise. Impacts to western yellow billed cuckoo, least bell's vireo, and Mohave ground squirrel would be less than significant with the implementation of Mitigation Measure BIO-3.

The Project Area contained suitable nesting habitat for bird species protected under the MBTA, including the CDFW SSC loggerhead shrike. Development of the Project Area will be required to comply with the

MBTA and avoid impacts to nesting birds. If construction of the 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 and indirectly through increased noise. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-2.

5.2 Sensitive Natural Communities

The Project Area consisted of disturbed/developed areas and creosote bush scrub. The Project Area 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 Jurisdictional Resources

A total of 0.049 acre of aquatic resources have been mapped within the Project Area, consisting of three unvegetated streambeds of varying sizes. There were no suspected Waters of the U.S. (wetlands or non-wetlands) present within the Project Area. All mapped features are considered to be state-jurisdiction only. The Project as currently configured would entail no impacts to any of the recorded features, because the work is restricted to within the Stoddard Wells Road paved portions and graded road shoulder.

Regulatory permitting with the USACE is currently not anticipated to be needed since there is no placement of dredged or fill material into USACE jurisdictional features. For the CDFW features which have been recorded within the Project Area, little alteration of the natural portions of these streambeds are planned as a part of the Project since most of the mapped jurisdiction falls within active roads and road shoulder areas. For any impacts associated with the Project that fall within natural drainage courses, a permit with the CDFW is required by law.

A Notification of Lake or Streambed Alteration must be submitted to the local office of the CDFW, with a full calculation of impacts and description of the Project, prior to initiation of ground-disturbance within mapped drainage features.

5.4 Wildlife Corridors and Nursery Sites

The Project Area is located within areas containing existing disturbances (e.g., paved roads), however it is surrounded by undeveloped land. Since the project site is not situated along any major drainages or washes that it would only allow for local movement of wildlife. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project Area. Therefore, no impacts to wildlife corridors or nursery sites are expected to occur during the development of the Project Area.

5.5 Local Policies and Ordinances

One Joshua tree was observed on site. If Joshua trees will be affected by the project, then the Joshua trees will need to be inventoried and the location, size, and general health of each tree will need to be documented. This inventory will need to be submitted to the Town prior to ground-disturbing activities for approval by the Town in order to maintain compliance with the Town's Joshua tree ordinance (Section 9.76.040). The affected Joshua trees will need to be transplanted to another area on site, transplanted off

site, or placed for adoption. Impacts to Joshua trees would be less than significant with the implementation of Mitigation Measure BIO-4.

5.6 Habitat Conservation Plans and Natural Community Conservation Plans

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

6.0 MITIGATION MEASURES AND RECOMMENDATIONS

6.1 Mitigation Measures

The following mitigation measures are recommended prior to Project implementation:

BIO-1 – Pre-construction Surveys for Burrowing Owl: Pre-construction surveys for burrowing owl shall be conducted prior to the start of construction. 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 (e.g., grading, grubbing, construction), and the second survey being 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 Area 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 1 through August 31), 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 three days prior to initial ground disturbance. The nesting bird survey shall include the Project Area and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly due to construction activity, noise, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriate disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

BIO-3 – Pre-construction Survey for Special-Status Wildlife Species (Desert Tortoise, Mohave Ground Squirrel, Desert Kit Fox): The project site provides low quality habitat for desert kit fox, desert tortoise, and Mohave ground squirrel; therefore, a pre-construction survey for these species is recommended. Survey methods should follow those outlined in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (USFWS 2018). During the survey, biologists will document observations of other sensitive species, such as coast horned lizard. If individuals or sign of desert kit fox, desert tortoise, or Mohave ground squirrel (e.g., burrows, carcasses, scat) are observed on or immediately adjacent to the Project Area, then coordination with USFWS and/or CDFW will need to occur. If impacts to these species will occur from the Project, then the appropriate permits will need to be obtained prior to the start of Project activities. The pre-construction survey should take place no more

than 14 days prior to construction. This survey can be conducted concurrently with the 14-30-day or the 24-hour pre-construction burrowing owl survey (described above).

BIO-4 – Joshua Tree Inventory: A Joshua tree inventory should be conducted to document the location, height, diameter, and general health of the Joshua trees that may be affected by the Project. An arborist or qualified botanist should conduct the inventory and make recommendations on the Joshua tree specimens that are healthy enough for transplanting or adopting activities. Following the inventory, the report will need to be presented to the City for approval prior to receiving a grading permit for the Project. Due to the low number of Joshua trees observed on site during the reconnaissance survey, this inventory can be conducted concurrently with the 14-30-day burrowing owl pre-construction survey (described below).

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.
- Use of rodenticides and herbicides on Project Area 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 USEPA, California Department of Food and Agriculture, and other State and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to burrowing owl.

6.2 Recommendations

According to the California Fish and Game Code (Section 1602), any person, state or local governmental agency, or public utility is required to notify CDFW prior to beginning any activity that may do one or more of the following:

- Divert or obstruct the natural flow of any river, stream, or lake;

- Change the bed, channel, or bank of any river, stream, or lake;
- Use material from any river, stream, or lake; or
- Deposit or dispose of material into any river, stream, or lake.

Further, CDFW requires a Lake or Streambed Alteration Agreement for those project activities which may substantially adversely affect fish and wildlife resources. Because natural channels are being directly affected by the Project, for those portions being affected that are currently undeveloped, the Project is considered to have an adverse effect on fish and wildlife resources and is expected to require a Lake or Streambed Alteration Agreement with the CDFW. An applicant may arrange a meeting, by phone or in the field, with the CDFW to discuss a project and its potential impacts to jurisdictional areas.

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: 3/31/2021

Scott I. Taylor
Senior Biological Program Manager

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LIST OF APPENDICES

APPENDIX A

Representative Site Photographs

Photo 1 Description: Northeast end of alignment looking north

Photo 2 Description: Northeast end of alignment looking south

Photo 3 Description: Middle of alignment looking northeast

Photo 4 Description: Middle of alignment looking southwest

Photo 5 Description: West end of alignment looking east

Photo 6 Description: West end of alignment looking west towards Interstate 15

Photo 7 Description: Joshua tree near impact area

Photo 8 Description: Bell Mountain Wash

APPENDIX B

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
Ambrosia salsola	cheesebush
Amsinckia sp.	fiddleneck
Atriplex canescens	fourwing saltbush
Brassica nigra	black mustard
Bromus diandrus	great brome*
Bromus rubens	red brome*
Cylindropuntia echinocarpa	silver cholla
Cylindropuntia sp.	cholla
Cucurbita palmata	coyote gourd
Ericameria nauseosa	rubber rabbitbrush
Eriogonum gracile	slender buckwheat
Erodium cicutarium	red-stemmed filaree*
Ephedra sp.	ephedra
Larrea tridentata	creosote bush
Lycium sp.	box thorn
Phacelia sp.	phacelia
Salsola tragus	Russian thistle*
Schismus barbatus	common Mediterranean grass*
Yucca brevifolia	Joshua tree
**Nonnative species*	

APPENDIX C

Wildlife Species Observed

SCIENTIFIC NAME	COMMON NAME
Accipiter cooperii	Cooper's hawk
Ammospermophilus leucurus	white-tailed antelope squirrel
Cnemidophorus tigris	western whiptail
Eremophila alpestris	horned lark
Corvus corax	common raven
Sturnella neglecta	western meadowlark

APPENDIX D

Plant Potential for Occurrence

Table 1. Special-Status Plant Species Potential to Occur within the Project Boundaries

Scientific Name Common Name	Status		Flowering Period / Elevation Range (feet above msl)	Habitat	Potential to Occur in the Project Boundaries
Opuntia basilaris var. ***brachyclada*** short-joint beavertail cactus	USFWS: CDFW: CNPS:	None None 1B.2	Apr – June (Aug) (1,390-5,905)	Chaparral; Joshua tree woodland; Mojavean desert scrub; Pinyon and juniper woodland.	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Canbya candida white pygmy-poppy	USFWS: CDFW: CNPS:	None None 4.2	Mar – June (1,970-4,970)	Gravelly, sandy, granitic; Joshua tree woodland; Mojavean desert scrub; pinyon and juniper woodland.	**Moderate:** Suitable habitat occurs within the project boundaries; and one known occurrence was recorded approximately 3.6 miles from the project boundaries (OCC #8). However, the occurrence is over 20 years old and is considered historic.
Pediomelum castoreum Beaver Dam breadroot	USFWS: CDFW: CNPS:	None None 1B.2	Apr – May (610-1,525)	Sandy, washes and roadcuts; Joshua tree woodland; Mojavean desert scrub.	**High:** Suitable habitat occurs within the project boundaries; and two known occurrences exist within five miles of the project boundaries (Occ #9 and 10).
Mimulus mohavensis Mojave monkeyflower	USFWS: CDFW: CNPS:	None None 1B.2	Apr – June (2,000-3,940)	Sandy or gravelly, often in washes; Joshua tree woodland; Mojavean desert scrub.	**Moderate:** Suitable habitat occurs within the project boundaries; and eight known occurrences exist within five miles of the project boundaries (Occ #36, 37 38, 39, 40, 41, 44, and 45). However, all eight occurrences are over 20 years old and are considered historic.
Sclerocactus polyancistrus Mojave fishhook cactus	USFWS: CDFW: CNPS:	None None 4.2	Apr – July (2,100-7,610)	Commonly found in carbonate soils; Great Basin scrub; Joshua tree woodland; Mojavean desert scrub.	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Eremothera boothii ssp. ***boothii*** Booth's evening primrose	USFWS: CDFW: CNPS:	None None 2B.3	Jun – Aug (2,950-7,875)	Joshua tree woodland; Pinyon and juniper woodland; sandy soils.	**Moderate:** Suitable habitat occurs within the project boundaries; and four known occurrences exist within 5 miles of the project boundaries (Occ #4, 5, 29, and 30). However, two occurrences are over 20 years old and are considered historic.

Table 1. Special-Status Plant Species Potential to Occur within the Project Boundaries

Scientific Name Common Name	Status		Flowering Period / Elevation Range (feet above msl)	Habitat	Potential to Occur in the Project Boundaries
Acanthoscyphus parishii var. ***goodmaniana*** Cushenbury oxytheca	USFWS: CDFW: CNPS:	None None 1B.1	May – Oct (3,999- 7,799)	Pinyon- Juniper Woodland. On Limestone Talus and Rocky Slopes.	**Presumed Absent:** No suitable habitat was present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.
Androsace elongate ssp. ***acuta*** California androsace	USFWS: CDFW: CNPS:	None None 4.2	Mar – June (492- 4,282)	Chaparral; cismontane woodland; coastal scrub; meadows and seeps; pinyon and juniper woodland; valley and foothill grassland	**Presumed Absent:** No suitable habitat was present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.
Boechera dispar pinyon rockcress	USFWS: CDFW: CNPS:	None None 2B.3	Mar – June (3,937- 8,333)	Granitic and gravelly. Creosote bush scrub; Joshua tree woodland; pinyon-juniper woodland.	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Calochortus plummerae Plummer's mariposa lily	USFWS: CDFW: CNPS:	None None 4.2	May – July (328- 5,577)	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Chaparral, foothill woodland; yellow pine forest; coastal sage scrub; valley grassland.	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Chorizanthe spinosa Mojave spineflower	USFWS: CDFW: CNPS:	None None 4.2	Mar – July (20- 4,265)	Sometimes alkaline. Chenopod scrub; Joshua tree woodland; Mojavean desert scrub; Playas	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Cymopterus multinervatus purple-nerve cymopterus	USFWS: CDFW: CNPS:	None None 2B.2	Mar – Apr (2,067- 4,921)	Sandy. Joshua tree woodland; pinyon-juniper woodland.	**Low:** Limited suitable habitat occurs within the project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Dudleya abramsii ssp. ***affinis*** San Bernardino Mountains dudleya	USFWS: CDFW: CNPS:	None None 1B.2	Apr – July (4,101- 8,530)	Pebble pavement plain, upper montane coniferous forest, pinyon and juniper woodland. Outcrops; granite, quartzite, or carbonate.	**Presumed Absent:** No suitable habitat was present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.

Table 1. Special-Status Plant Species Potential to Occur within the Project Boundaries

Scientific Name **Common Name**	**Status**		**Flowering Period / Elevation Range (feet above msl)**	**Habitat**	**Potential to Occur in the Project Boundaries**
Lycium torreyi Torrey's box-thorn	USFWS: CDFW: CNPS:	None None 4.2	(Jan-Feb) Mar – June (Sep-Nov) (-164- 4,003)	Sandy, rocky, washes, streambanks, desert valleys. Mojavean desert scrub; Sonoran desert scrub	**Low:** Suitable habitat occurs within the Project boundaries but no CNDDB records exist for this species within 5 miles of the Project site.
Muilla coronata crowned muilla	USFWS: CDFW: CNPS	None None 4.2	Mar – Apr (May) (2495- 5740)	Creosote bush scrub; Joshua tree woodland; pinyon-juniper woodland	**Low:** Suitable habitat occurs within the Project boundaries but no CNDDB records exist for this species within 5 miles of the Project site.
Saltugilia latimeri Latimer's woodland-gilia	USFWS: CDFW: CNPS:	None None 1B.2	Mar – June (1,312- 6,234)	Rocky or sandy, often granitic, sometimes washes. Chaparral; Mojavean desert scrub; Pinyon and juniper woodland	**Low:** Limited moderately suitable habitat occurs within the Project boundaries but no CNDDB records exist for the species within 5 miles of the Project site.
Scutellaria bolanderi ssp. ***austromontana*** Southern skullcap	USFWS: CDFW: CNPS:	None None 1B.2	June – Aug (1,394- 6,562)	Mesic, chaparral; cismontane woodland; Lower montane coniferous forest	**Presumed Absent:** Although there has been one historic occurrence (OCC #15) of this species within 5 miles of the project site, the occurrence is over 100 years old, and no suitable habitat is present on the Project site.
Symphyotrichum defoliatum San Bernardino aster	USFWS: CDFW: CNPS:	None None 1B.2	July – Nov (Dec) (6- 6693)	Near ditches, streams, springs. Cismontane woodland; coastal scrub; lower montane coniferous forest; meadows and seeps; marshes and swamps. Valley and foothill grassland (vernally mesic)	**Presumed Absent:** Although there has been one historic occurrence (OCC #39) of this species within 5 miles of the project site, the occurrence is over 20 years old, and no suitable habitat is present on the Project site.
Yucca Brevifolia Western Joshua Tree	USFWS: CDFW: CNPS:	None **CAN** None	March- June (2330- 7085)	Joshua tree woodland	**Present:** Suitable habitat occurs within and surrounding the Project boundaries and the species was observed during the biological reconnaissance survey performed in October of 2020.

Table 1. Special-Status Plant Species Potential to Occur within the Project Boundaries

Scientific Name Common Name	Status		Flowering Period / Elevation Range (feet above msl)	Habitat	Potential to Occur in the Project Boundaries
Eriophyllum mohavense Barstow woolly sunflower	USFWS: CDFW: CNPS:	None None 1B.2	Mar – May (1,640-3,150)	Chenopod scrub; Mojavean desert scrub; Playas	**Low:** Limited moderately suitable habitat occurs within the Project boundaries but no CNDDB records exist for the species within 5 miles of the Project site.
Cymopterus deserticola Desert cymopterus	USFWS: CDFW: CNPS:	None None 1B.2	Mar – May (2,070-4,920)	Sandy; Joshua tree woodland; Mojavean desert scrub.	**Low:** Moderately suitable habitat occurs within the project boundaries; and one known occurrence exists within 5 miles of the project boundaries (Occ #10). However, this occurrence is over 20 years old and is considered historic.

CNPS Rare Plant Ranks (CNPS):

1B: Plants rare, threatened, and endangered in California and elsewhere.

2B: Plants rare, threatened, or endangered in California but more common elsewhere.

3: Plants about which need more information; a review list.

4: Plants of limited distribution; a watch list.

CNPS Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 Fairly threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)

0.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Federal Designations (Federal Endangered Species Act, USFWS):

END Federally listed, Endangered

THR Federally listed, Threatened

FC Federal Candidate Species

DL Federally Delisted

State Designations (California Endangered Species Act, CDFW):

END State-listed, Endangered

THR State-listed, Threatened

SSC California Species of Special Concern

FP Fully Protected Species

CAN Candidate Threatened

APPENDIX E

Wildlife Potential for Occurrence

Table 1. Special-Status Wildlife Species Potential to Occur within the Project Boundaries				
Scientific Name **Common Name**	**Status**		**Habitat**	**Potential to Occur in the Project Boundaries**
Invertebrates				
Bombus crotchii Crotch bumble bee	Fed: Ca:	none **CAN**	Occurs in open grassland and scrub habitats.	**Presumed Absent.** Although one historic occurrence (OCC #171) of this species was found 1.1 miles northeast of the project site, it was over 75 years old, and no suitable grassland and scrub habitat were present on the Project Site.
Fish				
Siphateles bicolor mohavensis Mohave tui chub	Fed: CA:	**END** **END**	Shallow outflow streams or deep pools with alkaline waters in the Mohave River basin.	**Presumed Absent.** Although there have been two recent occurrences (OCC #3 and 11) of this species within 3 miles of the project site, no suitable habitat is present on the Project Site**.**
Amphibians				
Anaxyrus californicus arroyo toad	Fed: CA:	**END** SSC	Typical breeding habitat includes creek and pool and typical nonbreeding (terrestrial) habitat includes cropland/hedgerow, grassland, playa/salt flat, savanna, chaparral, and woodlands.	**Presumed Absent.** Although there have been two historic occurrences (OCC #132 and 133) of this species approximately 3 miles from the project site, occurrences are over 40 years old, and no suitable habitat is present on the Project Site**.**
Rana draytonii California red-legged frog	Fed: CA:	**THR** SSC	Found near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.	**Presumed Absent.** Although there has been one occurrence (OCC #13) of this species approximately 2.9 miles from the project site, no suitable aquatic habitat is present on the Project Site**.**
Reptiles				
Emys marmorata western pond turtle	Fed: CA:	None SSC	Typically occurs in slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, and other long-term water deposits, where abundant cover is available.	**Presumed Absent.** Although there has been one historic occurrence (OCC #968) of this species approximately 5 miles from the project site, the occurrence is over 30 years old, and no suitable aquatic habitat is present on the Project Site**.**
Gopherus agassizii desert tortoise	Fed: CA:	**THR** **THR**	Desert valleys with vegetation communities such as alluvial fan, saltbush, creosote bush, desert scrub, and tree yuccas. Burrows in soil, under rocks, and along washes.	**High.** Three recent occurrences (OCC #1, 67, and 68) of this species were found approximately 2 miles from the project site, and **s**uitable habitat surrounds the project site.

Table 1. Special-Status Wildlife Species Potential to Occur within the Project Boundaries				
Scientific Name **Common Name**	**Status**		**Habitat**	**Potential to Occur in the Project Boundaries**
Phrynosoma blainvilii coast horned lizard	Fed: CA:	None SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Prefers open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Presumed Absent.** Although low quality habit in the form of sandy washes with scattered low bushes occurs on site, the project area is located outside the known rage for this species. No CNDDB records exist for this species within 5 miles of the project site.
Aves				
Agelaius tricolor tricolored blackbird	Fed: CA:	None **END**	Freshwater marshes with dense cattails, bulrushes, sedges, and tule. Forages in open habitat such as cultivated fields and pastures.	**Presumed Absent.** Although there has been one recent occurrence (OCC #13) of this species approximately 3.6 miles southwest of the project site, in 2014, no suitable marsh habitat is present on the Project Site**.**
Asio otus long-eared owl	Fed: CA:	None SSC	Nests in trees or tree cavities within deciduous and evergreen forests, orchards, wooded parks, farm woodlots, river woods, desert oases.	**Presumed Absent.** No suitable habitat was present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.
Athene cunicularia burrowing owl	Fed: CA:	None SSC	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation.	**High.** Nine recent occurrences (OCC #1221, 2056, 1547, 930, 923, 1550, 1551, 1552, and 2055) of this species were found within 5 miles of the project site, with the most recent records (OCC #2055 and 2056) observed in 2017 approximately 2 miles from the project site. Suitable habitat for this species surrounds the project site.
Aquila chrysaetos golden eagle	Fed: CA:	None **FP**	Open country including prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. Nests on rocky cliff edges or in large trees such as eucalyptus or oak.	**Low.** Although one recent occurrence (OCC #153) of this species was found 4.9 miles east of the project site, no suitable habitat is present on the Project Site.
Buteo swainsoni Swainson's hawk	Fed: CA:	None SSC	Breeding habitat typically occurs in grasslands with sparse trees, riparian habitats, juniper-sage flats, and agricultural lands with large trees. Historic ranges included the Mojave Desert, but southern populations have declined dramatically.	**Presumed Absent.** Although there have been two historic occurrences (OCC #2546 and 2658) of this species within 5 miles of the project site, the occurrences are over 88 years old, and no suitable habitat is present on the Project Site**.**

Table 1. Special-Status Wildlife Species Potential to Occur within the Project Boundaries				
Scientific Name **Common Name**	**Status**		**Habitat**	**Potential to Occur in the Project Boundaries**
Coccyzus americanus occidentalis western yellow-billed cuckoo	Fed: CA:	**THR** **END**	Open woodland habitat, near water, especially with dense willow and cottonwood understory. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	**Low.** Although one recent occurrence (OCC #138) of this species was found 4.2 miles south of the project site, in 2012, no suitable habitat is present on the Project Site.
Empidonax traillii extimus southwestern willow flycatcher	Fed: CA:	**END** **END**	Dense thickets of willow and other deciduous trees and shrubs, often near water. Often in riparian woodlands.	**Presumed Absent.** Although there has been one historic occurrence (OCC #36) of this species approximately 4.4 miles south of the project site, the occurrence is 30 years old, and no suitable riparian habitat is present on the Project Site**.**
Icteria virens yellow-breasted chat	Fed: CA:	None SSC	Occurs in second growth, shrubby old pastures, thickets, bushy areas, scrub, woodland undergrowth, and fence rows, including low wet places near streams, pond edges, or swamps; thickets with few tall trees; early successional stages of forest regeneration; commonly in sites close to human habitation.	**Presumed Absent.** Although one historic occurrence (OCC #55) of this species was found 4.3 miles south of the project site, the occurrence is over 30 years old, and no suitable habitat is present on the Project Site.
Lanius ludovicianus loggerhead shrike	Fed: CA:	None SSC	Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral.	**High.** Two recent occurrences (OCC #54 and 65) of this species were found within 5 miles of the project site and suitable habitat for this species surrounds the project site.
Piranga rubra summer tanager	Fed: CA:	None SSC	Low elevation cottonwood-willow forests along streams and higher elevation mesquite and salt cedar stands.	**Presumed Absent.** Although there have been two historic occurrences (OCC #18 and 19) of this species within 5 miles of the project site, the occurrences are over 30 years old, no suitable habitat is present on the Project Site, and this species is assumed possibly extirpated by CDFW.
Setophaga petechia yellow warbler	Fed: CA:	None SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Low.** Although there has been one recent occurrence (OCC #102) of this species approximately 3 miles southwest of the project site, in 2012, no suitable habitat is present on the Project Site**.**

Table 1. Special-Status Wildlife Species Potential to Occur within the Project Boundaries				
Scientific Name **Common Name**	**Status**		**Habitat**	**Potential to Occur in the Project Boundaries**
Toxostoma bendirei Bendire's thrasher	Fed: CA:	None SSC	Dry and semi-open desert habitats, particularly with tall shrubs or cacti. May also be found in juniper woodlands or near farmlands with dense shrubs.	**Low.** Limited moderately suitable habitat is present within the Project boundaries and no CNDDB records exist for this species within 5 miles of the project site.
Vireo bellii pusillus least Bell's vireo	Fed: CA:	**END** **END**	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, mesquite.	**Low.** Although four recent occurrences (OCC #265, 340, 341, and 342)) of this species were found within 5 miles of the project site, no suitable riparian habitat is present on the Project Site.
Vireo vicinior gray vireo	Fed: CA:	None SSC	Chaparral often dominated by chamise, desert scrub, and pinyon-juniper pine scrub.	**Presumed Absent.** No suitable habitat was present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.
Mammals				
Antrozous pallidus pallid bat	Fed: CA:	None SSC	Typically found in chaparral, and forages along the edges between shrubs and small open areas. Less commonly found in arid grassland, desert, and coastal scrub habitats.	**Presumed Absent.** Limited habitat is present on the Project Site and no CNDDB records exist for this species within 5 miles of the project site.
Chaetodipus fallax pallidus pallid San Diego pocket mouse	Fed: CA:	None SSC	Desert washes, desert scrub, and succulent scrub in areas bordering eastern San Diego county.	**Low.** Although there have been two historic occurrences (OCC #53 and 58) of this species within 5 miles of the project site, the occurrences are almost 100 years old, and there is limited or marginal habit in the form of sandy washes and desert scrub occurs on site.
Corynorhinus townsendii Townsend's big-eared bat	Fed: CA:	None SSC	Roosts in mines, caves, buildings, or other crevices. Most common in moist areas or those with access to water.	**Presumed Absent.** Although there has been one historic occurrence (OCC #302) of this species within 5 miles of the project site, the occurrence is 90 years old, and no suitable habitat is present on the Project Site.
Microtus californicus mohavensis Mohave river vole	Fed: CA:	None SSC	Meadows, freshwater marshes, irrigated fields, and other moist habitats along the Mojave River.	**Low.** Although one recent and two historic occurrences (OCC #6, 1, and 5) of this species were found within 5 miles of the project site, no suitable habitat is present on the Project Site.
Vulpes macrotis arsipus Desert kit fox	Fed: CA:	None Fur-bearing mammal	Open desert, on creosote bush flats, and amongst the sand dunes. Can be found in habitats with less than 20 percent vegetative cover.	**Moderate.** Limited moderately suitable habitat is present within the Project boundaries.

Table 1. Special-Status Wildlife Species Potential to Occur within the Project Boundaries

Scientific Name Common Name	Status		Habitat	Potential to Occur in the Project Boundaries
Xerospermophilus mohavensis Mohave ground squirrel	Fed: CA:	None **THR**	Flat or moderately sloped desert habitats with deep sandy or gravelly friable soils. Found in habitats with abundant annual herbaceous vegetation, alluvial fans, desert sink shrublands, and creosote bush scrub.	**Low.** Four historic occurrences (OCC #12, 22, 47, and 283) exist within five miles of the project boundaries, and marginal habitat occurs within the project site. The closest occurrence (OCC #12) observed in 1977 was 1.7 miles south west of the project site.

Federal Designations (Federal Endangered Species Act, USFWS):
END Federally listed, Endangered
THR Federally listed, Threatened
FC Federal Candidate Species
DL Federally Delisted

State Designations (California Endangered Species Act, CDFW):
END State-listed, Endangered
THR State-listed, Threatened
SSC California Species of Special Concern
FP Fully Protected Species
CAN Candidate Endangered