BIOLOGICAL RESOURCES ASSESSMENT

CORDOVA ROAD PROJECT

TOWN OF APPLE VALLEY,
SAN BERNARDINO COUNTY, CALIFORNIA

Prepared for:

Terra Nova Planning and Research
42635 Melanie Place, Suite 101
Palm Desert, CA 92211
Nicole Criste, Principal
(760) 341-4800

Prepared by:

WSP USA Environment & Infrastructure Inc.
862 E Hospitality Ln #350
San Bernardino, CA 92408
Dale Hameister, Senior Biologist
(909) 888-1106

31 October 2023

TABLE OF CONTENTS

PAGE

TABLE OF TABLES

TABLE OF APPENDICES

1.0 INTRODUCTION

WSP USA Environment & Infrastructure Inc. (WSP USA) was contracted by Terra Nova Planning and Research to conduct a biological resources assessment for a proposed warehouse facility project (project) in the town of Apple Valley, San Bernardino County, California. The biological study area (BSA) for this assessment included the pipeline alignment plus a 500-foot buffer around it. This document reports the results of that assessment.

2.0 PROJECT BACKGROUND/SITE DESCRIPTION

The project is entirely within the town of Apple Valley, San Bernardino County, California. The site is generally located north of Johnson Road, south of Quarry Road, east of Dale Evan Parkway, and west of Central Road (Figure 1). It is located primarily on the 7.5-minute Apple Valley North, Calif. United States Geological Survey (USGS) topographic quadrangle (Figure 2). It is in Section 16 of Township 6 North and Range 3 West. Project topography is relatively flat at elevations ranging from approximately 3072 to 3131 feet (936-954 meters). The project consists of three (3) parcels totaling approximately 100-acres that will be developed as a warehouse facility. The entire project site will be development and include the main warehouse building and associated parking, truck access, landscaping and other associated infrastructure.

3.0 REGULATORY FRAMEWORK

3.1 Federal

Endangered Species Act (ESA) – The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the ESA. ESA defines species as “endangered” or “threatened” and provides regulatory protection at the federal level.

- Section 9 of the ESA prohibits the “take” of listed (i.e., endangered or threatened) species. The ESA definition of take is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct.” Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a) (1) (A) permits (authorized take permits) are issued for scientific purposes. Section 10(a) (1) (B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.

- Section 7 (a) (2) requires federal agencies to evaluate a proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat. Critical habitat is a term defined and used in the ESA. It is specific geographic areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery (USFWS 2021a).

- Section 10(a)(1)(B) of the ESA provides for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. These Habitat Conservation Plans (HCPs) are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized, or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing. Conserving species before they are in danger of extinction or are likely to become so can also provide early benefits and prevent the need for listing (USFWS 2021b). The Western Riverside County Multiple Species Conservation Plan (see Riverside County section below) is an HCP, but the District is not a signatory to the plan or a participant.

As defined by the ESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.

Migratory Bird Treaty Act (MBTA) – Treaties signed by the U.S., Great Britain, Mexico, Japan, and the republics of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in this document. As with the ESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species. Impacts include direct disturbance to/destruction of nests, eggs, and birds as well as indirect effects such as loud construction noises (e.g., drilling, operation of heavy equipment, etc. in excess of 60 dB over an hours at the nest site) and increased site activities (e.g., moving vehicles, use of guard dogs, presence of personnel) in close proximity to active nests.

Section 404 of the Clean Water Act (CWA) – This section of the CWA, administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into Waters of the United States (WUS). The USACE has created a series of nationwide permits that authorize certain activities within WUS provided that the proposed activity does not exceed the impact threshold for each of the permits, takes steps to avoid impacts to wetlands where practicable,

minimize potential impacts to wetlands, and provide compensation for any remaining, unavoidable impacts through activities to restore or create wetlands. For projects that exceed the threshold for nationwide permits, individual permits under Section 404 can be issued.

National Environmental Policy Act (NEPA) – If all or a portion of a proposed project fall under the jurisdiction of a federal agency (such as USACE). NEPA establishes certain criteria that must be adhered to for any project that is "financed, assisted, conducted or approved by a federal agency. The federal lead agency is required to "determine whether the proposed action will significantly affect the quality of the human environment."

3.2 State of California

California Endangered Species Act (CESA) – This legislation is similar to the federal ESA; however, it is administered by the California Department of Fish and Wildlife (CDFW). The CDFW is authorized to enter a "memoranda of understanding" with individuals, public agencies, and other institutions to import, export, take, or possess state-listed species for scientific, educational, or management purposes. The CESA prohibits the take of state-listed species except as otherwise provided in state law. Unlike the federal ESA, the CESA applies the take prohibitions to species currently petitioned for state-listing status (candidate species). State lead agencies are required to consult with the CDFW to ensure that actions are not likely to jeopardize the continued existence of any state-listed species or result in the destruction or degradation of occupied habitat.

Section 2081 of the State Fish and Game Code – Under Section 2081 of the California Fish and Game Code, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information available and shall include consideration of the species' capability to survive and reproduce.

California Environmental Quality Act (CEQA) – The basic goal of the CEQA is to retain a high-quality environment now and in the future. The specific goals are for California's public agencies to:

- Identify the significant environmental effects of their actions; and, either
- Avoid those significant environmental effects, where feasible; or
- Mitigate those significant environmental effects, where feasible.

CEQA applies to "projects" proposed to be undertaken or requiring approval by State and/or local governmental agencies. Projects are activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires approvals from more than one public agency, the CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by the CEQA. The most basic steps of the environmental review process are:

- Determine if the activity is a "project" subject to the CEQA;
- Determine if the "project" is exempt from the CEQA;
- Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:
    - Negative Declaration if it finds no "significant" impacts;
    - Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts;
    - Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the State CEQA Guidelines provides criteria to lead agencies in determining whether a project may have significant effects.

The purpose of an EIR is to provide state and local agencies and the general public with detailed information on the potentially significant environmental effects which a proposed project is likely to have and to provide ways in which those effects may be minimized and indicate alternatives to the project.

Sections of the State Fish and Game Code pertaining to the protection of birds – Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA.

The Native Plant Protection Act (NPPA) – The NPPA includes measures to preserve, protect, and enhance rare and endangered native plant species. Definitions for “rare and endangered” are different from those contained in the CESA. However, the list of species afforded protection in accordance with the NPPA includes those listed as rare and endangered under the CESA. The

NPPA provides limitations on take as follows: "no person will import into this state, or take, possess, or sell within this state" any rare or endangered native plants, except in accordance with the provisions outlined in CESA. If a landowner is notified by the CDFW, pursuant to section 1903.5 that a rare or endangered plant species is growing on their property, the landowner shall notify the CDFW at least 10 days prior to the changing of land uses to allow the CDFW to salvage the plants.

Natural Community Conservation Planning (NCCP) Program – The NCCP program, which is managed by the CDFW, is intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development and other factors that species listing are required under the CESA. Instead of conserving small, often isolated "islands" of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas of land for conservation that would provide habitat for many species. Partners enroll in the programs and, by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value "reserve" areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation value. The Western Riverside County Multiple Species Conservation Plan (see Riverside County section below) is an NCCP, but the District is not a signatory to, or a participant in the plan.

Sections 1600-1603 of the State Fish and Game Code – The California Fish and Game Code, pursuant to Sections 1600 through 1603, regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Under state code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel with hydro geomorphology distinct top-of-embankment to top-of-embankment limits, that may or may not support fish or other aquatic biota. Included in this definition are watercourses with surface or subsurface flows that support, or have supported in the past, riparian vegetation. Specifically, Section 1601 governs public projects, while Section 1603 governs private discretionary actions. The CDFW requires that public and private interests apply for a "Streambed Alteration Agreement" for any project that may impact a streambed or wetland. The CDFW has maintained a "no net loss" policy regarding impacts to streams and waterways and requires replacement of lost habitats of at least a 1:1 ratio.

Regional Water Quality Control Board – The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit

to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which are generally the same as WUS but may also include isolated waterbodies. The Porter Cologne Act defines WSC as "surface water or ground water, including saline waters, within the boundaries of the state".

3.3 Multiple-Species Habitat/Natural Community Conservation Plan

The Town of Apple Valley (Town) and San Bernardino County (County) are working in coordination with the Bureau of Land Management (BLM), USFWS, and CDFW to prepare a "Multi-Species Habitat Conservation Plan/Natural Community Conservation Plan" (MSHCP/NCCP). The goal is to achieve consistent and complimentary conservation planning goals between the MSHCP/NCCP and state and federal land use plans to achieve conservation benefits at a landscape level. The MSHCP/NCCP will safeguard features and areas that warrant protection; plus ensure that future development within the Town and surrounding County lands in the Town's sphere of influence is compliant with the ESA and CESA. The MSHCP/NCCP will guide the Town's and County's conservation efforts in the MSHCP/NCCP area, allowing for the preservation of open space and protection of threatened and endangered species (Town of Apple Valley 2022a). The MSHCP/NCCP Planning Area includes 46,948 acres within the Town's incorporated limits and an additional 122,921 acres within the Town's sphere of influence for a total of 169,869 acres (Town of Apple Valley 2023b).

Besides creating environmental benefits, an approved MSHCP/NCCP will also provide permitting advantages to the Town and County by streamlining the environmental permitting process. The process established under the MSHCP/NCCP will increase control over local land use decisions and establish a one-stop shop for environmental permitting.

4.0 METHODS

4.1 Literature Review

A literature review and record search was conducted to identify occurrences of special status biological resources in the project vicinity. The review included:

• A report from the CDFW's California Natural Diversity Data Base (CNDDB) for a five-mile radius around the project site (CDFW 2023.

• The USFWS (2023a) Environmental Conservation Online System (ECOS) including critical habitat mapping and an Information for Planning and Consultation (IPaC) report (Appendix D).

• The California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2022) including records from the following California USGS 7.5-minute topographic quadrangles which are within five miles of the project: *Apple Valley North, Fairview Valley, Stoddard Well, Turtle Valley, Helendale, and Victorville*, Calif. (Appendix C). Note that CDFW has changed the name of "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (CRPR) to reduce confusion over the fact that rank assignments are the product of a collaborative effort between CNPS and CDFW and not solely a CNPS assignment (CDFW 2022c).

• Consortium of California Herbaria (2022) plant specimens.

• Aerial photographs, and

• Pertinent documents from the WSP USA library and project files (e.g., other biological surveys from the general vicinity) and the collective knowledge of WSP USA biologists.

Prior to the field visit, a literature review was conducted of the environmental and regulatory setting for the BSA. The literature review provides a baseline from which to evaluate the biological resources potentially occurring within the BSA, and within the local and regional vicinity.

4.2 Biological Resources and Habitat Assessment

The field reconnaissance assessment of the project's BSA was conducted on 24 August 2023 by WSP USA senior wildlife biologist Dale Hameister. Representative photographs are included in Appendix B. The entire BSA was assessed on foot and with binoculars. All flora and fauna detected (e.g., through direct observation, vocalizations, presence of scat, tracks, and/or bones) within the BSA during the course of the assessment were recorded in field notes and are included in Appendix C.

4.3 Jurisdictional Waters and Wetlands

A jurisdictional assessment was conducted within the BSA by WSP USA senior biologist Dale Hameister.

4.4 Desert Tortoise

A protocol survey for desert tortoise was conducted on 31 August 2023 by WSP USA biologists Dale Hameister and Phil Clevinger.

4.5 Wildlife Corridors

The ability of the BSA to act as a wildlife corridor was assessed. Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Corridors mitigate the effects of habitat fragmentation by (1) allowing animals to move between remaining habitats. Wildlife movement usually fall into one of three categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

5.0 RESULTS

The literature review and field surveys revealed the following information about critical habitat, wetlands, soils, vegetation, and special status species in the BSA.

5.1 Critical Habitat

No federally designated critical habitat is present in the BSA.

5.2 Soils

The BSA contains four (4) different soil mapping units (Figure 3).

Soils series mapped within the project area include Cajon sand, Helendale-Byman loamy sands, Mirage-Joshua complex, and Nebona-Cuddeback complex.

He Cajon series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. Cajon soils are on alluvial fans, fan aprons, fan skirts, inset fans and river terraces. Slopes are 0 to 15 percent. The average annual precipitation is about 6 inches and the mean annual temperature is about 65 degrees F.

The Helendale series consists of very deep, well drained soils that formed in alluvium from granitoid rocks. Helendale soils are on fan piedmonts, fan remnants, alluvial fans and terraces. Slopes range from 0 to 15 percent. The mean annual precipitation is about 125 millimeters (5 inches) and the mean annual temperature is about 17 degrees C (62.5 degrees F).

The Mirage series consist of deep, well drained soils that formed in mixed alluvium, dominantly from granitic sources. Mirage soils are on old terraces with well-developed erosion pavement and have slopes of 2 to 5 percent. The mean annual precipitation is about 4 inches and the mean annual temperature is about 63 degrees.

The Nebona series consists of shallow, well drained soils that formed in mixed alluvium. Nebona soils are on terraces and have slopes of 2 to 9 percent. The mean annual precipitation is about 4 inches and the mean annual temperature is about 63 degrees F.

5.3 Wetlands and Jurisdictional Drainages

There are several riverine features mapped within the project site in the National Wetland Inventory. These features are areas of bare soil and appear to be washes from an aerial view.

During the field investigation, it was determined that no OHWM or evidence of any recent flows were observed. There had been heavy rain two days prior to the survey so if any features were jurisdictional on-site, then flows should be clearly evident.

There were no signs of OHWM or clearly defined bed and bank features within any of the potential wash features identified during the literature review. Soil pits were dug at several locations and indicated that there were no observable differences in soil profile or texture. There was no difference in surface soil texture or sorting. No wetland indicator or hydric plants were observed associated with the features.

These features did not contain riparian vegetation or hydric soils, did not show evidence of periodic or episodic flow, and do not have a defined bed and bank. The features were determined to be upland erosional features and did not meet the requirements to be considered WOTUS, WSC, or CDFW jurisdictional. These features were evaluated and determine to be non-jurisdictional in an otherwise upland area.

5.4 Vegetation Communities

The BSA contains one native vegetation community, creosote bush scrub (Holland 1986). (Appendix A - Figure 4).

5.4.1 Creosote Bush Scrub

The dominate shrub present is creosote bush (*Larrea tridentata*). Other native shrub species include Nevada ephedra (*Ephedra nevadensis*), burrobush (*Ambrosia salsola*), sandpaper plant (*Petalonyx thurberi*) and Anderson thornbush (*Lycium andersonii*). Non-native annual species observed include Russian thistle (*Salsola tragus*), red stemmed filaree (Erodium cicutarium), old han schismus (*Schismus barbatus*). There are also nine Joshua trees (*Yucca brevifolia*) scattered across the site and one addition Joshua tree just outside the boundary near the southeast corner of the property.

5.5 Wildlife

Species encountered during field visit included species common to inland southern California deserts. Wildlife observed or detected via scat or tracks include burrowing owl (*Athene cunicularia*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), black-throated sparrow (*Amphispiza bilineata*), black-tailed jackrabbit (*Lepus californicus*), white-tailed antelope

squirrel (*Ammospermophilus leucurus*) and kit fox (*Vulpes velox*). A complete list of the flora and fauna observed during the field visits is included in Appendix C.

5.6 Special Status Biological Resources

Plant or animal taxa may be designated as having "special status" by the various regulatory agencies (i.e., CDFW, USFWS) and/or conservation organizations (i.e., CNPS) due to declining populations, vulnerability to habitat change or loss, or because of restricted/limited distributions. Some species have been listed as “threatened” or “endangered” and/or are a candidate for listing by the USFWS and/or the CDFW and are thus protected by the federal and state ESAs respectively. In addition to plants and animals, some vegetation communities have also received special status designations by the CDFW due to incremental loss and fragmentation resulting from development. Impacts to any special status biological resources can be considered significant under CEQA.

The literature review and field visits identified a total of 49 special status biological resources that are known from or in the general vicinity of the BSA. See Tables 1 through 3 for a complete list of these resources, their conservation status, habitat associations and occurrence potential. We did not include species which do not occur at BSA elevations or which only occur in aquatic habitats.

Table 1. Special Status Plant Species Potential for Occurrence

Scientific Name	Common Name	Status[1]			Habitat (for plants includes elevational range in meters & blooming period)	Occurrence Probability[2]
		Federal	State	Other		
Androsace elongata ssp *acuta*	California androsace	None	S3S4	CRPR 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. 150-1305 meters (m). Blooms (B): March-June.	Absent Suitable habitat not present.
Canbya candida	white pygmy poppy	None	S3S4	CRPR 4.2, MSHCP /NCCP	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland on granitic, gravelly, sandy soils. 600-1460 m. B: March-June.	Moderate Suitable habitat, but nearest records approximately four miles southwest
Cymopterus deserticola	desert cymopterus	None	None	CRPR 1B.2, MSHCP /NCCP	Joshua tree woodland and Mojavean desert scrub in sandy areas. 630-1500 m. B: March - May.	Moderate Habitat suitable, nearest record is over four miles to the south-southwest.
Diplacus (Mimulus) mohavensis	Mojave monkeyflower	None	None	CRPR 1B.2, MSHCP /NCCP	Joshua tree woodland and Mojavean desert scrub. Most often in washes; sometimes in gravely and sandy areas. 6001200 m. B: April - June.	Moderate Habitat suitable, nearest record approximately four miles to the east-northeast.
Eremothera boothii ssp *boothii*	Booth's evening primrose	None	S3	CRPR 2B.3, MSHCP /NCCP	Joshua tree "woodland", pinyon and juniper woodland. 815-2400 m. B: April-September.	Absent Site below elevational range of subspecies. Dried remains of *Eremothera boothii* detected on site, subspecies undeterminable. Town of Apple Valley region far outside of expected geographic range of ssp. *boothii* (Jepson Flora Project 2022)
Eriophyllum mohavense	Barstow woolly sunflower	None	S2	CRPR 1B.2, MSHCP /NCCP	Chenopod scrub, Mojavean desert scrub, playas. 500-960 m. B: March-May.	Moderate Habitat suitable, nearest records is approximately 4 miles northeast
Lycium torreyi	Torrey's boxthorn	None	S3	CRPR 4.2	Mojavean & Sonoran Desert scrub in rocky, sandy places; streambanks, washes. -50-1220 m. B: (January-February) March-June (September-November).	Absent Although there are CNPS records for *L. torreyi* in the Apple Valley North and Victorville quadrangles, CNPS also states “plants in California outside vicinity of Colorado River are likely misidentifications.”

Scientific Name	Common Name	Status[1]			Habitat (for plants includes elevational range in meters & blooming period)	Occurrence Probability[2]
		Federal	State	Other		
Mentzelia eremophila	solitary blazing star	None	S3S4	CRPR 4.2	Mojavean desert scrub. 7001220m. B: March-May.	Moderate Suitable habitat, nearest occurrence is over four miles west-southwest
Pediomelum castoreum	Beaver Dam breadroot	None	S2	CRPR 1B.2, MSHCP /NCCP	Joshua tree "woodland", Mojavean desert scrub on roadsides, in sandy places, and in washes. 610-1525 m. B: April-May.	Moderate Suitable habitat. No records in immediate project area, but occurrences in all surrounding directions.
Sclerocactus polyancistrus	Mojave fishhook cactus	None	S3	CRPR 4.2	Great Basin scrub, Joshua tree "woodland", Mojavean desert scrub usually on carbonate soils. 640-2320 m. B: April-July.	Absent Suitable habitat, nearest occurrence approximately 2 miles west, but this small cactus was not seen during site visit.
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None	S3	CRPR 1B.2, MSHCP /NCCP	Mesic areas in chaparral, cismontane woodland, lower montane coniferous forest. 425-2000 m. June-August.	Absent Suitable habitat not present.
Symphyotrichum defoliatum	San Bernardino aster	None	S2	CRPR 1B.2, MSHCP /NCCP	Streambanks in cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, valley and foothill grassland. 2-2040 m. B: July-November.	Absent Suitable habitat not present.
Yucca brevifolia	western Joshua tree	None	SCT	CRPR None	Mojavean desert scrub, Joshua tree “woodland.” 750 - 2,100 m, but individuals slightly lower or higher. B: January - May, rarely as early as November (CDFW 2022c).	Present

KEY TO TABLE 1

Definitions of occurrence probability:

Occurs: Observed on the site by WSP biologists, or recorded on-site by other qualified biologists.

High: Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on the site is rarely occupied by the species.

Absent: A focused study failed to detect the species, or, no suitable habitat is present.

Unknown: Distribution and habitat use has not been clearly determined.

Federal designation: = F

State designation: = C
State rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point (if any) represents a threat designation attached to the rank:
S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
- S1.1 = very threatened
- S1.2 = threatened
- S1.3 = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- S2.1 = very threatened
- S2.2 = threatened
- S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- S3.1 = very threatened
- S3.2 = threatened
- S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.
S5 = Secure. Common, widespread, and abundant in the state.
SH = All known California sites are historical, not extant
SX = Presumed extinct

California Native Plant Society (CNPS) designations:

Primary Categories
LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere
LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
LIST 3: Plants About Which More Information is Needed - A Review List
LIST 4: Plants of Limited Distribution - A Watch List
Subdivisions within Categories
0.1: Seriously threatened in California
0.2: Moderately threatened in California
0.3: Not very threatened in California

Table 2. Special Status Vegetation Community Potential for Occurrence

Community	Status	Habitat	BSA Occurrence Probability
Southern Cottonwood Willow Riparian Forest	F: None C: S3.2	This vegetation community occurs along streams and rivers, occupying relatively broad drainages and floodplains. It consists of trees that are generally greater than 20 feet high. Dominated by mature winter deciduous trees, including Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*) and several species of tree willows (*Salix* spp.), this community often has a dense understory of shrubby willows, mule fat, and mugwort (*Artemisia douglasiana*). The dominant species require moist, bare mineral soil for germination and establishment, an environment that is provided after flood waters recede.	Absent

KEY TO TABLE 2

Definitions of occurrence probability:
Occurs: Observed on the site by WSP USA biologists or recorded on-site by other qualified biologists.
High: Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
Low: Site is within the known range of the species but habitat on the site is rarely occupied by the species.
Absent: A focused study failed to detect the species, or, no suitable habitat is present.
Unknown: Distribution and habitat use has not been clearly determined.

Federal designation: = F

State designation: = C

State rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point (if any) represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 EOsOR < 1,000 individuals OR < 2,000 acres
- S1.1 = very threatened
- S1.2 = threatened
- S1.3 = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- S2.1 = very threatened
- S2.2 = threatened
- S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- S3.1 = very threatened
- S3.2 = threatened
- S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.
S5 = Secure. Common, widespread, and abundant in the state.
SH = All known California sites are historical, not extant

Table 3. Special Status Animals

Scientific Name	Common Name	Status[1]			Habitat	Occurrence Probability[2]
		Federal	State	Other		
Invertebrates						
Bombus crotchii	Crotch Bumblebee	None	S1S2	Not applicable (N/A)	Open grassland & scrub habitats. Occurs primarily in California, in coastal slope areas, western desert, great valley, and adjacent foothills.	Low Nectar sources scarce, is present and other flowering species utilized by this bumblebee are likely to occur in season.
Danaus plexippus	Monarch Butterfly	**FC**	S2S3	N/A	Western winter roost sites primarily occur along the coast from northern Mendocino to Baja California, Mexico, located in wind protected tree groves (*Eucalyptus* species, Monterey pine (*Pinus radiata*), cypress), with nectar and water sources nearby. During breeding season, adults widespread but scarce in the desert. Larvae require milkweed.	Low Seldom seen in the desert, no milkweed detected.
Fish						
Siphateles bicolor mohavensis	Mohave tui chub	FE	SE	MSHCP /NCCP	Found in the Mojave river as well as drainage and sewer systems with year-round water.	Absent No year-round water available
Reptiles						
Gopherus agassizii	desert tortoise	**FT**	**ST**, S2S3	MSHCP /NCCP	Prefers Joshua tree, desert wash & scrub, especially creosote bush (*Larrea tridentata*) habitats; but in most desert habitats. Large wildflower blooms preferred. Burrows & nests require friable soil.	Absent Not found by August focused survey, but habitat is appropriate and there are records in the area so future occupation is possible.

Scientific Name	Common Name	Status[1]			Habitat	Occurrence Probability[2]
		Federal	State	Other		
Birds						
Aquila chrysaetos	golden eagle	MBTA, BGEPA, BCC	S3, WL, FP, FGC	MSHCP /NCCP	Mountainous/hilly areas with cliffs and open fields required for habitat. Jackrabbits are primary food source.	Low No nesting habitat on site. Could potentially nest on rocky peaks in the general area and forage on site. Not found during July or August site visits.
Athene cunicularia	burrowing owl	MBTA, BCC	SC, S3, FGC	MSHCP /NCCP	Open, dry grasslands, deserts & scrublands with low-growing vegetation. Depends on burrowing mammals.	Present Owl pellets and whitewash were observed at kit fox burrow. Unknow if occupied at the time of survey.
Buteo swainsoni	Swainson's hawk	MBTA, BCC	SE, S3, FGC	MSHCP /NCCP	Open plains, grasslands, dry grasslands. Migrates through Mojave Desert.	Low No nesting habitat on site. Could potentially nest in the general area and forage on site. May also occur during migration. Not found during July or August site visits.
Calypte costae	Costa's hummingbird	MBTA, BCC	S4, FGC	N/A	Primary habitats desert wash; edges of desert & valley foothill riparian; coastal, desert, & desert succulent scrub; palm oasis; & low elevation chaparral.	Moderate Nesting and foraging habitat present.
Falco mexicanus	prairie falcon	MBTA, BCC	SC, S3, FGC	MSHCP /NCCP	Breeding sites located on cliffs, but forages far afield.	Low No nesting habitat on site. Could potentially nest on rocky peaks in the general area and forage on site. Not found during July or August site visits.

Scientific Name	Common Name	Status[1]			Habitat	Occurrence Probability[2]
		Federal	State	Other		
Gymnogyps californianus	California condor	FE, MBTA	SE, FGC	N/A	Forages widely for carrion. Ledges and cliffs are used as roost and nest sites.	Absent Identified only by the IPaC report. Although capable of very long foraging flights from breeding and nesting areas, all members of the population are closely monitored. There is no nesting habitat on site and condors rarely, if ever, visit this area.
Lanius ludovicianus	loggerhead shrike	MBTA, BCC	SSC, S4, FGC	MSHCP /NCCP	Found in open habitats with widely spaced vegetation.	Moderate Not found during site visits. Suitable nest sites, habitat present.
Spinus lawrencei	Lawrence's goldfinch	MBTA, BCC	None	N/A	Pine forests, chaparral typically but breeds in other habitats. Can be found in dry open land in migration.	Absent Identified only by the IPaC report. Project lacks breeding and typical foraging habitat.
Toxostoma redivivum	California thrasher	BCC	N/A	N/A	Chaparral & foothill habitats. Sometimes well vegetated deserts.	Absent No suitable habitat. Identified only by the IPaC report.
Toxostoma lecontei	Le Conte's thrasher	MBTA, BCC	S3, FGC	MSHCP /NCCP	Desert: open washes, scrub; commonly nests in a dense, spiny shrub or cactus.	Low Not found on July or August site visits. Suitable habitat & nesting sites present.
Mammals						
Vulpes macrotis arsipus	desert kit fox	None	FGC	MSHCP /NCCP	Annual grasslands or open areas with scattered brush, shrubs, & scrub. Dens in open, level areas with loose textured, soils (CDFW 2016b)	Occurs Scat and dens detected onsite. Regulated as a furbearing mammal.

Scientific Name	Common Name	Status[1]			Habitat	Occurrence Probability[2]
		Federal	State	Other		
Xerospermophilus mohavensis	Mojave ground squirrel	None	ST	MSHCP /NCCP	Suitable habitat is sandy and gravelly soils. Burrows found at the base of shrubs.	Absent CNDDB record five miles to the west; site within historic range of species. Site, however, not in or near current known range of species (Leitner 2008).

KEY TO TABLE 3

Definitions of occurrence probability:

Occurs: Observed on the site by WSP USA biologists or recorded on-site by other qualified biologists.

High: Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on the site is rarely occupied by the species.

Absent: A focused study failed to detect the species, or, no suitable habitat is present.

Unknown: Distribution and habitat use has not been clearly determined.

Federal designation =F

State designation =C

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 EOs OR < 1,000 individuals OR < 2,000 acres
- S1.1 = very threatened
- S1.2 = threatened
- S1.3 = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- S2.1 = very threatened
- S2.2 = threatened
- S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- S3.1 = very threatened
- S3.2 = threatened
- S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.

S5 = Secure. Common, widespread, and abundant in the state.

SH = All known California sites are historical, not extant

Western Bat Working Group (WBWG) designations:

H = High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

M: = Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

L: = Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the

overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.

P: = Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

5.6.1 Special Status Plant Species

Thirteen special status plant species are known from the project area (Table 2). Five are not expected to occur either due to a lack of habitat (California androsace, Booth's evening-primrose, Torrey's boxthorn, southern mountains skullcap, and San Bernardino aster) or because it was not detected during the reconnaissance survey. As shown on Table 2, habitat for the remaining eight plant species (white pygmy poppy, desert cymopterus, Mojave monkeyflower, Barstow woolly sunflower, solitary blazing star, beaver dam breadroot, and Mojave fish-hook cactus) is present on-site. These species were not found during the July or August site visits; however, this is not proof of absence. Most do not bloom in August. For those reasons, it was not possible to determine presence, absence, or population size. Until surveyed for in the appropriate season, presence, population size, and importance to the overall population cannot be determined. None of these species are federally or state listed as endangered or threatened. Impacts to these species could nevertheless be considered significant under CEQA if plants found on-site were found important to survival of the overall population. Also, white pygmy-poppy, desert cymopterus, Mojave monkeyflower, Barstow woolly sunflower, and beaver dam breadroot are proposed for coverage under the MSHCP/NCCP. In particular, the science advisory committee for the MSHCP/NCCP singled out Mojave monkeyflower and Barstow woolly sunflower as being of relatively high conservation (Fleishman, et al 2016).

It is recommended that a focused surveys be performed during the appropriate season for the detection of the eight potentially occurring species. Two surveys would be required in spring (March/April) and two additional survey in the summer (June/July). If found, biological monitoring may be required near their populations. If unavoidable, they should be transplanted and/or have seeds/topsoil collected with guidance from the CDFW. If species proposed for coverage under the MSHCP/NCCP are detected, the Town should also be consulted.

5.6.1.1 Western Joshua Tree

The Western Joshua Tree Conservation Act (WJTCA) was passed in July 2023 to conserve western Joshua tree and its habitat while supporting the state's renewable energy and housing priorities.

The WJTCA creates a streamlined permitting framework for certain development activities and collects mitigation fees for the acquisition and conservation of western Joshua tree habitat and other actions to conserve western Joshua Tree. This will offset the impacts of permitted projects that negatively impact western Joshua trees and help to conserve the species on a landscape scale. The WJTCA fees are based on the total number of individual trees at specific height intervals.

Permitting

The WJTCA authorizes the CDFW to:

- Permit the trimming and removal of hazardous or dead western Joshua trees.
- Permit the incidental take of western Joshua trees provided the permittee meets certain conditions.
- Enter into an agreement with a county or city to delegate limited authority to issue the permits mentioned above, provided certain conditions are met.

Additionally, the WJTCA directs CDFW to develop a conservation plan for western Joshua tree by the end of 2024.

The project is located in the area that qualifies for reduced Mitigation Fees for impact to Western Joshua Trees in California as defined in the California Department of Fish and Wildlife Code (Section 1927). These reduced mitigation fees also apply to "Any project receiving a permit issued by a county or city pursuant to an agreement with the department" pursuant to the Western Joshua Tree Conservation Act.

Summary of Mitigation Fees

Reduced Mitigation Fees (within blue area) [See Section 1927.3 (d)]:

- Trees 5 meters or greater in height - $1000
- Trees 1 meter or greater but less than 5 meters in height - $200
- Trees less than 1 meter in height - $150

Standard Fees (anywhere in State, outside blue area) [See Section 1927.3 (e)]:

- Trees 5 meters or greater in height - $2,500
- Trees 1 meter or greater but less than 5 meters in height - $500
- Trees less than 1 meter in height - $340

There are 9 western Joshau trees located within the project site which are all between 1 m and 5 m in height. The mitigation fee for the project is estimated to be $1,800.

5.6.2 Special Status Vegetation Communities

One special status vegetation community, southern cottonwood willow riparian forest is known from the general project area, but it does not occur in the BSA (Table 2). The closest area of this riparian habitat is along the Mojave River. Vegetation communities are not state or federally listed as threatened or endangered.

5.6.3 Special Status Wildlife

29 species of special status wildlife /species have been recorded from the BSA, as identified by the literature search and/or field surveys.

5.6.3.1 Insects

The literature review identified two special status insects from the project area (Table 3): the monarch butterfly (federal candidate for ESA listing, identified only by IPaC) and Crotch bumblebee (state ranked as critically imperiled to imperiled). There is a low probability that these insects could occur on site.

Monarchs are not expected to winter in the project area, but a few individual adults may forage in the warmer months. The main threat to the species would be impacts to milkweed, the larval foodplant. No milkweeds have been found on site.

The CNDDB reported an occurrence of Crotch bumblebee 1-2 miles north of the project site. This species nests underground and overwinters in soil or under leaf litter/debris. Visits many flowering plants including, but not limited to, Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Boraginaceae, and Hydrophyllaceae. Genera include, but are not limited to, Antirrhinum, Asclepias, Chaenactis, Clarkia, Dendromecon, Eschscholzia, Eriogonum, Lupinus, Medicago, Phacelia, & Salvia. The flight period or this species occurs from late February to late October. These bees require flowering plants for nectar and potential nest sites, both of which occur on site, albeit in low abundance.

It is recommended that pre-construction surveys by qualified biologists bumblebee nests (if any) for avoidance. Any bumblebee nest should be avoided. If unavoidable, and determined to be occupied by Crotch bumblebees, the CDFW should be consulted for guidance and potential incidental take permits, if impacts cannot be avoided.

5.6.3.2 Reptiles

The literature search identified desert tortoise as being of potential occurrence (Table 3). The Mojave population segment of the desert tortoise is federally and state listed as threatened by the USFWS and CDFW. The Mojave population segment includes all tortoises occurring west and north of the Colorado River. The desert tortoise is most common in desert scrub, desert wash, and Joshua tree habitats in a variety of terrain types, including alluvial fans, valleys, rocky hillsides, and washes. They require friable soil for burrow and nest construction. Burrows are typically found at the base of shrubs, in the interspaces between shrubs, and occasionally in caliche soil bank areas or underneath boulders/rocks. They are herbivores and feed on a variety of plants including annual herbs and perennial grasses.

Tortoise activity is greatest during the spring and early summer, and to a lesser extent during the fall; however, tortoises can be active at any time of the year during appropriate weather conditions. Although tortoises hibernate during the winter and typically emerge in late February or early March, hatchlings and juveniles can be fairly active during the winter months. Adults will also emerge from their burrows to drink if water resources have been limited during the previous activity season and/or winter precipitation has provided standing water. Their activity is usually much reduced during hot summer months, but they may be active following summer rains or if temperatures are moderate (Boarman 2003).

Threats to desert tortoises include loss or degradation of habitat, vandalism, poaching, intentional killing, predation on young tortoises by the common raven (*Corvus corax*) and other predators (e.g. kit fox, snakes, etc.), and disease (e.g. *Mycoplasmosis*). Off-road vehicles, military training maneuvers, mining, and livestock grazing also affect tortoise habitat by collapsing burrows, eroding soils, reducing availability of food plants, eliminating shrubs which would provide shade for tortoises and support for their burrows, and ultimately results in surface disturbance that promotes conditions more conducive to invasion by exotic plant species, which provide less nutritional value to tortoises than the native species that were replaced. Human activities, including garbage dumping, landfills, roads, increased nesting opportunities, irrigation, and increased vehicle use have led to increased numbers of common ravens in California deserts. Ultimately, the increased predation on young tortoises by common ravens reduces recruitment in breeding populations (Boarman 2003).

Tortoises are most often detected by their scats and burrows. Tortoises themselves can sometimes be detected in burrows by shining a light inside the burrow. Other tortoise sign includes carcasses, or fragments thereof, courtship rings, and drinking depressions. Presence of sign is an indication that tortoises either occur, or have recently occurred, at a particular location. Sign can be detected at any time of the year and always indicates suitable habitat, if not occupied habitat.

The vegetation community occurring on the project site (creosote bush scrub) is a habitat typically utilized by desert tortoises. There is no desert tortoise critical habitat designated on the project site, and no desert tortoises or their sign were detected during the reconnaissance or focused survey. However, the CNDDB reports four occurrences within a 5-mile radius, including records within three miles or less to the north and southwest.

The focused survey found no desert tortoises, desert tortoise burrows, or desert tortoise sign. Although desert tortoise was found to be absent, it is important to note that the project site is contiguous with potential habitat. As a result, desert tortoises may enter the project site at any time in the future.

Desert tortoises cannot be taken (harmed, harassed) under state and federal law. This report and any recommended mitigation measures do not constitute authorization for incidental take of the

desert tortoise. If desert tortoise is detected on site, consultation with the USFWS and CDFW may be required. Since desert tortoise is proposed for coverage under the MSHCP/NCCP, the Town may also need to be notified if they are detected onsite.

5.6.3.3 Birds

As shown on Table 3, several special status bird species occur or may occur on site (golden eagle, burrowing owl, Swainson's hawk, Costa's hummingbird, prairie falcon, loggerhead shrike, Le Conte's thrasher). Most of these are also proposed for coverage under the MSHCP/NCCP (golden eagle, burrowing owl, Swainson's hawk, prairie falcon, loggerhead shrike, and Le Conte's thrasher). Those that do not have nesting habitat on-site (golden eagle, Swainson's hawk, prairie falcon) should simply be avoided if temporarily present. The remaining special status species which could potentially nest onsite (burrowing owl, Costa's hummingbird, loggerhead shrike, Le Conte's thrasher) will be protected by the recommendations in Section 6.0 below.

The burrowing owl is uniquely vulnerable to ground disturbing activities since it both nests and roosts underground. Therefore, additional actions must be taken to protect against impacts to this species which would result in take. In addition to protection under the MBTA and FGC, the burrowing owl is also federally designated as a Bird of Conservation Concern and state designated as a Species of Concern. It occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation (Haug et al. 2011). In southern California, burrowing owls are not only found in undisturbed natural areas, but also fallow agricultural fields, margins of active agricultural areas, livestock farms, airports, and vacant lots. It is a subterranean nester, typically utilizing pre-existing burrows or burrow surrogates (e.g. ground squirrel burrows, kit fox burrows, drain pipes, culverts, etc.). Burrowing owl occupied burrows and areas can be recognized by sign which includes tracks, molted feathers, cast pellets, prey remains, eggshell fragments, whitewash, nest burrow decoration materials (e.g., paper, foil, plastic items, livestock or other animal manure, etc.) (CDFG 2012). The species is active both day and night and may be seen perching conspicuously on fence posts or standing at the entrance of their burrows.

Analyses of regional patterns for breeding populations of burrowing owls have detected declines both locally in their central and southern coastal breeding areas, and statewide where the species has experienced breeding range retraction. Threat factors affecting burrowing owl populations include habitat loss, degradation and modification, and eradication of ground squirrels resulting in a loss of suitable burrows required by burrowing owls for nesting, protection from predators, and shelter. Conservation for burrowing owls may include but may not be limited to protecting remaining breeding pairs or providing for population expansion, protecting, and enhancing breeding and essential habitat, and amending or augmenting land use plans to stabilize populations and other specific actions to avoid the need to list the species pursuant to the ESA or CESA (CDFG 2012).

No burrowing owls were observed during the reconnaissance survey, but pellets and old whitewash was observed. Therefore, the Staff Report on Burrowing Owl Mitigation (CDFG 2012) requires a survey for potential burrows followed by four breeding season surveys of those areas found to have potential for burrowing owl occupation. The burrow survey can be conducted at any time, but breeding season focused surveys cannot begin sooner than 1 February.

If burrowing owls are found and are unavoidable, guidelines in CDFG (2012) will need to be followed and consultation with the CDFW may be required. Furthermore, where potential habitat is present, CDFG (2012) also requires less extensive preconstruction take avoidance surveys for owls whether or not found by the focused surveys in case the site has been occupied in the interim between the focused surveys and initiation of construction. These surveys are done from 14 days to 24 hours before groundbreaking. Since the burrowing owl is proposed for coverage under the MSHCP/NCCP, the Town should also be consulted if they are detected onsite.

5.6.3.4 Mammals

The literature review identified two special status / protected mammals from the project area: the Mohave ground squirrel and the desert kit fox (Table 3).

A 1977 occurrence of the state listed as threatened Mohave ground squirrel appeared on the CNDDB report approximately five miles west of the project area. This species, however, is considered to be extirpated from the project area (Leitner 2008). Therefore, we do not recommend any further action for Mohave ground squirrel.

The desert kit fox is a fur-bearing mammal regulated under the FGC but is not generally considered a special status species. The draft MSHCP/NCCP, however, treats it as a proposed covered species. Scat of this species and potential den locations were observed within the project site during the desert tortoise survey. If a potentially active den is to be impacted, the CDFW and/or Town should be consulted on mitigation measures that they will require, if any.

5.7 Wildlife Corridors

The BSA does not act as a wildlife corridor. The BSA contains the same habitat as all surrounding parcels with the exception of Quarry Road to the north which does not create a barrier to wildlife movement.

6.0 DISCUSSION AND RECOMMENDATIONS

One sensitive plant, western Joshua tree, was observed on-site. Annual rare plant species may occur on-site. Two focused surveys should be conducted in April/May 2023 and two additional surveys June/July to determine presence or absence and population size.

One special status insect, Crotch's bumble bee may occur on-site. To avoid impacts to this species, it is recommended to assess the project site for suitable nectar resources during the spring and determine if protocol surveys are recommended.

A focused survey determined that the desert tortoise is not present on-site at this time. The following mitigation and minimization measures are recommended to ensure that any potential impacts to the desert tortoise are avoided:

1) A worker's environmental awareness program (WEAP) would be implemented to educate the construction crew of potential special status species present on the project site.

2) Construction and maintenance personnel would be required to inspect for desert tortoises under vehicles prior to moving the vehicle. If a desert tortoise is found beneath a vehicle, it would not be moved until the desert tortoise had left of its own accord. All desert tortoise observations would be reported to a qualified biologist and the wildlife agencies.

3) A qualified biologist should monitor construction to ensure that tortoises do not enter the work area and that they are not disturbed if present. Isolating the site with tortoise-proof fencing could reduce or eliminate this need.

4) Any open trenches adjacent to habitat should be monitored by a qualified biologist daily. If left open overnight or at any time when not monitored, they should be fenced and/or covered to prevent entry by desert tortoises. Exit ramps should be present within open trenches.

The desert kit fox forages on-site, but no dens are currently present on-site. To avoid impacts to this species it is recommended to not disturb any active burrows that could contain kits. Kits are usually present in the springtime. If a potentially active den is to be impacted, the CDFW and/or Town should be consulted on mitigation measures that they will require, if any.

Nesting birds, including special status species, may occur on-site. To avoid impacts to protected species, a nesting bird clearance survey should be conducted prior to clearing of vegetation.

Burrowing owl may occur on-site. A four-visit focused breeding season survey will be conducted in 2023 beginning no sooner than 15 February and ending no sooner than 16 June.

No jurisdictional drainages were observed onsite and no permits from USACE, CDFW, or RWQCB are required.

7.0 LITERATURE CITED AND REFERENCES

California Bird Records Committee. 2023. Official California Checklist. Accessed online at: http://californiabirds.org/ca_list.asp

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation.

California Department of Fish and Wildlife (CDFW). 2023a. California Natural Diversity Database (CNDDB) RareFind 5 records of sensitive elements. Accessed online at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data

CDFW. 2023b. Special Animals List. September. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline

CDFW. 2016a. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. May. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155&inline

CDFW. 2016b. California's Wildlife. Accessed online at: https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range

California Legislative Information. 2021. Fish and Game Code of California. http://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=FGC&tocTitle=+Fish+and+Game+Code+-+FGC

CDFW. 2023c. Western Joshua Tree. Accessed online at: https://wildlife.ca.gov/Conservation/Environmental-Review/WJT

California Native Plant Society (CNPS). 2023. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). Accessed online at: https://www.rareplants.cnps.org

Fleishman, E., L. Kats, J. Lovich, B. Pavlik, and B. Riddle. 2016. Science advisory committee guidance on development and implementation of a habitat conservation plan / natural community conservation plan for Apple Valley, California. April. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=128238&inline

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Calif. Fish Game, Sacramento.

Jepson Flora Project. 2021. *Jepson eFlora.* Accessed online at: http://ucjeps.berkeley.edu/IJM.html

United States Department of Agriculture (USDA). 2023. PLANTS Database. Accessed online at: https://plants.sc.egov.usda.gov/home

USDA. 2023. Web Soil Survey. Accessed online at: http://websoilsurvey.nrcs.usda.gov/app/

United States Fish and Wildlife Service (USFWS). 2021. Bird Laws and Treaties. Accessed online at: http://www.fws.gov/migratorybirds/RegulationsandPolicies.html

USFWS. 2020a. Listing and Critical Habitat, Critical Habitat, Frequently Asked Questions. Accessed online at: https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html

USFWS. 2023b. Habitat Conservation Plans: Overview. Accessed online at: https://www.fws.gov/endangered/what-we-do/hcp-overview.html

USFWS. 2021c. National Wetlands Inventory. Accessed online at: https://www.fws.gov/wetlands/

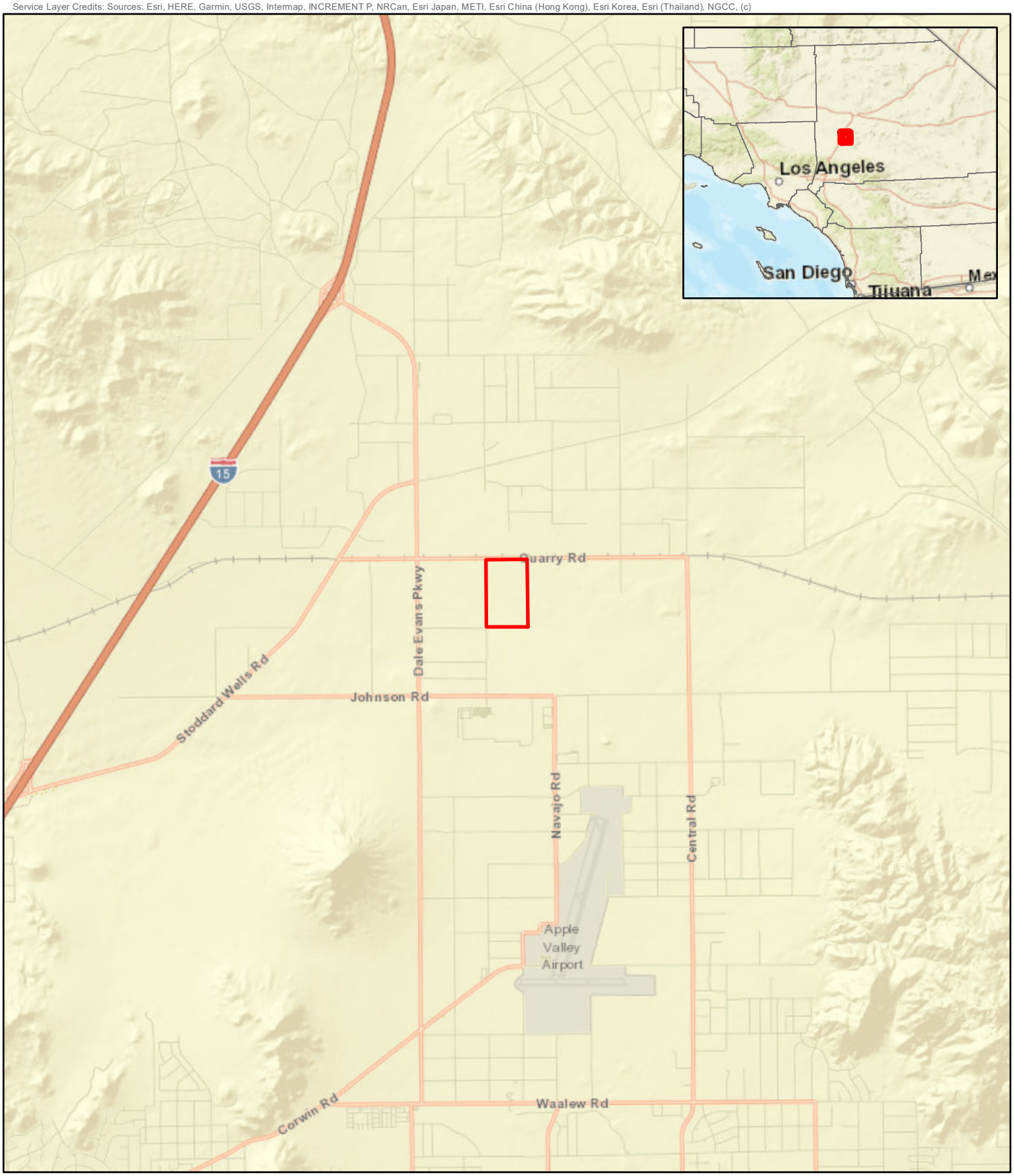
USFWS. 2021d. Critical Habitat Portal. Accessed online at: http://ecos.fws.gov/crithab/.

USFWS. 2013. Habitat types. Accessed online at: https://www.fws.gov/refuge/san_diego/wildlife_and_habitat/Habitat_Types.html

Xerces Society for Invertebrate Conservation, The, Defenders of Wildlife, Center for Food Safety. 2018. A Petition to The State of California Fish and Game Commission to List the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161902

APPENDIX A

Maps and Figures



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_CordovaRd_322520145\MXD\ReportFigures\BRAR\Fig1_Vicinity&Location_BRAR.mxd, aaron.johnson 10/2/2023

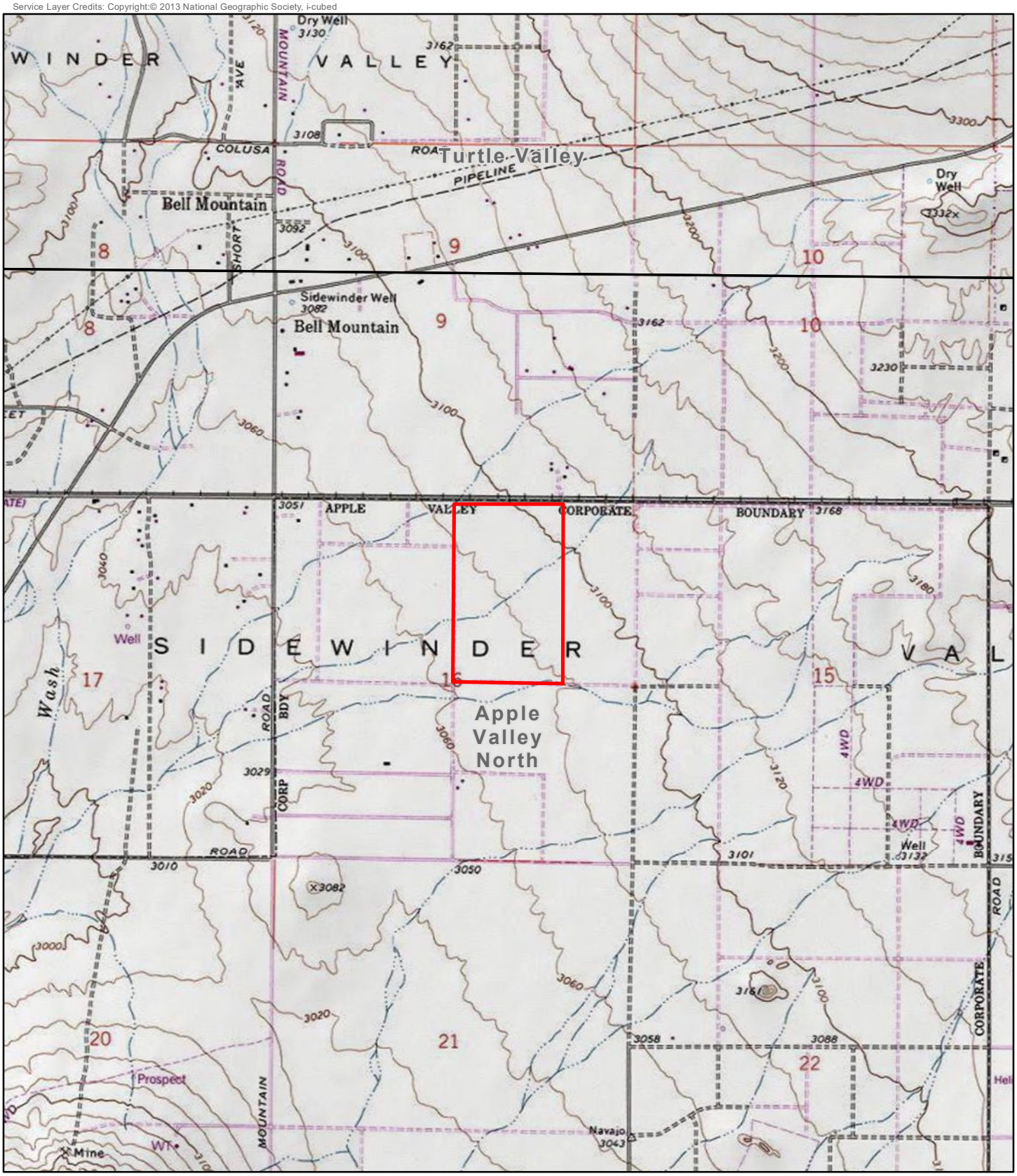
1 inch = 1 miles

0 0.5 1 Miles

Project Boundary

FIGURE 1

Vicinity and Location
Cordova Road Project
Riverside County, California



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_CordovaRd_322520145\MXD\ReportFigures\BRAR\Fig2_SiteTopo_BRAR.mxd, jason.erlich 9/27/2023

1 inch = 2,000 feet
0 1,000 2,000 Feet

Project Boundary

FIGURE 2

USGS 7.5' Topo Quad: Apple Valley North
Cordova Road Project
Riverside County, California

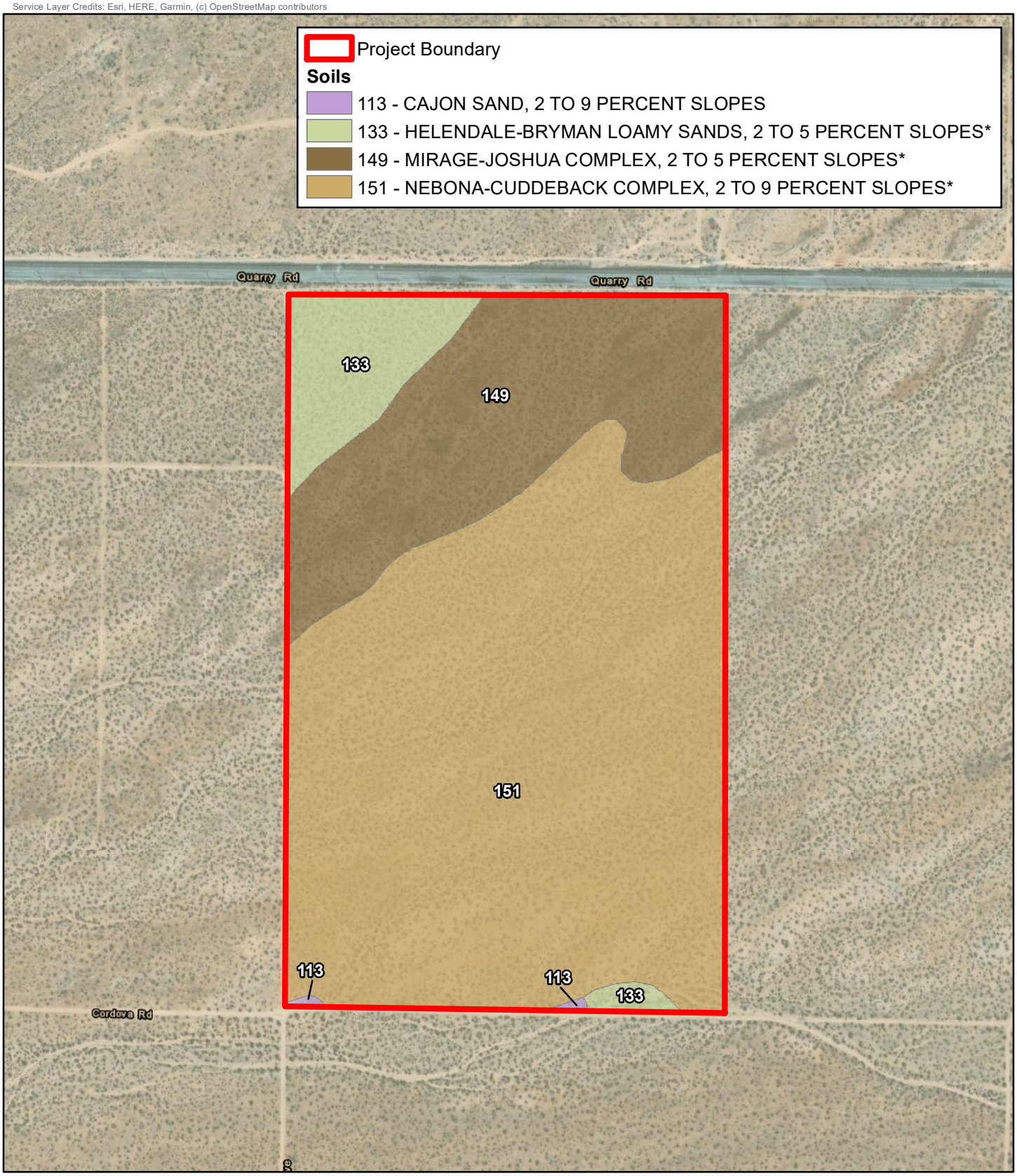
Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_CordovaRd_322520145\MXD\ReportFigures\BRAR\Fig3_VicinityMap_BRAR.mxd, jason.erlich 9/27/2023

1 inch = 4,000 feet
0 2,000 4,000
Feet

Project Boundary

FIGURE 3

Vicinity Map
Cordova Road Project
Riverside County, California



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_CordovaRd_322520145\MXD\ReportFigures\BRAR\Fig4_Soils_BRAR.mxd, jason.erlich 9/28/2023

1 inch = 500 feet
0 250 500 Feet

wsp

FIGURE 4

Soils
Cordova Road Project
Riverside County, California

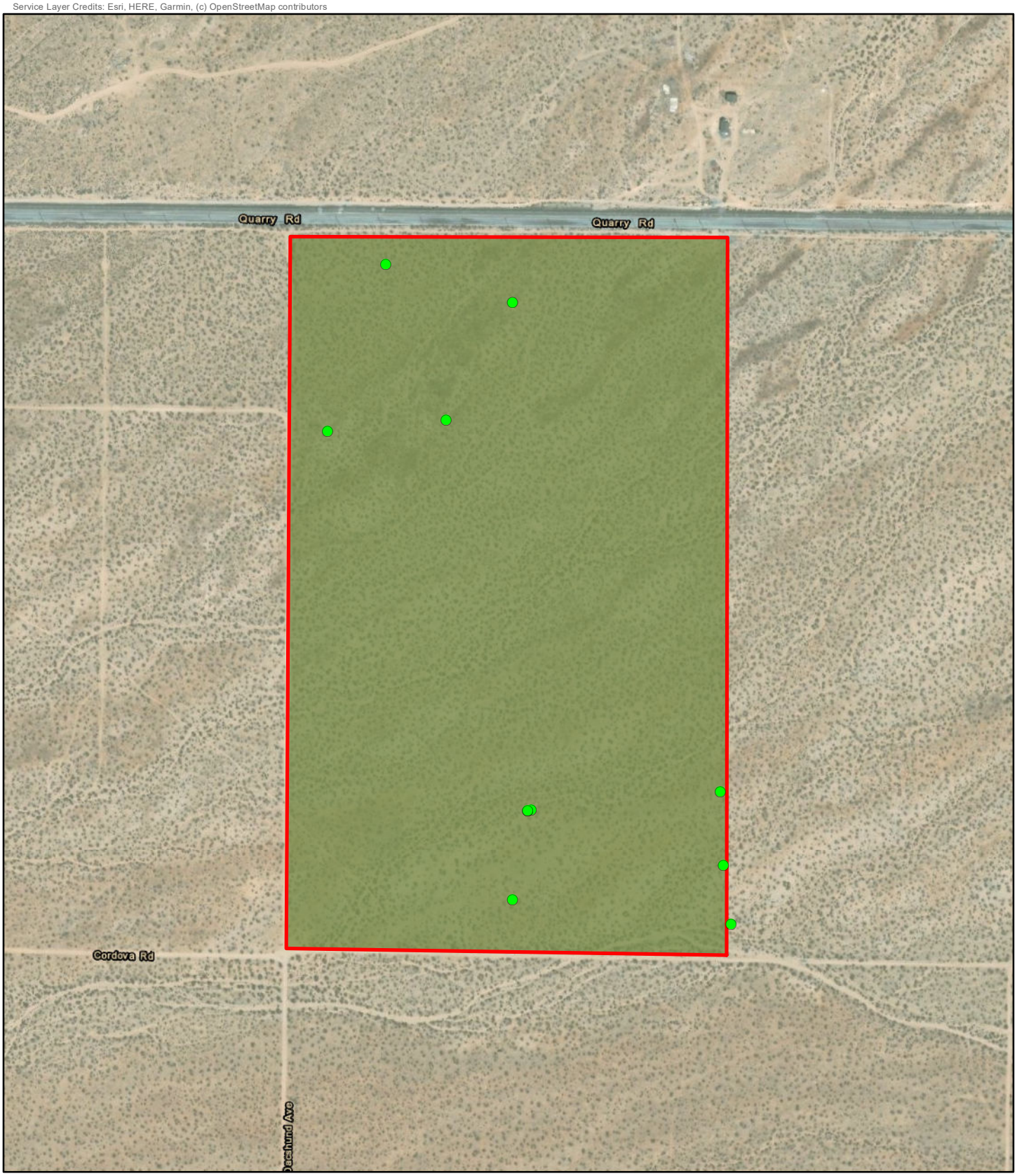


FIGURE 5

Vegetation Communities
Cordova Road Project
Riverside County, California

APPENDIX B

SITE PHOTOGRAPHS

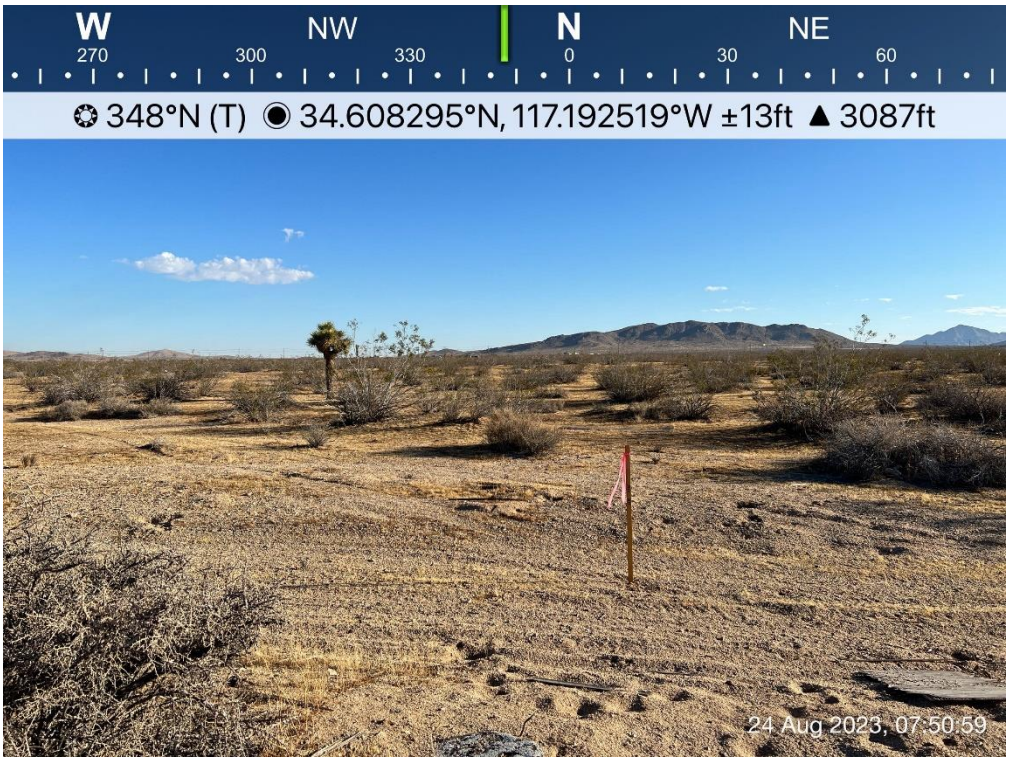


Photo 1: Looking north from the southeast corner of the property.

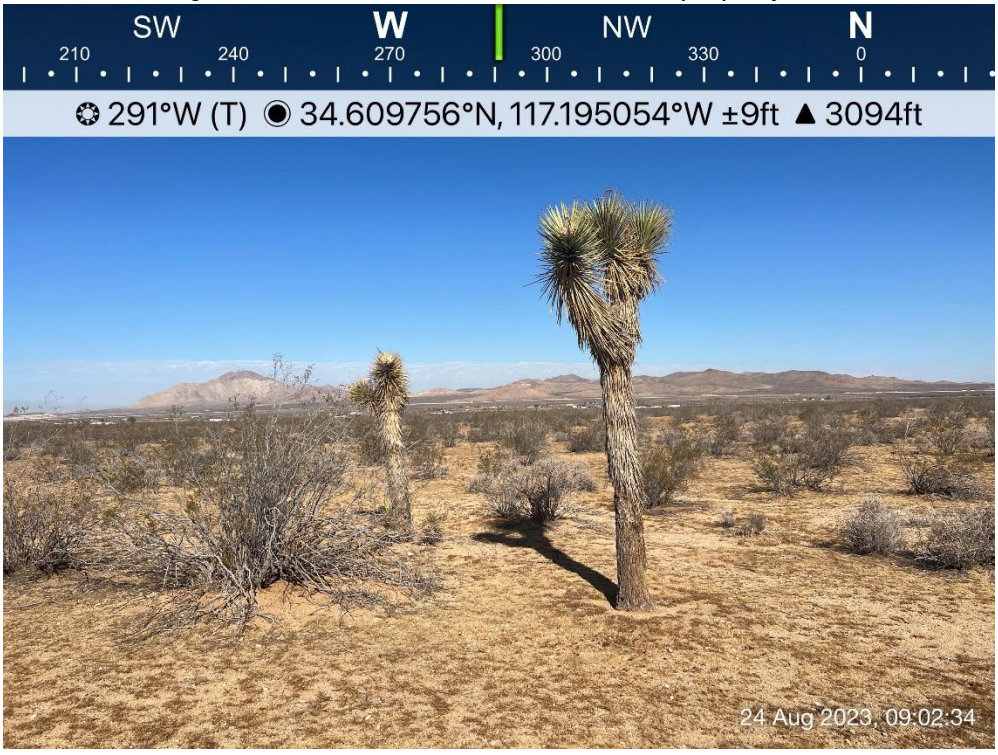


Photo 2: Western Joshua trees observed onsite.

Photo 3: Looking east from the southwest corner of the property along Cordova Road.

Photo 4: Looking east showing dumped trash within the creosote bush scrub.

Photo 5: Looking west from the northeast corner of the property along Quarry Road.

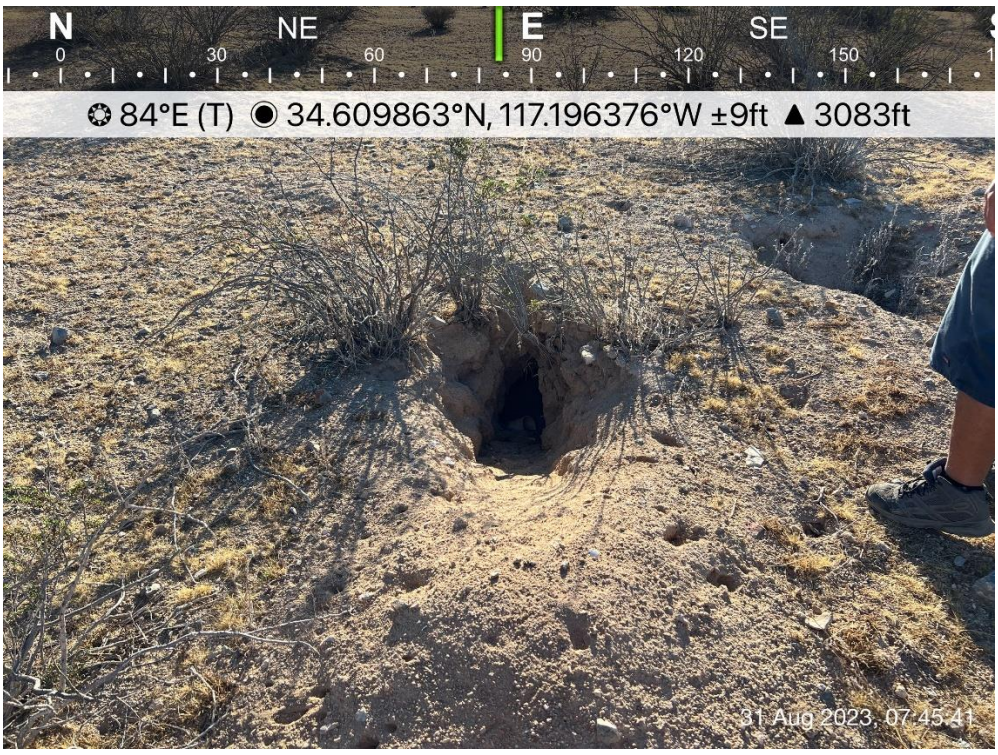


Photo 6: Potential kit fox burrow observed onsite with old burrowing owl pellets.

APPENDIX C

PLANT AND VERTEBRATE SPECIES LISTS

Fauna Compendium

Strigidae		**True Owls**
Athene	*cunicularia*	burrowing owl
Corvidae		**Jays/Crows**
Corvus	*corax*	common raven
Alaudidae		**Larks**
Eremophila	*alpestris*	horned lark
Emberizidae		**Warblers, sparrow, etc.**
Amphispiza	*bilineata*	black-throated sparrow
Leporidae		**Hares and Rabbits**
Lepus	*californicus*	black-tailed jackrabbit
Sciuridae		**Squirrels**
Ammospermophilus	*leucurus*	white-tailed antelope squirrel
Canidae		**Wolves and Foxes**
Vulpes	*velox*	kit fox

Flora Compendia

Ephedraceae		**Ephedra Family**
Ephedra	*nevadensis*	Nevada ephedra
Asteraceae		**Sunflower Family**
Ambrosia	*salsola*	burrobrush
Chenopodiaceae		**Goosefoot Family**
Salsola	*tragus*	Russian thistle
Geraniaceae		**Geranium Family**
Erodium	*cicutarium*	red stemmed filaree
Loasaceae		**Loasa Family**
Petalonyx	*thurberi*	sandpaper plant
Solanaceae		**Nightshade Family**
Lycium	*andersonii*	Anderson thornbush
Zygophyllaceae		**Caltrop Family**
Larrea	*tridentata*	creosote bush
Agavaceae		**Agave Family**
Yucca	*brevifolia*	Joshua tree
Poaceae		**Grass Family**
Schismus	*barbatus*	old han schismus

APPENDIX D

USFWS IPaC REPORT

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Desert Tortoise Gopherus agassizii There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened

Fishes

NAME	STATUS
Mohave Tui Chub Gila bicolor ssp. mohavensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8466	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

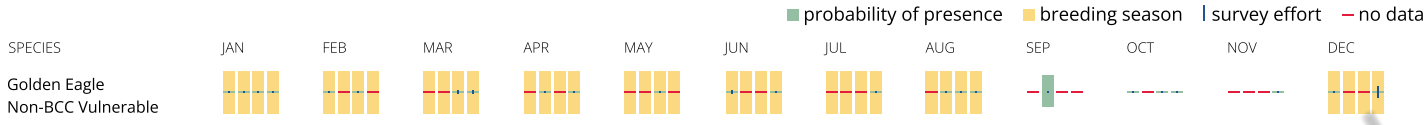
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area,

visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Lawrence's Goldfinch Carduelis lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

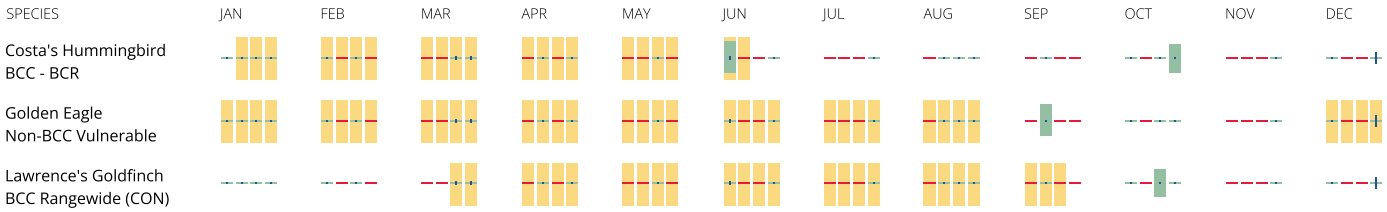
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort – no data



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBJ

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal

waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.