
APPENDIX C1

BIOLOGICAL RESOURCES EVALUATION

BIOLOGICAL RESOURCES EVALUATION FOR THE CARGO SOLUTIONS TRUCK WAREHOUSE PROJECT

HESPERIA, SAN BERNARDINO COUNTY, CALIFORNIA



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November 10, 2022
Page ii



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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Project Location.....	2
1.2	Project Description.....	2
2.0	REGULATORY CONTEXT.....	2
2.1	Federal Statutes, Regulations, and Executive Orders.....	2
2.2	State Statutes and Regulations	5
2.3	Local Policies and Ordinances	9
3.0	METHODS.....	10
3.1	Literature Review	10
3.2	Field Survey Methods	14
4.0	RESULTS	15
4.1	Environmental Setting	16
4.2	Soils.....	16
4.3	Plant Communities and Land Cover Types.....	16
4.4	Plants.....	17
4.5	Wildlife	24
4.6	Waters of the U.S. or State (Jurisdictional Waters/Wetlands)	31
4.7	Critical Habitat	31
4.8	Wildlife Corridors	31
5.0	POTENTIAL IMPACTS	32
5.1	Potential Impacts to Plant Communities	34
5.2	Potential Impacts to Special Status Plants.....	34
5.3	Potential Impacts to Special-Status Wildlife	35
5.4	Potential Impacts to Breeding Birds	39
5.5	Potential Impacts to Waters of the U.S. or State (Jurisdictional Waters/Wetlands).....	40
5.6	Potential Impacts to Critical Habitat.....	40
5.7	Potential Impacts to Wildlife Corridors or Native Wildlife Nursery Sites.....	41
5.8	Potential Impacts to Local Policies or Ordinances	42
5.9	Potential Impacts to Habitat Conservation Plans	42
6.0	MITIGATION MEASURES	43
6.1	BIO 1: 2081 Incidental Take Permit	43

6.2	BIO 2: Focused Burrowing Owl Surveys.....	44
6.3	BIO-3: Pre-Construction General Wildlife Survey	45
6.4	BIO-4: Loggerhead Shrike Survey and Protection Measures	45
6.5	BIO 5: Pre-Construction Breeding Bird Survey	46
6.6	BIO 6: Native Desert Vegetation Survey and Protected Plant Preservation Plan.....	47
7.0	PERMITS AND APPROVALS	48
8.0	REFERENCES	49

LIST OF TABLES

Table 1	– Special-Status Plants With a Potential to Occur in the BSA	19
Table 2	- Special Status Plant and Wildlife Species Ranking Notations.....	22
Table 3	- Special Status Wildlife With a Potential to Occur in the BSA	25

APPENDICES

Appendix A	Figures • <i>Figure 1: Regional Location</i> • <i>Figure 2: Project Vicinity</i> • <i>Figure 3: Project Boundary and Biological Study Area</i> • <i>Figure 4: Topographic Map</i> • <i>Figure 5: USDA Soils</i> • <i>Figure 6: Land Cover Types</i> • <i>Figure 7: CNDDDB Known Occurrences Plant Species and Habitats</i> • <i>Figure 8: CNDDDB Known Occurrences Wildlife Species and Habitats</i> • <i>Figure 9: USGS Surface Waters and Watersheds</i> • <i>Figure 10: USFWS Critical Habitats</i> • <i>Figure 11: CDFW Wildlife Corridors</i> • <i>Figure 12: USFWS National Wetlands Inventory (NWI)</i>
Appendix B	Site Plans
Appendix C	Site Photographs
Appendix D	Soils Report
Appendix E	Plant and Wildlife Species Recorded During the Field Surveys
Appendix F	Special-Status Species Inventory and Occurrence Potential Determination

November 10, 2022
Page 1





1.0 INTRODUCTION

UltraSystems Environmental, Inc. (UltraSystems) has been retained by Cargo Solutions to prepare this biological resources evaluation (BRE) report. This BRE documents the methods and results of the literature review and field survey of the biological resources potentially associated with the project site and of areas within a 500-foot zone around the project site; collectively, this area is referred to as the Biological Study Area (BSA). This BRE provides a summary of existing conditions, an assessment of the potential presence of sensitive biological resources, an analysis of the potential impacts to those resources from project construction and development and a discussion of recommended mitigation measures to minimize or avoid potential impacts to biological resources. It summarizes the biological resources present within the BSA at the time of the field survey including plant communities, land cover types, the potential occurrence of special-status plant and wildlife species, critical habitat, and wildlife corridors.

As mentioned above, a literature review and reconnaissance-level field survey were conducted to evaluate the potential impacts of construction of the project on the existing biological resources within the BSA. This BRE presents the results of the analysis in the following sections: Regulatory Context, Methods, Results, Potential Impacts, and Mitigation Measures.

Plant and wildlife species listed under the federal Endangered Species Act (ESA) or under the California Endangered Species Act (CESA) as endangered, threatened or as a candidate for listing will be referred to collectively as “listed species” in this document. Plant and wildlife species not listed under ESA or CESA but still protected by federal agencies or state agencies, and/or conservation organizations such as the California Native Plant Society (CNPS), are collectively referred to as “sensitive species” in this document. The term “special-status species” will be used when collectively referring to both listed and sensitive species. Some of these plant and wildlife species are afforded special legal or management protection because they are declining in population size, and/or have a limited geographic range, and/or are constrained to fragmented, reduced-quality habitat.

This report also identifies and analyzes the potential biological significance of site construction and development in view of federal, state, and local laws, regulations, policies, orders, ordinances and/or management plans. Finally, it recommends, as appropriate, mitigation measures (best management practices [BMPs], avoidance and protection measures, and mitigation measures) to minimize or avoid potential environmental impacts to less than significant levels.

The study of biological resources associated with the BSA was conducted to comply with the California Environmental Quality Act (CEQA) requirements for a biological evaluation of projects that would potentially impact natural resources. CEQA is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. This report is intended to satisfy the biological resource needs of the CEQA process. This report will also assist federal and state resource agencies in their review of the project and support permits required for the project from these resource agencies.

1.1 Project Location

The project site is located in southwestern San Bernardino County in the City of Hesperia (City), and lies within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle (see **Appendix A**, Figure 1, *Regional Location*; Figure 2, *Project Vicinity*) The project site is directly south of Poplar Street between Three Flags Avenue and Mesa Linda Street (see **Appendix A**, Figure 3, *Project Boundary and Biological Study Area [BSA]*). The BSA's elevation ranges from approximately 3,606 to 3,620 feet above mean sea level (amsl) [see **Appendix A**, Figure 4, *Topographic Map*; Google Earth Pro, 2022].

The project site is located in the jurisdiction of the following resource agency field offices:

- **United States Fish and Wildlife Service (USFWS)**
Palm Springs Fish and Wildlife Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262
Phone: (760) 322-2070
- **San Bernardino County**
Department of Public Works
Environmental Management Division
825 E. Third Street
San Bernardino, CA 92415-0835
Phone: (909)-387-8109
- **California Department of Fish and Wildlife (CDFW)**
Inland Desert Region 6
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
Phone: (909) 484-0167
- **Regional Water Quality Control Board (RWQCB)**
Lahontan Region (Region 6)
15095 Amargosa Road, Building 2, Suite 210,
Victorville, CA 92394
Phone: (760) 241-6583
- **United States Army Corps of Engineers (USACE)**
Los Angeles District
915 Wilshire Boulevard, Suite 980
Los Angeles, CA 90017
Phone: (213) 452-3908/3333
- **City of Hesperia Planning Department**
9700 Seventh Ave
Hesperia, CA 92345
Phone: (760) 947-1224



1.2 Project Description

The City of Hesperia (City) is processing a request to implement a series of discretionary actions that would ultimately allow for the development of a truck warehouse development (project) at the southeast intersection of Poplar Street and Three Flags Avenue in the City of Hesperia in San Bernardino County, California (APNs: 3064-591-17, -18, -12, and -13 and 3064-631-01). The project proposes development of two truck warehouses and a surface parking lot on an approximately 20.32-acre site. The City is the Lead Agency for the CEQA purposes.

The entire 20.32-acre project site is currently undeveloped land. The project site is located in a semi-rural, lightly developed portion of the city with undeveloped land to the north; industrial, commercial, and undeveloped land uses to the south; the Interstate 15 (I-15) freeway to the east; and commercial and undeveloped land uses to the west (Google Earth Pro, 2022)

The project would consist of: (1) construction of two warehouse and office buildings; (2) construction of one drive-thru truck wash building; (3) surface parking lot; (4) utilities improvements; and (5) landscaping. (see **Appendix B, Site Plans**).

2.0 REGULATORY CONTEXT

2.1 Federal Statutes, Regulations, and Executive Orders

2.1.1 Section 401 Clean Water Act (CWA)

Although the Clean Water Act (CWA) is a federal law, Section 401 of that law recognizes that states have the primary authority and responsibility for setting surface- and groundwater water quality standards.

Section 401 is implemented through a Water Quality Certification (WQC) process. In the State of California, the State Water Quality Resources Board (SWRCB) has given the responsibility for issuing Section 401 WQCs to its nine Regional Water Quality Control Boards (RWQCBs), unless a discharge of dredged or fill material is proposed within more than one region. In the event that a project proposes discharges of dredged or fill material in more than one region, responsibility for issuance of a Section 401 WQC will lie either with the SWRCB, or, upon agreement of the RWQCBs for the affected regions, with the RWQCB chosen in the discretion of the RWQCBs. Cal. Water Code, § 13160; Cal. Code Regs., tit. 23, § 3838. Certification must be based on a finding that the proposed discharge will comply with water quality standards, which include numeric and narrative water quality objectives applicable to identified surface waters in the Water Quality Control Plan for the region (Basin Plan) in which a discharge of fill is proposed.

2.1.2 Section 404 Clean Water Act

Section 404 CWA requires authorization from the Secretary of the Army, acting through the U.S. Army Corps of Engineers (USACE), for the discharge of dredged or fill material into all waters of the United States, including wetlands. Authorizations are conducted through the issuance of Nationwide (or



General) Permits, for activities that would cause only minimal permanent individual (between 0.1 and 0.5 acre) and cumulative impacts; through Individual (or Standard) Permits for activities that are likely to have more than a minimal permanent (greater than 0.5 acre) or cumulative impact on aquatic resources; and through Letters of Permission (LOPs) which are a type of individual permit issued through an abbreviated process that includes coordination with federal and state fish and wildlife agencies and a public interest evaluation, but without the 30-day permit notice period that is required for Individual Permits. The Los Angeles District of the USACE would provide review and permitting services for this project.

Wetlands and other waters that do not meet the definition of waters of the U.S. are not covered by the CWA; however, they are regulated by the State of California through the Porter-Cologne Water Quality Control Act (Porter-Cologne) and SWRCB Resolution No. 2019-0015 for California (SWRCB, 2019).

2.1.3 Endangered Species Act (ESA)

The federal Endangered Species Act of 1973 (Title 16, United States Code [U.S.C.] Sections (§§) 1531-1543) (ESA), as amended, designates and provides for protection of listed threatened and endangered plant and animal species, and their critical habitat. The USFWS, in the Department of the Interior, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), in the Department of Commerce, share responsibility for administration of the ESA. These responsibilities include listing and delisting species, designating critical habitat, and formulating recovery plans. The ESA is divided into 18 sections that work together to prevent species from going extinct by helping to stabilize populations, reduce the threats to their survival, and to help species recover to the point that they no longer require federal protection.

Section 4 (Determination of Endangered Species and Threatened Species):

Section 4 of the ESA addresses listing of species in need of the ESA's protection. Species are listed as either endangered or threatened under Section 4 of the ESA. A federally-endangered species is one that is facing extinction throughout all or a significant portion of its range. A federally-threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Under Section 4, actions needed to recover those species and conserve their habitats are also identified, along with a process for reaching recovery goals that allow for a species' removal from federal protection. The presence on a project site of any fish or wildlife species that is federally listed as endangered or threatened generally imposes constraints on development to the extent that development is likely to result in a prohibited "take" of the species or substantial adverse modification of its habitat as described below.

Section 7 (Interagency Cooperation):

Two sections of the ESA (§§ 7 and 10) authorize incidental take. Section 7 of the ESA regulates take associated with federal projects or projects that require a federal permit. It also requires federal agencies to use their authority to carry out conservation programs to benefit endangered and threatened species. Under § 7, federal agencies are required to consult with the USFWS or the NMFS to ensure that any action they carry out, including those they fund or authorize (such as through a



permit) will not likely jeopardize the continued existence of listed species, or result in the destruction or adverse modification of proposed or designated critical habitat of such species. Under § 7, consultations can either be informal or formal.

Section 9 (Prohibited Acts):

Once a species is listed, Section 9 of the ESA makes it unlawful for any person, including private and public entities, to “take species listed as endangered or without a permit issued pursuant to Section 10 or an incidental take statement issued pursuant to Section 7. Section 9 defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” The term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include substantial habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

Take prohibitions of Section 9 of the ESA apply to listed wildlife and fish species, but not to plants. Endangered plants are not protected from take, although it is unlawful to remove, possess, or maliciously damage or destroy them on federal lands. Removing or damaging listed plants on state and private lands in knowing violation of state law, or in the course of violating a state criminal trespass law, also is illegal under the ESA.

Section 10 (Incidental Take Permits and Habitat Conservation Plans):

An incidental take permit pursuant to Section 10(a)(1)(B) is required when non-Federal, otherwise lawful activities, including lawful project development, will result in take of threatened or endangered wildlife. Under this provision, the USFWS and/or NMFS may, where appropriate, authorize the taking of federally listed wildlife or fish if such taking occurs incidentally during otherwise legal activities. Section 10(a)(2)(B) requires an application for an incidental take permit to include a HCP. The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate avoidance, minimization and mitigation measures to address the effects of the authorized incidental take. Section 10 provides a clear regulatory mechanism to permit the incidental take of federally listed fish and wildlife species by private interests and non-Federal governmental agencies.

2.1.4 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) of 1918 (Title 16, U.S.C. Sections 703 - 712), as amended, implements various treaties and conventions between the United States (U.S.) and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. The MBTA makes it unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit issued by the Secretary of the Interior. Some regulatory exceptions apply. Take is defined in regulations implementing the MBTA as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to carry out these activities.” The MBTA prohibits the collection and destruction of a migratory bird, its nest, and birds or eggs contained in the nest. The USFWS’ Migratory Bird Permit Memorandum (MBPM-2) dated April 15, 2003, clarifies that destruction of most unoccupied bird nests is permissible under the MBTA; exceptions include nests of federally listed threatened or

endangered migratory birds, bald eagles, and golden eagles. Take under the MBTA does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The USFWS has statutory authority and responsibility for enforcing the MBTA

2.2 State Statutes and Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act of 1970 (Title 14, California Code of Regulations, §§ 15002-15387) (CEQA) is California's broadest environmental law (California Legislative Information, 2022a). CEQA applies to certain activities of state and local public agencies. It requires lead agencies (i.e., those making land use decisions) as well as any other responsible state agencies issuing discretionary permits, to evaluate and disclose the significance of all potential environmental impacts of a project. The lead agency is also responsible for identifying, negotiating and implementing feasible impacts avoidance, minimization, or mitigation measures that reduce and compensate for significant environmental impacts with the goal of reducing those impacts to less than significant levels. Lead agencies determine significance on a project-by-project basis because they must consider all potential risk, including cumulative impacts, within a local and regional context, as well as evaluate unique factors particular to the project area when exercising their discretion to approve or disapprove a project.

The CEQA Guidelines specify that a project has a significant impact on the environment if, among other things, it has the potential to “substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or an animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species....” [CEQA Guidelines § 15065(a)(1)] (AEP, 2022).

The purpose of CEQA is to:

- Disclose to the public the significant environmental impacts of a proposed discretionary project, through the preparation of an Initial Study, Negative Declaration, or Environmental Impact Report.
- Prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring.
- Disclose to the public the agency decision making process utilized to approve discretionary projects through findings and statements of overriding consideration.
- Enhance public participation in the environmental review process through scoping meetings, public notice, public review, hearings, and the judicial process.
- Improve interagency coordination through early consultations, scoping meetings, notices of preparation, and State Clearinghouse review.

2.2.2 California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) (California Fish and Game Code §§ 2050-2089) was enacted in 1984 to parallel the federal ESA and allows the Fish and Game Commission to designate

species, including plants, as threatened or endangered (California Legislative Information, 2022a). The CESA states that all native species of fishes, amphibians, reptiles, birds, mammals, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. Unlike the ESA, the CESA does not include listing provisions for invertebrate species.

CESA makes it illegal to import, export, take, possess, purchase, sell, or attempt to do any of those actions to species that are designated as threatened, endangered, or candidates for listing, unless permitted by CDFW. Section 2080 of the California Fish and Game Code prohibits take of any species that the commission determines to be an endangered species or a threatened species. "Take" is defined in § 86 of the California Fish and Game Code as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" (CDFW, 2021)

Under CESA, CDFW may permit take or possession of threatened, endangered, or candidate species for scientific, educational, or management purposes, and may also permit take of these species that is incidental to otherwise lawful activities if certain conditions are met. Some of the conditions for incidental take are that the take is minimized and fully mitigated, adequate funding is ensured for this mitigation, and that the activity will not jeopardize the continued existence of the species. CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

2.2.3 Fully Protected Species - California Fish and Game Code § 3511, § 4700, § 5050 and § 5515

The classification of fully protected was the State of California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for birds (§ 3511), mammals (§ 4700), amphibians and reptiles (§ 5050), and fish (§ 5515). Fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for scientific research and relocation of the species for certain purposes. "Take" is defined in § 86 of the California Fish and Game Code as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" Under § 2835 of the Fish and Game Code, CDFW may only issue permits allowing incidental take of fully protected species if a NCCP is prepared that provides for the protection of that species in accordance with the requirements and standards applicable to NCCPs (Fish and Game Code §§ 2800-2835). Alternatively, avoidance measures sufficient to prevent incidental take of fully protected species must be incorporated into project design, and construction plans and operations. The MSHCP is an HCP and a NCCP, and includes incidental take authorization pursuant to Fish and Game Code § 2085, but the MSHCP does not authorize take of fully protected species.

2.2.4 Bird Nests and Eggs - California Fish and Game Code § 3503

California Fish and Game Code § 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered take. Avoidance measures sufficient to



prevent incidental take of bird nests and eggs protected by this statute must be incorporated into project design, and construction plans and operations.

2.2.5 Migratory Birds – California Fish and Game Code § 3513

California Fish and Game Code § 3513 protects California’s migratory birds by making it unlawful to take or possess any migratory non-game bird as designated by the MBTA, except as authorized in regulations adopted by the federal government under provisions of the MBTA. Except as permitted by USFWS, avoidance measures sufficient to prevent incidental take of these species, their eggs and their nests protected by this statute must be incorporated into project design, and construction plans and operations.

2.2.6 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne) defines water quality objectives as the allowable “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisances within a specific area.” Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both waters of the U.S. and waters of the State. In the State of California, Porter-Cologne is administered in concurrence with § 401 CWA WQC.

2.2.7 State Water Resources Control Board Resolution No. 2019-0015

The California Code of Regulations, Title 23, Section 3831(w) states that “[a]ll waters of the United States are also ‘waters of the state.’” This regulation has remained in effect despite Supreme Court decisions such as Rapanos and SWANCC, which added limitations to what could be considered a water of the U.S. Because the interpretation of waters of the U.S. in place at the time § 3831(w) was adopted was broader than any post-Rapanos or post-SWANCC regulatory definitions that incorporated more limitations into the scope of federal jurisdiction, it is consistent with the Water Boards’ intent to include both historic and current definitions of waters of the U.S. into the SWRCBs wetland jurisdictional framework.

As set forth in Resolution No. 2009-0026, although the state of California has historically relied primarily on requirements in the Clean Water Act to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the Clean Water Act over wetland areas by limiting the definition of “waters of the United States” necessitated the use of California’s independent authorities under the Porter-Cologne Act to protect these vital resources.

The inclusion of both current and historic definitions of “waters of the U.S.” ensures some regulatory stability in an area that has otherwise been in flux. The status of a water of the U. S. may only be used to establish that a wetland or water qualifies as a water of the State; it cannot be used to exclude a wetland or water from qualifying as a water of the State. In other words, wetlands that are categorically excluded from qualifying as a water of the U.S. may nevertheless qualify as waters of the State under another jurisdictional category. Examples of waters of the State include (but are not limited to) ephemeral streams and isolated wetlands.



On April 2, 2019, the SWRCB adopted Resolution No. 2019-0015, Amendment to the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to Establish a State Wetland Definition and Procedures for Discharges of Discharges of Dredged or Fill Material to Waters of the State (Procedures). for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. As they apply to this project, the Procedures provide the SWRCB and its nine RWQCBs to approve a project only if the applicant has demonstrated certain requirement. (SWRCB, 2019).

On April 6, 2021, the SWRCB issued Resolution No. 2021-0012 confirming that the “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State” (1) are in effect as state policy for water quality control for all waters of the State and (2) shall be applied via the inland surface waters and enclosed bays and estuaries plan to only waters of the United States.

When a discharge is proposed to waters outside of federal jurisdiction, the SWRCB and the RWQCBs regulate the discharge under Porter-Cologne through the issuance of Water Discharge Requirements (WDRs). WDRs and waivers of WDRs are referred to as orders or permits. The SWRCB and its nine RWQCBs have the authority to regulate the discharge of dredged or fill material under Resolution Nos. 2019-0015 and 2021-0012. Dischargers that do not require a federal permit or license that authorizes impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as § 404 CWA and § 10 of the Safe Rivers and Harbors Act, must obtain a WDR or a waiver of a WDR from the SWRCB or RWQCB to ensure that the discharge does not violate state water quality standards or any other appropriate requirement of State law.

Basin Plans

The SWRCB requires its nine RWQCBs to develop water quality control plans (Basin Plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations. This project is under the jurisdiction of the Lahontan RWQCB.

Construction Stormwater Program

The SWRCB implements water quality regulations under the federal CWA and Porter-Cologne and requires compliance with the National Pollutant Discharge Elimination System (NPDES) for discharges of stormwater runoff associated with a construction activity.

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-009-DWQ, as amended). Construction Activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation,



but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns. The SWRCB will provide Construction General Permit review and permitting services for this project.

2.2.8 Lake or Streambed Alteration Agreement

Sections 1600-1617 FGC of the California Fish and Game Code (FGC) protect the natural flow and the bed, channel, and bank of any river, stream, or lake designated by the CDFW which is at any time an existing fish or wildlife resource, or a waterbody from which these resources derive benefit. General project plans must be submitted to CDFW in sufficient detail to indicate the nature of the project proposed for construction, if the project would:

- Divert, obstruct, or change a streambed;
- Use material from the streambeds;
- Result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a stream.

The Inland Deserts Region (Region 6) of the CDFW serves San Bernardino County and would provide LSA Notification Review and Agreement services for this project.

2.2.9 Natural Community Conservation Planning Act of 2003 (NCCP Act)

The California Natural Community Conservation Planning Act (NCCP Act) was enacted to encourage broad-based planning to provide for effective protection and conservation of the State's wildlife resources while continuing to allow appropriate development and growth (California Fish and Game Code §§ 2800 to 2835). NCCPs may be implemented, which identify measures necessary to conserve and manage natural biological diversity within the planning area, while allowing compatible and appropriate economic development, growth, and other human uses. An approved NCCP enables the California Department of Fish and Wildlife to authorize take of species consistent with the NCCP Act and California Fish and Game Code § 2835.

2.3 Local Policies and Ordinances

2.3.1 City Municipal Code, Title 16 – Development, Chapter 16.24

The City aims to promote conservation efforts of native desert plants through regulation, guidelines and enforcement that provides for the management and the removal or harvesting of such plants. They are also necessary to augment and coordinate with the State Department of Food and Agriculture in its efforts to implement and enforce the Desert Native Plant Act. The provisions of Chapter 16.24 apply to *“all private land within the city and to public lands owned by the city except as specified by the provisions of this chapter”*. Article II Section 16.24.150 provides that *“all plants*

protected or regulated by the State Desert Native Plants Act (i.e., Food and Agricultural Code 80001 et seq.) shall be required to comply with the provisions of those statutes prior to the issuance of any county development permit or land use application approval. The county agricultural commissioner is the responsible agency for the issuance of any required wood tags, seals or permits.” In addition, the preparation and submission of a Protected Plant Preservation Plan is required by City municipal code. (City of Hesperia; 1997). Native desert vegetation addressed under the municipal code as per Article II Section 16.24.150 include the following, which would require a permit for removal as per Section 16.24.040:

1. *“The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
(a) Dalea, Spinosa (smoketree)
(b) All species of the family Agavaceae (century plants, nolinias, yuccas)
(c) All species of the genus Prosopis (mesquites).*
2. *Creosote rings, ten feet or greater in diameter.*
3. *All Joshua trees (mature and immature).”*

3.0 METHODS

3.1 Literature Review

Prior to the field survey, biologists conducted a literature review to identify habitats, special-status plant and wildlife species, critical habitats, and wildlife movement corridors potentially associated with the project site. Biologists reviewed relevant literature, databases, agency web sites, reports and management plans, Geographic Information System (GIS) data, maps, and aerial imagery obtained from public domain sources. The review also helped to determine which biological surveys may be required prior to site construction and development. The following resources were utilized in order to conduct the literature search:

3.1.1 Sensitive Plant Communities and Special-Status Species

The data sources described below were reviewed to generate a list of special-status plants and wildlife with reported occurrences within the vicinity of the BSA. The literature review and query of the databases for reported locations of sensitive plant communities and special-status species helped to identify the known locations of these resources in the project region and assisted in identifying the potential for onsite occurrence of such species.

- CDFW’s California Natural Diversity Database (CNDDB) was used to identify sensitive plant communities and special-status species documented within a ten-mile radius of the project site (CNDDB, 2022a)
- The USFWS’ Information, Planning, and Conservation (IPaC) system was used to identify listed plant and wildlife species reported within the vicinity of the BSA (USFWS, 2022a).
- Previous consultant studies and reports near the project site and project vicinity were reviewed to gain a sense of the existing conditions at the time the studies were conducted.
- Google Earth Pro satellite imagery of the project site and vicinity (Google Earth Pro, 2022)



- The Natural Resources Conservation Service's (NRCS's) Custom Soil Resource Report for the BSA downloaded from the Web Soil Survey (Soil Survey Staff, 2022)
- USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle (USGS, 2015)

Sensitive Plant Communities

CDFW defines sensitive plant communities as “communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental impacts of projects” (CDFW, 2018). These communities are a valuable biological resource due to their rarity and/or their provision of habitat for special-status species. The most current version of CDFW's *California Natural Community List* indicates which natural communities are sensitive given the current state of the California classification (CDFW, 2022a). The *California Natural Community List* includes alliance rankings according to their degree of imperilment. For this BRE, plant communities are considered sensitive if they meet any of the following criteria:

- Recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as the CNPS, or local municipalities such as the City.
- Habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA and/or is under the jurisdiction of the CDFW pursuant to §§ 1600-1612 of the California Fish and Game Code.
- Known or believed to be of high priority for inventory in the CNDDDB.
- Considered to be regionally rare.
- Has undergone a large-scale reduction due to increased encroachment and development.
- Supports special-status plant and/or wildlife species.
- Functions as an important corridor for wildlife movement.

Special Status Plants

A literature review and query from publicly available databases was conducted for reported occurrences within a ten-mile radius of the project site (plant inventory). The following resources were used to analyze plant species potential to occur within the BSA:

- Rare Plant Program, Inventory of Rare and Endangered Plants (CNPS, 2022a)
- California Natural Diversity Database (CNDDDB, 2022a)
- USFWS Information for Planning and Consultation (USFWS, 2022a)
- Jepson Flora Project (Jepson eFlora, 2022)
- Information on California Plants (Calflora, 2022)

Special-Status Wildlife:

A literature review and query from publicly available databases (USFWS 2022a, CNDDDB 2022a) was conducted for reported occurrences within a ten-mile radius of the project site. The following resources were used to analyze wildlife species potential to occur within the BSA:

- All About Birds (Cornell Lab of Ornithology, 2022)

- USFWS Information for Planning and Consultation (USFWS, 2022a)
- USFWS ECOS species profiles (USFWS, 2022b)
- CDFW California Wildlife Habitat Relationships Life History Accounts and Habitat Range Maps (CDFW, 2022b)

3.1.2 Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

Aerial imagery was reviewed to identify natural and man-made drainages, open water (lakes, ponds, etc.), wetlands and other features that may be subject to federal or state jurisdictional authority within the BSA. The USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle was reviewed to identify potential presence or absence of onsite and offsite watercourses, and topographic features than may be indicative of water features. Topographic maps do not show all drainages that may exist.

The National Wetlands Inventory (NWI) database and maps developed by the USFWS were used as preliminary indicators of potential wetland areas based on changes in vegetation patterns as observed from satellite imagery (USFWS, 2022c). The NWI data were viewed in GIS platforms (Google Earth Pro, 2022), including the USFWS Wetlands Mapper (USFWS 2022c) to identify potentially jurisdictional features within the project area as indicated from topographic changes or visible stream patterns. The digital wetland data for the project vicinity was later ground-truthed during biological surveys.

The USGS National Hydrography Dataset (NHD) was also used to identify hydrologic features such as rivers, streams, canals, lakes, and ponds. (USGS, 2022).

Additionally, the watershed boundary data set containing the most current 10-digit and 12-digit HUCs was obtained in geodatabase form from the USGS to aid with assessing USACE jurisdiction of waters draining the project site (USGS, 2022)

The following were also reviewed and consulted:

- *Corps of Engineers Wetlands Delineation Manual (i.e., 1987 Manual; Environmental Laboratory, 1987).*
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE, 2008) (referred to as Arid West Supplement in this BRE)*
- *The National Wetland Plant List 2018 List (USACE, 2018).*
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley, 2008).*
- *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Curtis and Lichvar, 2010).*
- *United States Department of Agriculture National Resources Conservation Service Hydric Soils List (USDA-NRCS, 2022).*
- Waters Geoviewer, (USEPA, 2022)

The USACE published the *1987 Manual* for the identification and delineation of wetlands which have since been superseded and presented in regional supplements. In 2008, the USACE published the

Arid West Supplement, which is a supplement to the *1987 Manual* that describes wetland indicators, delineation guidance, and other information that is specific to the arid west region (USACE, 2008). The 1987 Manual and the Arid West Supplement are collectively referred to herein as the 1987 Manual.

3.1.3 Critical Habitat

When a species is listed as federally endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. Under the ESA, the federal government is required to designate "critical habitat" for each species it lists under the ESA. Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. Section 3 of the ESA defines critical habitat for a threatened or endangered species as [ESA § 3(5)(A)]:

- *The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of § 4 of the ESA, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and*
- *Specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of § 4 of the ESA, upon a determination by the Secretary that such areas are essential for the conservation of the species.*

Designated critical habitats are described in 50 CFR Parts 17 and 226. Critical habitat may include areas that are not currently occupied by the species, but that will be needed for its recovery. In addition, the USFWS normally excludes developed areas within mapped critical habitat boundaries as critical habitat. Within areas occupied by a listed species, the following factors indicate critical habitat (USFWS, 2022d):

- *space for individual and population growth and for normal behavior;*
- *cover or shelter;*
- *food, water, air, light, minerals, or other nutritional or physiological requirements;*
- *sites for breeding and rearing offspring; and*
- *habitats that are protected from disturbances or are representative of the historical geographical and ecological distributions of a species.*

The USFWS' Critical Habitat Portal and IPaC were reviewed to identify federal threatened and endangered species designated final and proposed critical habitat designations within ten miles of the project site (USFWS, 2022a, d).

3.1.4 Wildlife Corridors

To determine the potential for the BSA to contain wildlife corridors, UltraSystems biologists reviewed the USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle and viewed aerial imagery to search for physical features that might serve as a wildlife corridor. Biologists also used the BIOS Habitat Connectivity Viewer to search for CDFW Essential Connectivity Areas, and Natural Landscape

Blocks within the vicinity of the BSA (CDFW, 2022c). In addition, biologists used GIS software (Google Earth Pro, 2022) to determine the project site's location in relation to areas that could serve as wildlife corridors. Finally, the literature review also included maps and reports on wildlife home ranges and migration and dispersal patterns (CDFW, 2014).

3.1.5 Local Policies and Ordinances

The City's municipal ordinances, general plan and other documents were reviewed. The purpose of reviewing these documents was to determine if any City regulations protected resources not covered by federal or state regulatory agencies, or if City regulations had more stringent protections of biological resources protected by state or federal regulatory agencies.

3.2 Field Survey Methods

This section describes the field survey methods used by a UltraSystems biologist, Dr. Michael Tuma (biologist; Dr. Tuma), within the BSA during the reconnaissance-level biological survey. Dr. Tuma visited the BSA to conduct the following assessments during the survey:

- Habitat assessment and land cover type mapping
- Sensitive plant community assessment
- General plant survey
- General wildlife survey
- Jurisdictional waters/wetlands assessment
- Wildlife movement evaluation
- Step 1: Burrowing owl and desert tortoise habitat assessment

The purposes of the field work were to evaluate the initial results of the literature review and to collect additional data on existing site conditions. The general biological survey covered accessible areas of the BSA, including areas that will be impacted by the project. The survey was conducted during the daytime on foot by walking slowly across each habitat type, where accessible. The UltraSystems biologist used binoculars from strategic vantage points whenever direct access was not possible due to private property with no access rights, chain-linked fences, and locked gates. Observations were also made with aerial imagery for inaccessible areas.

During the survey, the UltraSystems biologist used topographic and aerial maps to help navigate in the field and pertinent regional flora and fauna field guides to identify and record special-status species and to assist with identifying plant communities, wildlife habitats, and physical features. Digital color photographs were taken during the field surveys to record site conditions at the time of the field surveys. Specific methods for each type of biological assessment are described in the sections below.

3.2.1 Habitat Assessment and Land Cover Type Mapping

The purpose of the habitat assessment was to identify and map habitat areas such as plant communities and other land cover types and to ascertain if existing site conditions could be suitable for special-status plant and wildlife species. Dr. Tuma characterized the existing land cover types including plant communities during the habitat assessment. He also identified and recorded plant and wildlife species, conducted a habitat assessment for special-status wildlife species such as burrowing owl (*Athene cunicularia*) [BUOW], evaluated the potential for wildlife corridors, and determined if jurisdictional waters (including wetlands) were present within the BSA.

The plant communities and other land cover types observed were identified and mapped in the field by marking their limits on a color aerial map. Descriptions of plant communities, within the BSA were based on the dominant perennial plant species. Generally, classifications of habitat types or plant communities were based on *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009), *Preliminary Descriptions of the Terrestrial Communities of California* (Holland, 1986), with modifications to better represent existing site conditions. The classifications were then checked against CDFW's *Natural Community List* (CDFW, 2022a) to determine if any of the plant communities were designated as sensitive by the CDFW.

Topography, soil characteristics, substrates, and disturbed and developed areas were also components of the habitat assessment in order to search for special-status plants and wildlife. Following the field mapping, UltraSystems GIS staff took the habitat boundaries from the aerial map and digitized the boundaries into an ArcGIS file. Once the boundaries were in the ArcGIS, the acreage of each land cover present within the BSA was then calculated.

3.2.2 Waters of the U.S. or State (Jurisdictional Waters/Wetlands) Assessment

This section describes the assessment methods used by the Dr. Tuma to identify potential waters of the U.S. or State (i.e., jurisdictional waters/wetlands) within the project site. The purpose of the field survey was to evaluate the initial results of the literature review and to collect additional data on existing site conditions. The Dr. Tuma investigated the project site for potential jurisdictional areas, including presence of streams or drainages with a definable bed, bank, or channel or evidence of an ordinary high water mark. areas of standing water, or depressions that had evidence of containing standing water for part of the year. Finally, Dr. Tuma assessed if there were any additional wetland indicators such as wetland hydrology, hydric soils or hydrophytic vegetation. Areas of the BSA which are developed and did not contain any exposed drainages were not surveyed.

4.0 RESULTS

This section describes the results of the literature review and the existing conditions within the BSA at the time the biological field surveys were conducted (environmental baseline). Photographs of the BSA that were taken during the field surveys can be found in **Appendix C, Site Photographs**. The reconnaissance-level biological survey was conducted by Dr. Tuma on August 24, 2022 between 2:45 and 4:00 PM. Weather conditions during the survey included clear skies with winds averaging between 0 to 4 miles per hour, and temperatures between 92- and 93-degree Fahrenheit.

4.1 Environmental Setting

Topography of the project site is relatively level; surfaces slope slightly in a southwesterly direction. Elevation ranges from approximately 3613 to 3624 feet amsl. The project site is located south of Poplar Street between Three Flags Avenue and Mesa Linda Street. The project site is surrounded by undeveloped lands to the north, industrial development to the west and south, and Interstate 15 to and undeveloped lands to the east (Google Earth Pro, 2022)

The climate of Hesperia is arid and characteristic of the regional Mojave Desert. In the vicinity of Hesperia, the Mojave Desert receives on average 8.5 inches per year. Summers are typically dry with occasional and scattered monsoon rain events that originate in the Gulf of California, whereas winter precipitation events are more significant and originate from the jet stream off the Pacific Ocean. The Mojave Desert exhibits a dry season extending from April through October, with an average of 0.1 inch of rain per month, and a wetter season between November through March, with an average of 0.5 inch of rain per month. Summers (June through September) are very hot, with an average high of 94 degrees Fahrenheit °F and low of 65°F. Winters (November through March) are cooler, with an average high of 57°F and low of 35°F [WRCC, 2022].

4.2 Soils

Based on the USDA NRCS Soil Survey, the BSA contains Hesperia loamy fine sand, 2 to 5 percent slopes (Soil Survey Staff, 2022). This soil type occurs in fan aprons, with granite-derived alluvium as the parent material. This soil map unit is not listed on the National Hydric Soils List as hydric (USDA NRCS, 2022). The A horizon of the onsite soils are comprised of 0 to 5 percent rocks varying in size from two millimeters to two centimeters in diameter (see **Appendix D**, *Soils Report*); see **Appendix A**, Figure 5, *USDA Soils*).

4.3 Plant Communities and Land Cover Types

4.3.1 Developed/Ornamental

Portions of the BSA off the project site consist of developed areas with some landscaped areas with ornamental vegetation. Developed areas structures, roads, sidewalks, paving, and other impermeable surfaces that are associated with industrial development in the area and that cannot support vegetation. Ornamental areas include bare ground, lawns, and native or non-native ornamental vegetation. Non-native oleander shrubs (*Nerium oleander*) and non-native tree species, including crepe myrtle (*Lagerstroemia* sp.) and carrotwood tree (*Cupaniopsis anacardioides*) are incorporated into landscaping on road margins, sidewalk medians, and around buildings within the BSA. Most of the species planted in the sidewalk medians and around buildings consist of a mix of drought-tolerant native and non-native plant species (see **Appendix A**, Figure 6 *Land Cover Types*).

4.3.2 Disturbed California Juniper Woodland

California juniper woodland community occurs on ridges, slopes, valleys, alluvial fans, and valley bottoms in soils that are porous, rocky, coarse, sandy, or silty, and often very shallow (Sawyer et al.,

2009; CNPS, 2022b). The project site appears to have been a former California juniper woodland that has been mostly cleared from the site. Natural vegetation remaining on the project site in this community includes one large California juniper shrub and several western Joshua trees. A recent grubbing of the site, likely conducted within a month prior to the biological reconnaissance survey, removed several western Joshua trees, as evidenced by stumps in the ground and numerous branches and other western Joshua tree parts distributed on the ground surface. Less disturbed examples of California juniper woodland community are distributed in the project vicinity, including off-site portions of the BSA. Other native shrub species observed in this community in off-site locations include peach thorn (*Lycium cooperi*), Great Basin sagebrush (*Artemisia tridentata*), Nevada ephedra (*Ephedra nevadensis*), rubber rabbitbrush (*Ericameria nauseosa*), California buckwheat (*Eriogonum fasciculatum*), and California broomsage (*Lepidospartum squamatum*). The distribution of this community within the BSA is depicted in **Appendix A**, Figure 6 *Land Cover Types*.

4.3.3 Disturbed

Disturbed lands consist of exposed soils that have undergone some type of disturbance such as compaction by vehicle traffic, mowing, disking, excavation or other type of alteration of the soil surface. These lands often consist of ruderal vegetation dominated by non-native, weedy species. An extensive area of disturbed lands is located in the western portion of the project site and in other, smaller areas on the project site and within the BSA on adjacent lands. The larger disturbed area is bare ground that has been used as a parking area for a long period. Other disturbed lands on the project site and within the BSA include dirt trails and unpaved road shoulders. These areas of mostly bare but include sparsely distributed weedy vegetation that includes red brome (*Bromus rubens*) and prickly Russian thistle (*Kali tragus*). The distribution of disturbed lands within the BSA is depicted in **Appendix A**, Figure 6 *Land Cover Types*.

4.4 Plants

4.4.1 Plant Species Recorded During Surveys

Six living western Joshua trees and numerous western Joshua tree stumps were observed on the project site during the field survey. However the project area is dominated by ruderal species such as red brome and prickly Russian thistle. There is evidence that the project site was formerly vegetated with western Joshua tree/juniper woodlands, however the significant disturbances that have occurred have resulted in compacted soils and dominance by ruderal species. Plant and wildlife species were recorded during the habitat assessment survey can be accessed in BRE **Appendix E**, *Plant and Wildlife Species Recorded During the Field Surveys*.

Because of development and disturbances in the area, just a small diversity native and non-native plant species was observed within the BSA. Species included non-native, ornamental species in developed areas, non-native, weedy species in disturbed areas, and remnants of California juniper woodland community. **Attachment 5**, *Species Observed*, provides a complete list of observed species.



One non-native species, red brome (*Bromus rubens*), is rated High by the California Invasive Plant Council (Cal-IPC), indicating that the species has severe ecological impacts on physical processes, plant and animal communities, and vegetation structure [Cal-IPC, 2006].

4.4.2 Special-Status Plant Species with Potential to Occur in the BSA

Based on a literature review and query from publicly available databases (USFWS 2022a, CNDDDB 2022a) for reported occurrences within a ten-mile radius of the project site, two listed and 11 sensitive plant species were identified by one of the following means: reported in the plant inventory, recognized as occurring based on previous surveys or knowledge of the area, or observed during the habitat assessment survey. Of these 13 species, seven sensitive species were determined to have only a low potential to occur and therefore are not anticipated to be impacted as a result of the project. One listed (candidate for state listing as threatened) species in the plant inventory, western Joshua tree, was observed on the project site. (see **Table 1**).



Table 1
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE BSA

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Description in California	Plant Elevation Range (feet amsl)	BSA Contains Potential Suitable Habitats	BSA is Located Within the Plant Species' Known:		Potential For Occurrence in the BSA
						Elevation Range	General Distribution	
Listed Endangered, Threatened, Candidate and State Rare Plants: Plants with official status under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA). A species may have other sensitive designations in addition to their federal or state listing.								
<i>Yucca brevifolia</i> (= <i>Yucca baccata</i> <i>var. brevifolia</i>)	western Joshua tree	SCT	Lifeform: tree Habitats: desert flats, slopes, sagebrush, desert shrub, pinyon-juniper, desert grasslands Soils: silts, loams, and/or sands that are fine, loose, well drained and/or gravelly; alkaline or saline soils Bloom Period: April to May	1,312 - 6,561	Yes	Yes	Yes	Present. There are six individual Joshua trees on the project site.
Sensitive Plants: These plants have no official status under the ESA, the CESA, and/or the NPPA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.								
<i>Asclepias nyctaginifolia</i>	Mojave milkweed	CRPR: 2B.1	Lifeform: perennial herb Habitats: Mojavean desert scrub and pinyon and juniper woodlands Soils: sandy soils, often near washes Bloom Period: May to June	2,870 – 5,580	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	CRPR: 4.2	Lifeform: perennial bulbiferous herb Habitats: chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland Soils: granitic and rocky Bloom Period: May to July	330 – 5,580	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Canbya candida</i>	white pygmy- poppy	CRPR: 4.2	Lifeform: annual herb Habitats: Joshua tree woodland Mojavean desert scrub, and pinyon and juniper woodland Soils: granitic, gravelly, and sandy Bloom Period: March to June	1,970 – 4,790	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Description in California	Plant Elevation Range (feet amsl)	BSA Contains Potential Suitable Habitats	BSA is Located Within the Plant Species' Known:		Potential For Occurrence in the BSA
						Elevation Range	General Distribution	
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	CRPR: 1B.2	Lifeform: annual herb Habitats: coastal scrub (on alluvial fans), Mojavean desert scrub, and pinyon and juniper woodland Soils: gravelly (sometimes) and sandy (sometimes) Bloom Period: April to June	985 – 3,935	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Eremothera boothii</i> ssp. <i>boothii</i>	Booth's evening- primrose	CRPR: 2B.3	Lifeform: annual herb Habitats: Joshua tree woodland and pinyon and juniper woodland Soils: rocky, gravelly, and sandy Bloom Period: April to September	2,675 – 7,875	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	sagebrush loeflingia	CRPR: 2B.2	Lifeform: annual herb Habitats: desert dunes, Great Basin scrub, and Sonoran desert scrub Soils: sandy Bloom Period: April to May	2,295 – 5,300	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	CRPR: 1B.2	Lifeform: perennial stem Habitats: chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland Soils: rocky, gravelly, and sandy Bloom Period: April to June	1,395 – 5,905	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.

Legend and Notes
Federal Endangered Species Act (ESA) Listing Codes: the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened plants is published in 50 CFR § 17.12. • FE = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.



California Endangered Species Act (CESA) and California Native Plant Protection Act (NPPA) Listing Codes: the CESA and NPPA are administered by CDFW. The official listing of Plants of California Declared to Be Endangered, Threatened or Rare is contained in the California Code of Regulations, Title 14, § 670.2. Species, subspecies and varieties of California native plants are declared to be endangered, threatened as defined by § 2062 and § 2067 of the Fish and Game Code or rare as defined by § 1901 of the Fish and Game Code.

- **SE** = state-listed as endangered: "endangered species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (Fish and Game Code § 2062).

California Rare Plant Ranks (Formerly known as CNPS Lists): the CNPS is a statewide, nonprofit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFW officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment. •

CRPR 1B = California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

California Native Plant Society (CNPS) Threat Ranks: *The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) (as a decimal code) and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. A Threat Rank is present for all CRPR 1B's, 2B's, 4's, and the majority of CRPR 3's. CRPR 4 plants are seldom assigned a Threat Rank of .1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a CRPR. In addition, all CRPR 1A and 2A (presumed extirpated in California), and some CRPR 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.*

- **.1** = seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- **.2**=moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Notes:

The BSA contains approximate elevations of 3,606 to 3,620 feet amsl.
The BSA occurs on an alluvial fan in Victor Valley.
Yes = the BSA is located within the plant species' known distribution, elevation range, and/or the BSA contains suitable habitats and/or soils to support the plant species. The plant species has a potential to occur within the BSA. Further evaluation is needed.
Low = low potential to occur within the BSA

Based on an analysis of the biological, physical and environmental conditions necessary for each special-status plant species identified in the plant inventory (Calflora, 2022; CNDDDB, 2022a; CNPS, 2022a, b; Google Earth Pro, 2022; Jepson Flora Project, 2022; Sawyer et al., 2009; Soil Survey Staff, 2022; USEPA, 2022; USFWS, 2022a, b, c; see **Appendix A**, Figure 7, *CNDDDB Known Occurrences Plant Species*), it was determined that seven of the 13 special-status species identified in the plant inventory were determined to have a low potential to occur in the BSA; four were determined to have no potential to occur or are not expected to occur. In these cases, species were determined to have no potential to occur or are not expected to occur because the project site lacks suitable habitat or is outside of a particular species geographic or elevation range. The following plant species were determined to have no potential to occur or are not expected to within the BSA for the abovementioned reasons (see **Table 2** for a description of the species status ranking notations):

- Mojave tarplant (*Deinandra mohavensis*) SE, CRPR: 1B.3
- black bog-rush (*Schoenus nigricans*) CRPR: 2B.2
- southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*) CRPR: 1B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) CRPR: 1B.2

For the remaining species for which there is suitable habitat in the BSA, their potential to occur there was assessed as being 'low' for the following reasons: (1) The site has been grubbed recently and cleared and disked, perhaps repeatedly, in recent years; (2) There is evidence of vehicles driving on the site and disking the soil; this soil disturbance would decrease the likelihood of geophytes establishing onsite; (3) The operation and parking of vehicles in portions of the site may contribute to soil compaction. Many plant species cannot establish in compacted soils; (4) The project site was historically part of an alluvial fan that received surface water flow. This hydrological process no longer occurs within the BSA due to development of roads and buildings and other activities altering fluvial patterns. Thus, plant species dependent on periodic surface water flows are unlikely to establish within the BSA; and (5) The project site is adjacent to urbanized and residential developments, which thus reduces the nearby propagule sources of special-status plant species that could colonize the BSA. The following plant species, listed with their respective statuses, were determined to have low potential to occur within the BSA for the abovementioned reasons (see **Table 2** for a description of the species status ranking notations):

- Mojave milkweed (*Asclepias nyctaginifolia*) CRPR: 2B.1
- white pygmy-poppy (*Canbya candida*) CRPR: 4.2
- white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) CRPR: 1B.2
- Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*) CRPR: 2B.3
- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) CRPR: 2B.2
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) CRPR: 1B.2

Table 2
Special-Status Plant and Wildlife Species Ranking Notations

<u>California Endangered Species Act Listing Codes</u>	
SE	State listed as Endangered
ST	State listed as Threatened

Federal Endangered Species Act Listing Codes

FE Federal listed as Endangered
FT Federal listed as Threatened

California Department of Fish and Wildlife (CDFW) Designations:

SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.

Fully protected: fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Lists were created for fish (Fish and Game Code § 5515), amphibians and reptiles (Fish and Game Code § 5050), birds (Fish and Game Code § 3511) and mammals (Fish and Game Code § 4700).

WL = watch list: this list includes birds identified in the California Bird Species of Special Concern (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species.

California Rare Plant Ranks (Based on ranking system developed by the California Native Plant Society [CNPS])

CRPR: 1A – California Rare Plant Rank 1A - plants presumed extirpated in California and either rare or extinct elsewhere: the plants with a CRPR of 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes plants that are both presumed extinct as well as those plants which are presumed extirpated in California. All of the plants constituting CRPR 1A meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 1B – California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2B – California Rare Plant Rank 2B - plants rare, threatened, or endangered in California, but more common elsewhere: except for being common beyond the boundaries of California, plants with a CRPR of 2B would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the ESA. All of the plants constituting CRPR 2B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CNPS Threat Ranks –

.1 – seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 – moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

4.4.3 Listed Endangered, Threatened, Candidate, and State Rare Plants

One candidate for listing under CESA, western Joshua tree, was observed during the field survey.

4.4.4 Sensitive Plants

No sensitive plants were observed during the field survey.

4.5 Wildlife

4.5.1 Wildlife Species Recorded During the Field Surveys

Two wildlife species were directly observed during the August 24, 2022 field survey, including common raven (*Corvus corax*) and rock pigeon (*Columba livia*). Sign of California ground squirrel (*Otospermophilus beecheyi*) was observed in the BSA and project site in the form of active burrows.

4.5.2 Special-Status Wildlife Species with Potential to Occur in the BSA

Based on a literature review and query from publicly available databases (USFWS 2022a, CNDDB 2022a; see **Appendix A**, Figure 8, *CNDDB Known Occurrences Wildlife Species*) for reported occurrences within a ten-mile radius of the project site, there were 16 listed and 25 sensitive wildlife species identified by one of the following means: reported in the search, recognized as occurring based on previous surveys or knowledge of the area, or observed during the habitat assessment survey. Of those 41 total species, five listed and six sensitive wildlife species were determined to have at least a low potential to occur in the BSA (see **Table 3**). A total of 30 special-status wildlife species in the wildlife inventory were determined to have no potential to occur or are not expected to occur because the BSA lacks suitable habitat or is outside of the elevation/geographic range of these species. A total of 9 special-status wildlife species in the wildlife inventory were determined to have at least a low potential to occur in the BSA and it is anticipated that construction of the project will have less than a significant impact on the majority of those special-status wildlife species.



Table 3
SPECIAL-STATUS WILDLIFE WITH A POTENTIAL TO OCCUR IN THE BSA

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						
Listed Invertebrates						
Euphydryas editha quino (=Euphydryas editha wrighti)	quino checkerspot butterfly	FE	Habitats: grasslands, remnant forbland, open coastal sage scrub, open chamise chaparral, open red shank chaparral, juniper woodland, and semi-desert scrub, open or sparsely vegetated rounded hilltops, ridgelines, rocky outcrops of chaparral and coastal sage scrub Soils: loamy soils with moderate to high amounts of clay Characteristics: adult butterflies will only deposit eggs on species they recognize as host plants	Yes	No	Low. The BSA contains some desert scrub habitat, however it exists in a disturbed state. In addition, the soils in the BSA do not contain a high clay faction; this species typically occurs in areas with clay-loam soils. The soils of the BSA are primarily loamy-fine-sand.
Bombus crotchii	Crotch’s bumble bee	candidate endangered	Habitats: grasslands and shrublands. Hotter and drier environment than other bumblebee species. Prefers milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats: This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border.	Yes	Yes	Low. The BSA is in of the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There are few remaining native plants in the BSA. Due to these factors, there is low potential for the species to occur in the BSA.
Listed Reptiles						
Gopherus agassizii	desert tortoise	FT, ST	Habitats: Desert scrub communities, most typically creosote scrub. Soil: friable soils for burrowing	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Listed Birds						
Buteo swainsoni	Swainson's hawk	ST	Habitats: large, open areas with abundant prey in association with suitable nest trees, native grasslands or lightly grazed pastures and croplands, open deserts, sparse shrub lands Characteristics: nest in juniper trees of juniper-sage flats not near riparian zones	No	Yes	Low. The BSA is located within the historical breeding range of the species, but breeding populations are likely extirpated from the region. The BSA supports marginal foraging and there is low potential for migrating or transient individuals to forage in the BSA. There is no potential for the species to nest within the BSA.
Listed Mammals						



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	ST	Habitats: Desert scrub communities. Soil: sandy, loamy soils for burrowing	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Wildlife: These animals have no official status under the ESA and/or the CESA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations						
Sensitive Invertebrates						
<i>Bombus crotchii</i>	Crotch's bumble bee	SCE	Habitats: open grassland and scrub habitats Characteristics: food plants include predominantly native flowering plant species	Yes	No	Low. The BSA is in of the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There are few remaining native plants in the BSA. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Reptiles						
<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC	Habitats: open areas with low vegetation in valleys, foothills, and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral with open areas. Characteristics: often found in sandy, loose soils, particularly near native ant hills	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	WL	Habitats: broken woodland and habitat edges Characteristics: tolerant of human activities near the nest and is seen more often nesting in urban/residential areas	Yes	No	Low. This species has adapted to disturbed environments and human activity. There is marginal foraging habitat and low potential for this species to forage in the BSA. Due to a lack of suitable nesting habitat (trees) there is no potential for the species to nest in the BSA.
<i>Athene cunicularia</i>	burrowing owl	SSC	Habitats: inhabits open grasslands and scrublands. Occupies and nests in burrows of other animals, especially those of California ground squirrels, but also those of coyotes and desert tortoises, among others. Characteristics: somewhat tolerant of human disturbances	Yes	Yes	High. The BSA is in of the known distributional range of the species and contains friable soils and mammalian burrows (California ground squirrel) preferred by the species. This species is tolerant of



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
						human disturbances. Due to these factors, there is high potential for the species to occur in the BSA.
<i>Falco mexicanus</i>	prairie falcon	WL	Habitats: associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. Characteristics: Requires sheltered cliff ledges for cover and nesting	Yes	No	Low. The BSA does not contain suitable nesting habitat (rocky cliffs), and there is no potential for this species to nest in the BSA. There is marginal foraging habitat in the BSA, and there is low potential for this species to occur in the BSA as a forager.
<i>Lanius ludovicianus</i>	loggerhead shrike	SSC	Habitat: open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns Characteristics: prefers areas with lookout posts, such as fence posts and wires, trees, tall shrubs	Yes	Yes	Moderate. The BSA is in of the known distributional range of the species and contains potentially suitable nesting and foraging habitat (open habitat, Joshua trees). Due to these factors, there is moderate potential for the species to occur in the BSA.
Sensitive Mammals						
<i>Antrozous pallidus</i>	pallid bat	SSC	Habitats: Inhabits rocky outcrops and canyons; roost sites include crevices and caves. Forages over open grasslands and scrublands near sources of water. Characteristics: Has adapted roosting in buildings.	Yes	No	Low. The BSA does not contain suitable roosting habitat (rocky areas) needed to support populations of the species. There are no open water sources in the BSA and only marginal foraging habitat there. There is low potential for this species to occur in the BSA as a forager.
Legend and Notes						
<u>Federal Endangered Species Act (ESA) Listing Codes:</u> the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened animals is published in 50 CFR § 17.11. • FE = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.						
<u>California Endangered Species Act (CESA) Listing Codes:</u> the CESA is administered by CDFW. The official listing of Animals of California Declared To Be Endangered or Threatened is contained in the California Code of Regulations, Title 14, § 670.5. Species and subspecies of California native animals are declared to be endangered or threatened as defined by §§ 2062 and 2067 of the Fish and Game Code. • SCE = state candidate for listing as endangered: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of endangered species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).						



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
California Department of Fish and Wildlife (CDFW) Designations: For some wildlife species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nesting colonies. For many species of birds, the primary emphasis is on the breeding population in California. For some species which do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering • SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. • WL = watch list: this list includes birds identified in the California Bird Species of Special Concern (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species.						
Notes The BSA contains approximate elevations of 3,606 to 3,620 feet amsl. Yes =. Further evaluation is needed. No potential to occur = the species has no potential to occur in the BSA due to a lack of factors required to support the species. Not expected to occur = the BSA is located outside the wildlife species' known distribution, elevation range, and/or the BSA lacks suitable habitats or conditions to support the species. It is highly unlikely for the wildlife species to have a potential to occur within the BSA. No further evaluation is needed. Low = low potential to occur within the BSA; the BSA is located within the wildlife species' known distribution, elevation range, and/or the BSA contains suitable habitats or conditions to support the species. Moderate = moderate potential to occur within the BSA; the BSA is located within the wildlife species' known distribution, elevation range, and/or the BSA contains suitable habitats or conditions to support the species.						

Based on an analysis of the biological, physical and environmental conditions necessary for each special-status wildlife species identified in the wildlife inventory, it was determined that the majority of those species have no potential to occur or are not expected to occur in the BSA (CNDDDB, 2022a, Google Earth Pro, 2022, USFWS, 2022a, b, c, d). In most cases, species were determined to have no potential to occur or are not expected to occur because the project site lacks suitable habitat or is outside of a particular species geographic or elevation range.

Some species for which there is suitable habitat in the BSA were determined to have no potential to occur or are not expected to occur for the following reasons: (1) Although not developed at a high density, the areas surrounding the project site contain some urbanized developments with paved roadways; the hazards such as traffic noise and other disturbances reduce the likelihood that certain species would establish or regularly forage in the BSA; (2) The significant disturbances that have occurred have resulted in compacted soils and dominance by ruderal species. Plant and wildlife species were recorded during the habitat assessment survey can be accessed in of **Appendix E, Plant and Wildlife Species Recorded During the Field Surveys.**; (3) There is evidence of vehicles driving on the site and disking the soil; this soil disturbance would decrease the likelihood of fossorial mammal species or bird or reptile species that utilize burrows establishing onsite; (4) the project site and other disturbed areas in the BSA frequently undergo grading, which would likely deter fossorial and ground-nesting birds from utilizing the project site for nesting; and (4) Street lights and traffic noise may cause certain species to avoid the BSA. Several wildlife species, listed with their respective statuses, were determined to have no potential to occur or are not expected to occur based on the abovementioned reasons. See **Appendix F Special-Status Species Inventory and Occurrence Potential Determination** for a discussion of these species and the description of their respective status ranking notations):

4.5.3 Listed Endangered, Threatened, and Candidate Wildlife

No federally listed endangered, threatened, or candidate wildlife species were observed during the field survey. Five listed wildlife species were determined to have a low potential to occur in the BSA.

4.5.4 Sensitive Wildlife

No sensitive wildlife species were observed during the field survey. The two sensitive wildlife species determined to have a high or moderate potential to occur are discussed below.

High Potential to Occur

Burrowing owl

The burrowing owl is a small, crepuscular (active at dusk and dawn), ground-inhabiting owl that is found largely throughout the southern United States. Typical BUOW habitat is open, dry, flat ground or low rolling hills with sparse vegetation and available burrows (Gallagher, 1997). BUOWs spend most of their time on the ground or on low perch sites such as fence posts and dirt mounds. They are generally found in open country, where tree or shrub canopies cover less than 30 percent of the habitat. Typical habitat includes annual and perennial grasslands, shortgrass prairies, open agricultural areas (particularly rangelands), desert floors, and vacant lots in residential areas and

university campuses. Other habitat includes oak savannah; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; sandy beaches and coastal dunes; and river bottom lands. BUOWs inhabiting urban landscaped areas may live in vacant fields/lots, pastures, airports, athletic fields, golf courses, cemeteries, city parks, road shoulders, drainage sumps, railroad beds, irrigation ditches, and road cuts. The BUOW is primarily a dry grassland species, but it persists and can even thrive in some landscapes that are highly altered by human activity, such as agricultural areas in the Central and Imperial valleys. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. Vegetation cover and height that prevents the owl from observing approaching predators places the BUOW at a severe disadvantage (Center for Biological Diversity et al., 2003). They are the only small owl likely to be seen perched in the open daylight (Center for Biological Diversity et al. 2003; CWHR, 2014; Cornell Lab of Ornithology, 2022; Sibley, 2000; Shuford et al. 2008).

Suitable BUOW habitat must also support the primary prey items for BUOWs, such as insects and small mammals. BUOWs are opportunistic predators preying primarily on a broad array of arthropods (centipedes, spiders, beetles, crickets, and grasshoppers), and small rodents, but they also eat birds, amphibians, reptiles, and carrion. They may hunt from a perch, hover, hawk, run, walk, dive or hop after prey.

The BSA is in of the known distributional range of the species and contains friable soils and mammalian burrows (California ground squirrel) preferred by the species. This species is tolerant of human disturbances. Due to these factors, there is high potential for the species to occur in the BSA.

Moderate Potential to Occur

Loggerhead shrike

The loggerhead shrike (*Lanius ludovicianus*) is a CDFW Species of Special Concern, which is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. Loggerhead shrike is also a USFWS Bird of Conservation Concern (BCC), which is a bird species listed in the USFWS' 2008 Birds of Conservation Concern report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

Loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. This species inhabits areas with scattered shrubs, trees, posts, fences, utility lines, or other

hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and western Joshua tree habitats. The BSA is in of the known distributional range of the species and contains potentially suitable nesting and foraging habitat (open habitat, western Joshua trees). Due to these factors, there is moderate potential for the species to occur in the BSA. Construction of the project would involve grading of the entire project site and the western Joshua trees and juniper would be significantly impacted as a result. Although there is suitable habitat for loggerhead shrike on the project site, the area of suitable habitat that would be destroyed by grading activities is relatively small and does not represent an expansive area of suitable habitat for this species. Therefore, the loss of this area would not have a substantial effect on the availability of loggerhead shrike habitat or population levels statewide. These impacts do not meet the threshold of significance set forth in Section 15065 of the California Environmental Quality Act (CEQA) Guidelines. Therefore, construction of the project would have a less than significant impact on loggerhead shrike (Cornell Lab of Ornithology, 2022; CWHR, 2014; Grinnell and Miller, 1944; McCaskie et al. 1979; Garrett and Dunn, 1981; Miller, 1931).

4.6 Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

The BSA does not contain jurisdictional Waters of the United States (Waters of the U.S.) or Waters of the State. The project site is located within the Oro Grande Wash hydrologic unit (HU; USGS HU code 180902080704) and within the Mojave River Watershed (USGS HU code 18090208), which encompasses approximately 4,500 square miles (see **Appendix A**, Figure 9, *USGS Surface Waters and Watersheds*). The Mojave River Watershed drains the northern areas of the San Bernardino Mountains (USEPA, 2022; Google Earth Pro, 2022).). There is an NWI-mapped riverine area located approximately 0.65 west of the project site (USFWS, 2022c).

Although drainages, depressions, and other topographic features that would be conducive to wetlands formation were not identified within the BSA. The runoff from the project site travels to the southwest, joining this riverine area, however the project proponent has prepared a Water Quality Management Plan (WQMP) which is designed to retain stormwater generated onsite (Allard Engineering, 2022a)

4.7 Critical Habitat

The BSA does not overlap with any USFWS critical habitat, and there are no critical habitats mapped by USFWS within a 5-mile radius of the project (see **Appendix A**, Figure 10, *USFWS Critical Habitat*).

4.8 Wildlife Corridors

The BSA does not overlap with CDFW Essential Connectivity Areas, Natural Landscape Blocks, or other wildlife corridors. The nearest CDFW-mapped wildlife corridor to the project site is Choke-point, 395 South of Ridgecrest. This linkage is located approximately 1.2 miles south of the project site (CDFW, 2022c). See Figure 11. The areas south and west adjacent to the project are developed with structures intended for commercial use. Although the project's surroundings contain undeveloped areas, the project will be constructed in an area that would not cause significant new

habitat fragmentation, and would not significantly impede the passage of wildlife, therefore resulting in less than significant impact.

Construction and operation of the proposed project would not significantly interfere with the movement of native resident or migratory fish or wildlife species or with native resident or migratory wildlife corridors. Less than significant impact would occur, and mitigation is not proposed.

California ground squirrel burrows were recorded on-site during the field survey and a small resident population occurs onsite. Ground disturbing activities such as disking, bulldozing and excavating would lead to eviction, death, or injury of individual squirrels of this common species, which would not be considered a significant impact.

The CDFW classifies both California ground squirrels as nongame animals, and as such, property owners can legally take these species (Baldwin, 2019; Quinn et al., 2018). No mitigation is required for the take of this fossorial species. The direct impacts of construction of the project to nursery sites of fossorial species would be less than significant (see **Appendix A**, Figure 11, *CDFW Wildlife Corridors*).

5.0 POTENTIAL IMPACTS

This section discusses potential significant effects or impacts, if any, to the environmental baseline and sensitive biological resources that could result from project construction and development. This is an important step in the CEQA process. Biological resources may be either “directly” or “indirectly” impacted by a project (defined by CEQA Guidelines § 15358). Direct and indirect impacts may be either “permanent” or “temporary” in nature. These impact categories are defined below:

- **Direct impact:** Direct impacts are those that may cause an immediate effect on the species or its habitat and occur at the same time and place. Any loss, alteration, disturbance or destruction of biological resources that could result from project-related activities is a direct impact. Examples include vegetation clearing and loss of habitat, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species.
- **Indirect impact:** As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Indirect impacts are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Indirect impacts can affect biological resources within the project site, adjacent to the project site, or away from the project site. Examples of indirect impacts include increased human activity, elevated noise, light, and dust levels, decreased water quality, soil compaction, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators. Indirect impacts may be both short term and long-term in their extent. Indirect impacts are also referred to as “edge effects”.
- **Permanent impacts** (long term): All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a

building or permanent road on an area containing biological resources. Permanent impacts cannot be mitigated in-place

- **Temporary impacts (short term):** Impacts considered to have reversible impacts to biological resources can be viewed as temporary. Examples include short-term increased vehicle traffic and noise and the generation of fugitive dust during construction; or removing vegetation and either allowing the natural vegetation to recolonize or actively revegetating the impact area. Temporary impacts can be reversed with the implementation of in-place mitigation measures.

This section describes the significance criteria used for determining impacts to biological resources. As mentioned in the CEQA Guidelines (§ 15064.7[a]), each public agency is encouraged to develop and publish thresholds of significance (significance criteria) that it uses to determine the significance of environmental impacts. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental impact, non-compliance with which means the impact will normally be determined to be significant by the agency and compliance with which means the impact normally will be determined to be less than significant.

Significance criteria serve as benchmarks for determining if a project would result in a significant adverse environmental impact when evaluated against the baseline. CEQA Guidelines § 15065(a) states that a project may have a “significant impact” on the environment if the project has the potential to:

- Substantially degrade the quality of the environment,
- Substantially reduce the habitat of a fish or wildlife species,
- Cause a fish or wildlife population to drop below self-sustaining levels,
- Threaten to eliminate a plant or animal community, or
- Substantially reduce the number or restrict the range of an endangered, rare or threatened species.

The Environmental Checklist Form in Appendix G of the CEQA Statute and Guidelines (2014) was reviewed in order to determine the level of significance of project related impacts to biological resources. Under CEQA Guidelines impacts to biological resources are considered potentially “significant” if one or more of the following thresholds are exceeded with construction and operation of the project.

Threshold 1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

Threshold 2: The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW and USFWS.

Threshold 3: The project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold 4: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Threshold 5: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold 6: The project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

Significant impacts can be reduced to less than significant levels by incorporating off-setting conservation measures, including BMPs, avoidance and protection measures, and/or mitigation measures. Less than significant impacts are those in which impacts would occur, but are not expected to be substantial. Impacts to biological resources that are considered less than significant include impacts to biological resources that are reasonably widespread or exist in a degraded or disturbed state, rendering them less valuable as habitat to support wildlife diversity or special-status species, or impacts that do not meet or exceed the significance thresholds defined above. These less than significant impacts do not require conservation measures.

5.1 Potential Impacts to Plant Communities

The project site is situated on relatively level ground; no ephemeral, intermittent, or perennial streams or rivers were identified in the literature review or observed during the biological survey. The BSA does not support riparian habitat. There was one land cover type identified within the project site and three altogether within the BSA. The project site is covered by disturbed California juniper woodland, which is considered a sensitive plant community on the CDFW *California Natural Community List* (CDFW, 2022a). Direct impacts to this sensitive plant community are anticipated as a result of project development. Therefore, mitigation is required. **BIO-6** is discussed in **Section 6.1**.

Significance criterion

Impacts would be considered significant if the project were to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

In regard to the significance criterion, the project is anticipated to have an adverse effect on sensitive natural communities: **Less than Significant with Mitigation Incorporated.**

5.2 Potential Impacts to Special Status Plants

One candidate species for state listing as threatened was plant species (western Joshua tree) was observed on the project site. The literature review and field surveys concluded that other plant

species in the plant inventory do not have more than a low potential to occur within the BSA due to a lack of suitable habitat, soils, and/or other factors to support them; these species are not anticipated to be significantly impacted as a result of the project.

Direct or indirect impacts to special-status plant species (western Joshua tree) are anticipated as a result of construction of the project. Therefore, acquisition of a 2081 Incidental Take Permit, which is discussed in **Section 6.0**, is proposed. Additionally, mitigation is required to maintain compliance with the native desert vegetation protection provided in the City Municipal Code.

Significance criterion

Impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

The field survey results determined that the project site contains one listed plant species; therefore, the project will result in direct or indirect impacts to special-status plants. In regard to the significance criterion, the project is anticipated to have substantial adverse effect, either directly or through habitat modifications, to any species identified as a special-status species in federal, state, local or regional plans, policies, or regulations, or by CDFW or USFWS. With implementation of mitigation measures described below, these impacts would be reduced to a less than significant degree : **Less than Significant Impact with Mitigation Incorporated.**

5.3 Potential Impacts to Special-Status Wildlife

5.3.1 Direct Impacts

Potential direct impacts to common and special-status wildlife occupying the project site could occur from construction related mortality, injury, or harassment of individuals as a result of permanent development of the project site and from the removal and direct loss of breeding, foraging, and/or sheltering habitat. These impacts could be considered significant and potentially significant. Project development could diminish the habitat available for common and special-status wildlife species from utilizing the onsite habitat. Direct permanent impacts include all areas within the limits of grading in the project footprint.

Ground disturbing and habitat altering activities could involve significant disturbance to common and special-status ground-dwelling animals or nesting birds. Examples include grading, clearing, disking, grubbing, excavation, trenching, paving, mowing, heavy equipment compacting, driving over habitat to access the construction work sites, vegetation management activities, and use of herbicides and pesticides. Direct impacts to less mobile fossorial (burrowing) animals that are underground during most of the day or year (e.g., small mammals or lizards) or have a life stage in the soil or on plants (e.g., amphibians, nesting birds, insects) could occur from encounters with vehicles or heavy equipment as many of these animals do not run away from construction vehicles/equipment and would most likely be killed. These species could be expected to experience direct mortality, injury, harassment, and displacement from increased human activity and vehicle/equipment travel if they are present onsite within the project footprint at the time of construction. Individual losses are more

likely, especially during clearing and grubbing activities. Individuals could also be injured, disturbed, or killed from encounters with workers' or visitors' pets. Birds and bats could be injured or killed from collisions with transmission lines and wind turbines structures. Birds and bats could be injured or killed from electrocution from electric lines and structures. The loss of these animals could also affect other common and special-status wildlife that depend on them as prey. Construction related direct impacts are considered a significant impact.

Listed Endangered, Threatened, and Candidate Wildlife:

No listed wildlife species were observed within the BSA during the biological surveys. The results of the literature review and field surveys concluded that the following listed wildlife species have a low potential to occur within the BSA: Crotch's bumble bee, Mohave ground squirrel, and desert tortoise. All of the listed wildlife species in the wildlife inventory were determined to have no more than a low potential to occur. Therefore, no direct impacts to listed endangered, threatened, or candidate wildlife are anticipated as a result of construction of the project.

Sensitive Wildlife

High Potential to Occur in the BSA

Burrowing Owl

One special-status species, burrowing owl, was determined to have a high potential to occur in the BSA. There is suitable nesting, sheltering, and foraging habitat within the BSA for BUOW. The project site contains sparse shrub cover and friable soils which are preferred conditions for BUOW. Furthermore, burrowing owl are generally adaptive to disturbances and the frequent grading of the project site would not necessarily deter this species from establishing there. It is anticipated that construction of the project could have a significant impact on BUOW and therefore mitigation is proposed.

No special-status wildlife species were observed within the BSA during the biological surveys. The results of the literature review and field surveys concluded that the following sensitive wildlife species have at least a low potential to occur within the BSA: loggerhead shrike, desert kit fox, prairie falcon, Blainville's horned lizard, Swainson's hawk, and Cooper's hawk. See below for further discussion of these species [see Table 3].

5.3.2 Indirect Impacts

Indirect impacts could occur within areas located adjacent to the limits of construction in the project footprint. Indirect impacts are more subtle than direct ones. Impacts may either be short-term related to construction or long-term and may affect populations and habitat quality over an extended period of time, long after construction activities have been completed. Examples of indirect impacts, such as mortality, injury, or harassment of common and special-status wildlife species that could potentially occur from the project include the following:

- The permanent loss of habitat and physical features that would occur from clearing and grading could indirectly impact wildlife species through the loss of foraging, roosting, denning, and/or breeding habitat available. Habitat loss could displace species from existing territories and reduce the home range of those species and impact nearby populations of similar species. Displaced species would then have to compete for and/or find new territories and compete for food with resident species. This could result in delayed nest building, fewer nest attempts, reduced clutch size, and an overall reduction in reproductive output.
- Project construction could result in temporary increased ambient noise levels, dust, vibration, lighting and/or human intrusion in and near habitat. This could disrupt natural foraging, roosting, denning, and/or breeding behavior of wildlife species. Wildlife species stressed by these factors may disperse from habitat in the project site and project vicinity. In addition, increased noise levels could interfere with territorial and mating vocalizations, thereby interfering with wildlife reproduction.
- Project construction could increase fugitive dust, pollution, runoff, siltation, sedimentation, and erosion. This could result in degradation and alteration of habitat and soils. Consequently, the ability of onsite and adjacent plant communities to support wildlife populations may decrease.
- Nighttime construction work and use of artificial lighting could disrupt natural foraging and breeding behaviors and/or alter wildlife movement patterns and migratory routes of nocturnally active species such as mammals and snakes. Most animals would attempt to avoid moving in or near the lighting; however, some animals such as insects, migratory birds, and bats might be attracted to the lighting, increasing construction-related mortalities. Artificial lighting could also indirectly affect wildlife by increasing detection by predators. The new development could also provide an increase in artificial lighting and glare which could disrupt nocturnal wildlife behavior.
- An increase and continuation of human activities within and adjacent to the project site could lead to mortality, injury, or harassment of wildlife species by providing food in the form of trash and litter or water which attracts predators such as the common raven (*Corvus corax*), northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and coyote.

Listed Endangered, Threatened, and Candidate Wildlife:

No indirect impacts to endangered, threatened, or candidate wildlife species are anticipated as a result of construction of the project.

Sensitive Wildlife

There are potential indirect impacts of construction of the project on foraging and/or nesting behavior of sensitive wildlife species that have a moderate or high potential to occur throughout the BSA such as burrowing owl and loggerhead shrike. Both of these species would lose foraging and potential nesting habitat as a result of construction of the project. Therefore, mitigation is proposed and would reduce impacts from this loss of foraging and nesting habitat of these sensitive species.

5.3.3 Mitigation Measures

Listed Endangered, Threatened, and Candidate Wildlife:

Listed wildlife are not anticipated to be impacted as a result of the project; therefore, no mitigation is proposed.

Sensitive Wildlife

Sensitive wildlife could potentially be impacted by construction and project development, and mitigation is recommended. Implementing the recommended mitigation measures **BIO-2** through **BIO-5** (see **Section 6.0, Mitigation Measures**) will help to minimize or avoid impacts to sensitive wildlife that could potentially occur within the BSA.

Several mitigation measures will be implemented in order to minimize and avoid impacts to loggerhead shrike, burrowing owl, and other special-status wildlife species that could potentially occur on the project site. Mitigation measure **BIO-2** provides for the instatement of focused burrowing owl surveys with protection measures. Mitigation measure **BIO-3** provides for a pre-construction general wildlife survey, and **BIO-4** provides for implementation of a loggerhead shrike survey and protection measures. Implementation of mitigation measure **BIO-5** provides for the instatement of pre-construction breeding bird survey. All recommended surveys shall be conducted by a qualified biologist. With the implementation of mitigation measures **BIO-2** through **BIO-5**, the impacts of construction and project operations to sensitive wildlife would be less than significant.

5.3.4 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

Listed Endangered, Threatened, and Candidate Wildlife:

The project is not anticipated to have direct or indirect impacts to listed wildlife. In regard to the significance criterion, the project is anticipated to have no substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS: **Less than Significant Impact.**

Sensitive Wildlife:

Project construction is not expected to cause impacts to bird species that only forage at the site or occur as transient visitors. Implementing the recommended mitigation measures **BIO-2** through **BIO-5**, which are described in the Mitigation Measures section (**Section 6.0**), will help to minimize or avoid significant impacts to sensitive wildlife to less than significant levels: **Less than Significant Impact with Mitigation Incorporated.**

5.4 Potential Impacts to Breeding Birds

The BSA supports shrub vegetation, and other physical features that could potentially provide foraging, nesting, and cover habitat to support an assortment of bird species (year-round residents, seasonal residents, and migrants). A majority of the birds observed during the field surveys and those birds that could potentially breed within the BSA are protected by the MBTA and Fish and Game Code § 3503, § 3503.5, and § 3513. The statutes make it unlawful to take native breeding birds, and their nests, eggs, and young.

5.4.1 Direct Impacts

Activities which are most likely to result in take of migratory birds during the breeding bird season when eggs or young are likely to be present include, but are not limited to, clearing or grubbing of bird nesting habitat; structure demolition; or vegetation trimming or clearing. The project has a low potential to directly take individual breeding birds, their nests, young, or eggs; therefore, mitigation is required.

5.4.2 Indirect Impacts

Indirect impacts to breeding birds could occur from increased noise, vibration, lighting and dust during construction, which could adversely affect the breeding behavior of some birds and lead to the loss (take) of eggs and chicks, or nest abandonment. The project has a low potential to indirectly affect individual breeding birds, their nests, young, or eggs; therefore, mitigation is required.

5.4.3 Mitigation Measures

Implementing the recommended mitigation measure **BIO-5**, which is described in the **Section 6.0**, will help to minimize or avoid potential impacts to breeding birds, their nests, young, or eggs. In particular, mitigation measure **BIO-5** provides for a pre-construction breeding bird survey in which biologists will take steps to protect any breeding bird and its nest observed prior to construction. Implementation of mitigation measure **BIO-5** will minimize the risk of nest loss during excavation activities.

5.4.4 Impact Determination

Project construction is not expected to cause impacts to bird species that only forage at the site or occur as transient visitors. Direct and indirect impacts to breeding birds, their nests, young, or eggs could potentially occur as a result of construction of the project. Given the relatively small size of the project footprint; the minor reduction of suitable nesting habitat; the nature of the disturbance; and the availability of other habitat within the immediate project vicinity, the potential impacts to breeding birds, their nests, young, or eggs would likely be minor. Implementing the recommended mitigation measures **BIO-5**, which is described in **Section 6.0** below, will help to avoid, eliminate or reduce significant impacts to breeding birds, their nests, young, or eggs to less than significant levels; therefore, it is anticipated that the project may impact breeding birds, their nests, young, or eggs, but the impacts will not be significant: **Less than Significant Impact with Mitigation Incorporated.**

5.5 Potential Impacts to Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

The literature review and reconnaissance-level biological survey determined that there are no waters of the U.S. or State (i.e., jurisdictional waters/wetlands; see **Appendix A**, Figure 9, *USGS Surface Waters and Watersheds*; Figure 12, *National Wetlands Inventory*).

5.5.1 Direct or Indirect Impacts

No direct or indirect impacts to Waters of the U.S. or State are anticipated as a result of construction of the project.

5.5.2 Mitigation Measures

Waters of the U.S. or State are not anticipated to be impacted by construction of the project; therefore, no mitigation is proposed.

5.5.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

The project is not anticipated to have direct or indirect impacts to Waters of the U.S. or State. **No Impact.**

5.6 Potential Impacts to Critical Habitat

There are no mapped areas of critical habitat within a 5-mile radius of the project (USFWS, 2022d).

5.6.1 Direct and Indirect Impacts

There are no adverse impacts to critical habitat anticipated as a result of the project.

5.6.2 Mitigation Measures

No mitigation measures are required for impacts to critical habitat, therefore no mitigation is proposed..

5.6.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

There will be no impacts to critical habitat because there are no mapped areas of critical habitat within a 5-mile radius of the project. **No Impact.**

5.7 Potential Impacts to Wildlife Corridors or Native Wildlife Nursery Sites

The literature review and field surveys determined that the project site does not contain wildlife corridors.

By contrast, direct impacts are anticipated to native wildlife nursery sites of fossorial species. UltraSystems biologist Dr. Tuma observed California ground squirrels during the field survey. These sightings of fossorial mammals and their burrows indicate that there may be resident populations of these species onsite. Thus, it is likely that fossorial mammal species give birth and raise young within the burrow complexes located onsite. Ground disturbing activities such as disking, bulldozing and excavating would lead to death and injury of fossorial species which do not typically evacuate their burrows during this type of disturbance.

5.7.1 Direct and Indirect Impacts

No direct or indirect impacts to wildlife corridors are anticipated as a result of construction of the project.

Although there would likely be direct impacts to nursery sites of fossorial species as a result of construction of the project, it is not anticipated that these impacts will be significant. The CDFG classifies California ground squirrels as nongame animals, and as such, property owners can legally take these species (Baldwin, 2019; Quinn et al., 2018). No mitigation is required for the take of this fossorial species. The direct impacts of construction of the project to nursery sites of fossorial species would be less than significant.

5.7.2 Mitigation Measures

Wildlife corridors are not anticipated to be impacted as a result of the project. Native wildlife nursery sites are anticipated to be impacted to a less than significant degree; therefore, no mitigation measures are required.

5.7.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

The literature review and field surveys determined that the project site does not contain wildlife corridors. While the project could potentially contain native wildlife nursery sites; impact as a result of the project is anticipated to be less than significant.. In addition, the project site does not support resident or migratory fish species. In regard to the significance criterion, the project is not anticipated

to interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors: **Less Than Significant Impact.**

5.8 Potential Impacts to Local Policies or Ordinances

The project site contains approximately six living western Joshua trees, a species that qualifies for protection under Article II, Section 16.24.150, which also provides that *“all plants protected or regulated by the State Desert Native Plants Act (i.e., Food and Agricultural Code 80001 et seq.) shall be required to comply with the provisions of those statutes prior to the issuance of any county development permit or land use application approval. The county agricultural commissioner is the responsible agency for the issuance of any required wood tags, seals or permits”* (City of Hesperia; 1997). A qualified City-approved biologist or arborist should be retained to conduct any future relocation/transplanting activities and should follow the protocol of the City’s Municipal Code. As provided in Section 16.24.120 of City Municipal Code, *“any person who willfully removes, or harvests or transplants a living desert native plant shall first obtain approval from the county to do so in accordance with the procedures set forth in Sections 16.24.040 or 16.24.110 et seq.”* (City of Hesperia, 1997). The City addresses all western Joshua trees as one of the protected vegetation types.

5.8.1 Direct and Indirect Impacts

It is not anticipated that there will be direct or indirect impacts to biological resources within the BSA that are not already more strongly protected by state and federal regulations.

5.8.2 Mitigation Measures

To mitigate for the impacts to the protected native desert vegetation on the project site, the project proponent will implement mitigation measure **BIO-7** which proposes that a native desert vegetation survey is conducted to aid in the creation of a Preservation Plan as required by the City. After implementation of **BIO-7**, which is further discussed below, impacts to protected native desert vegetation would be reduced to a less than significant degree.

5.8.3 Impact Determination

Significance criterion: *Impacts would be considered significant if the project were to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

The literature review determined that construction of the project does conflict with local policies or ordinances that protect biological resources. Implementation of mitigation measures will reduce these impacts to a less than significant degree: **Less than Significant Impact with Mitigation Incorporated.**

5.9 Potential Impacts to Habitat Conservation Plans

Development of the project would not conflict with an HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

5.9.1 Direct and Indirect Impacts

There are no anticipated conflicts with local habitat conservation plans as a result of construction of the project.

5.9.2 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.*

In regard to the significance criterion, the project will not conflict with the provisions of adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan: **No Impact.**

6.0 MITIGATION MEASURES

CEQA states that “mitigation measures are not required for effects which are not found to be significant” [§ 15126.4(a)(3)]. Therefore, no mitigation measures are proposed for impacts to biological resources that are less than significant. However; if significant impacts to biological resources are identified, then possible mitigation measures are recommended to minimize or avoid the level of the impacts to less than significant levels. There are several forms of mitigation. Under CEQA (§ 15370), “mitigation” includes all of the following:

- “Avoiding” the impact altogether by not taking a certain action or parts of an action.
- “Minimizing” impacts by limiting the degree or magnitude of the action and its implementation.
- “Rectifying” the impact by repairing, rehabilitating, or restoring the impacted environment.
- “Reducing” or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- “Compensating” for the impact by replacing or providing substitute resources or environments.

The following mitigation measures would help to minimize or avoid direct or indirect impacts to biological resources to less than significant levels and to comply with all appropriate environmental laws, ordinances, policies, regulations, and management plans.

6.1 BIO 1: 2081 Incidental Take Permit

Western Joshua trees are a state candidate for listing species under CESA and will require a 2081 Incidental Take Permit (ITP) with compensatory mitigation for impacts, in addition to the surveys that are discussed in Section e). The exceptions and permitting process under the California Desert Native Plants Act and the separate exceptions under the Native Plant Protection Act will not apply to

western Joshua tree in any manner. For projects where “take” is incidental to carrying out an otherwise lawful activity, an ITP may be obtained from CDFW.

6.2 BIO 2: Focused Burrowing Owl Surveys

Although BUOW was not detected on site during the general wildlife survey, the BSA contains suitable habitat to potentially support BUOW in the future. A qualified biologist would conduct a focused BUOW survey in accordance with the Staff Report on Burrowing Owl Mitigation (CDFW, 2012).

Following the completion of the survey, the biologist would prepare a letter report summarizing the results of the survey. The report would be submitted to the City prior to initiating any ground disturbance activities.

If no BUOWs or signs of BUOW are observed during the survey and concurrence is received from Environmental Management Division of the San Bernardino County Department of Public Works (County EMD) and CDFW, project activities may begin and no further mitigation would be required.

If BUOW or signs of BUOW are observed during the survey, the site would be considered occupied. The biologist would implement the following protection measures and contact the City, EMD, and CDFW to assist in the development of avoidance, minimization, and mitigation measures, prior to commencing project activities. The list of potential measures to avoid and minimize impacts to BUOWs described in the above section would be implemented.

BUOW Protection Measures

If BUOWs or signs of BUOW are observed during the survey, then the site would be considered occupied and the biologist shall contact the City, EMD, and CDFW to assist in the development of avoidance, minimization, and mitigation measures discussed below, prior to commencing project activities.). If no BUOW or signs of BUOW are observed during the focused surveys, the components of this measure (discussed below) would not be applicable.

Planning BUOW Protection

Grading, construction, and other project activities on all grassland habitat will be delayed until the qualified biologist has implemented burrow exclusion and closure. No ground-disturbing activities within 50 meters (165 feet) of an active BUOW burrow will be permitted until burrow exclusion and closure have been implemented. No destruction of foraging habitat will be permitted until burrow exclusion and closure have been implemented.

Pre-Construction BUOW Protection

Prior to the initiation of grading and construction activities, the biologist shall implement passive relocation of an active BUOW burrow by installing a one-way door and then permanently excluding the BUOW from returning once it is confirmed that no BUOW individuals remain in the burrow. A biological monitor will visit the site daily to verify that the burrow is empty by monitoring and scoping the burrow.

Construction BUOW Protection

A biological monitor will be onsite to monitor any BUOW or signs of BUOW. If any BUOW are observed then the biologist will consult with the County EMD and CDFW to determine the appropriate measures.

6.3 BIO-3: Pre-Construction General Wildlife Survey

Special-status wildlife species that have no designated status under the ESA, the CESA, and/or the NPPA, but are designated as sensitive or locally important by federal agencies, state agencies, local agencies such as the RCA, and nonprofit resource organizations such as the CNPS are referred to as “sensitive” in this BRE. The following measures will be implemented to minimize impacts to these species which include but are not limited to: Blainville’s horned lizard, prairie falcon, and desert kit fox. The measures below will help to reduce direct and indirect impacts caused by construction on various sensitive species to less than significant levels.

- A qualified biologist will conduct a pre-construction general wildlife survey for sensitive wildlife and potential nesting sites such as open ground, shrubs, and burrows within the limits of project disturbance. The survey will be conducted at least seven days prior to the onset of scheduled activities, such as mobilization and staging. It will end no more than three days prior to vegetation, substrate, and structure removal and/or disturbance.
- If sensitive species and/or active nesting sites are observed during the pre-construction survey or they are observed and will not be impacted, project activities may begin and no further mitigation will be required.
- If any sensitive wildlife species are identified within the project site during the pre-construction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional surveys or focused protocol surveys are necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency. zone.
- Sensitive wildlife species and/or potential nesting sites will not be disturbed, captured, handled or moved

6.4 BIO-4: Loggerhead Shrike Survey and Protection Measures

The following measures are proposed in order to minimize impacts to loggerhead shrike, for which there is suitable habitat in the BSA.

- If activities occur during the breeding/nesting period, a wildlife survey will be completed by a qualified biologist to identify potential loggerhead shrike activity in the area of the project activities.

- Additional species surveys to determine presence/absence of birds prior to disturbances, from May 1 until the work start date, if the work start date is prior to August 31. Surveys are to occur weekly in May, every other week in June, and once per month in July and August (assuming no loggerhead shrike are observed).
- Incidental occurrences of other sensitive avian species such as Swainson's hawk. and Cooper's hawk should also be recorded during the survey.

6.5 BIO 5: Pre-Construction Breeding Bird Survey

To maintain compliance with the MBTA and Fish and Game Code, and to avoid impacts or take of migratory non-game breeding birds, their nests, young, and eggs, the following measures will be implemented. The measures below will help to reduce direct and indirect impacts caused by construction on migratory non-game breeding birds to less than significant levels.

- Project activities that will remove or disturb potential nest sites, such as open ground, trees, shrubs, grasses, or burrows, during the breeding season would be a potential significant impact if migratory non-game breeding birds are present. Project activities that will remove or disturb potential nest sites will be scheduled outside the breeding bird season to avoid potential direct impacts on migratory non-game breeding birds protected by the MBTA and Fish and Game Code. The breeding bird nesting season is typically from February 15 through September 15, but can vary slightly from year to year, usually depending on weather conditions. Removing all physical features that could potentially serve as nest sites will also help to prevent birds from nesting within the project site during the breeding season and during construction activities.
- If project activities cannot be avoided during February 15 through September 15, a qualified biologist will conduct a pre-construction breeding bird survey for breeding birds and active nests or potential nesting sites within the limits of project disturbance. The survey will be conducted at least seven days prior to the onset of scheduled activities, such as mobilization and staging. It will end no more than three days prior to vegetation, substrate, and structure removal and/or disturbance.
- If no breeding birds or active nests are observed during the pre-construction survey or they are observed and will not be impacted, project activities may begin and no further mitigation will be required.
- If a breeding bird territory or an active bird nest is located during the pre-construction survey and will potentially be impacted, the site will be mapped on engineering drawings and a no activity buffer zone will be marked (fencing, stakes, flagging, orange snow fencing, etc.) a minimum of 100 feet in all directions or 500 feet in all directions for listed bird species and all raptors. The biologist will determine the appropriate buffer size based on the type of activities planned near the nest and the type of bird that created the nest. Some bird species are more tolerant than others of noise and activities occurring near their nest. This no-activity buffer zone will not be disturbed until a qualified biologist has determined that the nest is

inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young will no longer be impacted by project activities. Periodic monitoring by a biologist will be performed to determine when nesting is complete. Once the nesting cycle has finished, project activities may begin within the buffer zone.

- If listed bird species are observed within the project site during the pre-construction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional surveys or focused protocol surveys are necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency.
- Birds or their active nests will not be disturbed, captured, handled or moved. Active nests cannot be removed or disturbed; however, nests can be removed or disturbed if determined inactive by a qualified biologist.

6.6 BIO-6: Mitigation for Impacts to Western Joshua Tree and California Juniper Woodlands

Avoidance and Minimization Measures

The entirety of the project area, which is approximately 19 acres of California juniper woodland, is currently planned for development. The California juniper woodland is a sensitive natural community (CDFW, 2022a). As such, impacts as a result of the project, shall be mitigated so that all impacts to these habitats are mitigated on acreage and tree basis.

Proposed project activities including the construction phase, operations, and maintenance phase shall be designed to avoid California juniper woodland and western Joshua tree habitat to the maximum extent practicable. If the California juniper or associated western Joshua trees are removed as a result of project activities, then compensatory mitigation is required as follows.

The preferred compensatory mitigation is through an in-lieu fee to a qualified mitigation bank within the service area of the site, ideally within the same watershed. The project proponent shall coordinate with CDFW to identify appropriate mitigation banks and number of required mitigation credits to fully offset site impacts at a minimum of a 2:1 replacement to impact ratio.

However, applicant-responsible compensatory mitigation is acceptable through preparation of a Habitat Preservation and Protection Plan, to be approved by CDFW prior to project approval.

Habitat Preservation and Protection Plan

For applicant-responsible compensatory mitigation, then the project proponent shall enter into a binding legal agreement regarding the preservation of offsite lands describing the terms of the acquisition, enhancement, and management of those lands. Fee title to acquired habitat lands, or a conservation easement over these lands, shall be transferred to CDFW or to an entity approved by

CDFW, along with financial assurances (funds) for preservation, rehabilitation, and enhancement of the land, and an endowment for permanent management of the lands.

A formal Habitat Preservation and Protection Plan to detail methods for site preservation, restoration, monitoring, and protection shall be written. The plan will include permanent photo documentation points from the pre-restoration stage to the conclusion of the monitoring requirement. Photo documentation shall occur on a quarterly and annual basis or as required by CDFW. The number of Joshua and juniper trees existing onsite, transplanted, installed as container stock, will be recorded and qualitatively assessed quarterly and quantitatively assessed on an annual basis until performance criteria and/or contingency criteria are successfully attained. A final monitoring report will be provided at the conclusion of the post-construction restoration phase. The project proponent shall provide the final monitoring report to CDFW for approval of completion for the project.

6.7 BIO 7: Native Desert Vegetation Survey and Protected Plant Preservation Plan

A Preservation Plan will be prepared and submitted to the City, which is required by City Municipal Code. A native desert vegetation survey must be conducted to produce findings that will guide the formation of this plan. The survey objective is to evaluate the health and general condition of the western Joshua trees and creosote bush present on the project site. A project-specific Plan will provide further guidance regarding the transplant and/or preservation of the western Joshua trees and protection for creosote rings “10 feet or greater in diameter” as per Section 16.24.150 of City Municipal Code (City of Hesperia, 1997). Transplant suitability of the western Joshua trees will be determined by the results of the survey. This survey shall be conducted by a qualified City-approved biologist or arborist. The plan will incorporate survey data, identify and outline preconstruction survey methods for the native desert vegetation on the project site, describes preconstruction and construction-phase biological monitoring and transplant methods that are applicable, or outlines any identified CDFW permit and Memorandum of Understanding requirements for active relocation, if either are necessary. The Plan should be referred to for a detailing of protective actions regarding the western Joshua trees on the project site.

7.0 PERMITS AND APPROVALS

Listed (candidate for state listing as threatened; CNDDb 2022b) western Joshua tree was observed during the biological survey. Therefore it has been determined that the project would require a 2081 Incidental Take Permit, which can be obtained from CDFW.

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BIOLOGICAL RESOURCES EVALUATION FOR THE CARGO SOLUTIONS TRUCK WAREHOUSE PROJECT

HESPERIA, SAN BERNARDINO COUNTY, CALIFORNIA



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Page ii



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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Project Location	2
1.2	Project Description.....	2
2.0	REGULATORY CONTEXT.....	2
2.1	Federal Statutes, Regulations, and Executive Orders.....	2
2.2	State Statutes and Regulations	5
2.3	Local Policies and Ordinances.....	9
3.0	METHODS.....	10
3.1	Literature Review	10
3.2	Field Survey Methods	14
4.0	RESULTS	15
4.1	Environmental Setting	16
4.2	Soils.....	16
4.3	Plant Communities and Land Cover Types.....	16
4.4	Plants.....	17
4.5	Wildlife	24
4.6	Waters of the U.S. or State (Jurisdictional Waters/Wetlands)	31
4.7	Critical Habitat	31
4.8	Wildlife Corridors	31
5.0	POTENTIAL IMPACTS	32
5.1	Potential Impacts to Plant Communities	34
5.2	Potential Impacts to Special Status Plants.....	34
5.3	Potential Impacts to Special-Status Wildlife	35
5.4	Potential Impacts to Breeding Birds	39
5.5	Potential Impacts to Waters of the U.S. or State (Jurisdictional Waters/Wetlands).....	40
5.6	Potential Impacts to Critical Habitat.....	40
5.7	Potential Impacts to Wildlife Corridors or Native Wildlife Nursery Sites.....	41
5.8	Potential Impacts to Local Policies or Ordinances	42
5.9	Potential Impacts to Habitat Conservation Plans	42
6.0	MITIGATION MEASURES	43
6.1	BIO 1: 2081 Incidental Take Permit	43

6.2	BIO 2: Focused Burrowing Owl Surveys	44
6.3	BIO-3: Pre-Construction General Wildlife Survey	45
6.4	BIO-4: Loggerhead Shrike Survey and Protection Measures	45
6.5	BIO 5: Pre-Construction Breeding Bird Survey	46
6.6	BIO 6: Native Desert Vegetation Survey and Protected Plant Preservation Plan.....	47
7.0	PERMITS AND APPROVALS	48
8.0	REFERENCES	49

LIST OF TABLES

Table 1	– Special-Status Plants With a Potential to Occur in the BSA	19
Table 2	- Special Status Plant and Wildlife Species Ranking Notations.....	22
Table 3	- Special Status Wildlife With a Potential to Occur in the BSA	25

APPENDICES

Appendix A	Figures • <i>Figure 1: Regional Location</i> • <i>Figure 2: Project Vicinity</i> • <i>Figure 3: Project Boundary and Biological Study Area</i> • <i>Figure 4: Topographic Map</i> • <i>Figure 5: USDA Soils</i> • <i>Figure 6: Land Cover Types</i> • <i>Figure 7: CNDDDB Known Occurrences Plant Species and Habitats</i> • <i>Figure 8: CNDDDB Known Occurrences Wildlife Species and Habitats</i> • <i>Figure 9: USGS Surface Waters and Watersheds</i> • <i>Figure 10: USFWS Critical Habitats</i> • <i>Figure 11: CDFW Wildlife Corridors</i> • <i>Figure 12: USFWS National Wetlands Inventory (NWI)</i>
Appendix B	Site Plans
Appendix C	Site Photographs
Appendix D	Soils Report
Appendix E	Plant and Wildlife Species Recorded During the Field Surveys
Appendix F	Special-Status Species Inventory and Occurrence Potential Determination

May 8, 2023
Page 1





1.0 INTRODUCTION

UltraSystems Environmental, Inc. (UltraSystems) has been retained by Cargo Solutions to prepare this biological resources evaluation (BRE) report. This BRE documents the methods and results of the literature review and field survey of the biological resources potentially associated with the project site and of areas within a 500-foot zone around the project site; collectively, this area is referred to as the Biological Study Area (BSA). This BRE provides a summary of existing conditions, an assessment of the potential presence of sensitive biological resources, an analysis of the potential impacts to those resources from project construction and development and a discussion of recommended mitigation measures to minimize or avoid potential impacts to biological resources. It summarizes the biological resources present within the BSA at the time of the field survey including plant communities, land cover types, the potential occurrence of special-status plant and wildlife species, critical habitat, and wildlife corridors.

As mentioned above, a literature review and reconnaissance-level field survey were conducted to evaluate the potential impacts of construction of the project on the existing biological resources within the BSA. This BRE presents the results of the analysis in the following sections: Regulatory Context, Methods, Results, Potential Impacts, and Mitigation Measures.

Plant and wildlife species listed under the federal Endangered Species Act (ESA) or under the California Endangered Species Act (CESA) as endangered, threatened or as a candidate for listing will be referred to collectively as “listed species” in this document. Plant and wildlife species not listed under ESA or CESA but still protected by federal agencies or state agencies, and/or conservation organizations such as the California Native Plant Society (CNPS), are collectively referred to as “sensitive species” in this document. The term “special-status species” will be used when collectively referring to both listed and sensitive species. Some of these plant and wildlife species are afforded special legal or management protection because they are declining in population size, and/or have a limited geographic range, and/or are constrained to fragmented, reduced-quality habitat.

This report also identifies and analyzes the potential biological significance of site construction and development in view of federal, state, and local laws, regulations, policies, orders, ordinances and/or management plans. Finally, it recommends, as appropriate, mitigation measures (best management practices [BMPs], avoidance and protection measures, and mitigation measures) to minimize or avoid potential environmental impacts to less than significant levels.

The study of biological resources associated with the BSA was conducted to comply with the California Environmental Quality Act (CEQA) requirements for a biological evaluation of projects that would potentially impact natural resources. CEQA is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. This report is intended to satisfy the biological resource needs of the CEQA process. This report will also assist federal and state resource agencies in their review of the project and support permits required for the project from these resource agencies.



1.1 Project Location

The project site is located in southwestern San Bernardino County in the City of Hesperia (City), and lies within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle (see **Appendix A**, Figure 1, *Regional Location*; Figure 2, *Project Vicinity*) The project site is directly south of Poplar Street between Three Flags Avenue and Mesa Linda Street (see **Appendix A**, Figure 3, *Project Boundary and Biological Study Area [BSA]*). The BSA's elevation ranges from approximately 3,606 to 3,620 feet above mean sea level (amsl) [see **Appendix A**, Figure 4, *Topographic Map*; Google Earth Pro, 2022].

The project site is located in the jurisdiction of the following resource agency field offices:

- **United States Fish and Wildlife Service (USFWS)**
Palm Springs Fish and Wildlife Office
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262
Phone: (760) 322-2070
- **San Bernardino County**
Department of Public Works
Environmental Management Division
825 E. Third Street
San Bernardino, CA 92415-0835
Phone: (909)-387-8109
- **California Department of Fish and Wildlife (CDFW)**
Inland Desert Region 6
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
Phone: (909) 484-0167
- **Regional Water Quality Control Board (RWQCB)**
Lahontan Region (Region 6)
15095 Amargosa Road, Building 2, Suite 210,
Victorville, CA 92394
Phone: (760) 241-6583
- **United States Army Corps of Engineers (USACE)**
Los Angeles District
915 Wilshire Boulevard, Suite 980
Los Angeles, CA 90017
Phone: (213) 452-3908/3333
- **City of Hesperia Planning Department**
9700 Seventh Ave
Hesperia, CA 92345
Phone: (760) 947-1224



1.2 Project Description

The City of Hesperia (City) is processing a request to implement a series of discretionary actions that would ultimately allow for the development of a truck warehouse development (project) at the southeast intersection of Poplar Street and Three Flags Avenue in the City of Hesperia in San Bernardino County, California (APNs: 3064-591-17, -18, -12, and -13 and 3064-631-01). The project proposes development of three buildings (two warehouse and office buildings, and one drive-thru truck wash building) and a surface parking lot on an approximately 20.32-acre site. The City is the Lead Agency for the CEQA purposes.

The entire 20.32-acre project site is currently undeveloped land. The project site is located in a semi-rural, lightly developed portion of the city with undeveloped land to the north; industrial, commercial, and undeveloped land uses to the south; the Interstate 15 (I-15) freeway to the east; and commercial and undeveloped land uses to the west (Google Earth Pro, 2022)

The project would consist of: (1) construction of two warehouse and office buildings; (2) construction of one drive-thru truck wash building; (3) surface parking lot; (4) utilities improvements; and (5) landscaping. (see **Appendix B, Site Plans**).

2.0 REGULATORY CONTEXT

2.1 Federal Statutes, Regulations, and Executive Orders

2.1.1 Section 401 Clean Water Act (CWA)

Although the Clean Water Act (CWA) is a federal law, Section 401 of that law recognizes that states have the primary authority and responsibility for setting surface- and groundwater water quality standards.

Section 401 is implemented through a Water Quality Certification (WQC) process. In the State of California, the State Water Quality Resources Board (SWRCB) has given the responsibility for issuing Section 401 WQCs to its nine Regional Water Quality Control Boards (RWQCBs), unless a discharge of dredged or fill material is proposed within more than one region. In the event that a project proposes discharges of dredged or fill material in more than one region, responsibility for issuance of a Section 401 WQC will lie either with the SWRCB, or, upon agreement of the RWQCBs for the affected regions, with the RWQCB chosen in the discretion of the RWQCBs. Cal. Water Code, § 13160; Cal. Code Regs., tit. 23, § 3838. Certification must be based on a finding that the proposed discharge will comply with water quality standards, which include numeric and narrative water quality objectives applicable to identified surface waters in the Water Quality Control Plan for the region (Basin Plan) in which a discharge of fill is proposed.

2.1.2 Section 404 Clean Water Act

Section 404 CWA requires authorization from the Secretary of the Army, acting through the U.S. Army Corps of Engineers (USACE), for the discharge of dredged or fill material into all waters of the United States, including wetlands. Authorizations are conducted through the issuance of Nationwide (or



General) Permits, for activities that would cause only minimal permanent individual (between 0.1 and 0.5 acre) and cumulative impacts; through Individual (or Standard) Permits for activities that are likely to have more than a minimal permanent (greater than 0.5 acre) or cumulative impact on aquatic resources; and through Letters of Permission (LOPs) which are a type of individual permit issued through an abbreviated process that includes coordination with federal and state fish and wildlife agencies and a public interest evaluation, but without the 30-day permit notice period that is required for Individual Permits. The Los Angeles District of the USACE would provide review and permitting services for this project.

Wetlands and other waters that do not meet the definition of waters of the U.S. are not covered by the CWA; however, they are regulated by the State of California through the Porter-Cologne Water Quality Control Act (Porter-Cologne) and SWRCB Resolution No. 2019-0015 for California (SWRCB, 2019).

2.1.3 Endangered Species Act (ESA)

The federal Endangered Species Act of 1973 (Title 16, United States Code [U.S.C.] Sections (§§) 1531-1543) (ESA), as amended, designates and provides for protection of listed threatened and endangered plant and animal species, and their critical habitat. The USFWS, in the Department of the Interior, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), in the Department of Commerce, share responsibility for administration of the ESA. These responsibilities include listing and delisting species, designating critical habitat, and formulating recovery plans. The ESA is divided into 18 sections that work together to prevent species from going extinct by helping to stabilize populations, reduce the threats to their survival, and to help species recover to the point that they no longer require federal protection.

Section 4 (Determination of Endangered Species and Threatened Species):

Section 4 of the ESA addresses listing of species in need of the ESA's protection. Species are listed as either endangered or threatened under Section 4 of the ESA. A federally-endangered species is one that is facing extinction throughout all or a significant portion of its range. A federally-threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Under Section 4, actions needed to recover those species and conserve their habitats are also identified, along with a process for reaching recovery goals that allow for a species' removal from federal protection. The presence on a project site of any fish or wildlife species that is federally listed as endangered or threatened generally imposes constraints on development to the extent that development is likely to result in a prohibited "take" of the species or substantial adverse modification of its habitat as described below.

Section 7 (Interagency Cooperation):

Two sections of the ESA (§§ 7 and 10) authorize incidental take. Section 7 of the ESA regulates take associated with federal projects or projects that require a federal permit. It also requires federal agencies to use their authority to carry out conservation programs to benefit endangered and threatened species. Under § 7, federal agencies are required to consult with the USFWS or the NMFS to ensure that any action they carry out, including those they fund or authorize (such as through a



permit) will not likely jeopardize the continued existence of listed species, or result in the destruction or adverse modification of proposed or designated critical habitat of such species. Under § 7, consultations can either be informal or formal.

Section 9 (Prohibited Acts):

Once a species is listed, Section 9 of the ESA makes it unlawful for any person, including private and public entities, to “take species listed as endangered or without a permit issued pursuant to Section 10 or an incidental take statement issued pursuant to Section 7. Section 9 defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” The term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include substantial habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

Take prohibitions of Section 9 of the ESA apply to listed wildlife and fish species, but not to plants. Endangered plants are not protected from take, although it is unlawful to remove, possess, or maliciously damage or destroy them on federal lands. Removing or damaging listed plants on state and private lands in knowing violation of state law, or in the course of violating a state criminal trespass law, also is illegal under the ESA.

Section 10 (Incidental Take Permits and Habitat Conservation Plans):

An incidental take permit pursuant to Section 10(a)(1)(B) is required when non-Federal, otherwise lawful activities, including lawful project development, will result in take of threatened or endangered wildlife. Under this provision, the USFWS and/or NMFS may, where appropriate, authorize the taking of federally listed wildlife or fish if such taking occurs incidentally during otherwise legal activities. Section 10(a)(2)(B) requires an application for an incidental take permit to include a HCP. The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate avoidance, minimization and mitigation measures to address the effects of the authorized incidental take. Section 10 provides a clear regulatory mechanism to permit the incidental take of federally listed fish and wildlife species by private interests and non-Federal governmental agencies.

2.1.4 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) of 1918 (Title 16, U.S.C. Sections 703 - 712), as amended, implements various treaties and conventions between the United States (U.S.) and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. The MBTA makes it unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit issued by the Secretary of the Interior. Some regulatory exceptions apply. Take is defined in regulations implementing the MBTA as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to carry out these activities.” The MBTA prohibits the collection and destruction of a migratory bird, its nest, and birds or eggs contained in the nest. The USFWS’ Migratory Bird Permit Memorandum (MBPM-2) dated April 15, 2003, clarifies that destruction of most unoccupied bird nests is permissible under the MBTA; exceptions include nests of federally listed threatened or



endangered migratory birds, bald eagles, and golden eagles. Take under the MBTA does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The USFWS has statutory authority and responsibility for enforcing the MBTA

2.2 State Statutes and Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act of 1970 (Title 14, California Code of Regulations, §§ 15002-15387) (CEQA) is California's broadest environmental law (California Legislative Information, 2022a). CEQA applies to certain activities of state and local public agencies. It requires lead agencies (i.e., those making land use decisions) as well as any other responsible state agencies issuing discretionary permits, to evaluate and disclose the significance of all potential environmental impacts of a project. The lead agency is also responsible for identifying, negotiating and implementing feasible impacts avoidance, minimization, or mitigation measures that reduce and compensate for significant environmental impacts with the goal of reducing those impacts to less than significant levels. Lead agencies determine significance on a project-by-project basis because they must consider all potential risk, including cumulative impacts, within a local and regional context, as well as evaluate unique factors particular to the project area when exercising their discretion to approve or disapprove a project.

The CEQA Guidelines specify that a project has a significant impact on the environment if, among other things, it has the potential to “substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or an animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species....” [CEQA Guidelines § 15065(a)(1)] (AEP, 2022).

The purpose of CEQA is to:

- Disclose to the public the significant environmental impacts of a proposed discretionary project, through the preparation of an Initial Study, Negative Declaration, or Environmental Impact Report.
- Prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring.
- Disclose to the public the agency decision making process utilized to approve discretionary projects through findings and statements of overriding consideration.
- Enhance public participation in the environmental review process through scoping meetings, public notice, public review, hearings, and the judicial process.
- Improve interagency coordination through early consultations, scoping meetings, notices of preparation, and State Clearinghouse review.

2.2.2 California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) (California Fish and Game Code §§ 2050-2089) was enacted in 1984 to parallel the federal ESA and allows the Fish and Game Commission to designate



species, including plants, as threatened or endangered (California Legislative Information, 2022a). The CESA states that all native species of fishes, amphibians, reptiles, birds, mammals, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. Unlike the ESA, the CESA does not include listing provisions for invertebrate species.

CESA makes it illegal to import, export, take, possess, purchase, sell, or attempt to do any of those actions to species that are designated as threatened, endangered, or candidates for listing, unless permitted by CDFW. Section 2080 of the California Fish and Game Code prohibits take of any species that the commission determines to be an endangered species or a threatened species. "Take" is defined in § 86 of the California Fish and Game Code as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" (CDFW, 2021)

Under CESA, CDFW may permit take or possession of threatened, endangered, or candidate species for scientific, educational, or management purposes, and may also permit take of these species that is incidental to otherwise lawful activities if certain conditions are met. Some of the conditions for incidental take are that the take is minimized and fully mitigated, adequate funding is ensured for this mitigation, and that the activity will not jeopardize the continued existence of the species. CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

2.2.3 Fully Protected Species - California Fish and Game Code § 3511, § 4700, § 5050 and § 5515

The classification of fully protected was the State of California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for birds (§ 3511), mammals (§ 4700), amphibians and reptiles (§ 5050), and fish (§ 5515). Fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for scientific research and relocation of the species for certain purposes. "Take" is defined in § 86 of the California Fish and Game Code as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" Under § 2835 of the Fish and Game Code, CDFW may only issue permits allowing incidental take of fully protected species if a NCCP is prepared that provides for the protection of that species in accordance with the requirements and standards applicable to NCCPs (Fish and Game Code §§ 2800-2835). Alternatively, avoidance measures sufficient to prevent incidental take of fully protected species must be incorporated into project design, and construction plans and operations. The MSHCP is an HCP and a NCCP, and includes incidental take authorization pursuant to Fish and Game Code § 2085, but the MSHCP does not authorize take of fully protected species.

2.2.4 Bird Nests and Eggs - California Fish and Game Code § 3503

California Fish and Game Code § 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered take. Avoidance measures sufficient to



prevent incidental take of bird nests and eggs protected by this statute must be incorporated into project design, and construction plans and operations.

2.2.5 Migratory Birds – California Fish and Game Code § 3513

California Fish and Game Code § 3513 protects California’s migratory birds by making it unlawful to take or possess any migratory non-game bird as designated by the MBTA, except as authorized in regulations adopted by the federal government under provisions of the MBTA. Except as permitted by USFWS, avoidance measures sufficient to prevent incidental take of these species, their eggs and their nests protected by this statute must be incorporated into project design, and construction plans and operations.

2.2.6 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne) defines water quality objectives as the allowable “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisances within a specific area.” Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both waters of the U.S. and waters of the State. In the State of California, Porter-Cologne is administered in concurrence with § 401 CWA WQC.

2.2.7 State Water Resources Control Board Resolution No. 2019-0015

The California Code of Regulations, Title 23, Section 3831(w) states that “[a]ll waters of the United States are also ‘waters of the state.’” This regulation has remained in effect despite Supreme Court decisions such as Rapanos and SWANCC, which added limitations to what could be considered a water of the U.S. Because the interpretation of waters of the U.S. in place at the time § 3831(w) was adopted was broader than any post-Rapanos or post-SWANCC regulatory definitions that incorporated more limitations into the scope of federal jurisdiction, it is consistent with the Water Boards’ intent to include both historic and current definitions of waters of the U.S. into the SWRCBs wetland jurisdictional framework.

As set forth in Resolution No. 2009-0026, although the state of California has historically relied primarily on requirements in the Clean Water Act to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the Clean Water Act over wetland areas by limiting the definition of “waters of the United States” necessitated the use of California’s independent authorities under the Porter-Cologne Act to protect these vital resources.

The inclusion of both current and historic definitions of “waters of the U.S.” ensures some regulatory stability in an area that has otherwise been in flux. The status of a water of the U. S. may only be used to establish that a wetland or water qualifies as a water of the State; it cannot be used to exclude a wetland or water from qualifying as a water of the State. In other words, wetlands that are categorically excluded from qualifying as a water of the U.S. may nevertheless qualify as waters of the State under another jurisdictional category. Examples of waters of the State include (but are not limited to) ephemeral streams and isolated wetlands.



On April 2, 2019, the SWRCB adopted Resolution No. 2019-0015, Amendment to the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to Establish a State Wetland Definition and Procedures for Discharges of Discharges of Dredged or Fill Material to Waters of the State (Procedures). for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. As they apply to this project, the Procedures provide the SWRCB and its nine RWQCBs to approve a project only if the applicant has demonstrated certain requirement. (SWRCB, 2019).

On April 6, 2021, the SWRCB issued Resolution No. 2021-0012 confirming that the “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State” (1) are in effect as state policy for water quality control for all waters of the State and (2) shall be applied via the inland surface waters and enclosed bays and estuaries plan to only waters of the United States.

When a discharge is proposed to waters outside of federal jurisdiction, the SWRCB and the RWQCBs regulate the discharge under Porter-Cologne through the issuance of Water Discharge Requirements (WDRs). WDRs and waivers of WDRs are referred to as orders or permits. The SWRCB and its nine RWQCBs have the authority to regulate the discharge of dredged or fill material under Resolution Nos. 2019-0015 and 2021-0012. Dischargers that do not require a federal permit or license that authorizes impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as § 404 CWA and § 10 of the Safe Rivers and Harbors Act, must obtain a WDR or a waiver of a WDR from the SWRCB or RWQCB to ensure that the discharge does not violate state water quality standards or any other appropriate requirement of State law.

Basin Plans

The SWRCB requires its nine RWQCBs to develop water quality control plans (Basin Plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations. This project is under the jurisdiction of the Lahontan RWQCB.

Construction Stormwater Program

The SWRCB implements water quality regulations under the federal CWA and Porter-Cologne and requires compliance with the National Pollutant Discharge Elimination System (NPDES) for discharges of stormwater runoff associated with a construction activity.

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-009-DWQ, as amended). Construction Activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation,

but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns. The SWRCB will provide Construction General Permit review and permitting services for this project.

2.2.8 Lake or Streambed Alteration Agreement

Sections 1600-1617 FGC of the California Fish and Game Code (FGC) protect the natural flow and the bed, channel, and bank of any river, stream, or lake designated by the CDFW which is at any time an existing fish or wildlife resource, or a waterbody from which these resources derive benefit. General project plans must be submitted to CDFW in sufficient detail to indicate the nature of the project proposed for construction, if the project would:

- Divert, obstruct, or change a streambed;
- Use material from the streambeds;
- Result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a stream.

The Inland Deserts Region (Region 6) of the CDFW serves San Bernardino County and would provide LSA Notification Review and Agreement services for this project.

2.2.9 Natural Community Conservation Planning Act of 2003 (NCCP Act)

The California Natural Community Conservation Planning Act (NCCP Act) was enacted to encourage broad-based planning to provide for effective protection and conservation of the State's wildlife resources while continuing to allow appropriate development and growth (California Fish and Game Code §§ 2800 to 2835). NCCPs may be implemented, which identify measures necessary to conserve and manage natural biological diversity within the planning area, while allowing compatible and appropriate economic development, growth, and other human uses. An approved NCCP enables the California Department of Fish and Wildlife to authorize take of species consistent with the NCCP Act and California Fish and Game Code § 2835.

2.3 Local Policies and Ordinances

2.3.1 City Municipal Code, Title 16 – Development, Chapter 16.24

The City aims to promote conservation efforts of native desert plants through regulation, guidelines and enforcement that provides for the management and the removal or harvesting of such plants. They are also necessary to augment and coordinate with the State Department of Food and Agriculture in its efforts to implement and enforce the Desert Native Plant Act. The provisions of Chapter 16.24 apply to *“all private land within the city and to public lands owned by the city except as specified by the provisions of this chapter”*. Article II Section 16.24.150 provides that *“all plants*

protected or regulated by the State Desert Native Plants Act (i.e., Food and Agricultural Code 80001 et seq.) shall be required to comply with the provisions of those statutes prior to the issuance of any county development permit or land use application approval. The county agricultural commissioner is the responsible agency for the issuance of any required wood tags, seals or permits.” In addition, the preparation and submission of a Protected Plant Preservation Plan is required by City municipal code. (City of Hesperia; 1997). Native desert vegetation addressed under the municipal code as per Article II Section 16.24.150 include the following, which would require a permit for removal as per Section 16.24.040:

1. *“The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
(a) Dalea, Spinosa (smoketree)
(b) All species of the family Agavaceae (century plants, nolinias, yuccas)
(c) All species of the genus Prosopis (mesquites).*
2. *Creosote rings, ten feet or greater in diameter.*
3. *All Joshua trees (mature and immature).”*

3.0 METHODS

3.1 Literature Review

Prior to the field survey, biologists conducted a literature review to identify habitats, special-status plant and wildlife species, critical habitats, and wildlife movement corridors potentially associated with the project site. Biologists reviewed relevant literature, databases, agency web sites, reports and management plans, Geographic Information System (GIS) data, maps, and aerial imagery obtained from public domain sources. The review also helped to determine which biological surveys may be required prior to site construction and development. The following resources were utilized in order to conduct the literature search:

3.1.1 Sensitive Plant Communities and Special-Status Species

The data sources described below were reviewed to generate a list of special-status plants and wildlife with reported occurrences within the vicinity of the BSA. The literature review and query of the databases for reported locations of sensitive plant communities and special-status species helped to identify the known locations of these resources in the project region and assisted in identifying the potential for onsite occurrence of such species.

- CDFW’s California Natural Diversity Database (CNDDB) was used to identify sensitive plant communities and special-status species documented within a ten-mile radius of the project site (CNDDB, 2022a)
- The USFWS’ Information, Planning, and Conservation (IPaC) system was used to identify listed plant and wildlife species reported within the vicinity of the BSA (USFWS, 2022a).
- Previous consultant studies and reports near the project site and project vicinity were reviewed to gain a sense of the existing conditions at the time the studies were conducted.
- Google Earth Pro satellite imagery of the project site and vicinity (Google Earth Pro, 2022)



- The Natural Resources Conservation Service's (NRCS's) Custom Soil Resource Report for the BSA downloaded from the Web Soil Survey (Soil Survey Staff, 2022)
- USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle (USGS, 2015)

Sensitive Plant Communities

CDFW defines sensitive plant communities as “communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental impacts of projects” (CDFW, 2018). These communities are a valuable biological resource due to their rarity and/or their provision of habitat for special-status species. The most current version of CDFW's *California Natural Community List* indicates which natural communities are sensitive given the current state of the California classification (CDFW, 2022a). The *California Natural Community List* includes alliance rankings according to their degree of imperilment. For this BRE, plant communities are considered sensitive if they meet any of the following criteria:

- Recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as the CNPS, or local municipalities such as the City.
- Habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA and/or is under the jurisdiction of the CDFW pursuant to §§ 1600-1612 of the California Fish and Game Code.
- Known or believed to be of high priority for inventory in the CNDDDB.
- Considered to be regionally rare.
- Has undergone a large-scale reduction due to increased encroachment and development.
- Supports special-status plant and/or wildlife species.
- Functions as an important corridor for wildlife movement.

Special Status Plants

A literature review and query from publicly available databases was conducted for reported occurrences within a ten-mile radius of the project site (plant inventory). The following resources were used to analyze plant species potential to occur within the BSA:

- Rare Plant Program, Inventory of Rare and Endangered Plants (CNPS, 2022a)
- California Natural Diversity Database (CNDDDB, 2022a)
- USFWS Information for Planning and Consultation (USFWS, 2022a)
- Jepson Flora Project (Jepson eFlora, 2022)
- Information on California Plants (Calflora, 2022)

Special-Status Wildlife:

A literature review and query from publicly available databases (USFWS 2022a, CNDDDB 2022a) was conducted for reported occurrences within a ten-mile radius of the project site. The following resources were used to analyze wildlife species potential to occur within the BSA:

- All About Birds (Cornell Lab of Ornithology, 2022)

- USFWS Information for Planning and Consultation (USFWS, 2022a)
- USFWS ECOS species profiles (USFWS, 2022b)
- CDFW California Wildlife Habitat Relationships Life History Accounts and Habitat Range Maps (CDFW, 2022b)

3.1.2 Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

Aerial imagery was reviewed to identify natural and man-made drainages, open water (lakes, ponds, etc.), wetlands and other features that may be subject to federal or state jurisdictional authority within the BSA. The USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle was reviewed to identify potential presence or absence of onsite and offsite watercourses, and topographic features than may be indicative of water features. Topographic maps do not show all drainages that may exist.

The National Wetlands Inventory (NWI) database and maps developed by the USFWS were used as preliminary indicators of potential wetland areas based on changes in vegetation patterns as observed from satellite imagery (USFWS, 2022c). The NWI data were viewed in GIS platforms (Google Earth Pro, 2022), including the USFWS Wetlands Mapper (USFWS 2022c) to identify potentially jurisdictional features within the project area as indicated from topographic changes or visible stream patterns. The digital wetland data for the project vicinity was later ground-truthed during biological surveys.

The USGS National Hydrography Dataset (NHD) was also used to identify hydrologic features such as rivers, streams, canals, lakes, and ponds. (USGS, 2022).

Additionally, the watershed boundary data set containing the most current 10-digit and 12-digit HUCs was obtained in geodatabase form from the USGS to aid with assessing USACE jurisdiction of waters draining the project site (USGS, 2022)

The following were also reviewed and consulted:

- *Corps of Engineers Wetlands Delineation Manual (i.e., 1987 Manual; Environmental Laboratory, 1987).*
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE, 2008) (referred to as Arid West Supplement in this BRE)*
- *The National Wetland Plant List 2018 List (USACE, 2018).*
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley, 2008).*
- *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Curtis and Lichvar, 2010).*
- *United States Department of Agriculture National Resources Conservation Service Hydric Soils List (USDA-NRCS, 2022).*
- Waters Geoviewer, (USEPA, 2022)

The USACE published the *1987 Manual* for the identification and delineation of wetlands which have since been superseded and presented in regional supplements. In 2008, the USACE published the

Arid West Supplement, which is a supplement to the *1987 Manual* that describes wetland indicators, delineation guidance, and other information that is specific to the arid west region (USACE, 2008). The 1987 Manual and the Arid West Supplement are collectively referred to herein as the 1987 Manual.

3.1.3 Critical Habitat

When a species is listed as federally endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. Under the ESA, the federal government is required to designate "critical habitat" for each species it lists under the ESA. Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. Section 3 of the ESA defines critical habitat for a threatened or endangered species as [ESA § 3(5)(A)]:

- *The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of § 4 of the ESA, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and*
- *Specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of § 4 of the ESA, upon a determination by the Secretary that such areas are essential for the conservation of the species.*

Designated critical habitats are described in 50 CFR Parts 17 and 226. Critical habitat may include areas that are not currently occupied by the species, but that will be needed for its recovery. In addition, the USFWS normally excludes developed areas within mapped critical habitat boundaries as critical habitat. Within areas occupied by a listed species, the following factors indicate critical habitat (USFWS, 2022d):

- *space for individual and population growth and for normal behavior;*
- *cover or shelter;*
- *food, water, air, light, minerals, or other nutritional or physiological requirements;*
- *sites for breeding and rearing offspring; and*
- *habitats that are protected from disturbances or are representative of the historical geographical and ecological distributions of a species.*

The USFWS' Critical Habitat Portal and IPaC were reviewed to identify federal threatened and endangered species designated final and proposed critical habitat designations within ten miles of the project site (USFWS, 2022a, d).

3.1.4 Wildlife Corridors

To determine the potential for the BSA to contain wildlife corridors, UltraSystems biologists reviewed the USGS 7.5-Minute Topographic Map *Baldy Mesa* Quadrangle and viewed aerial imagery to search for physical features that might serve as a wildlife corridor. Biologists also used the BIOS Habitat Connectivity Viewer to search for CDFW Essential Connectivity Areas, and Natural Landscape

Blocks within the vicinity of the BSA (CDFW, 2022c). In addition, biologists used GIS software (Google Earth Pro, 2022) to determine the project site's location in relation to areas that could serve as wildlife corridors. Finally, the literature review also included maps and reports on wildlife home ranges and migration and dispersal patterns (CDFW, 2014).

3.1.5 Local Policies and Ordinances

The City's municipal ordinances, general plan and other documents were reviewed. The purpose of reviewing these documents was to determine if any City regulations protected resources not covered by federal or state regulatory agencies, or if City regulations had more stringent protections of biological resources protected by state or federal regulatory agencies.

3.2 Field Survey Methods

This section describes the field survey methods used by a UltraSystems biologist, Dr. Michael Tuma (biologist; Dr. Tuma), within the BSA during the reconnaissance-level biological survey. Dr. Tuma visited the BSA to conduct the following assessments during the survey:

- Habitat assessment and land cover type mapping
- Sensitive plant community assessment
- General plant survey
- General wildlife survey
- Jurisdictional waters/wetlands assessment
- Wildlife movement evaluation
- Step 1: Burrowing owl and desert tortoise habitat assessment

The purposes of the field work were to evaluate the initial results of the literature review and to collect additional data on existing site conditions. The general biological survey covered accessible areas of the BSA, including areas that will be impacted by the project. The survey was conducted during the daytime on foot by walking slowly across each habitat type, where accessible. The UltraSystems biologist used binoculars from strategic vantage points whenever direct access was not possible due to private property with no access rights, chain-linked fences, and locked gates. Observations were also made with aerial imagery for inaccessible areas.

During the survey, the UltraSystems biologist used topographic and aerial maps to help navigate in the field and pertinent regional flora and fauna field guides to identify and record special-status species and to assist with identifying plant communities, wildlife habitats, and physical features. Digital color photographs were taken during the field surveys to record site conditions at the time of the field surveys. Specific methods for each type of biological assessment are described in the sections below.

3.2.1 Habitat Assessment and Land Cover Type Mapping

The purpose of the habitat assessment was to identify and map habitat areas such as plant communities and other land cover types and to ascertain if existing site conditions could be suitable for special-status plant and wildlife species. Dr. Tuma characterized the existing land cover types including plant communities during the habitat assessment. He also identified and recorded plant and wildlife species, conducted a habitat assessment for special-status wildlife species such as burrowing owl (*Athene cunicularia*) [BUOW], evaluated the potential for wildlife corridors, and determined if jurisdictional waters (including wetlands) were present within the BSA.

The plant communities and other land cover types observed were identified and mapped in the field by marking their limits on a color aerial map. Descriptions of plant communities, within the BSA were based on the dominant perennial plant species. Generally, classifications of habitat types or plant communities were based on *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009), *Preliminary Descriptions of the Terrestrial Communities of California* (Holland, 1986), with modifications to better represent existing site conditions. The classifications were then checked against CDFW's *Natural Community List* (CDFW, 2022a) to determine if any of the plant communities were designated as sensitive by the CDFW.

Topography, soil characteristics, substrates, and disturbed and developed areas were also components of the habitat assessment in order to search for special-status plants and wildlife. Following the field mapping, UltraSystems GIS staff took the habitat boundaries from the aerial map and digitized the boundaries into an ArcGIS file. Once the boundaries were in the ArcGIS, the acreage of each land cover present within the BSA was then calculated.

3.2.2 Waters of the U.S. or State (Jurisdictional Waters/Wetlands) Assessment

This section describes the assessment methods used by the Dr. Tuma to identify potential waters of the U.S. or State (i.e., jurisdictional waters/wetlands) within the project site. The purpose of the field survey was to evaluate the initial results of the literature review and to collect additional data on existing site conditions. The Dr. Tuma investigated the project site for potential jurisdictional areas, including presence of streams or drainages with a definable bed, bank, or channel or evidence of an ordinary high water mark. areas of standing water, or depressions that had evidence of containing standing water for part of the year. Finally, Dr. Tuma assessed if there were any additional wetland indicators such as wetland hydrology, hydric soils or hydrophytic vegetation. Areas of the BSA which are developed and did not contain any exposed drainages were not surveyed.

4.0 RESULTS

This section describes the results of the literature review and the existing conditions within the BSA at the time the biological field surveys were conducted (environmental baseline). Photographs of the BSA that were taken during the field surveys can be found in **Appendix C, Site Photographs**. The reconnaissance-level biological survey was conducted by Dr. Tuma on August 24, 2022 between 2:45 and 4:00 PM. Weather conditions during the survey included clear skies with winds averaging between 0 to 4 miles per hour, and temperatures between 92- and 93-degree Fahrenheit.

4.1 Environmental Setting

Topography of the project site is relatively level; surfaces slope slightly in a southwesterly direction. Elevation ranges from approximately 3613 to 3624 feet amsl. The project site is located south of Poplar Street between Three Flags Avenue and Mesa Linda Street. The project site is surrounded by undeveloped lands to the north, industrial development to the west and south, and Interstate 15 to and undeveloped lands to the east (Google Earth Pro, 2022)

The climate of Hesperia is arid and characteristic of the regional Mojave Desert. In the vicinity of Hesperia, the Mojave Desert receives on average 8.5 inches per year. Summers are typically dry with occasional and scattered monsoon rain events that originate in the Gulf of California, whereas winter precipitation events are more significant and originate from the jet stream off the Pacific Ocean. The Mojave Desert exhibits a dry season extending from April through October, with an average of 0.1 inch of rain per month, and a wetter season between November through March, with an average of 0.5 inch of rain per month. Summers (June through September) are very hot, with an average high of 94 degrees Fahrenheit °F and low of 65°F. Winters (November through March) are cooler, with an average high of 57°F and low of 35°F [WRCC, 2022].

4.2 Soils

Based on the USDA NRCS Soil Survey, the BSA contains Hesperia loamy fine sand, 2 to 5 percent slopes (Soil Survey Staff, 2022). This soil type occurs in fan aprons, with granite-derived alluvium as the parent material. This soil map unit is not listed on the National Hydric Soils List as hydric (USDA NRCS, 2022). The A horizon of the onsite soils are comprised of 0 to 5 percent rocks varying in size from two millimeters to two centimeters in diameter (see **Appendix D**, *Soils Report*); see **Appendix A**, Figure 5, *USDA Soils*).

4.3 Plant Communities and Land Cover Types

4.3.1 Developed/Ornamental

Portions of the BSA off the project site consist of developed areas with some landscaped areas with ornamental vegetation. Developed areas structures, roads, sidewalks, paving, and other impermeable surfaces that are associated with industrial development in the area and that cannot support vegetation. Ornamental areas include bare ground, lawns, and native or non-native ornamental vegetation. Non-native oleander shrubs (*Nerium oleander*) and non-native tree species, including crepe myrtle (*Lagerstroemia* sp.) and carrotwood tree (*Cupaniopsis anacardioides*) are incorporated into landscaping on road margins, sidewalk medians, and around buildings within the BSA. Most of the species planted in the sidewalk medians and around buildings consist of a mix of drought-tolerant native and non-native plant species (see **Appendix A**, Figure 6 *Land Cover Types*).

4.3.2 Disturbed California Juniper Woodland

California juniper woodland community occurs on ridges, slopes, valleys, alluvial fans, and valley bottoms in soils that are porous, rocky, coarse, sandy, or silty, and often very shallow (Sawyer et al.,

2009; CNPS, 2022b). The project site appears to have been a former California juniper woodland that has been mostly cleared from the site. Natural vegetation remaining on the project site in this community includes one large California juniper shrub and several western Joshua trees. A recent grubbing of the site, likely conducted within a month prior to the biological reconnaissance survey, removed several western Joshua trees, as evidenced by stumps in the ground and numerous branches and other western Joshua tree parts distributed on the ground surface. Less disturbed examples of California juniper woodland community are distributed in the project vicinity, including off-site portions of the BSA. Other native shrub species observed in this community in off-site locations include peach thorn (*Lycium cooperi*), Great Basin sagebrush (*Artemisia tridentata*), Nevada ephedra (*Ephedra nevadensis*), rubber rabbitbrush (*Ericameria nauseosa*), California buckwheat (*Eriogonum fasciculatum*), and California broomsage (*Lepidospartum squamatum*). The distribution of this community within the BSA is depicted in **Appendix A**, Figure 6 *Land Cover Types*.

4.3.3 Disturbed

Disturbed lands consist of exposed soils that have undergone some type of disturbance such as compaction by vehicle traffic, mowing, disking, excavation or other type of alteration of the soil surface. These lands often consist of ruderal vegetation dominated by non-native, weedy species. An extensive area of disturbed lands is located in the western portion of the project site and in other, smaller areas on the project site and within the BSA on adjacent lands. The larger disturbed area is bare ground that has been used as a parking area for a long period. Other disturbed lands on the project site and within the BSA include dirt trails and unpaved road shoulders. These areas of mostly bare but include sparsely distributed weedy vegetation that includes red brome (*Bromus rubens*) and prickly Russian thistle (*Kali tragus*). The distribution of disturbed lands within the BSA is depicted in **Appendix A**, Figure 6 *Land Cover Types*.

4.4 Plants

4.4.1 Plant Species Recorded During Surveys

Six living western Joshua trees and numerous western Joshua tree stumps were observed on the project site during the field survey. However the project area is dominated by ruderal species such as red brome and prickly Russian thistle. There is evidence that the project site was formerly vegetated with western Joshua tree/juniper woodlands, however the significant disturbances that have occurred have resulted in compacted soils and dominance by ruderal species. Plant and wildlife species were recorded during the habitat assessment survey can be accessed in BRE **Appendix E**, *Plant and Wildlife Species Recorded During the Field Surveys*.

Because of development and disturbances in the area, just a small diversity native and non-native plant species was observed within the BSA. Species included non-native, ornamental species in developed areas, non-native, weedy species in disturbed areas, and remnants of California juniper woodland community. **Attachment 5**, *Species Observed*, provides a complete list of observed species.



One non-native species, red brome (*Bromus rubens*), is rated High by the California Invasive Plant Council (Cal-IPC), indicating that the species has severe ecological impacts on physical processes, plant and animal communities, and vegetation structure [Cal-IPC, 2006].

4.4.2 Special-Status Plant Species with Potential to Occur in the BSA

Based on a literature review and query from publicly available databases (USFWS 2022a, CNDDDB 2022a) for reported occurrences within a ten-mile radius of the project site, two listed and 11 sensitive plant species were identified by one of the following means: reported in the plant inventory, recognized as occurring based on previous surveys or knowledge of the area, or observed during the habitat assessment survey. Of these 13 species, seven sensitive species were determined to have only a low potential to occur and therefore are not anticipated to be impacted as a result of the project. One listed (candidate for state listing as threatened) species in the plant inventory, western Joshua tree, was observed on the project site. (see **Table 1**).



Table 1
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE BSA

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Description in California	Plant Elevation Range (feet amsl)	BSA Contains Potential Suitable Habitats	BSA is Located Within the Plant Species' Known:		Potential For Occurrence in the BSA
						Elevation Range	General Distribution	
Listed Endangered, Threatened, Candidate and State Rare Plants: Plants with official status under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA). A species may have other sensitive designations in addition to their federal or state listing.								
<i>Yucca brevifolia</i> (= <i>Yucca baccata</i> <i>var. brevifolia</i>)	western Joshua tree	SCT	Lifeform: tree Habitats: desert flats, slopes, sagebrush, desert shrub, pinyon-juniper, desert grasslands Soils: silts, loams, and/or sands that are fine, loose, well drained and/or gravelly; alkaline or saline soils Bloom Period: April to May	1,312 - 6,561	Yes	Yes	Yes	Present. There are six individual Joshua trees on the project site.
Sensitive Plants: These plants have no official status under the ESA, the CESA, and/or the NPPA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.								
<i>Asclepias nyctaginifolia</i>	Mojave milkweed	CRPR: 2B.1	Lifeform: perennial herb Habitats: Mojavean desert scrub and pinyon and juniper woodlands Soils: sandy soils, often near washes Bloom Period: May to June	2,870 – 5,580	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	CRPR: 4.2	Lifeform: perennial bulbiferous herb Habitats: chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland Soils: granitic and rocky Bloom Period: May to July	330 – 5,580	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Canbya candida</i>	white pygmy- poppy	CRPR: 4.2	Lifeform: annual herb Habitats: Joshua tree woodland Mojavean desert scrub, and pinyon and juniper woodland Soils: granitic, gravelly, and sandy Bloom Period: March to June	1,970 – 4,790	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Description in California	Plant Elevation Range (feet amsl)	BSA Contains Potential Suitable Habitats	BSA is Located Within the Plant Species' Known:		Potential For Occurrence in the BSA
						Elevation Range	General Distribution	
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	CRPR: 1B.2	Lifeform: annual herb Habitats: coastal scrub (on alluvial fans), Mojavean desert scrub, and pinyon and juniper woodland Soils: gravelly (sometimes) and sandy (sometimes) Bloom Period: April to June	985 – 3,935	Yes	Yes	No	Low. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Eremothera boothii</i> ssp. <i>boothii</i>	Booth's evening- primrose	CRPR: 2B.3	Lifeform: annual herb Habitats: Joshua tree woodland and pinyon and juniper woodland Soils: rocky, gravelly, and sandy Bloom Period: April to September	2,675 – 7,875	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	sagebrush loeflingia	CRPR: 2B.2	Lifeform: annual herb Habitats: desert dunes, Great Basin scrub, and Sonoran desert scrub Soils: sandy Bloom Period: April to May	2,295 – 5,300	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	CRPR: 1B.2	Lifeform: perennial stem Habitats: chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland Soils: rocky, gravelly, and sandy Bloom Period: April to June	1,395 – 5,905	Yes	Yes	Yes	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.

Legend and Notes
Federal Endangered Species Act (ESA) Listing Codes: the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened plants is published in 50 CFR § 17.12. • FE = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.



California Endangered Species Act (CESA) and California Native Plant Protection Act (NPPA) Listing Codes: the CESA and NPPA are administered by CDFW. The official listing of Plants of California Declared to Be Endangered, Threatened or Rare is contained in the California Code of Regulations, Title 14, § 670.2. Species, subspecies and varieties of California native plants are declared to be endangered, threatened as defined by § 2062 and § 2067 of the Fish and Game Code or rare as defined by § 1901 of the Fish and Game Code.

- **SE** = state-listed as endangered: "endangered species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (Fish and Game Code § 2062).

California Rare Plant Ranks (Formerly known as CNPS Lists): the CNPS is a statewide, nonprofit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFW officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment. •

CRPR 1B = California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

California Native Plant Society (CNPS) Threat Ranks: *The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) (as a decimal code) and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. A Threat Rank is present for all CRPR 1B's, 2B's, 4's, and the majority of CRPR 3's. CRPR 4 plants are seldom assigned a Threat Rank of .1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a CRPR. In addition, all CRPR 1A and 2A (presumed extirpated in California), and some CRPR 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.*

- **.1** = seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- **.2**=moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Notes:

The BSA contains approximate elevations of 3,606 to 3,620 feet amsl.
The BSA occurs on an alluvial fan in Victor Valley.
Yes = the BSA is located within the plant species' known distribution, elevation range, and/or the BSA contains suitable habitats and/or soils to support the plant species. The plant species has a potential to occur within the BSA. Further evaluation is needed.
Low = low potential to occur within the BSA

Based on an analysis of the biological, physical and environmental conditions necessary for each special-status plant species identified in the plant inventory (Calflora, 2022; CNDDDB, 2022a; CNPS, 2022a, b; Google Earth Pro, 2022; Jepson Flora Project, 2022; Sawyer et al., 2009; Soil Survey Staff, 2022; USEPA, 2022; USFWS, 2022a, b, c; see **Appendix A**, Figure 7, *CNDDDB Known Occurrences Plant Species*), it was determined that seven of the 13 special-status species identified in the plant inventory were determined to have a low potential to occur in the BSA; four were determined to have no potential to occur or are not expected to occur. In these cases, species were determined to have no potential to occur or are not expected to occur because the project site lacks suitable habitat or is outside of a particular species geographic or elevation range. The following plant species were determined to have no potential to occur or are not expected to within the BSA for the abovementioned reasons (see **Table 2** for a description of the species status ranking notations):

- Mojave tarplant (*Deinandra mohavensis*) SE, CRPR: 1B.3
- black bog-rush (*Schoenus nigricans*) CRPR: 2B.2
- southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*) CRPR: 1B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) CRPR: 1B.2

For the remaining species for which there is suitable habitat in the BSA, their potential to occur there was assessed as being 'low' for the following reasons: (1) The site has been grubbed recently and cleared and disked, perhaps repeatedly, in recent years; (2) There is evidence of vehicles driving on the site and disking the soil; this soil disturbance would decrease the likelihood of geophytes establishing onsite; (3) The operation and parking of vehicles in portions of the site may contribute to soil compaction. Many plant species cannot establish in compacted soils; (4) The project site was historically part of an alluvial fan that received surface water flow. This hydrological process no longer occurs within the BSA due to development of roads and buildings and other activities altering fluvial patterns. Thus, plant species dependent on periodic surface water flows are unlikely to establish within the BSA; and (5) The project site is adjacent to urbanized and residential developments, which thus reduces the nearby propagule sources of special-status plant species that could colonize the BSA. The following plant species, listed with their respective statuses, were determined to have low potential to occur within the BSA for the abovementioned reasons (see **Table 2** for a description of the species status ranking notations):

- Mojave milkweed (*Asclepias nyctaginifolia*) CRPR: 2B.1
- white pygmy-poppy (*Canbya candida*) CRPR: 4.2
- white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) CRPR: 1B.2
- Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*) CRPR: 2B.3
- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) CRPR: 2B.2
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) CRPR: 1B.2

Table 2
Special-Status Plant and Wildlife Species Ranking Notations

<u>California Endangered Species Act Listing Codes</u>	
SE	State listed as Endangered
ST	State listed as Threatened

Federal Endangered Species Act Listing Codes

FE Federal listed as Endangered
FT Federal listed as Threatened

California Department of Fish and Wildlife (CDFW) Designations:

SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.

Fully protected: fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Lists were created for fish (Fish and Game Code § 5515), amphibians and reptiles (Fish and Game Code § 5050), birds (Fish and Game Code § 3511) and mammals (Fish and Game Code § 4700).

WL = watch list: this list includes birds identified in the California Bird Species of Special Concern (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species.

California Rare Plant Ranks (Based on ranking system developed by the California Native Plant Society [CNPS])

CRPR: 1A – California Rare Plant Rank 1A - plants presumed extirpated in California and either rare or extinct elsewhere: the plants with a CRPR of 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes plants that are both presumed extinct as well as those plants which are presumed extirpated in California. All of the plants constituting CRPR 1A meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 1B – California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2B – California Rare Plant Rank 2B - plants rare, threatened, or endangered in California, but more common elsewhere: except for being common beyond the boundaries of California, plants with a CRPR of 2B would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the ESA. All of the plants constituting CRPR 2B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CNPS Threat Ranks –

.1 – seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 – moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

4.4.3 Listed Endangered, Threatened, Candidate, and State Rare Plants

One candidate for listing under CESA, western Joshua tree, was observed during the field survey.

4.4.4 Sensitive Plants

No sensitive plants were observed during the field survey.

4.5 Wildlife

4.5.1 Wildlife Species Recorded During the Field Surveys

Two wildlife species were directly observed during the August 24, 2022 field survey, including common raven (*Corvus corax*) and rock pigeon (*Columba livia*). Sign of California ground squirrel (*Otospermophilus beecheyi*) was observed in the BSA and project site in the form of active burrows.

4.5.2 Special-Status Wildlife Species with Potential to Occur in the BSA

Based on a literature review and query from publicly available databases (USFWS 2022a, CNDDB 2022a; see **Appendix A**, Figure 8, *CNDDB Known Occurrences Wildlife Species*) for reported occurrences within a ten-mile radius of the project site, there were 16 listed and 25 sensitive wildlife species identified by one of the following means: reported in the search, recognized as occurring based on previous surveys or knowledge of the area, or observed during the habitat assessment survey. Of those 41 total species, five listed and six sensitive wildlife species were determined to have at least a low potential to occur in the BSA (see **Table 3**). A total of 30 special-status wildlife species in the wildlife inventory were determined to have no potential to occur or are not expected to occur because the BSA lacks suitable habitat or is outside of the elevation/geographic range of these species. A total of 9 special-status wildlife species in the wildlife inventory were determined to have at least a low potential to occur in the BSA and it is anticipated that construction of the project will have less than a significant impact on the majority of those special-status wildlife species.



Table 3
SPECIAL-STATUS WILDLIFE WITH A POTENTIAL TO OCCUR IN THE BSA

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						
Listed Invertebrates						
Euphydryas editha quino (=Euphydryas editha wrighti)	quino checkerspot butterfly	FE	Habitats: grasslands, remnant forbland, open coastal sage scrub, open chamise chaparral, open red shank chaparral, juniper woodland, and semi-desert scrub, open or sparsely vegetated rounded hilltops, ridgelines, rocky outcrops of chaparral and coastal sage scrub Soils: loamy soils with moderate to high amounts of clay Characteristics: adult butterflies will only deposit eggs on species they recognize as host plants	Yes	No	Low. The BSA contains some desert scrub habitat, however it exists in a disturbed state. In addition, the soils in the BSA do not contain a high clay faction; this species typically occurs in areas with clay-loam soils. The soils of the BSA are primarily loamy-fine-sand.
Bombus crotchii	Crotch’s bumble bee	candidate endangered	Habitats: grasslands and shrublands. Hotter and drier environment than other bumblebee species. Prefers milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats: This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border.	Yes	Yes	Low. The BSA is in of the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There are few remaining native plants in the BSA. Due to these factors, there is low potential for the species to occur in the BSA.
Listed Reptiles						
Gopherus agassizii	desert tortoise	FT, ST	Habitats: Desert scrub communities, most typically creosote scrub. Soil: friable soils for burrowing	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Listed Birds						
Buteo swainsoni	Swainson's hawk	ST	Habitats: large, open areas with abundant prey in association with suitable nest trees, native grasslands or lightly grazed pastures and croplands, open deserts, sparse shrub lands Characteristics: nest in juniper trees of juniper-sage flats not near riparian zones	No	Yes	Low. The BSA is located within the historical breeding range of the species, but breeding populations are likely extirpated from the region. The BSA supports marginal foraging and there is low potential for migrating or transient individuals to forage in the BSA. There is no potential for the species to nest within the BSA.
Listed Mammals						



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	ST	Habitats: Desert scrub communities. Soil: sandy, loamy soils for burrowing	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Wildlife: These animals have no official status under the ESA and/or the CESA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations						
Sensitive Invertebrates						
<i>Bombus crotchii</i>	Crotch's bumble bee	SCE	Habitats: open grassland and scrub habitats Characteristics: food plants include predominantly native flowering plant species	Yes	No	Low. The BSA is in of the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There are few remaining native plants in the BSA. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Reptiles						
<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC	Habitats: open areas with low vegetation in valleys, foothills, and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral with open areas. Characteristics: often found in sandy, loose soils, particularly near native ant hills	Yes	No	Low. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Sensitive Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	WL	Habitats: broken woodland and habitat edges Characteristics: tolerant of human activities near the nest and is seen more often nesting in urban/residential areas	Yes	No	Low. This species has adapted to disturbed environments and human activity. There is marginal foraging habitat and low potential for this species to forage in the BSA. Due to a lack of suitable nesting habitat (trees) there is no potential for the species to nest in the BSA.
<i>Athene cunicularia</i>	burrowing owl	SSC	Habitats: inhabits open grasslands and scrublands. Occupies and nests in burrows of other animals, especially those of California ground squirrels, but also those of coyotes and desert tortoises, among others. Characteristics: somewhat tolerant of human disturbances	Yes	Yes	High. The BSA is in of the known distributional range of the species and contains friable soils and mammalian burrows (California ground squirrel) preferred by the species. This species is tolerant of



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
						human disturbances. Due to these factors, there is high potential for the species to occur in the BSA.
<i>Falco mexicanus</i>	prairie falcon	WL	Habitats: associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. Characteristics: Requires sheltered cliff ledges for cover and nesting	Yes	No	Low. The BSA does not contain suitable nesting habitat (rocky cliffs), and there is no potential for this species to nest in the BSA. There is marginal foraging habitat in the BSA, and there is low potential for this species to occur in the BSA as a forager.
<i>Lanius ludovicianus</i>	loggerhead shrike	SSC	Habitat: open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns Characteristics: prefers areas with lookout posts, such as fence posts and wires, trees, tall shrubs	Yes	Yes	Moderate. The BSA is in of the known distributional range of the species and contains potentially suitable nesting and foraging habitat (open habitat, Joshua trees). Due to these factors, there is moderate potential for the species to occur in the BSA.
Sensitive Mammals						
<i>Antrozous pallidus</i>	pallid bat	SSC	Habitats: Inhabits rocky outcrops and canyons; roost sites include crevices and caves. Forages over open grasslands and scrublands near sources of water. Characteristics: Has adapted roosting in buildings.	Yes	No	Low. The BSA does not contain suitable roosting habitat (rocky areas) needed to support populations of the species. There are no open water sources in the BSA and only marginal foraging habitat there. There is low potential for this species to occur in the BSA as a forager.
Legend and Notes						
<u>Federal Endangered Species Act (ESA) Listing Codes:</u> the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened animals is published in 50 CFR § 17.11. • FE = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.						
<u>California Endangered Species Act (CESA) Listing Codes:</u> the CESA is administered by CDFW. The official listing of Animals of California Declared To Be Endangered or Threatened is contained in the California Code of Regulations, Title 14, § 670.5. Species and subspecies of California native animals are declared to be endangered or threatened as defined by §§ 2062 and 2067 of the Fish and Game Code. • SCE = state candidate for listing as endangered: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of endangered species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).						



Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
<u>California Department of Fish and Wildlife (CDFW) Designations:</u> For some wildlife species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nesting colonies. For many species of birds, the primary emphasis is on the breeding population in California. For some species which do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering • SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. • WL = watch list: this list includes birds identified in the California Bird Species of Special Concern (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species.						
<i>Notes</i> The BSA contains approximate elevations of 3,606 to 3,620 feet amsl. Yes = . Further evaluation is needed. No potential to occur = the species has no potential to occur in the BSA due to a lack of factors required to support the species. Not expected to occur = the BSA is located outside the wildlife species' known distribution, elevation range, and/or the BSA lacks suitable habitats or conditions to support the species. It is highly unlikely for the wildlife species to have a potential to occur within the BSA. No further evaluation is needed. Low = low potential to occur within the BSA; the BSA is located within the wildlife species' known distribution, elevation range, and/or the BSA contains suitable habitats or conditions to support the species. Moderate = moderate potential to occur within the BSA; the BSA is located within the wildlife species' known distribution, elevation range, and/or the BSA contains suitable habitats or conditions to support the species.						

Based on an analysis of the biological, physical and environmental conditions necessary for each special-status wildlife species identified in the wildlife inventory, it was determined that the majority of those species have no potential to occur or are not expected to occur in the BSA (CNDDDB, 2022a, Google Earth Pro, 2022, USFWS, 2022a, b, c, d). In most cases, species were determined to have no potential to occur or are not expected to occur because the project site lacks suitable habitat or is outside of a particular species geographic or elevation range.

Some species for which there is suitable habitat in the BSA were determined to have no potential to occur or are not expected to occur for the following reasons: (1) Although not developed at a high density, the areas surrounding the project site contain some urbanized developments with paved roadways; the hazards such as traffic noise and other disturbances reduce the likelihood that certain species would establish or regularly forage in the BSA; (2) The significant disturbances that have occurred have resulted in compacted soils and dominance by ruderal species. Plant and wildlife species were recorded during the habitat assessment survey can be accessed in of **Appendix E, Plant and Wildlife Species Recorded During the Field Surveys**; (3) There is evidence of vehicles driving on the site and disking the soil; this soil disturbance would decrease the likelihood of fossorial mammal species or bird or reptile species that utilize burrows establishing onsite; (4) the project site and other disturbed areas in the BSA frequently undergo grading, which would likely deter fossorial and ground-nesting birds from utilizing the project site for nesting; and (4) Street lights and traffic noise may cause certain species to avoid the BSA. Several wildlife species, listed with their respective statuses, were determined to have no potential to occur or are not expected to occur based on the abovementioned reasons. See **Appendix F Special-Status Species Inventory and Occurrence Potential Determination** for a discussion of these species and the description of their respective status ranking notations):

4.5.3 Listed Endangered, Threatened, and Candidate Wildlife

No federally listed endangered, threatened, or candidate wildlife species were observed during the field survey. Five listed wildlife species were determined to have a low potential to occur in the BSA.

4.5.4 Sensitive Wildlife

No sensitive wildlife species were observed during the field survey. The two sensitive wildlife species determined to have a high or moderate potential to occur are discussed below.

High Potential to Occur

Burrowing owl

The burrowing owl is a small, crepuscular (active at dusk and dawn), ground-inhabiting owl that is found largely throughout the southern United States. Typical BUOW habitat is open, dry, flat ground or low rolling hills with sparse vegetation and available burrows (Gallagher, 1997). BUOWs spend most of their time on the ground or on low perch sites such as fence posts and dirt mounds. They are generally found in open country, where tree or shrub canopies cover less than 30 percent of the habitat. Typical habitat includes annual and perennial grasslands, shortgrass prairies, open agricultural areas (particularly rangelands), desert floors, and vacant lots in residential areas and

university campuses. Other habitat includes oak savannah; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; sandy beaches and coastal dunes; and river bottom lands. BUOWs inhabiting urban landscaped areas may live in vacant fields/lots, pastures, airports, athletic fields, golf courses, cemeteries, city parks, road shoulders, drainage sumps, railroad beds, irrigation ditches, and road cuts. The BUOW is primarily a dry grassland species, but it persists and can even thrive in some landscapes that are highly altered by human activity, such as agricultural areas in the Central and Imperial valleys. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. Vegetation cover and height that prevents the owl from observing approaching predators places the BUOW at a severe disadvantage (Center for Biological Diversity et al., 2003). They are the only small owl likely to be seen perched in the open daylight (Center for Biological Diversity et al. 2003; CWHR, 2014; Cornell Lab of Ornithology, 2022; Sibley, 2000; Shuford et al. 2008).

Suitable BUOW habitat must also support the primary prey items for BUOWs, such as insects and small mammals. BUOWs are opportunistic predators preying primarily on a broad array of arthropods (centipedes, spiders, beetles, crickets, and grasshoppers), and small rodents, but they also eat birds, amphibians, reptiles, and carrion. They may hunt from a perch, hover, hawk, run, walk, dive or hop after prey.

The BSA is in of the known distributional range of the species and contains friable soils and mammalian burrows (California ground squirrel) preferred by the species. This species is tolerant of human disturbances. Due to these factors, there is high potential for the species to occur in the BSA.

Moderate Potential to Occur

Loggerhead shrike

The loggerhead shrike (*Lanius ludovicianus*) is a CDFW Species of Special Concern, which is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. Loggerhead shrike is also a USFWS Bird of Conservation Concern (BCC), which is a bird species listed in the USFWS' 2008 Birds of Conservation Concern report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

Loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. This species inhabits areas with scattered shrubs, trees, posts, fences, utility lines, or other

hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and western Joshua tree habitats. The BSA is in of the known distributional range of the species and contains potentially suitable nesting and foraging habitat (open habitat, western Joshua trees). Due to these factors, there is moderate potential for the species to occur in the BSA. Construction of the project would involve grading of the entire project site and the western Joshua trees and juniper would be significantly impacted as a result. Although there is suitable habitat for loggerhead shrike on the project site, the area of suitable habitat that would be destroyed by grading activities is relatively small and does not represent an expansive area of suitable habitat for this species. Therefore, the loss of this area would not have a substantial effect on the availability of loggerhead shrike habitat or population levels statewide. These impacts do not meet the threshold of significance set forth in Section 15065 of the California Environmental Quality Act (CEQA) Guidelines. Therefore, construction of the project would have a less than significant impact on loggerhead shrike (Cornell Lab of Ornithology, 2022; CWHR, 2014; Grinnell and Miller, 1944; McCaskie et al. 1979; Garrett and Dunn, 1981; Miller, 1931).

4.6 Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

The BSA does not contain jurisdictional Waters of the United States (Waters of the U.S.) or Waters of the State. The project site is located within the Oro Grande Wash hydrologic unit (HU; USGS HU code 180902080704) and within the Mojave River Watershed (USGS HU code 18090208), which encompasses approximately 4,500 square miles (see **Appendix A**, Figure 9, *USGS Surface Waters and Watersheds*). The Mojave River Watershed drains the northern areas of the San Bernardino Mountains (USEPA, 2022; Google Earth Pro, 2022).). There is an NWI-mapped riverine area located approximately 0.65 west of the project site (USFWS, 2022c).

Although drainages, depressions, and other topographic features that would be conducive to wetlands formation were not identified within the BSA. The runoff from the project site travels to the southwest, joining this riverine area, however the project proponent has prepared a Water Quality Management Plan (WQMP) which is designed to retain stormwater generated onsite (Allard Engineering, 2022a)

4.7 Critical Habitat

The BSA does not overlap with any USFWS critical habitat, and there are no critical habitats mapped by USFWS within a 5-mile radius of the project (see **Appendix A**, Figure 10, *USFWS Critical Habitat*).

4.8 Wildlife Corridors

The BSA does not overlap with CDFW Essential Connectivity Areas, Natural Landscape Blocks, or other wildlife corridors. The nearest CDFW-mapped wildlife corridor to the project site is Choke-point, 395 South of Ridgecrest. This linkage is located approximately 1.2 miles south of the project site (CDFW, 2022c). See Figure 11. The areas south and west adjacent to the project are developed with structures intended for commercial use. Although the project's surroundings contain undeveloped areas, the project will be constructed in an area that would not cause significant new

habitat fragmentation, and would not significantly impede the passage of wildlife, therefore resulting in less than significant impact.

Construction and operation of the proposed project would not significantly interfere with the movement of native resident or migratory fish or wildlife species or with native resident or migratory wildlife corridors. Less than significant impact would occur, and mitigation is not proposed.

California ground squirrel burrows were recorded on-site during the field survey and a small resident population occurs onsite. Ground disturbing activities such as disking, bulldozing and excavating would lead to eviction, death, or injury of individual squirrels of this common species, which would not be considered a significant impact.

The CDFW classifies both California ground squirrels as nongame animals, and as such, property owners can legally take these species (Baldwin, 2019; Quinn et al., 2018). No mitigation is required for the take of this fossorial species. The direct impacts of construction of the project to nursery sites of fossorial species would be less than significant (see **Appendix A**, Figure 11, *CDFW Wildlife Corridors*).

5.0 POTENTIAL IMPACTS

This section discusses potential significant effects or impacts, if any, to the environmental baseline and sensitive biological resources that could result from project construction and development. This is an important step in the CEQA process. Biological resources may be either “directly” or “indirectly” impacted by a project (defined by CEQA Guidelines § 15358). Direct and indirect impacts may be either “permanent” or “temporary” in nature. These impact categories are defined below:

- **Direct impact:** Direct impacts are those that may cause an immediate effect on the species or its habitat and occur at the same time and place. Any loss, alteration, disturbance or destruction of biological resources that could result from project-related activities is a direct impact. Examples include vegetation clearing and loss of habitat, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species.
- **Indirect impact:** As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Indirect impacts are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Indirect impacts can affect biological resources within the project site, adjacent to the project site, or away from the project site. Examples of indirect impacts include increased human activity, elevated noise, light, and dust levels, decreased water quality, soil compaction, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators. Indirect impacts may be both short term and long-term in their extent. Indirect impacts are also referred to as “edge effects”.
- **Permanent impacts** (long term): All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a

building or permanent road on an area containing biological resources. Permanent impacts cannot be mitigated in-place

- **Temporary impacts (short term):** Impacts considered to have reversible impacts to biological resources can be viewed as temporary. Examples include short-term increased vehicle traffic and noise and the generation of fugitive dust during construction; or removing vegetation and either allowing the natural vegetation to recolonize or actively revegetating the impact area. Temporary impacts can be reversed with the implementation of in-place mitigation measures.

This section describes the significance criteria used for determining impacts to biological resources. As mentioned in the CEQA Guidelines (§ 15064.7[a]), each public agency is encouraged to develop and publish thresholds of significance (significance criteria) that it uses to determine the significance of environmental impacts. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental impact, non-compliance with which means the impact will normally be determined to be significant by the agency and compliance with which means the impact normally will be determined to be less than significant.

Significance criteria serve as benchmarks for determining if a project would result in a significant adverse environmental impact when evaluated against the baseline. CEQA Guidelines § 15065(a) states that a project may have a “significant impact” on the environment if the project has the potential to:

- Substantially degrade the quality of the environment,
- Substantially reduce the habitat of a fish or wildlife species,
- Cause a fish or wildlife population to drop below self-sustaining levels,
- Threaten to eliminate a plant or animal community, or
- Substantially reduce the number or restrict the range of an endangered, rare or threatened species.

The Environmental Checklist Form in Appendix G of the CEQA Statute and Guidelines (2014) was reviewed in order to determine the level of significance of project related impacts to biological resources. Under CEQA Guidelines impacts to biological resources are considered potentially “significant” if one or more of the following thresholds are exceeded with construction and operation of the project.

Threshold 1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

Threshold 2: The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW and USFWS.

Threshold 3: The project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold 4: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Threshold 5: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold 6: The project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

Significant impacts can be reduced to less than significant levels by incorporating off-setting conservation measures, including BMPs, avoidance and protection measures, and/or mitigation measures. Less than significant impacts are those in which impacts would occur, but are not expected to be substantial. Impacts to biological resources that are considered less than significant include impacts to biological resources that are reasonably widespread or exist in a degraded or disturbed state, rendering them less valuable as habitat to support wildlife diversity or special-status species, or impacts that do not meet or exceed the significance thresholds defined above. These less than significant impacts do not require conservation measures.

5.1 Potential Impacts to Plant Communities

The project site is situated on relatively level ground; no ephemeral, intermittent, or perennial streams or rivers were identified in the literature review or observed during the biological survey. The BSA does not support riparian habitat. There was one land cover type identified within the project site and three altogether within the BSA. The project site is covered by disturbed California juniper woodland, which is considered a sensitive plant community on the CDFW *California Natural Community List* (CDFW, 2022a). Direct impacts to this sensitive plant community are anticipated as a result of project development. Therefore, mitigation is required. **BIO-6** is discussed in **Section 6.1**.

Significance criterion

Impacts would be considered significant if the project were to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

In regard to the significance criterion, the project is anticipated to have an adverse effect on sensitive natural communities: **Less than Significant with Mitigation Incorporated.**

5.2 Potential Impacts to Special Status Plants

One candidate species for state listing as threatened was plant species (western Joshua tree) was observed on the project site. The literature review and field surveys concluded that other plant

species in the plant inventory do not have more than a low potential to occur within the BSA due to a lack of suitable habitat, soils, and/or other factors to support them; these species are not anticipated to be significantly impacted as a result of the project.

Direct or indirect impacts to special-status plant species (western Joshua tree) are anticipated as a result of construction of the project. Therefore, acquisition of a 2081 Incidental Take Permit, which is discussed in **Section 6.0**, is proposed. Additionally, mitigation is required to maintain compliance with the native desert vegetation protection provided in the City Municipal Code.

Significance criterion

Impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

The field survey results determined that the project site contains one listed plant species; therefore, the project will result in direct or indirect impacts to special-status plants. In regard to the significance criterion, the project is anticipated to have substantial adverse effect, either directly or through habitat modifications, to any species identified as a special-status species in federal, state, local or regional plans, policies, or regulations, or by CDFW or USFWS. With implementation of mitigation measures described below, these impacts would be reduced to a less than significant degree : **Less than Significant Impact with Mitigation Incorporated.**

5.3 Potential Impacts to Special-Status Wildlife

5.3.1 Direct Impacts

Potential direct impacts to common and special-status wildlife occupying the project site could occur from construction related mortality, injury, or harassment of individuals as a result of permanent development of the project site and from the removal and direct loss of breeding, foraging, and/or sheltering habitat. These impacts could be considered significant and potentially significant. Project development could diminish the habitat available for common and special-status wildlife species from utilizing the onsite habitat. Direct permanent impacts include all areas within the limits of grading in the project footprint.

Ground disturbing and habitat altering activities could involve significant disturbance to common and special-status ground-dwelling animals or nesting birds. Examples include grading, clearing, disking, grubbing, excavation, trenching, paving, mowing, heavy equipment compacting, driving over habitat to access the construction work sites, vegetation management activities, and use of herbicides and pesticides. Direct impacts to less mobile fossorial (burrowing) animals that are underground during most of the day or year (e.g., small mammals or lizards) or have a life stage in the soil or on plants (e.g., amphibians, nesting birds, insects) could occur from encounters with vehicles or heavy equipment as many of these animals do not run away from construction vehicles/equipment and would most likely be killed. These species could be expected to experience direct mortality, injury, harassment, and displacement from increased human activity and vehicle/equipment travel if they are present onsite within the project footprint at the time of construction. Individual losses are more

likely, especially during clearing and grubbing activities. Individuals could also be injured, disturbed, or killed from encounters with workers' or visitors' pets. Birds and bats could be injured or killed from collisions with transmission lines and wind turbines structures. Birds and bats could be injured or killed from electrocution from electric lines and structures. The loss of these animals could also affect other common and special-status wildlife that depend on them as prey. Construction related direct impacts are considered a significant impact.

Listed Endangered, Threatened, and Candidate Wildlife:

No listed wildlife species were observed within the BSA during the biological surveys. The results of the literature review and field surveys concluded that the following listed wildlife species have a low potential to occur within the BSA: Crotch's bumble bee, Mohave ground squirrel, and desert tortoise. All of the listed wildlife species in the wildlife inventory were determined to have no more than a low potential to occur. Therefore, no direct impacts to listed endangered, threatened, or candidate wildlife are anticipated as a result of construction of the project.

Sensitive Wildlife

High Potential to Occur in the BSA

Burrowing Owl

One special-status species, burrowing owl, was determined to have a high potential to occur in the BSA. There is suitable nesting, sheltering, and foraging habitat within the BSA for BUOW. The project site contains sparse shrub cover and friable soils which are preferred conditions for BUOW. Furthermore, burrowing owl are generally adaptive to disturbances and the frequent grading of the project site would not necessarily deter this species from establishing there. It is anticipated that construction of the project could have a significant impact on BUOW and therefore mitigation is proposed.

No special-status wildlife species were observed within the BSA during the biological surveys. The results of the literature review and field surveys concluded that the following sensitive wildlife species have at least a low potential to occur within the BSA: loggerhead shrike, desert kit fox, prairie falcon, Blainville's horned lizard, Swainson's hawk, and Cooper's hawk. See below for further discussion of these species [see Table 3].

5.3.2 Indirect Impacts

Indirect impacts could occur within areas located adjacent to the limits of construction in the project footprint. Indirect impacts are more subtle than direct ones. Impacts may either be short-term related to construction or long-term and may affect populations and habitat quality over an extended period of time, long after construction activities have been completed. Examples of indirect impacts, such as mortality, injury, or harassment of common and special-status wildlife species that could potentially occur from the project include the following:

- The permanent loss of habitat and physical features that would occur from clearing and grading could indirectly impact wildlife species through the loss of foraging, roosting, denning, and/or breeding habitat available. Habitat loss could displace species from existing territories and reduce the home range of those species and impact nearby populations of similar species. Displaced species would then have to compete for and/or find new territories and compete for food with resident species. This could result in delayed nest building, fewer nest attempts, reduced clutch size, and an overall reduction in reproductive output.
- Project construction could result in temporary increased ambient noise levels, dust, vibration, lighting and/or human intrusion in and near habitat. This could disrupt natural foraging, roosting, denning, and/or breeding behavior of wildlife species. Wildlife species stressed by these factors may disperse from habitat in the project site and project vicinity. In addition, increased noise levels could interfere with territorial and mating vocalizations, thereby interfering with wildlife reproduction.
- Project construction could increase fugitive dust, pollution, runoff, siltation, sedimentation, and erosion. This could result in degradation and alteration of habitat and soils. Consequently, the ability of onsite and adjacent plant communities to support wildlife populations may decrease.
- Nighttime construction work and use of artificial lighting could disrupt natural foraging and breeding behaviors and/or alter wildlife movement patterns and migratory routes of nocturnally active species such as mammals and snakes. Most animals would attempt to avoid moving in or near the lighting; however, some animals such as insects, migratory birds, and bats might be attracted to the lighting, increasing construction-related mortalities. Artificial lighting could also indirectly affect wildlife by increasing detection by predators. The new development could also provide an increase in artificial lighting and glare which could disrupt nocturnal wildlife behavior.
- An increase and continuation of human activities within and adjacent to the project site could lead to mortality, injury, or harassment of wildlife species by providing food in the form of trash and litter or water which attracts predators such as the common raven (*Corvus corax*), northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and coyote.

Listed Endangered, Threatened, and Candidate Wildlife:

No indirect impacts to endangered, threatened, or candidate wildlife species are anticipated as a result of construction of the project.

Sensitive Wildlife

There are potential indirect impacts of construction of the project on foraging and/or nesting behavior of sensitive wildlife species that have a moderate or high potential to occur throughout the BSA such as burrowing owl and loggerhead shrike. Both of these species would lose foraging and potential nesting habitat as a result of construction of the project. Therefore, mitigation is proposed and would reduce impacts from this loss of foraging and nesting habitat of these sensitive species.

5.3.3 Mitigation Measures

Listed Endangered, Threatened, and Candidate Wildlife:

Listed wildlife are not anticipated to be impacted as a result of the project; therefore, no mitigation is proposed.

Sensitive Wildlife

Sensitive wildlife could potentially be impacted by construction and project development, and mitigation is recommended. Implementing the recommended mitigation measures **BIO-2** through **BIO-5** (see **Section 6.0, Mitigation Measures**) will help to minimize or avoid impacts to sensitive wildlife that could potentially occur within the BSA.

Several mitigation measures will be implemented in order to minimize and avoid impacts to loggerhead shrike, burrowing owl, and other special-status wildlife species that could potentially occur on the project site. Mitigation measure **BIO-2** provides for the instatement of focused burrowing owl surveys with protection measures. Mitigation measure **BIO-3** provides for a pre-construction general wildlife survey, and **BIO-4** provides for implementation of a loggerhead shrike survey and protection measures. Implementation of mitigation measure **BIO-5** provides for the instatement of pre-construction breeding bird survey. All recommended surveys shall be conducted by a qualified biologist. With the implementation of mitigation measures **BIO-2** through **BIO-5**, the impacts of construction and project operations to sensitive wildlife would be less than significant.

5.3.4 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

Listed Endangered, Threatened, and Candidate Wildlife:

The project is not anticipated to have direct or indirect impacts to listed wildlife. In regard to the significance criterion, the project is anticipated to have no substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS: **Less than Significant Impact.**

Sensitive Wildlife:

Project construction is not expected to cause impacts to bird species that only forage at the site or occur as transient visitors. Implementing the recommended mitigation measures **BIO-2** through **BIO-5**, which are described in the Mitigation Measures section (**Section 6.0**), will help to minimize or avoid significant impacts to sensitive wildlife to less than significant levels: **Less than Significant Impact with Mitigation Incorporated.**

5.4 Potential Impacts to Breeding Birds

The BSA supports shrub vegetation, and other physical features that could potentially provide foraging, nesting, and cover habitat to support an assortment of bird species (year-round residents, seasonal residents, and migrants). A majority of the birds observed during the field surveys and those birds that could potentially breed within the BSA are protected by the MBTA and Fish and Game Code § 3503, § 3503.5, and § 3513. The statutes make it unlawful to take native breeding birds, and their nests, eggs, and young.

5.4.1 Direct Impacts

Activities which are most likely to result in take of migratory birds during the breeding bird season when eggs or young are likely to be present include, but are not limited to, clearing or grubbing of bird nesting habitat; structure demolition; or vegetation trimming or clearing. The project has a low potential to directly take individual breeding birds, their nests, young, or eggs; therefore, mitigation is required.

5.4.2 Indirect Impacts

Indirect impacts to breeding birds could occur from increased noise, vibration, lighting and dust during construction, which could adversely affect the breeding behavior of some birds and lead to the loss (take) of eggs and chicks, or nest abandonment. The project has a low potential to indirectly affect individual breeding birds, their nests, young, or eggs; therefore, mitigation is required.

5.4.3 Mitigation Measures

Implementing the recommended mitigation measure **BIO-5**, which is described in the **Section 6.0**, will help to minimize or avoid potential impacts to breeding birds, their nests, young, or eggs. In particular, mitigation measure **BIO-5** provides for a pre-construction breeding bird survey in which biologists will take steps to protect any breeding bird and its nest observed prior to construction. Implementation of mitigation measure **BIO-5** will minimize the risk of nest loss during excavation activities.

5.4.4 Impact Determination

Project construction is not expected to cause impacts to bird species that only forage at the site or occur as transient visitors. Direct and indirect impacts to breeding birds, their nests, young, or eggs could potentially occur as a result of construction of the project. Given the relatively small size of the project footprint; the minor reduction of suitable nesting habitat; the nature of the disturbance; and the availability of other habitat within the immediate project vicinity, the potential impacts to breeding birds, their nests, young, or eggs would likely be minor. Implementing the recommended mitigation measures **BIO-5**, which is described in **Section 6.0** below, will help to avoid, eliminate or reduce significant impacts to breeding birds, their nests, young, or eggs to less than significant levels; therefore, it is anticipated that the project may impact breeding birds, their nests, young, or eggs, but the impacts will not be significant: **Less than Significant Impact with Mitigation Incorporated.**

5.5 Potential Impacts to Waters of the U.S. or State (Jurisdictional Waters/Wetlands)

The literature review and reconnaissance-level biological survey determined that there are no waters of the U.S. or State (i.e., jurisdictional waters/wetlands; see **Appendix A**, Figure 9, *USGS Surface Waters and Watersheds*; Figure 12, *National Wetlands Inventory*).

5.5.1 Direct or Indirect Impacts

No direct or indirect impacts to Waters of the U.S. or State are anticipated as a result of construction of the project.

5.5.2 Mitigation Measures

Waters of the U.S. or State are not anticipated to be impacted by construction of the project; therefore, no mitigation is proposed.

5.5.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

The project is not anticipated to have direct or indirect impacts to Waters of the U.S. or State. **No Impact.**

5.6 Potential Impacts to Critical Habitat

There are no mapped areas of critical habitat within a 5-mile radius of the project (USFWS, 2022d).

5.6.1 Direct and Indirect Impacts

There are no adverse impacts to critical habitat anticipated as a result of the project.

5.6.2 Mitigation Measures

No mitigation measures are required for impacts to critical habitat, therefore no mitigation is proposed..

5.6.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

There will be no impacts to critical habitat because there are no mapped areas of critical habitat within a 5-mile radius of the project. **No Impact.**

5.7 Potential Impacts to Wildlife Corridors or Native Wildlife Nursery Sites

The literature review and field surveys determined that the project site does not contain wildlife corridors.

By contrast, direct impacts are anticipated to native wildlife nursery sites of fossorial species. UltraSystems biologist Dr. Tuma observed California ground squirrels during the field survey. These sightings of fossorial mammals and their burrows indicate that there may be resident populations of these species onsite. Thus, it is likely that fossorial mammal species give birth and raise young within the burrow complexes located onsite. Ground disturbing activities such as disking, bulldozing and excavating would lead to death and injury of fossorial species which do not typically evacuate their burrows during this type of disturbance.

5.7.1 Direct and Indirect Impacts

No direct or indirect impacts to wildlife corridors are anticipated as a result of construction of the project.

Although there would likely be direct impacts to nursery sites of fossorial species as a result of construction of the project, it is not anticipated that these impacts will be significant. The CDFG classifies California ground squirrels as nongame animals, and as such, property owners can legally take these species (Baldwin, 2019; Quinn et al., 2018). No mitigation is required for the take of this fossorial species. The direct impacts of construction of the project to nursery sites of fossorial species would be less than significant.

5.7.2 Mitigation Measures

Wildlife corridors are not anticipated to be impacted as a result of the project. Native wildlife nursery sites are anticipated to be impacted to a less than significant degree; therefore, no mitigation measures are required.

5.7.3 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

The literature review and field surveys determined that the project site does not contain wildlife corridors. While the project could potentially contain native wildlife nursery sites; impact as a result of the project is anticipated to be less than significant.. In addition, the project site does not support resident or migratory fish species. In regard to the significance criterion, the project is not anticipated

to interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors: **Less Than Significant Impact.**

5.8 Potential Impacts to Local Policies or Ordinances

The project site contains approximately six living western Joshua trees, a species that qualifies for protection under Article II, Section 16.24.150, which also provides that *“all plants protected or regulated by the State Desert Native Plants Act (i.e., Food and Agricultural Code 80001 et seq.) shall be required to comply with the provisions of those statutes prior to the issuance of any county development permit or land use application approval. The county agricultural commissioner is the responsible agency for the issuance of any required wood tags, seals or permits”* (City of Hesperia; 1997). A qualified City-approved biologist or arborist should be retained to conduct any future relocation/transplanting activities and should follow the protocol of the City’s Municipal Code. As provided in Section 16.24.120 of City Municipal Code, “any person who willfully removes, or harvests or transplants a living desert native plant shall first obtain approval from the county to do so in accordance with the procedures set forth in Sections 16.24.040 or 16.24.110 et seq.” (City of Hesperia, 1997). The City addresses all western Joshua trees as one of the protected vegetation types.

5.8.1 Direct and Indirect Impacts

It is not anticipated that there will be direct or indirect impacts to biological resources within the BSA that are not already more strongly protected by state and federal regulations.

5.8.2 Mitigation Measures

To mitigate for the impacts to the protected native desert vegetation on the project site, the project proponent will implement mitigation measure **BIO-7** which proposes that a native desert vegetation survey is conducted to aid in the creation of a Preservation Plan as required by the City. After implementation of **BIO-7**, which is further discussed below, impacts to protected native desert vegetation would be reduced to a less than significant degree.

5.8.3 Impact Determination

Significance criterion: *Impacts would be considered significant if the project were to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

The literature review determined that construction of the project does conflict with local policies or ordinances that protect biological resources. Implementation of mitigation measures will reduce these impacts to a less than significant degree: **Less than Significant Impact with Mitigation Incorporated.**

5.9 Potential Impacts to Habitat Conservation Plans

Development of the project would not conflict with an HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

5.9.1 Direct and Indirect Impacts

There are no anticipated conflicts with local habitat conservation plans as a result of construction of the project.

5.9.2 Impact Determination

Significance criterion: *impacts would be considered significant if the project were to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.*

In regard to the significance criterion, the project will not conflict with the provisions of adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan: **No Impact.**

6.0 MITIGATION MEASURES

CEQA states that “mitigation measures are not required for effects which are not found to be significant” [§ 15126.4(a)(3)]. Therefore, no mitigation measures are proposed for impacts to biological resources that are less than significant. However; if significant impacts to biological resources are identified, then possible mitigation measures are recommended to minimize or avoid the level of the impacts to less than significant levels. There are several forms of mitigation. Under CEQA (§ 15370), “mitigation” includes all of the following:

- “Avoiding” the impact altogether by not taking a certain action or parts of an action.
- “Minimizing” impacts by limiting the degree or magnitude of the action and its implementation.
- “Rectifying” the impact by repairing, rehabilitating, or restoring the impacted environment.
- “Reducing” or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- “Compensating” for the impact by replacing or providing substitute resources or environments.

The following mitigation measures would help to minimize or avoid direct or indirect impacts to biological resources to less than significant levels and to comply with all appropriate environmental laws, ordinances, policies, regulations, and management plans.

6.1 BIO 1: 2081 Incidental Take Permit

Western Joshua trees are a state candidate for listing species under CESA and will require a 2081 Incidental Take Permit (ITP) with compensatory mitigation for impacts, in addition to the surveys that are discussed in Section e). The exceptions and permitting process under the California Desert Native Plants Act and the separate exceptions under the Native Plant Protection Act will not apply to

western Joshua tree in any manner. For projects where “take” is incidental to carrying out an otherwise lawful activity, an ITP may be obtained from CDFW.

6.2 BIO 2: Focused Burrowing Owl Surveys

Although BUOW was not detected on site during the general wildlife survey, the BSA contains suitable habitat to potentially support BUOW in the future. A qualified biologist would conduct a focused BUOW survey in accordance with the Staff Report on Burrowing Owl Mitigation (CDFW, 2012).

Following the completion of the survey, the biologist would prepare a letter report summarizing the results of the survey. The report would be submitted to the City prior to initiating any ground disturbance activities.

If no BUOWs or signs of BUOW are observed during the survey and concurrence is received from Environmental Management Division of the San Bernardino County Department of Public Works (County EMD) and CDFW, project activities may begin and no further mitigation would be required.

If BUOW or signs of BUOW are observed during the survey, the site would be considered occupied. The biologist would implement the following protection measures and contact the City, EMD, and CDFW to assist in the development of avoidance, minimization, and mitigation measures, prior to commencing project activities. The list of potential measures to avoid and minimize impacts to BUOWs described in the above section would be implemented.

BUOW Protection Measures

If BUOWs or signs of BUOW are observed during the survey, then the site would be considered occupied and the biologist shall contact the City, EMD, and CDFW to assist in the development of avoidance, minimization, and mitigation measures discussed below, prior to commencing project activities.). If no BUOW or signs of BUOW are observed during the focused surveys, the components of this measure (discussed below) would not be applicable.

Planning BUOW Protection

Grading, construction, and other project activities on all grassland habitat will be delayed until the qualified biologist has implemented burrow exclusion and closure. No ground-disturbing activities within 50 meters (165 feet) of an active BUOW burrow will be permitted until burrow exclusion and closure have been implemented. No destruction of foraging habitat will be permitted until burrow exclusion and closure have been implemented.

Pre-Construction BUOW Protection

Prior to the initiation of grading and construction activities, the biologist shall implement passive relocation of an active BUOW burrow by installing a one-way door and then permanently excluding the BUOW from returning once it is confirmed that no BUOW individuals remain in the burrow. A biological monitor will visit the site daily to verify that the burrow is empty by monitoring and scoping the burrow.

Construction BUOW Protection

A biological monitor will be onsite to monitor any BUOW or signs of BUOW. If any BUOW are observed then the biologist will consult with the County EMD and CDFW to determine the appropriate measures.

6.3 BIO-3: Pre-Construction General Wildlife Survey

Special-status wildlife species that have no designated status under the ESA, the CESA, and/or the NPPA, but are designated as sensitive or locally important by federal agencies, state agencies, local agencies such as the RCA, and nonprofit resource organizations such as the CNPS are referred to as “sensitive” in this BRE. The following measures will be implemented to minimize impacts to these species which include but are not limited to: Blainville’s horned lizard, prairie falcon, and desert kit fox. The measures below will help to reduce direct and indirect impacts caused by construction on various sensitive species to less than significant levels.

- A qualified biologist will conduct a pre-construction general wildlife survey for sensitive wildlife and potential nesting sites such as open ground, shrubs, and burrows within the limits of project disturbance. The survey will be conducted at least seven days prior to the onset of scheduled activities, such as mobilization and staging. It will end no more than three days prior to vegetation, substrate, and structure removal and/or disturbance.
- If sensitive species and/or active nesting sites are observed during the pre-construction survey or they are observed and will not be impacted, project activities may begin and no further mitigation will be required.
- If any sensitive wildlife species are identified within the project site during the pre-construction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional surveys or focused protocol surveys are necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency. zone.
- Sensitive wildlife species and/or potential nesting sites will not be disturbed, captured, handled or moved

6.4 BIO-4: Loggerhead Shrike Survey and Protection Measures

The following measures are proposed in order to minimize impacts to loggerhead shrike, for which there is suitable habitat in the BSA.

- If activities occur during the breeding/nesting period, a wildlife survey will be completed by a qualified biologist to identify potential loggerhead shrike activity in the area of the project activities.

- Additional species surveys to determine presence/absence of birds prior to disturbances, from May 1 until the work start date, if the work start date is prior to August 31. Surveys are to occur weekly in May, every other week in June, and once per month in July and August (assuming no loggerhead shrike are observed).
- Incidental occurrences of other sensitive avian species such as Swainson's hawk. and Cooper's hawk should also be recorded during the survey.

6.5 BIO 5: Pre-Construction Breeding Bird Survey

To maintain compliance with the MBTA and Fish and Game Code, and to avoid impacts or take of migratory non-game breeding birds, their nests, young, and eggs, the following measures will be implemented. The measures below will help to reduce direct and indirect impacts caused by construction on migratory non-game breeding birds to less than significant levels.

- Project activities that will remove or disturb potential nest sites, such as open ground, trees, shrubs, grasses, or burrows, during the breeding season would be a potential significant impact if migratory non-game breeding birds are present. Project activities that will remove or disturb potential nest sites will be scheduled outside the breeding bird season to avoid potential direct impacts on migratory non-game breeding birds protected by the MBTA and Fish and Game Code. The breeding bird nesting season is typically from February 15 through September 15, but can vary slightly from year to year, usually depending on weather conditions. Removing all physical features that could potentially serve as nest sites will also help to prevent birds from nesting within the project site during the breeding season and during construction activities.
- If project activities cannot be avoided during February 15 through September 15, a qualified biologist will conduct a pre-construction breeding bird survey for breeding birds and active nests or potential nesting sites within the limits of project disturbance. The survey will be conducted at least seven days prior to the onset of scheduled activities, such as mobilization and staging. It will end no more than three days prior to vegetation, substrate, and structure removal and/or disturbance.
- If no breeding birds or active nests are observed during the pre-construction survey or they are observed and will not be impacted, project activities may begin and no further mitigation will be required.
- If a breeding bird territory or an active bird nest is located during the pre-construction survey and will potentially be impacted, the site will be mapped on engineering drawings and a no activity buffer zone will be marked (fencing, stakes, flagging, orange snow fencing, etc.) a minimum of 100 feet in all directions or 500 feet in all directions for listed bird species and all raptors. The biologist will determine the appropriate buffer size based on the type of activities planned near the nest and the type of bird that created the nest. Some bird species are more tolerant than others of noise and activities occurring near their nest. This no-activity buffer zone will not be disturbed until a qualified biologist has determined that the nest is

inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young will no longer be impacted by project activities. Periodic monitoring by a biologist will be performed to determine when nesting is complete. Once the nesting cycle has finished, project activities may begin within the buffer zone.

- If listed bird species are observed within the project site during the pre-construction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional surveys or focused protocol surveys are necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency.
- Birds or their active nests will not be disturbed, captured, handled or moved. Active nests cannot be removed or disturbed; however, nests can be removed or disturbed if determined inactive by a qualified biologist.

6.6 BIO-6: Mitigation for Impacts to Western Joshua Tree and California Juniper Woodlands

Avoidance and Minimization Measures

The entirety of the project area, which is approximately 19 acres of California juniper woodland, is currently planned for development. The California juniper woodland is a sensitive natural community (CDFW, 2022a). As such, impacts as a result of the project, shall be mitigated so that all impacts to these habitats are mitigated on acreage and tree basis.

Proposed project activities including the construction phase, operations, and maintenance phase shall be designed to avoid California juniper woodland and western Joshua tree habitat to the maximum extent practicable. If the California juniper or associated western Joshua trees are removed as a result of project activities, then compensatory mitigation is required as follows.

The preferred compensatory mitigation is through an in-lieu fee to a qualified mitigation bank within the service area of the site, ideally within the same watershed. The project proponent shall coordinate with CDFW to identify appropriate mitigation banks and number of required mitigation credits to fully offset site impacts at a minimum of a 2:1 replacement to impact ratio.

However, applicant-responsible compensatory mitigation is acceptable through preparation of a Habitat Preservation and Protection Plan, to be approved by CDFW prior to project approval.

Habitat Preservation and Protection Plan

For applicant-responsible compensatory mitigation, then the project proponent shall enter into a binding legal agreement regarding the preservation of offsite lands describing the terms of the acquisition, enhancement, and management of those lands. Fee title to acquired habitat lands, or a conservation easement over these lands, shall be transferred to CDFW or to an entity approved by

CDFW, along with financial assurances (funds) for preservation, rehabilitation, and enhancement of the land, and an endowment for permanent management of the lands.

A formal Habitat Preservation and Protection Plan to detail methods for site preservation, restoration, monitoring, and protection shall be written. The plan will include permanent photo documentation points from the pre-restoration stage to the conclusion of the monitoring requirement. Photo documentation shall occur on a quarterly and annual basis or as required by CDFW. The number of Joshua and juniper trees existing onsite, transplanted, installed as container stock, will be recorded and qualitatively assessed quarterly and quantitatively assessed on an annual basis until performance criteria and/or contingency criteria are successfully attained. A final monitoring report will be provided at the conclusion of the post-construction restoration phase. The project proponent shall provide the final monitoring report to CDFW for approval of completion for the project.

6.7 BIO 7: Native Desert Vegetation Survey and Protected Plant Preservation Plan

A Preservation Plan will be prepared and submitted to the City, which is required by City Municipal Code. A native desert vegetation survey must be conducted to produce findings that will guide the formation of this plan. The survey objective is to evaluate the health and general condition of the western Joshua trees and creosote bush present on the project site. A project-specific Plan will provide further guidance regarding the transplant and/or preservation of the western Joshua trees and protection for creosote rings “*10 feet or greater in diameter*” as per Section 16.24.150 of City Municipal Code (City of Hesperia, 1997). Transplant suitability of the western Joshua trees will be determined by the results of the survey. This survey shall be conducted by a qualified City-approved biologist or arborist. The plan will incorporate survey data, identify and outline preconstruction survey methods for the native desert vegetation on the project site, describes preconstruction and construction-phase biological monitoring and transplant methods that are applicable, or outlines any identified CDFW permit and Memorandum of Understanding requirements for active relocation, if either are necessary. The Plan should be referred to for a detailing of protective actions regarding the western Joshua trees on the project site.

7.0 PERMITS AND APPROVALS

Listed (candidate for state listing as threatened; CNDDDB 2022b) western Joshua tree was observed during the biological survey. Therefore it has been determined that the project would require a 2081 Incidental Take Permit, which can be obtained from CDFW.

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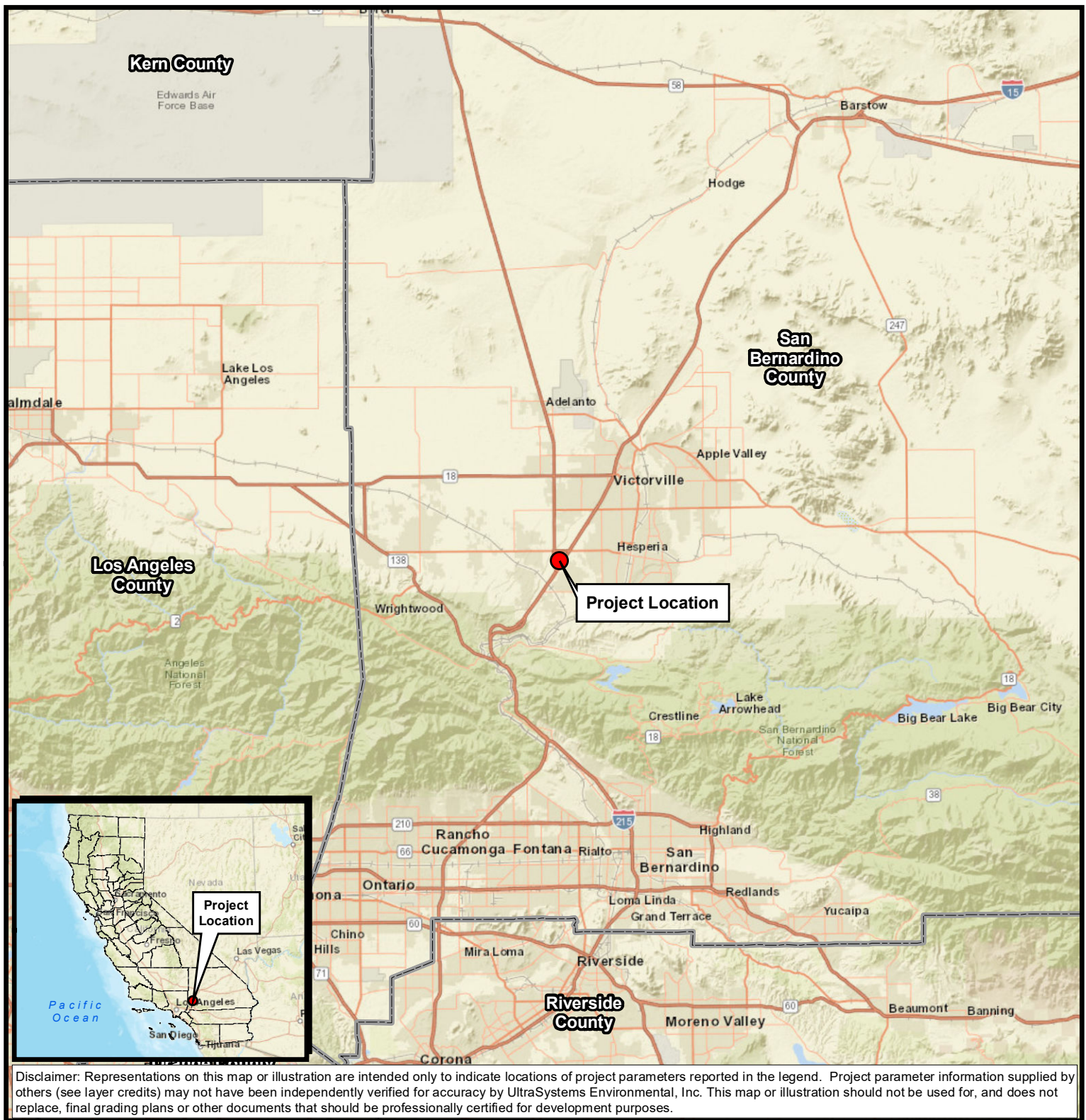
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APPENDIX A

Figures



Path: \\Gissvr\GIS\Projects\7187_Cargo_Warehouse_Hesperia_ISMND\MXDs\7187_Cargo_Warehouse_2_0_Regional_Location_2022_08_23.mxd
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; UltraSystems Environmental, Inc., 2022

August 23, 2022

Scale: 1:633,600



0 5 10 Miles

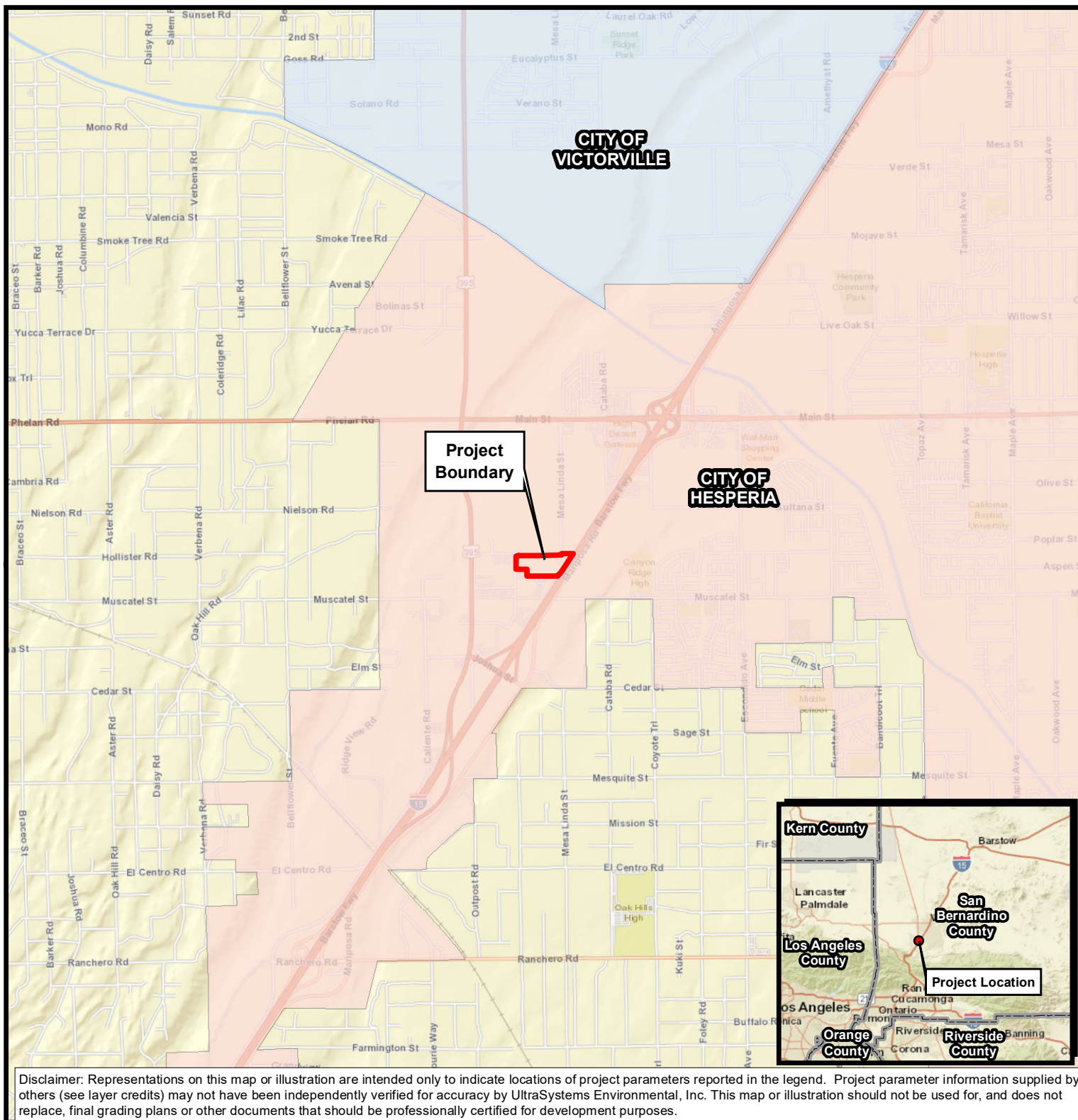
0 5.5 11 Kilometers

Legend

- Project Location
- County Boundary

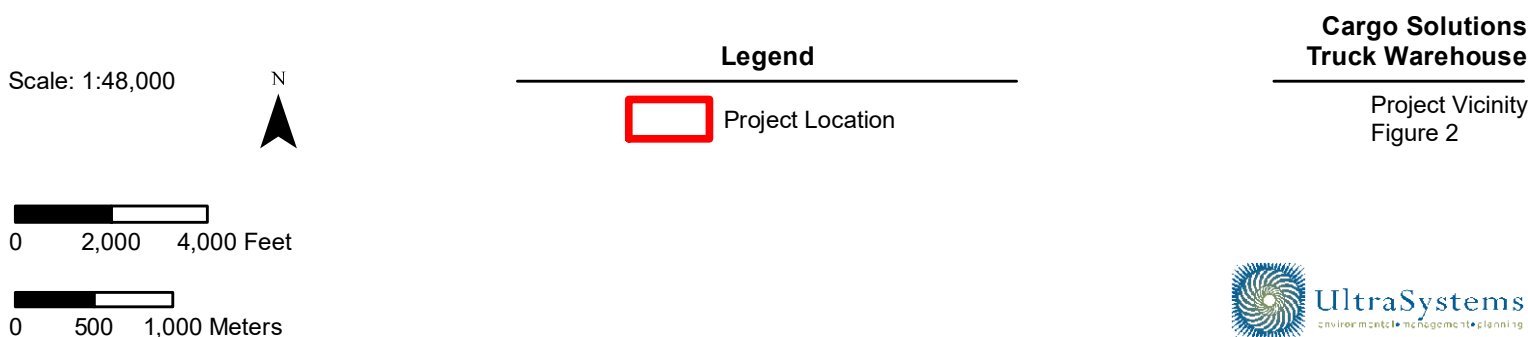
Cargo Solutions Truck Warehouse

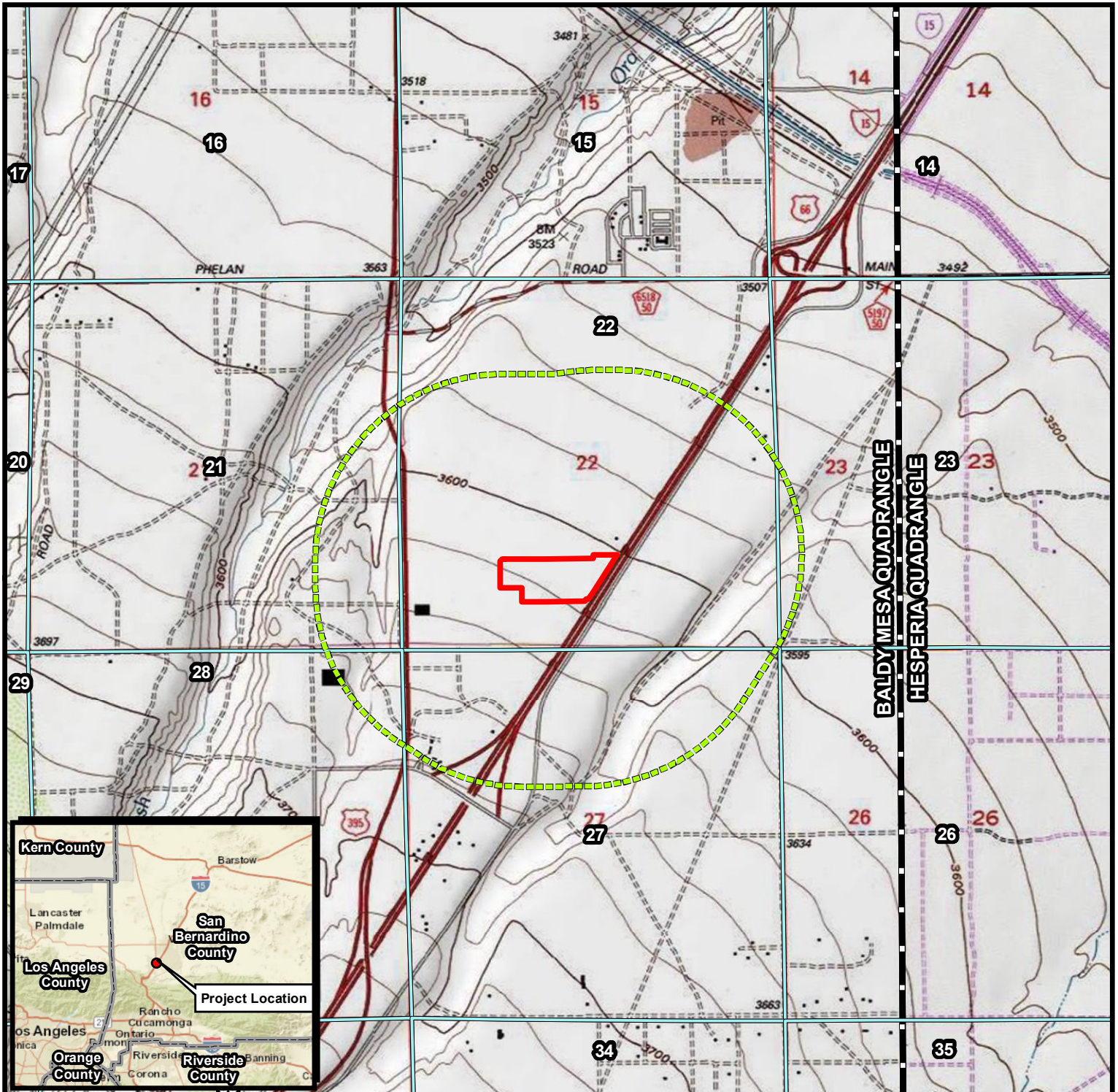
Regional Location
Figure 1



Path: \\GIS\svr\GIS\Projects\7187_Cargo_Warehouse_Hesperia_ISMND\MXDs\7187_Cargo_Warehouse_3_0_Project_Vicinity_2022_08_23.mxd
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; County of San Bernardino, March 2022; UltraSystems Environmental, Inc., 2022

August 23, 2022





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 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Copyright:© 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, May 2019; UltraSystems Environmental, Inc., 2022

August 16, 2022

Scale: 1:24,000



0 1,000 2,000 Feet

0 250 500 Meters

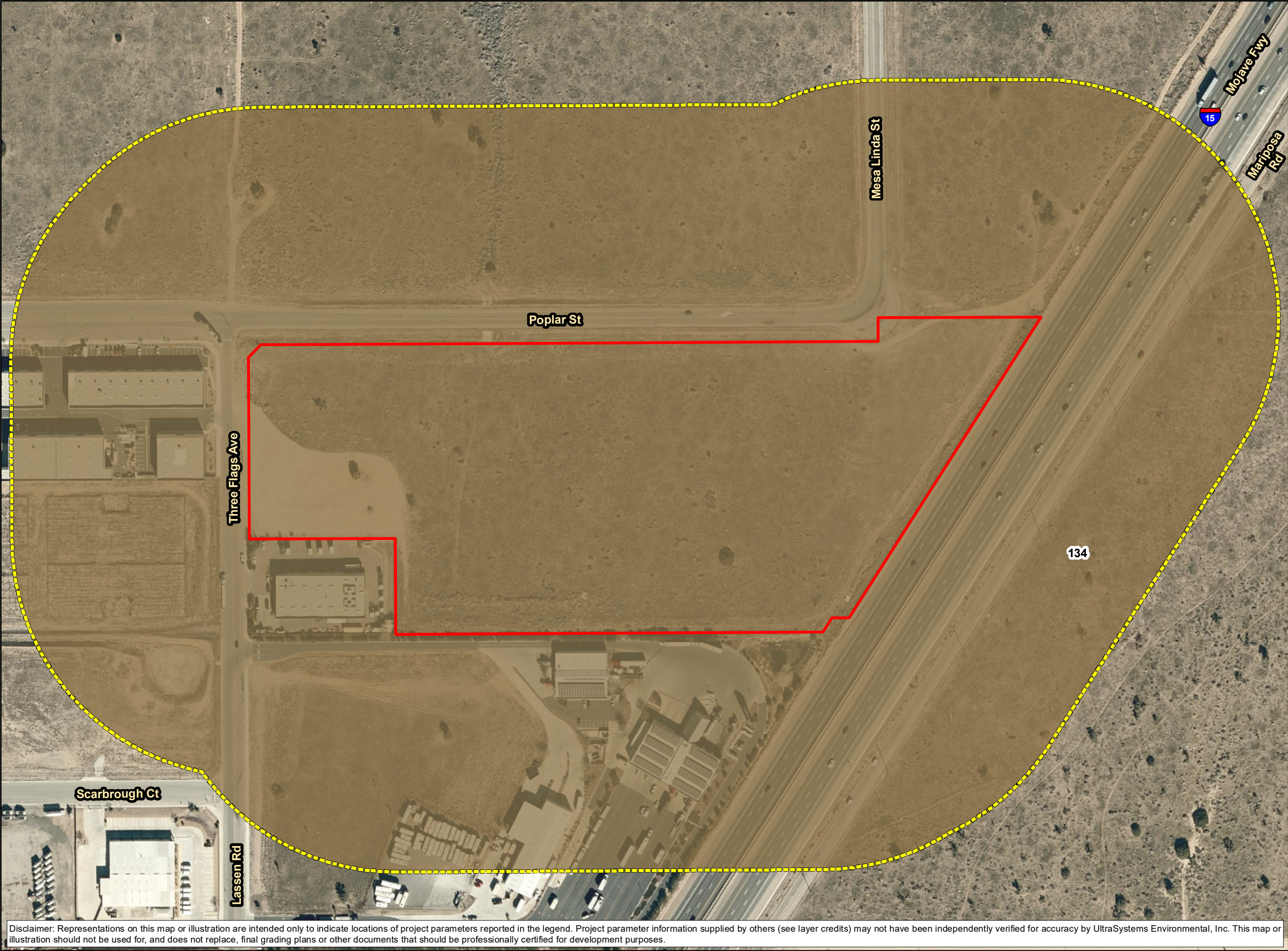
Legend

-  Project Location
-  Half-Mile Radius
-  Quadrangle Boundary
-  Section Boundary

Cargo Solutions Truck Warehouse

Topographic Map
 USGS Quadrangle: Baldymesa
 Township: 4N Range: 5W
 Section: 22
 Figure 4





Cargo Solutions Truck Warehouse

Legend

Project Location

500ft Biological Study Area (BSA)

USDA Soil Map Unit

134-HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES

Key Map

0100200 Feet

02040 Meters

N

Scale: 1:2,400

USDA Soils

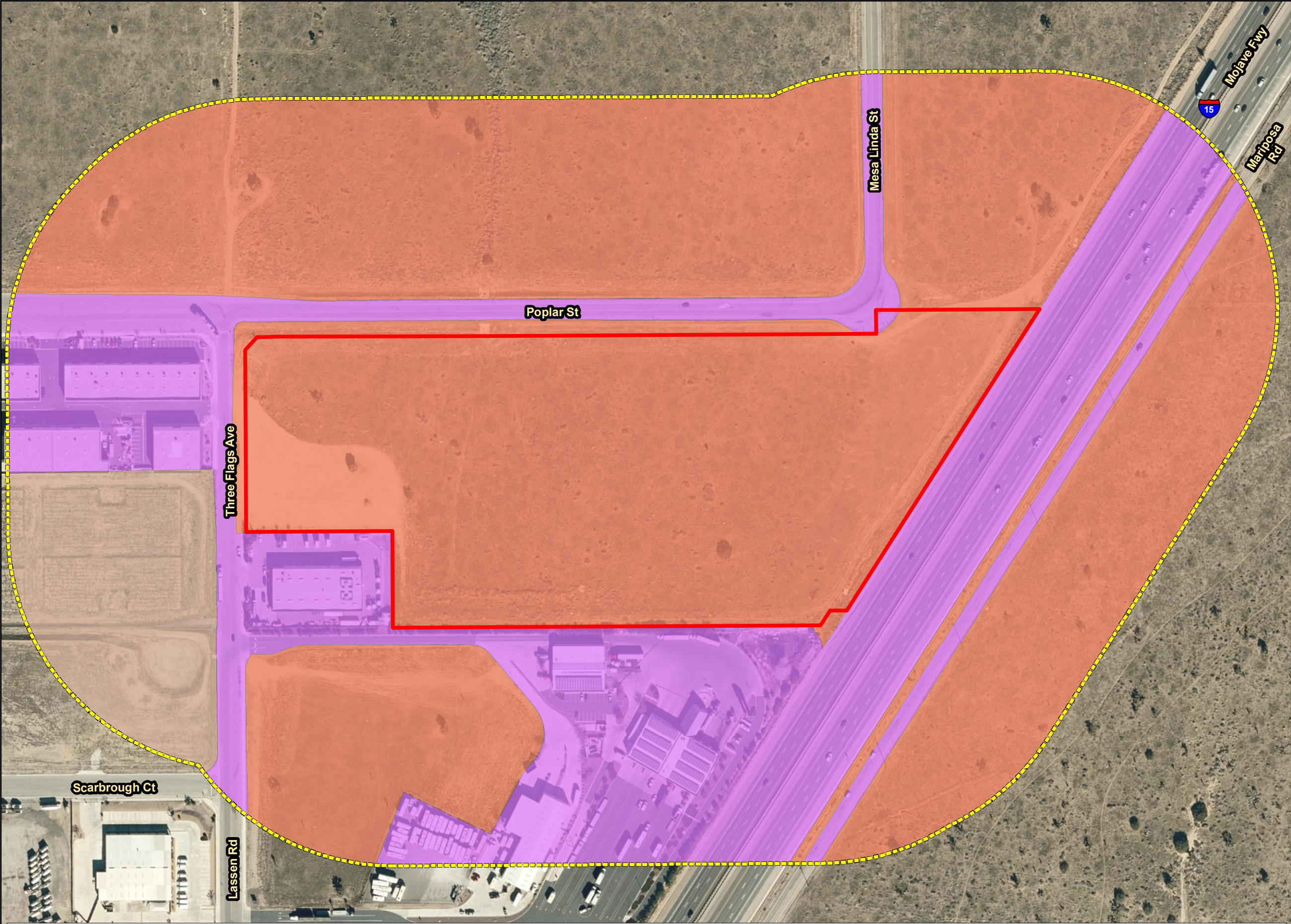
Figure 5



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Cargo Solutions Truck Warehouse

Legend

Project Location

500ft Biological Study Area (BSA)

Land Cover Type

Disturbed California juniper woodlands (disturbed *Juniperus Californica* Woodland Alliance)

Disturbed

Developed

Key Map

0100200 Feet

02040 Meters

N

Scale: 1:2,400

Land Cover Types

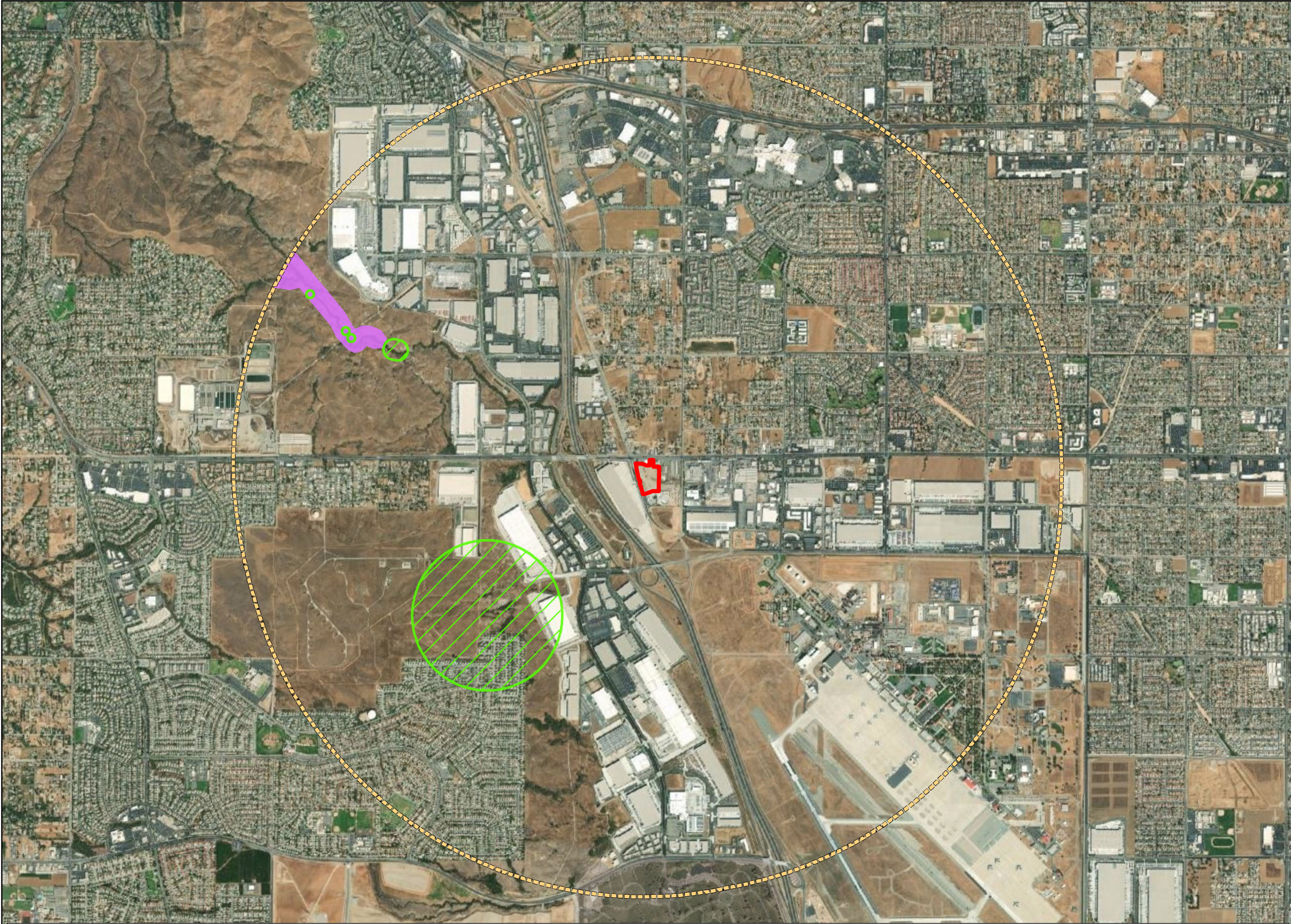
Figure 6



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Path: \\Gissv\\GIS\\Projects\\7187_Cargo_Warehouse_Hesperia_ISMND\\MXDs\\BIO\\7187_Cargo_Warehouse_4_4_LandCover_2022_09_21.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; UltraSystems Environmental, Inc., 2022.

Date



**Penske Sales, Leasing,
and Maintenance Facility**

Legend

- Project Boundary
- 2-Mile Radius
- Common Name, Scientific Name**
 - Southern Sycamore Alder Riparian Woodland, *Southern Sycamore Alder Riparian Woodland*
 - Smooth tarplant, *Centromadia pungens* ssp. *laevis*

Key Map



0 1,250 2,500 Feet

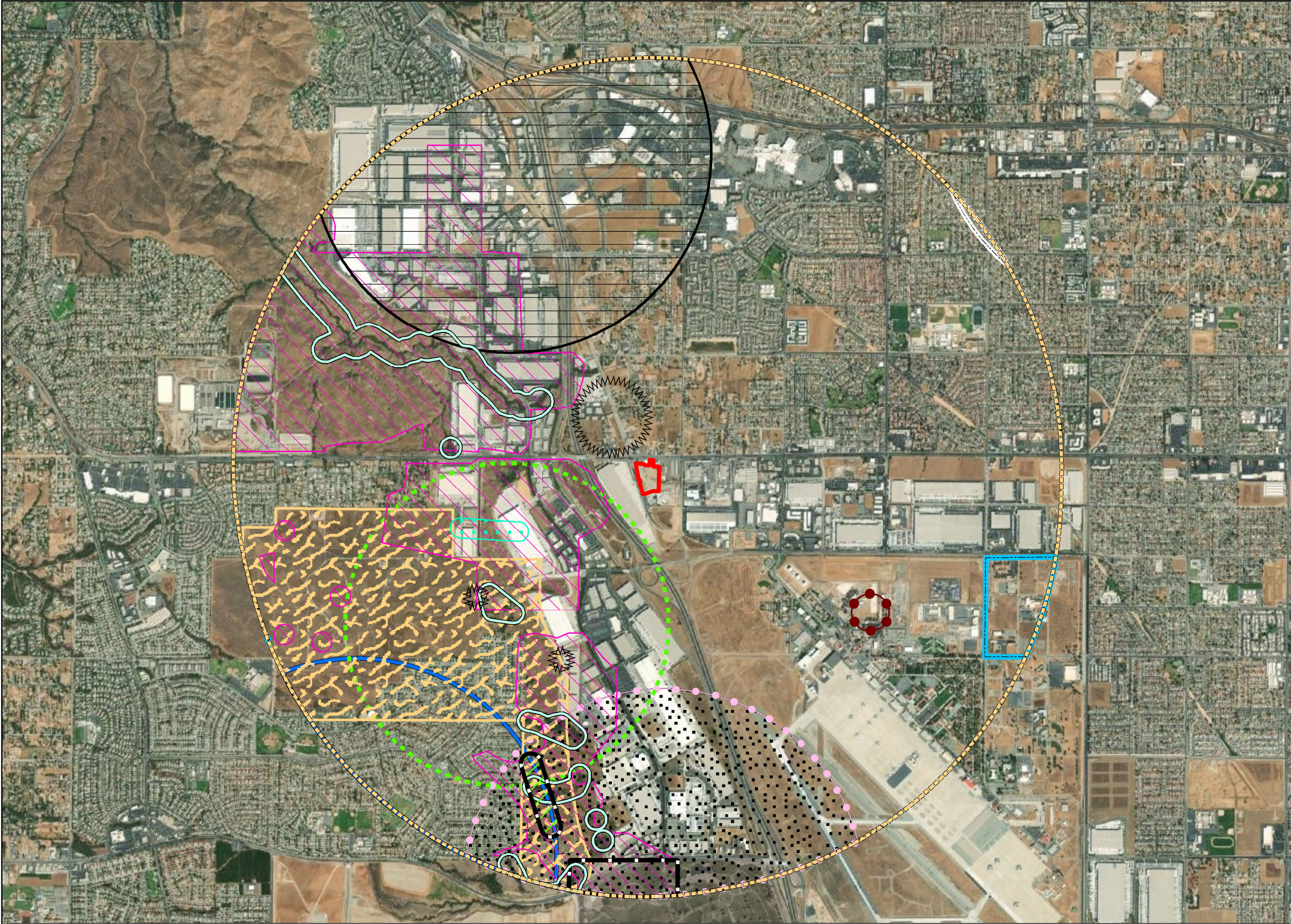
N

0 320 640 Meters

Scale: 1:30,000

**CNDDB Known Occurrences
Plant Species, and Habitats
Figure 7**





**Penske Sales, Leasing,
and Maintenance Facility**

Legend

- Project Boundary
- 2-Mile Radius
- Common Name, Scientific Name**
- California horned lark, *Eremophila alpestris actia*
- Los Angeles pocket mouse, *Perognathus longimembris brevinasus*
- Riverside fairy shrimp, *Streptocephalus woottoni*
- San Bernardino kangaroo rat, *Dipodomys merriami parvus*
- Stephens' kangaroo rat, *Dipodomys stephensi*
- Burrowing owl, *Athene cunicularia*
- Coast horned lizard, *Phrynosoma blainvillii*
- Least Bell's vireo, *Vireo bellii pusillus*
- Loggerhead shrike, *Lanius ludovicianus*
- Northwestern San Diego pocket mouse, *Chaetodipus fallax fallax*
- Pocketed free-tailed bat, *Nyctinomops femorosaccus*
- Red-diamond rattlesnake, *Crotalus ruber*
- Southern grasshopper mouse, *Onychomys torridus ramona*
- Western spadefoot, *Spea hammondi*
- Western yellow bat, *Lasiurus xanthinus*

Key Map



0 1,250 2,500 Feet



0 320 640 Meters

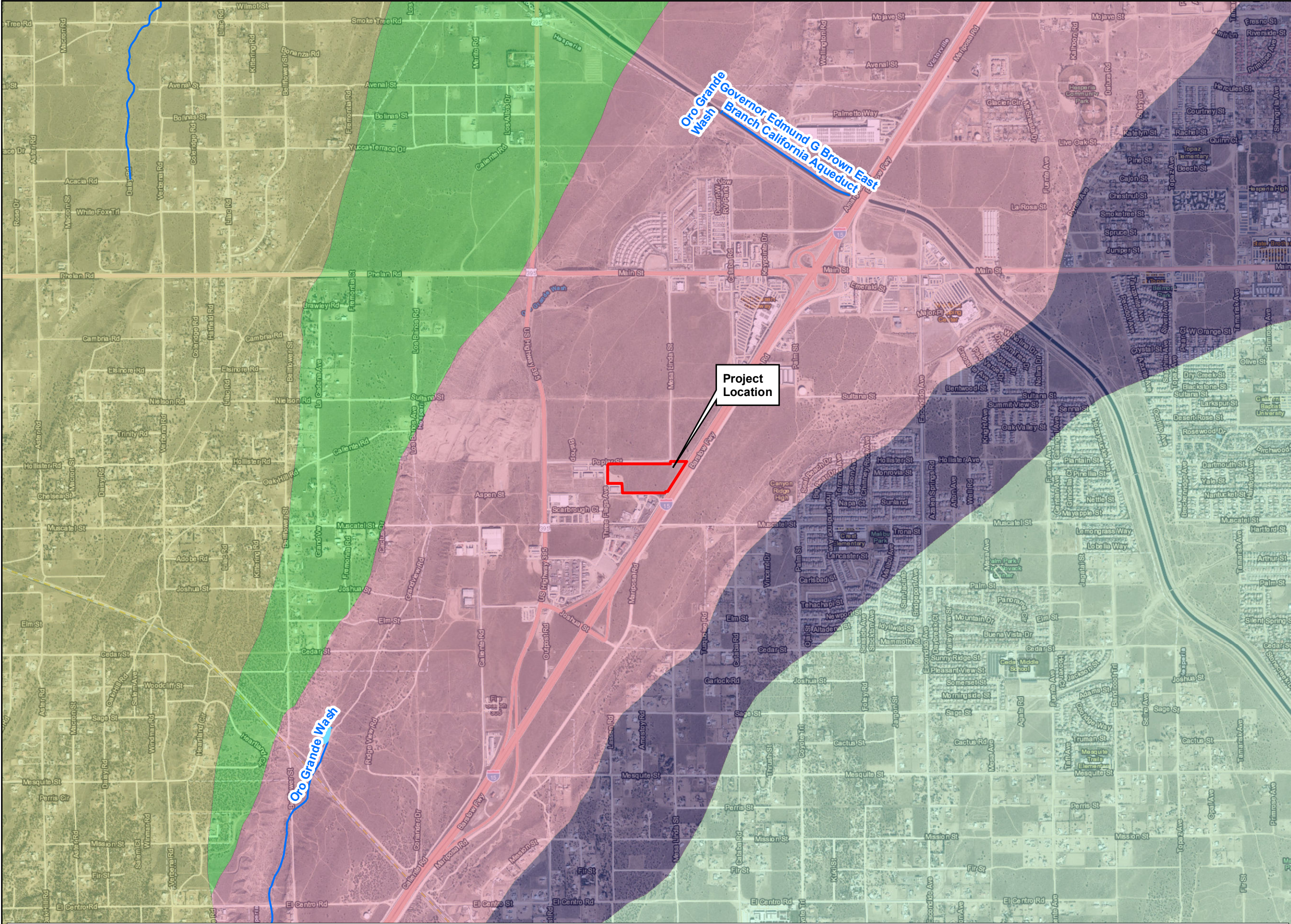
Scale: 1:30,000

**CNDDB Known Occurrences
Wildlife Species**

Figure 8



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Cargo Solutions
Truck Warehouse

Legend

Project Location

USGS Stream

USGS Waterbody

HUC12, Name

180902080503, Manzanita Wash

180902080702, Antelope Valley-Mojave River

180902080703, Desert Knolls Wash-Mojave River

180902080704, Oro Grande Wash

180902080706, Burkhardt Lake-Mojave River

Key Map

Kern County
San Bernardino County
Los Angeles County
Orange County
Riverside County

Project Location

0 1,000 2,000 Feet

0 250 500 Meters

N

Scale: 1:24,000

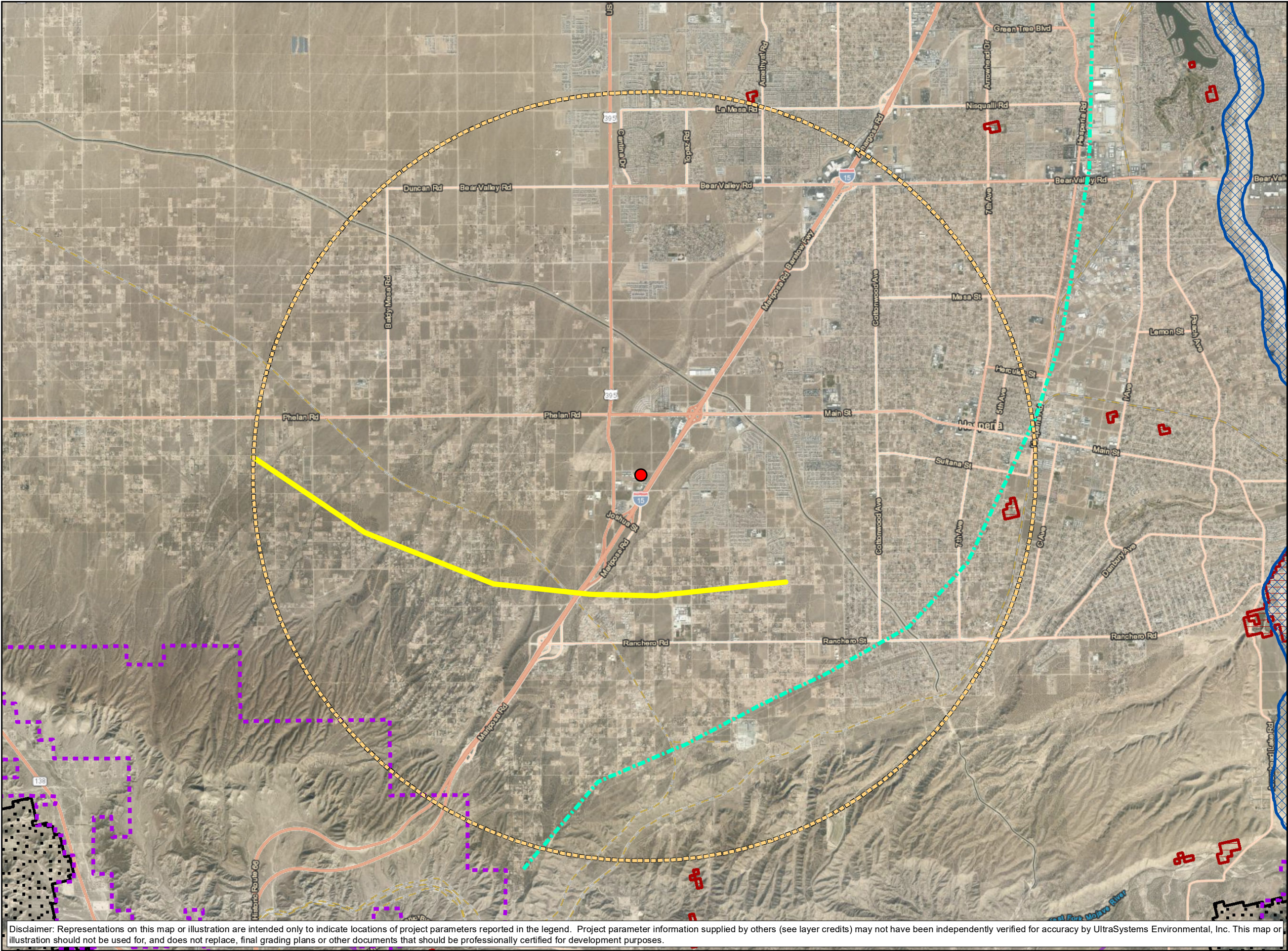
USGS Surface Waters and Watersheds

Figure 9

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Path: \\Gissv\\GIS\\Projects\\7187_Cargo_Warehouse_Hesperia_ISMND\\MXDs\\BIO\\7187_Cargo_Warehouse_4_4_Surface_Waters_11x17_2022_08_30.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; USGS, 2020; UltraSystems Environmental, Inc., 2022

August 30, 2022



Cargo Solutions Truck Warehouse

Legend

- Project Location
- 5-Mile Radius
- Natural Landscape Block
- Small Natural Areas
- Potential Riparian Connections

LINKAGE TYPE, NAME

- Choke-point, 395 South of Ridgecrest
- Landscape Linkage, Mojave River - Barstow/Camp Cady
- Landscape Linkage, Summit Valley
- Linkage Network of the California Desert

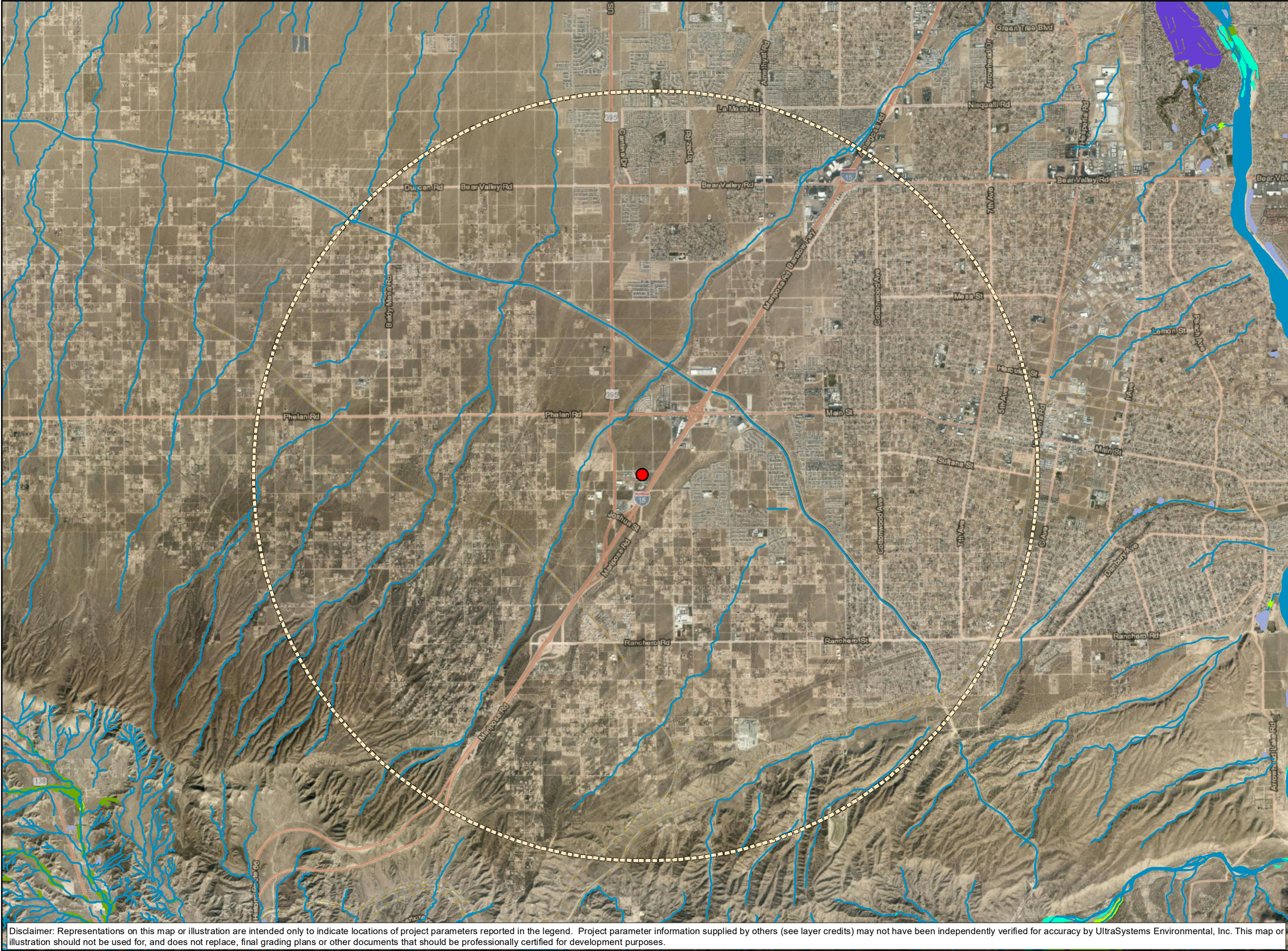
Key Map

Scale: 1:79,200

CDFW Wildlife Corridors

Figure 11

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**Cargo Solutions
Truck Warehouse**

Legend

- Project Location
- 5-Mile Radius

Riparian Wetland Type

- Forested/Shrub Riparian

USFWS NWI Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Key Map

0 0.625 1.25 Miles

0 0.5 1 Kilometers

N

Scale: 1:79,200

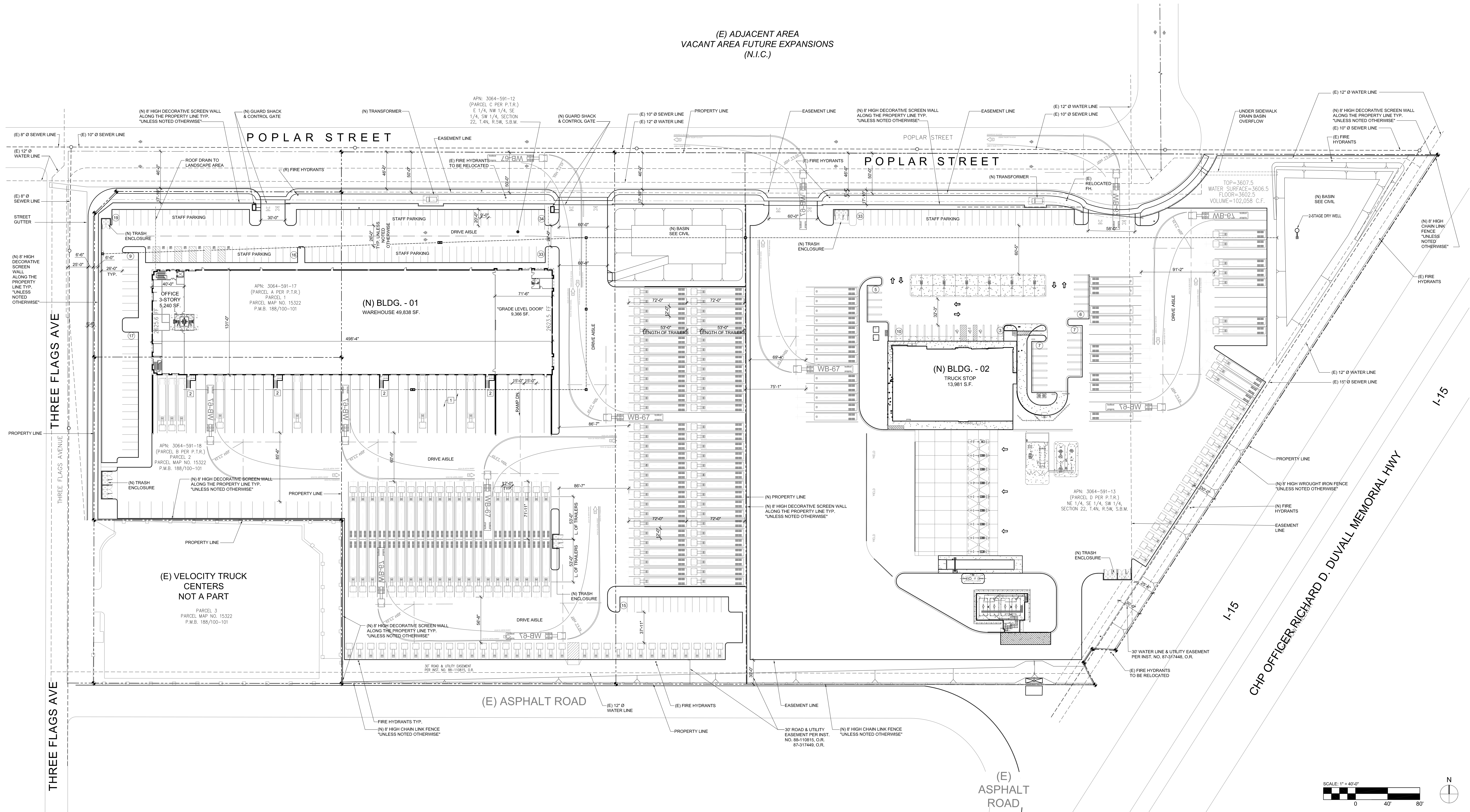
**USFWS National Wetlands
Inventory (NWI)**

Figure 12

 **UltraSystems**
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APPENDIX B

Site Plans



LEGAL DESCRIPTION	KEY NOTES	BUILDINGS FLOOR AREA PROPOSED	SITE PLAN LEGEND	VICINITY MAP																																				
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS: PARCEL A: (APN: 3064-591-17) PARCEL 1 OF PARCEL MAP NO. 15322, IN THE CITY OF HESPERIA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 188 OF PARCEL MAPS, PAGE(S) 100 AND 101 RECORDS OF SAID COUNTY. PARCEL B: (APN: 3064-591-18) PARCEL 2 OF PARCEL MAP NO. 15322, IN THE CITY OF HESPERIA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 188 OF PARCEL MAPS, PAGE(S) 100 AND 101 RECORDS OF SAID COUNTY. PARCEL C: (APN: 3064-591-12) THE LAST 1/2 OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND. TOGETHER WITH THAT PORTION AS VACATED BY THE CITY OF HESPERIA AND DESCRIBED IN THAT CERTAIN "RESOLUTION NO. 2007-037" RECORDED JUNE 04, 2007, AS INSTRUMENT NO. 2007-0333115, OF OFFICIAL RECORDS. EXCEPT THEREFROM THOSE PORTIONS THEREOF CONVEYED TO THE STATE OF CALIFORNIA BY DEEDS RECORDED JULY 14, 1954 IN BOOK 3420, PAGE 390, OFFICIAL RECORDS AND RECORDED FEBRUARY 8, 1963 IN BOOK 5948, PAGE 800, OFFICIAL RECORDS. PARCEL D: (APN: 3064-591-13) THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND. TOGETHER WITH THAT PORTION AS VACATED BY THE CITY OF HESPERIA AND DESCRIBED IN THAT CERTAIN "RESOLUTION NO. 2007-037" RECORDED JUNE 04, 2007, AS INSTRUMENT NO. 2007-0333115, OF OFFICIAL RECORDS. EXCEPT THEREFROM THOSE PORTIONS THEREOF CONVEYED TO THE STATE OF CALIFORNIA BY DEEDS RECORDED JULY 14, 1954 IN BOOK 3420, PAGE 390, OFFICIAL RECORDS AND RECORDED FEBRUARY 8, 1963 IN BOOK 5948, PAGE 800, OFFICIAL RECORDS. PARCEL E: (APN: 3064-631-01) THAT PORTION OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 22, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND ON FILE IN THE DISTRICT LAND OFFICE, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWESTERLY CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF SAID SOUTHWEST 1/4 TO A LINE PARALLEL WITH AND DISTANT 14.00 FEET NORTHWESTERLY, MEASURED AT RIGHT ANGLES, FROM THE NORTHEASTERLY PROLONGATION OF THE NORTHWESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO THE STATE OF CALIFORNIA BY DEED FROM SIMON FRIEDMAN AND WIFE, RECORDED JANUARY 28, 1949, IN BOOK 2353, PAGE 423, OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY; THENCE NORTHEASTERLY ALONG SAID PARALLEL LINE TO THE NORTHERLY LINE OF SAID SOUTHWEST 1/4; THENCE WESTERLY ALONG SAID NORTHERLY LINE TO THE POINT OF BEGINNING.	1 CONCRETE RAMP W/ 4" HIGH CONCRETE TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDES OF RAMP 2 EXTERIOR CONCRETE STAIR TOPO KEY NOTES 1. ABUTTERS RIGHT OF INGRESS AND EGRESS TO OR FROM THE STREET OR HIGHWAY ABUTTING SAID LAND HAVE BEEN RELINQUISHED BY A DOCUMENT RECORDED JULY 14, 1954 IN BOOK 3420, PAGE 390 AND RECORDED FEBRUARY 8, 1963 IN BOOK 5948, PAGE 800, BOTH OF OFFICIAL RECORDS. 2. AN EASEMENT FOR ROAD AND UTILITY PURPOSES RECORDED IN BOOK 6070, PAGE 483 OF OFFICIAL RECORDS. 3. AN EASEMENT FOR ROAD AND HIGHWAY PURPOSES RECORDED SEPTEMBER 10, 1987 AS INST. NO. 87-317448 OF OFFICIAL RECORDS. 4. AN EASEMENT FOR WATER LINE PURPOSES RECORDED SEPTEMBER 10, 1987 AS INST. NO. 87-317449 OF OFFICIAL RECORDS. 5. AN EASEMENT FOR WATER LINE, UTILITY, ROAD AND HIGHWAY PURPOSES RECORDED APRIL 15, 1988 AS INST. NO. 88-110815 OF OFFICIAL RECORDS. 6. AN EASEMENT FOR PIPELINE PURPOSES RECORDED AUGUST 11, 1992 AS INST. NO. 92-33355 OF OFFICIAL RECORDS. 7. AN IRREVOCABLE OFFER TO DEDICATE AN EASEMENT FOR UTILITY, ROAD AND HIGHWAY PURPOSES RECORDED AUGUST 11, 1992 AS INST. NO. 92-349735 OF OFFICIAL RECORDS. 8. AN IRREVOCABLE OFFER TO DEDICATE AN EASEMENT FOR UTILITY, ROAD AND HIGHWAY PURPOSES RECORDED AUGUST 21, 1992 AS INST. NO. 92-349737 OF OFFICIAL RECORDS. 9. AN EASEMENT FOR ROAD, HIGHWAY AND PUBLIC UTILITY PURPOSES RECORDED AUGUST 21, 1992 AS INST. NO. 92-349738 OF OFFICIAL RECORDS. <table><thead><tr><th>LAND USE / REQUIREMENT</th><th>PARKING RATE</th><th>BLDG. SIZE / RATE</th><th>REQUIRED</th><th>PROVIDED</th></tr></thead><tbody><tr><td>BUILDING - 01 WAREHOUSE (59,204 S.F.)</td><td>20 SPACES FOR THE FIRST 10,000 S.F. 0.47/1000 FOR AREA AFTER 10,000</td><td>10,000 S.F. (20 SPACE) 49,204 S.F. (20 SPACE)</td><td>40</td><td>143</td></tr><tr><td>OFFICE</td><td>1 SPACE / 200 S.F.</td><td>15,720 S.F.</td><td>79</td><td></td></tr><tr><td colspan="3">TOTAL PARKING REQD. FOR BLDG. 01</td><td>(119)</td><td></td></tr><tr><td>BUILDING - 02 TRUCK STOP (13,981 S.F.)</td><td>RETAIL AND OFFICE (GENERAL) SINGLE-USE OR MULTI-TENANT DEVELOPMENTS 1.0 TO 9.9 ACRES SITES 4.00 SPACES/ 1,000</td><td></td><td>56</td><td>66</td></tr><tr><td colspan="3">TOTAL PARKING REQD. FOR BLDG. 02</td><td>(56)</td><td></td></tr></tbody></table> TOTAL OVERALL PARKING REQUIRED: STANDARD PARKING INCLUDING HIC PARKING 175 SPACES 205 SPACES --- (E) PROPERTY LINE --- (E) CENTER LINE --- (E) EASEMENT LINE --- (E) FENCE --- (E) FIRE HYDRANT LOCATION TO BY FIRE DEPARTMENT --- (E) TREES PROJECT DESCRIPTION: NEW 1 - STORY WAREHOUSE WITH 3 - STORY OFFICE AREA OCCUPANCY: S / B STORAGE / BUSINESS CONSTRUCTIONS TYPE: V-A W/ AUTOMATIC FIRE SPRINKLER SYSTEM GROSS FLOOR AREA: <table><thead><tr><th>WAREHOUSE</th><th>OFFICE</th><th>SUB - TOTAL</th></tr></thead><tbody><tr><td>BUILDING - 01 59,204 S.F.</td><td>15,240 S.F.</td><td>64,444 S.F.</td></tr><tr><td>BUILDING - 02 13,981 S.F.</td><td></td><td>13,981 S.F.</td></tr></tbody></table> TOTAL LOT GROSS AREA: 885,234 SQ. FT. / 20.32 ACRES WAREHOUSE PROJECT GROSS LOT AREA: 458,255 SQ. FT. / 10.52 ACRES TRUCK STOP PROJECT GROSS LOT AREA: 426,978 SQ. FT. / 9.8 ACRES BUILDING CODE: 2019 CALIFORNIA BUILDING CODE (CBC), ELECTRICAL CODE (CEC), MECHANICAL CODE (CMC), PLUMBING CODE (CPC) & 2019 T-24 ENERGY STANDARDS. REQUIRED FIRE RESISTIVE CONSTRUCTION: 1. 1-HR FIRE BARRIER BETWEEN STORAGE AND B OCCUPANCY (DOOR W/60 MINUTE FIRE RATING)	LAND USE / REQUIREMENT	PARKING RATE	BLDG. SIZE / RATE	REQUIRED	PROVIDED	BUILDING - 01 WAREHOUSE (59,204 S.F.)	20 SPACES FOR THE FIRST 10,000 S.F. 0.47/1000 FOR AREA AFTER 10,000	10,000 S.F. (20 SPACE) 49,204 S.F. (20 SPACE)	40	143	OFFICE	1 SPACE / 200 S.F.	15,720 S.F.	79		TOTAL PARKING REQD. FOR BLDG. 01			(119)		BUILDING - 02 TRUCK STOP (13,981 S.F.)	RETAIL AND OFFICE (GENERAL) SINGLE-USE OR MULTI-TENANT DEVELOPMENTS 1.0 TO 9.9 ACRES SITES 4.00 SPACES/ 1,000		56	66	TOTAL PARKING REQD. FOR BLDG. 02			(56)		WAREHOUSE	OFFICE	SUB - TOTAL	BUILDING - 01 59,204 S.F.	15,240 S.F.	64,444 S.F.	BUILDING - 02 13,981 S.F.		13,981 S.F.
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CARGO SOLUTION EXPRESS INC.
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FONTANA, CA 92335
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PHONE: 909.263.6902
EMAIL: bobby@cargosolutionexpress.com

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	REVISIONS
2022-08-15	PLAN CHECK CORRECTION
2022-10-03	PLAN CHECK CORRECTION

TRUCK WAREHOUSE, TRUCK STOP SEC THREE FLAGS & POPLAR

HESPERIA, CA

A2410
2023.03.01

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909.259.9971 TEL.
909.944.8409 FAX.
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Architectural
Corporation

AS1

APPENDIX C

Site Photographs



Photo 1: Northwest-facing photo taken from the southeast corner of the project site. Date: August 26, 2022.



Photo 2: Northeast-facing photo taken from the southwest corner of the project site. Date: August 26, 2022.



Photo 3: Southwest-facing photo taken from the northeast corner of the project site. Date: August 26, 2022.



Photo 4: Southeast-facing photo taken from the northwest segment of the project site. Date: August 26, 2022.



Photo 5: California juniper on the project site from a northwest-facing view. Date: August 26, 2022.



Photo 6: Northeast-facing photo of a Joshua tree stand on the project site. Date: August 26, 2022.



Photo 7: Northeast-facing photo of off-site areas within the BSA, taken from the northeast corner of the project site. Date: August 26, 2022.

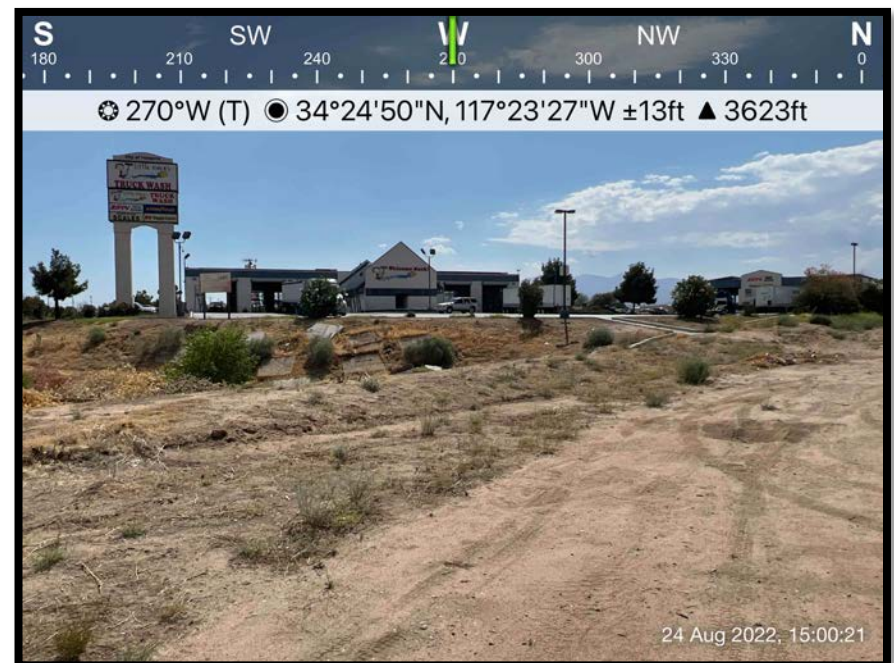


Photo 8: Southeast-facing photo of off-site areas in the BSA, taken from the southwest corner of the project site. Date: August 26, 2022.

APPENDIX D

Soils Report



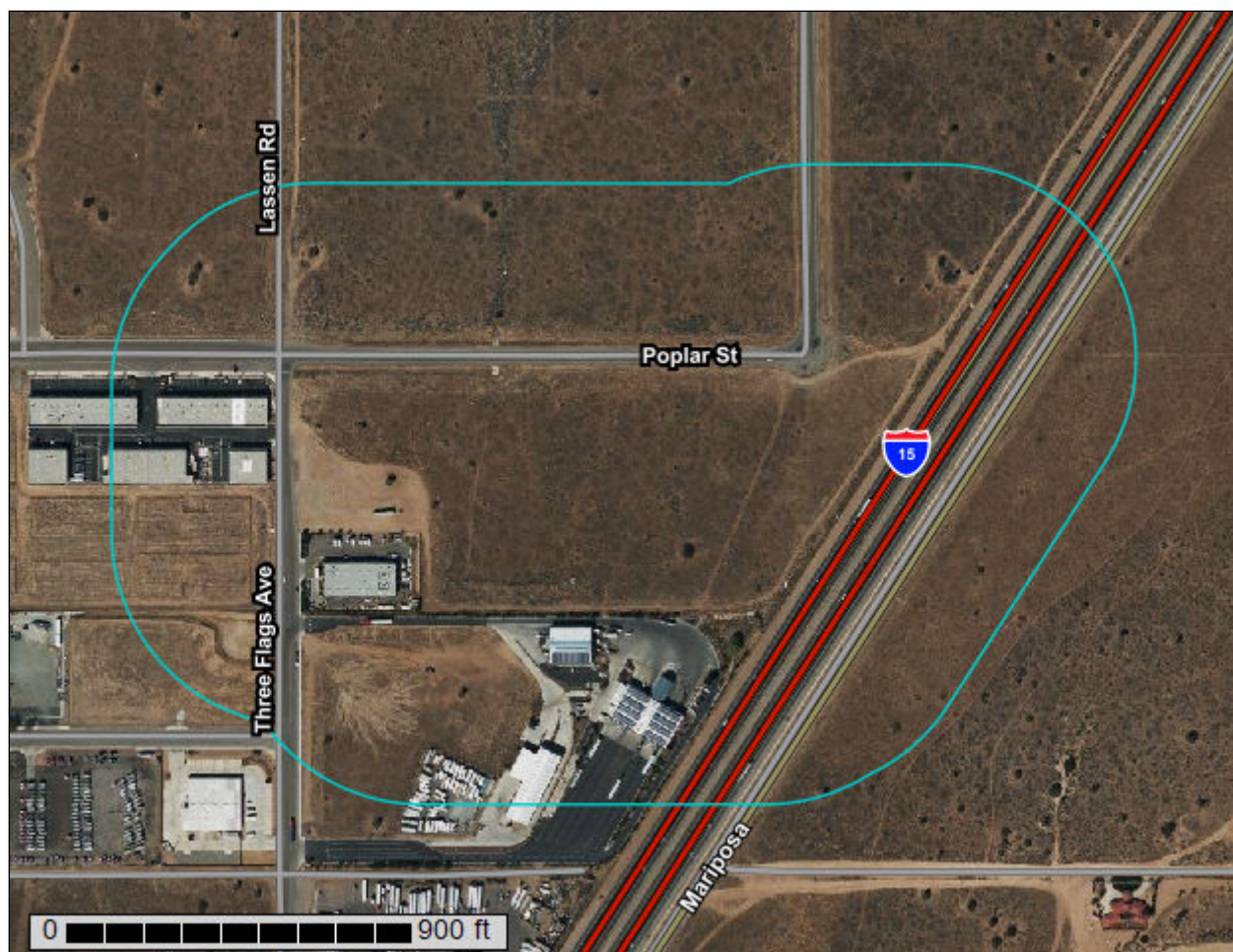
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for San Bernardino County, California, Mojave River Area



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
San Bernardino County, California, Mojave River Area.....	14
134—HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES.....	14
Soil Information for All Uses	16
Soil Properties and Qualities.....	16
Soil Erosion Factors.....	16
K Factor, Whole Soil.....	16
Wind Erodibility Group.....	20
Soil Physical Properties.....	24
Plasticity Index.....	24
References	29

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County, California, Mojave River Area
Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 27, 2021—May 24, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
134	HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES	85.5	100.0%
Totals for Area of Interest		85.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County, California, Mojave River Area

134—HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hks7
Elevation: 200 to 4,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hesperia and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hesperia

Setting

Landform: Fan aprons
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite sources

Typical profile

H1 - 0 to 6 inches: loamy fine sand
H2 - 6 to 60 inches: sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R030XE006CA - COARSE LOAMY
Hydric soil rating: No

Minor Components

Cajon

Percent of map unit: 5 percent
Hydric soil rating: No

Custom Soil Resource Report

Wrightwood

Percent of map unit: 5 percent

Hydric soil rating: No

Bull trail

Percent of map unit: 3 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 2 percent

Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

K Factor, Whole Soil

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

Custom Soil Resource Report
Map—K Factor, Whole Soil



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

	.02
	.05
	.10
	.15
	.17
	.20
	.24
	.28
	.32
	.37
	.43
	.49
	.55
	.64
	Not rated or not available

Soil Rating Lines

	.02
	.05
	.10
	.15
	.17
	.20

	.24
	.28
	.32
	.37
	.43
	.49
	.55
	.64
	Not rated or not available

Soil Rating Points

	.02
	.05
	.10
	.15
	.17
	.20
	.24
	.28
	.32
	.37
	.43
	.49
	.55
	.64
	Not rated or not available

Water Features

	Streams and Canals
	Rails
	Interstate Highways
	US Routes
	Major Roads
	Local Roads
	Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: San Bernardino County, California, Mojave River Area
Survey Area Data: Version 13, Sep 13, 2021

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MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
134	HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES	.28	85.5	100.0%
Totals for Area of Interest			85.5	100.0%

Rating Options—K Factor, Whole Soil

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

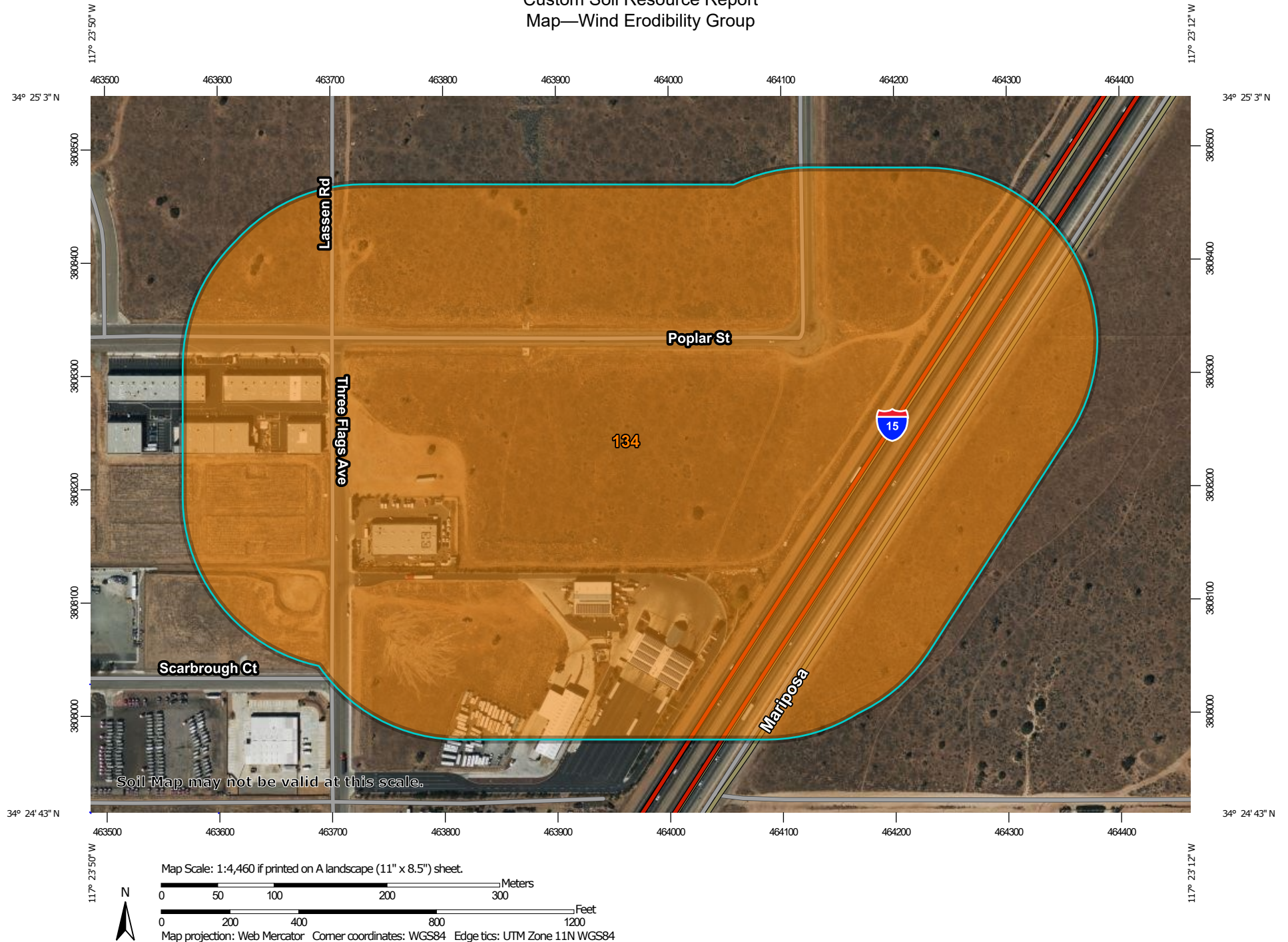
Tie-break Rule: Higher

Layer Options (Horizon Aggregation Method): All Layers (Weighted Average)

Wind Erodibility Group

A wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

Custom Soil Resource Report Map—Wind Erodibility Group



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

- | | |
|---|----------------------------|
|  | 1 |
|  | 2 |
|  | 3 |
|  | 4 |
|  | 4L |
|  | 5 |
|  | 6 |
|  | 7 |
|  | 8 |
|  | Not rated or not available |

Soil Rating Lines

- | | |
|---|----------------------------|
|  | 1 |
|  | 2 |
|  | 3 |
|  | 4 |
|  | 4L |
|  | 5 |
|  | 6 |
|  | 7 |
|  | 8 |
|  | Not rated or not available |

Soil Rating Points

- | | |
|---|----------------------------|
|  | 1 |
|  | 2 |
|  | 3 |
|  | 4 |
|  | 4L |
|  | 5 |
|  | 6 |
|  | 7 |
|  | 8 |
|  | Not rated or not available |

Water Features

 Streams and Canals

Transportation

- | | |
|--|---------------------|
|  | Rails |
|  | Interstate Highways |
|  | US Routes |
|  | Major Roads |
|  | Local Roads |

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 13, Sep 13, 2021

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MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Wind Erodibility Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
134	HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES	2	85.5	100.0%
Totals for Area of Interest			85.5	100.0%

Rating Options—Wind Erodibility Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Plasticity Index

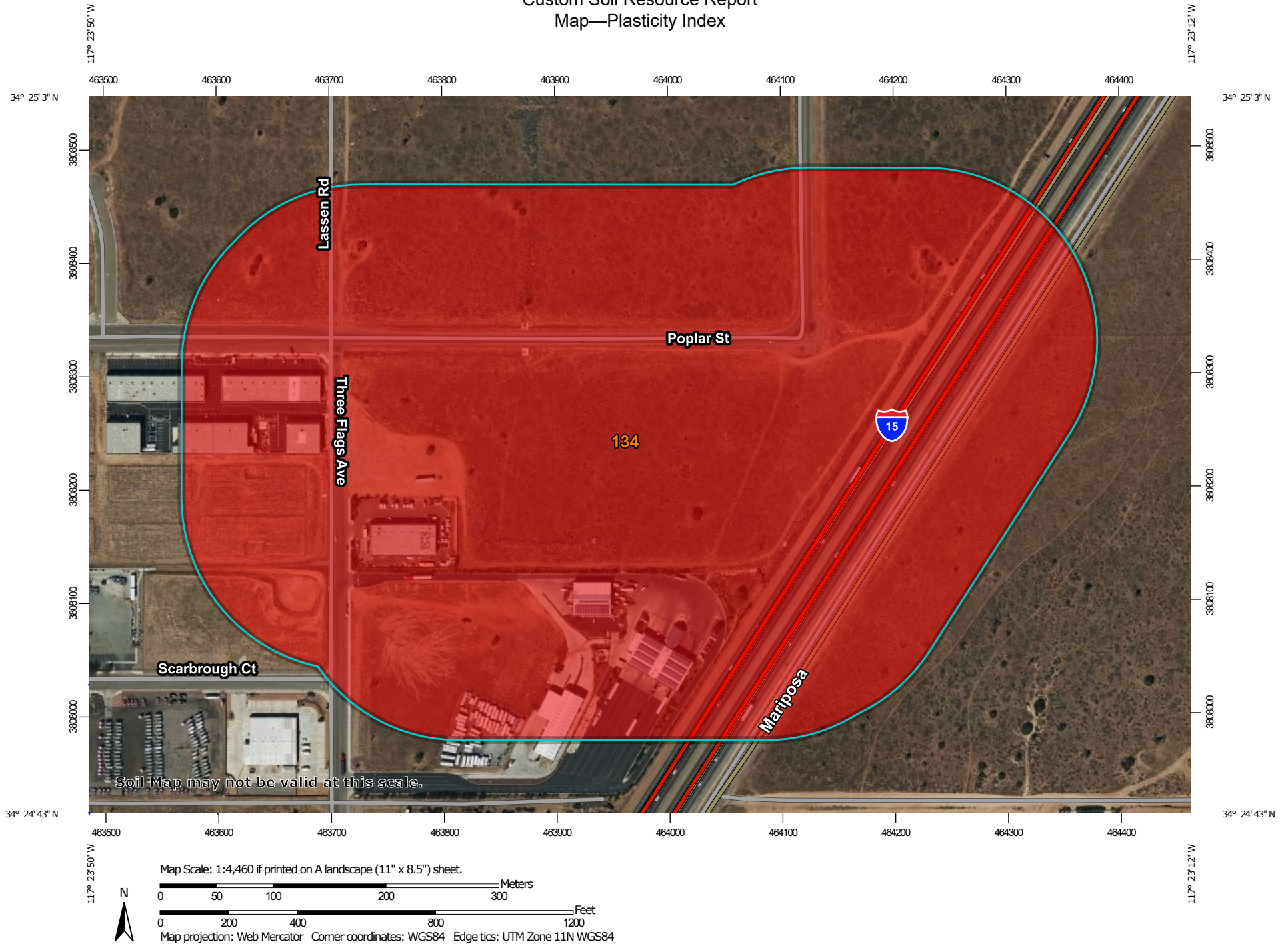
Plasticity index (PI) is one of the standard Atterberg limits used to indicate the plasticity characteristics of a soil. It is defined as the numerical difference between the liquid limit and plastic limit of the soil. It is the range of water content in which a soil exhibits the characteristics of a plastic solid.

The plastic limit is the water content that corresponds to an arbitrary limit between the plastic and semisolid states of a soil. The liquid limit is the water content, on a percent by weight basis, of the soil (passing #40 sieve) at which the soil changes from a plastic to a liquid state.

Soils that have a high plasticity index have a wide range of moisture content in which the soil performs as a plastic material. Highly and moderately plastic clays have large PI values. Plasticity index is used in classifying soils in the Unified and AASHTO classification systems.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report Map—Plasticity Index



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 = 2.3

 Not rated or not available

Soil Rating Lines

 = 2.3

 Not rated or not available

Soil Rating Points

 = 2.3

 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

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Survey Area Data: Version 13, Sep 13, 2021

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MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Plasticity Index

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
134	HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES	2.3	85.5	100.0%
Totals for Area of Interest			85.5	100.0%

Rating Options—Plasticity Index

Units of Measure: percent

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): All Layers (Weighted Average)

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Custom Soil Resource Report

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APPENDIXE

Plant and Wildlife Species Recorded During the Field Surveys

Table 1 contains the list of vascular plant taxa recorded during the biological field surveys conducted within the BSA. Plant nomenclature and taxonomic order is based on *The Jepson Manual: Vascular Plants of California*, second Edition (Baldwin et al., 2012).

Table 1
Plant Species Observed during the Field Surveys

Scientific Name	Common Name
<i>Asparagaceae</i>	Asparagus Family
<i>Yucca brevifolia</i>	western Joshua tree
<i>Chenopodiaceae</i>	Chenopod Family
<i>Salsola tragus*</i>	Russian thistle
<i>Cupressaceae</i>	Sedge Family
<i>Juniperus californica</i>	California juniper
<i>Poaceae</i>	Grass Family
<i>Bromus rubens*</i>	red brome
*non-native	

Table 2 contains the list of wildlife species observed and/or detected during the biological field surveys conducted within the BSA.

Table 2
Wildlife Species Observed/Detected during the Field Surveys

Scientific Name	Common Name
Birds	
<i>Columbidae</i>	Pigeon/Dove Family
<i>Columba livia*</i>	rock dove
<i>Corvidae</i>	Corvid Family
<i>Corvus corax</i>	common raven
<i>Falconidae</i>	Falcon Family
<i>Falco sparverius</i>	American kestrel
<i>Fringillidae</i>	Finch Family
<i>Haemorhous mexicanus</i>	house finch
Mammals	

Scientific Name	Common Name
Sciuridae	Squirrel Family
<i>Otospermophilus beecheyi</i>	California ground squirrel

APPENDIX F

Special-Status Species Inventory and Occurrence Potential Determination

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Description in California	Plant Elevation Range (feet amsl)	BSA Contains Potential Suitable Habitats	BSA is Located Within the Plant Species' Known:		Potential For Occurrence in the BSA	Comment Section
						Elevation Range	General Distribution		
Listed Endangered, Threatened, Candidate and State Rare Plants: Plants with official status under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA). A species may have other sensitive designations in addition to their federal or state listing.									
<i>Yucca brevifolia</i> (= <i>Yucca baccata</i> var. <i>brevifolia</i>)	Joshua tree	SCT	Lifeform: tree Habitats: desert flats, slopes, sagebrush, desert shrub, pinyon-juniper, desert grasslands Soils: silts, loams, and/or sands that are fine, loose, well drained and/or gravelly; alkaline or saline soils Bloom Period: April to May	1,312 - 6,561	Yes	Yes	Yes	Present. There are six individual Joshua trees on the project site.	
Sensitive Plants: These plants have no official status under the ESA, the CESA, and/or the NPPA; however they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.									
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	CRPR: 1B.2	Lifeform: perennial stem succulent Habitats: chaparral, Joshua tree woodlands, Mojavean desert scrub, riparian woodlands, and pinyon and juniper woodlands Soils: sandy soils or coarse granitic, loam, sandy to rocky Bloom Period: April to August	1,395 – 5,904	Yes	Yes	Yes	Low potential to occur. Although disturbed, the project site contains Joshua tree woodlands that have been graded over, in addition to six living Joshua trees and one living California juniper. The project site also contains suitable sandy soils to support this species. There is only low-quality available habitat for this species because the BSA has undergone significant disturbances,	
<i>Asclepias nyctaginifolia</i>	Mojave milkweed	CRPR: 2B.1	Lifeform: perennial herb Habitats: Mojavean desert scrub and pinyon and juniper woodlands Soils: sandy soils, often near washes Bloom Period: May to June	2,682 - 5,336	Yes	Yes	Yes	Low potential to occur. The BSA is located outside of the known distributional range of the species. The BSA contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA	
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	sagebrush loeflingia	CRPR: 2B.2	Lifeform: annual herb Habitats: Great Basin sagebrush scrub and Sonoran desert scrub Soils: sandy soils of desert dunes and flats Bloom Period: April to May	2,296 – 5,297	Yes	Yes	Yes	Low potential to occur. The BSA contains suitable sandy soils to support this species. However, the project area and other undeveloped areas in the BSA are frequently graded and therefore this species only has a low potential to occur.	
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	southern mountains skullcap (=southern skullcap)	CRPR: 1B.2	Lifeform: perennial rhizomatous herb Habitats: oak or pine woodlands, chaparral, cismontane woodlands or lower montane coniferous forests Soils: gravelly streamside soils Bloom Period: June to August	1,394 – 6,560	No	Yes	No	No potential to occur. The BSA lacks suitable gravelly streamside soils and suitable habitat such as oak or pine woodlands, chaparral, cismontane woodlands or lower montane coniferous forests.	
<i>Eremothera boothii</i> ssp. <i>boothii</i> (= <i>Camissonia boothii</i> ssp. <i>boothii</i>)	Booth's evening- primrose	CRPR: 2B.3	Lifeform: annual herb Habitats: Joshua tree woodlands and pinyon and juniper woodlands Bloom Period: April to September	2,673 – 7,872	Yes	Yes	Yes	Low potential to occur. Although disturbed, the project site contains Joshua tree woodlands that have been graded over, in addition to six living Joshua trees and one living California juniper. There is only low-quality available habitat for this species because the BSA has undergone significant disturbances.	
<i>Canbya candida</i>	white pygmy- poppy (=pygmy poppy)	CRPR: 4.2	Lifeform: annual herb Habitats: Mojavean desert scrub, Joshua tree woodlands, and pinyon and juniper woodlands Soils: sandy soils Bloom Period: March to June	1,968 – 4,789	Yes	Yes	Yes	Low potential to occur. Although disturbed, the project site contains Joshua tree woodlands that have been graded over, in addition to six living Joshua trees and one living California juniper. There is only low-quality available habitat for this species because the BSA has undergone significant disturbances,	

<i>Saltugilia latimeri</i> (=Gilia latimeri)	Latimer's woodlands-gilia	CRPR: 1B.2	Lifeform: annual herb Habitats: chaparral, Mojavean desert scrub, and pinyon and juniper woodlands Soils: coarse sandy to rocky soils, often granitic, alluvial soils Bloom Period: March to June	1,312 – 6,232	Yes	Yes	Yes	Low potential to occur. Although disturbed, the project site contains Joshua tree woodlands that have been graded over, in addition to six living Joshua trees and one living California juniper. There is only low-quality available habitat for this species because the BSA has undergone significant disturbances,.	
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	CRPR: 1B.2	Lifeform: annual herb Habitats: coastal scrub (alluvial fans), Mojavean desert scrub, and pinyon and juniper woodlands Soils: sandy or gravelly substrates Bloom Period: April to June	984 – 3,936	Yes	Yes	Yes	Low potential to occur. Although disturbed, the project site contains Joshua tree woodlands that have been graded over, in addition to six living Joshua trees and one living California juniper. The project site also contains suitable sandy soils to support this species. There is only low-quality available habitat for this species because the BSA has undergone significant disturbances,	
Legend and Notes									

California Endangered Species Act (CESA) and California Native Plant Protection Act (NPPA) Listing Codes: tth e CESA and NPPA are administered by CDFW. The official listing of Plants of California Declared to Be Endangered, Threatened or Rare is contained in the California Code of Regulations, Title 14, § 670.2. Species, subspecies and varieties of California native plants are declared to be endangered, threatened as defined by § 2062 and § 2067 of the Fish and Game Code or rare as defined by § 1901 of the Fish and Game Code.

•**CT = state candidate for listing as threatened:** a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of threatened species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).

California Rare Plant Ranks (Formerly known as CNPS Lists): the CNPS is a statewide, nonprofit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFW officially changed the name “CNPS List” or “CNPS Ranks” to “California Rare Plant Rank” (or CPRP). This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

•**CRPR 1B** = California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

California Native Plant Society (CNPS) Threat Ranks: The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) (as a decimal code) and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. A Threat Rank is present for all CRPR 1B's, 2B's, 4's, and the majority of CRPR 3's. CRPR 4 plants are seldom assigned a Threat Rank of .1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a CRPR. In addition, all CRPR 1A and 2A (presumed extirpated in California), and some CRPR 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

•**2** = moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

- Other:**
- **ND** = no designation
 - Annual:** grows from seed and reproduce within a single year.
 - Perennial:** lives more than one year.
 - Deciduous:** plants shed their leaves for part of the year.
 - Evergreen:** plants retain their leaves for an entire year.
 - Mesic habitat:** a habitat with a moderate or well-balanced supply of moisture.
 - Hemiparasitic:** plants that are connected to host plants and derive energy, water, and minerals from them, but also maintain their own functional root systems or photosynthetic surfaces.
 - Parasitic:** plants that are connected to host plants and rely solely on them for energy, water, and nutritional requirements.
 - Carnivorous:** plants that trap insects and other small animals and derive nourishment from them.
 - Herbs:** plants that are herbaceous and lack above-ground woody tissue.
 - o**Bulbiferous herb:** plants that have fleshy underground storage organs typically derived from scale leaves (this category includes cormiferous and other similar plants in which storage organs have other origins).
 - o**Rhizomatous herb:** plants that have underground stems (rhizomes), typically bearing shoots which develop into new plants.
 - o**Stoloniferous herb:** plants that have above-ground runners (stolons) which typically root and produce new plants.
 - Shrubs:** smaller woody perennials that retain most of their above-ground woody tissue and are typically many-stemmed.
 - o**Leaf succulents:** succulents with thick, fleshy leaves.
 - o**Stem succulents:** succulents with thick, fleshy stems and reduced or absent leaves.
 - Trees:** larger woody perennials that retain all of their above-ground wood tissue and are typically single-stemmed.
 - Vines:** twining woody perennials requiring external support for growth.
 - Mosses:** small green plants (one of three groups of bryophytes) with structures that resemble miniature leaves and stems. The leaves generally have a midrib called a costa. The sporophyte (the spore-bearing structure) is persistent for weeks.
 - Liverworts:** small green plants (one of three groups of bryophytes). There are both leafy and thalloid types - leafy liverworts lack a midrib on the leaves, while thalloid liverworts have no leaves. The sporophyte is short-lived

Notes:

The BSA contains approximate elevations of 3,606 to 3,620 feet above mean sea level (amsl).

Yes = the BSA is located within the plant species' known distribution, elevation range, and/or the BSA contains suitable habitats and/or soils to support the plant species. The plant species has a potential to occur within the BSA. Further evaluation is needed.

No = the BSA is located outside the plant species' known distribution, elevation range, and/or the BSA lacks suitable habitats and/or soils to support the plant species. It is highly unlikely for the plant species to have a potential to occur within the BSA. No further evaluation is needed.

Present = observed within the BSA during surveys.

A CNPS elevation range is provided for each taxon in feet. The stated range is for the California portion of a plant's range only (if the taxon also occurs outside the state). These CNPS elevation range data are accumulated from literature, herbarium specimens, and field survey information.

Resources

- *The Jepson Desert Manual (Baldwin et al., 2002);*
- *The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al., 2012);*
- *BLM Special Status Plants under the jurisdiction of the California State Office as of October 30, 2013 (BLM, 2013);*
- *The Final Environmental Impact Report and Statement (Final EIR/S) for the West Mojave Plan (BLM, 2005);*
- *Final Environmental Impact Statement. Proposed Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) (BLM and CDFG, 2002);*
- *(Calflora website);*
- *The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000–2004 (CDFG, 2005);*
- *CNDDDB ;*
- *Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2016);*
- *State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW, 2016);*
- *(CNPS website);*
- *(eFloras.org website);*
- *(NatureServe Explorer website);*
- *Rare Plants of San Diego County (Reiser, 2001);*
- *USDA Forest Service, Pacific Southwest Region, Sensitive Plant Species List by Forest (USFS, 2013).*
- *UltraSystems in-house records.*

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						
Listed Invertebrates						
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi sands flower-loving fly	FE	Habitats: sparsely vegetated area, providing sparse ground cover (10-20%) Soils: unique, fine, sandy soils	Yes	No	No potential to occur. The BSA does not contain suitable soil (Delhi sands) or vegetation habitats to support this species.
<i>Euphydryas editha quino</i> (=Euphydryas editha wrighti)	quino checkerspot butterfly	FE	Habitats: grasslands, remnant forland, open coastal sage scrub, open chamise chaparral, open red shank chaparral, juniper woodland, and semi-desert scrub, open or sparsely vegetated rounded hilltops, ridgelines, rocky outcrops of chaparral and coastal sage scrub Soils: loamy soils with moderate to high amounts of clay Characteristics: adult butterflies will only deposit eggs on species they recognize as host plants	Yes	No	Low potential to occur. The BSA contains some desert scrub habitat, however it exists in a disturbed state. In addition, the soils in the BSA do not contain a high clay faction; this species typically occurs in areas with clay-loam soils. The soils of the BSA are primarily loamy-fine-sand.
<i>Bombus crotchii</i>	Crotch bumble bee	candidate endangered	Habitats: grasslands and shrublands. Hotter and drier environment than other bumblebee species. Prefers milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats: This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border.	Yes	Yes	Low potential to occur. The BSA is in of the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There are few remaining native plants in the BSA. Due to these factors, there is low potential for the species to occur in the BSA.
Listed Fish						
<i>Siphateles bicolor mohavensis</i> (=Siphateles mohavensis, =Gila bicolor mohavensis)	Mojave tui chub	FE, SE, fully protected	Habitats: weedy, near-shore areas of lakes, in the shallow areas of streams flowing out of lakes, and in mineral springs Characteristics: needs vegetation for spawning	Yes	No	No potential to occur. There is no suitable habitat (wetlands) in the BSA that would support populations of the species. .
Listed Amphibians						
<i>Anaxyrus californicus</i> (=Bufo californicus)	arroyo toad	FE, SSC	Habitats: sandy riverbanks, streams, washes, and arroyos, breeds in and near streams Characteristics: nearby sandy terraces, dampened in places by capillary action, and with some scattered vegetation providing surface sheltering and burrowing sites and foraging areas	Yes	No	Not expected to occur. The BSA is in of the known distributional range of the species, but it does not contain breeding habitat (wetlands) needed to support populations of the species. The soils in the BSA have been subjected to repeated surface disturbances likely prevent occupancy by the species. Due to these factors, there is no potential for the species to occur in the BSA.
<i>Rana draytonii</i> (=Rana aurora draytonii)	California red-legged frog	FT, SSC	Habitats: lowland streams, wetlands and marshes, lakes, riparian woodlands, ponds, reservoirs, and other sources of permanent water Characteristics: require cold water pond habitats with emergent and submergent vegetation	No	No	Not expected to occur. The BSA is located outside of the known distributional range of the species and does not contain breeding habitat (wetlands) needed to support populations of the species. The soils in the BSA have been subjected to repeated surface disturbances likely prevent occupancy by the species. Due to these factors, there is no potential for occurrence of this species.
<i>Rana muscosa</i>	southern mountain yellow-legged frog	FE, SE, CDFW:WL	Habitats: sunny riverbanks, meadow streams, isolated pools, lake borders, and rocky stream courses in the mountains of Southern California Characteristics: prefer open stream and lake margins that gently slope	No	No	Not expected to occur. The BSA is located outside of the known distributional range of the species and does not contain breeding habitat (wetlands) needed to support populations of the species. The soils in the BSA have been subjected to repeated surface disturbances likely prevent occupancy by the species. Due to these factors, there is no potential for occurrence of this species.
Listed Reptiles						
<i>Gopherus agassizii</i>	desert tortoise (=Mohave desert tortoise)	FT, ST	Habitats: desert scrub, creosote bush scrub, Mojave-saltscale scrub, desert wash, Joshua tree habitats and flat desert having sandy or gravelly soil, but occurs in almost every desert habitat except on the most precipitous slopes Characteristics: avoid plateaus, playas, sand dunes, steep slopes and areas with many obstacles to free movement	Yes	Yes	Low potential to occur. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
<i>Charina umbratica</i>	southern rubber boa	ST	Habitats: moist oak-conifer and mixed-conifer coniferous forests and woodland habitats, large grassy fields or other open areas Characteristics: require loose, moist soil for burrowing, rock outcrops serve as hibernacula	No	No	No potential to occur. The BSA is located outside of the known distributional range of the species and does not contain habitat (forests) needed to support populations of the species. The soils in the BSA have been subjected to repeated surface disturbances likely prevent occupancy by the species. Due to these factors, there is no potential for occurrence of this species
Listed Birds						
<i>Gymnogyps californianus</i>	California condor	FE, SE, fully protected	Habitats: semi-arid, pine or chaparral covered rugged mountain ranges, higher elevations, foraging habitat lies in foothills predominately covered by grasslands or oak-savannah habitats Characteristics: habitat requirements may be adequate food supplies, open-enough habitat that food can be readily found and accessed	Yes	No	No potential to occur. The BSA does not contain adequate open habitat to support this species. In addition, suitable breeding habitats are absent from the BSA. This species is rarely detected in urbanized areas, and while the BSA and its surrounding vicinity contain some open space, this species is most likely to utilize the habitat provided by the San Bernardino and Angeles National Forests in the region rather than areas that have undergone some disturbance such as the BSA.
<i>Haliaeetus leucocephalus</i>	bald eagle	SE, fully protected, BCC, Season of Concern: nesting & wintering	Habitats: seacoasts, rivers, wetlands swamps, and large lakes, in winter in dense, sheltered, remote conifer stands Characteristics: large nests are normally built in the upper canopy of large trees, usually conifers	Yes	No	No potential to occur. The BSA does not contain adequate large bodies of water, or free flowing rivers with abundant fish for foraging. In addition, suitable perching sites, roosting sites, and breeding habitats are absent from the BSA. Any occurrence would mostly likely be restricted to passage.
<i>Buteo swainsoni</i>	Swainson's hawk	ST, BCC	Habitats: large, open areas with abundant prey in association with suitable nest trees, native grasslands or lightly grazed pastures and croplands, open deserts, sparse shrub lands Characteristics: nest in juniper trees of juniper-sage flats not near riparian zones	Yes	Yes	Low potential to occur. The BSA is located within the historical breeding range of the species, but breeding populations are likely extirpated from the region. The BSA supports marginal foraging and there is low potential for migrating or transient individuals to forage in the BSA. There is no potential for the species to nest within the BSA.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	FT, SE,, BCC,	Habitats: relatively dense growths of trees and shrubs in riparian habitats that lines rivers and streams Characteristics: Cuckoos have large home ranges, often exceeding 50 acres, and sometimes approaching 100 acres	Yes	No	No potential to occur. The BSA is located outside of the known distributional range of the species and does not contain habitat (forests) needed to support populations of the species. Due to these factors, there is no potential for occurrence of this species.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	FE, SE, Season of Concern: nesting	Habitats: dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes, surface water, saturated soil, or herbaceous wetland plants present during the early summer months; woody riparian vegetation is present	Yes	No	Not expected to occur. The BSA does not contain habitat (riparian thickets) needed to support populations of the species.
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE, Season of Concern: nesting	Habitats: dry, intermittent streams, on the desert slopes mesquite (Prosopis sp.) and sandbar willow in canyon locations, willow-dominated riverine riparian habitats with well-developed overstories, understories, and low densities of aquatic and herbaceous cover	Yes	No	No potential to occur. The BSA does not contain suitable breeding and foraging riparian and aquatic habitats to support this species. Furthermore, the BSA lacks riparian habitat with well-developed understories and overstories.
Listed Mammals						
<i>Xerospermophilus mohavensis</i> (=Spermophilus mohavensis)	Mohave ground squirrel	ST	Habitats: arid Mohave Desert of California Soil: saltbush scrub, alkali desert scrub, desert scrub, creosote bush scrub	Yes	No	Low potential to occur. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						
Sensitive Wildlife: These animals have no official status under the ESA and/or the CESA; however they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations						
Sensitive Invertebrates						
Helminthoglypta taylori	westfork shoulderband	Special Animals List	Habitat: talus and rock piles on mountain slopes Characteristics: narrow endemic terrestrial snail from the desert foothills of the San Bernardino Mountains	No	No	No potential to occur. The BSA is outside of the known distributional range of the species and lacks habitat (wetlands) that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA.
Plebulina emigdionis	San Emigdio blue butterfly	Special Animals List	Habitats: arid washes, dry riverbeds, and intermittent streamsides as well as adjacent flats in lower Sonoran zone Characteristics: flight time is from March through September. Hosts for caterpillars include Shadscale (Atriplex canescens)	Yes	Yes	Not expected to occur. The BSA is in the known distributional range of the species, but the lands there have been subjected to repeated surface disturbances that likely preclude its occurrence. There is no shadscale scrub in the BSA. Due to these factors, there is no potential for the species to occur in the BSA.
Danaus plexippus pop. 1	monarch butterfly	FC: California overwintering population	Habitats: wind-protected tree groves (eucalyptus [Eucalyptus sp.], Monterey pine [Pinus radiata], cypress), with nectar and water sources nearby	Yes	No	No potential to occur. The BSA offers geerally poor wind protection.
Sensitive Reptiles						
Actinemys marmorata (=Actinemys marmorata marmorata) (=Emys marmorata)	northern western pond turtle (=northern western pond turtle)	SSC	Habitats: stagnant or slow-moving water in aquatic habitats, ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland	No	No	No potential to occur. The BSA is outside of the known distributional range of the species and lacks habitat (wetlands) that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA.
Actinemys pallida (=Actinemys marmorata pallida)	southern western pond turtle	SSC, BLMS, USFS: S, WRCMSHCP: Covered	Habitats: intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons	No	No	No potential to occur. The BSA is outside of the known distributional range of the species and lacks habitat (wetlands) that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA.
Phrynosoma blainvilli (=Phrynosoma coronatum) (=Phrynosoma coronatum blainvillei)	Blainville's horned lizard (=coast horned lizard) (=San Diego horned lizard)	SSC	Habitats: wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest, habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking	Yes	Yes	Low potential to occur. The BSA is in of the known distributional range of the species and contains sandy soils preferred by the species, but the soils there have been subjected to repeated surface disturbances. Due to these factors, there is low potential for the species to occur in the BSA.
Thamnophis hammondi	two-striped garter snake	SSC	Habitats: aquatic and it is rarely found far from water, permanent or semi-permanent bodies of freshwater and adjacent riparian habitat, oak woodlands, chaparral and coniferous forests on the coastal slopes of mountains and foothills to sea level	No	No	Not expected to occur. The BSA is outside of the known distributional range of the species and lacks habitat (wetlands) that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA.
Sensitive Birds						
Circus hudsonius (=Circus cyaneus)	northern harrier	SSC	Habitats: northern harriers breed and forage in a variety of open (treeless) habitats, open wetlands, freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), weed fields, fallow fields, ungrazed or lightly grazed pastures, some croplands (especially alfalfa, grain, sugar beets, tomatoes, and melons), sagebrush flats, and desert sinks	Yes	No	Not expected to occur. The BSA does not contain suitable foraging and breeding habitats to support this species such as , open wetlands, freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), weed fields, fallow fields, ungrazed or lightly grazed pastures, some croplands (especially alfalfa, grain, sugar beets, tomatoes, and melons), sagebrush flats, and desert sinks.
Accipiter cooperii	Cooper's hawk	WL, Season of Concern: nesting	Habitats: broken woodland and habitat edges Characteristics: tolerant of human activities near the nest and is seen more often nesting in urban/residential areas	Yes	Yes	Low potential to occur. This species has adapted to disturbed environments and human activity. There is marginal foraging habitat and low potential for this species to forage in the BSA. Due to a lack of suitable nesting habitat (trees) there is no potential for the species to nest in the BSA.
Aquila chrysaetos	golden eagle	fully protected, WL, BCC, Season of Concern: nesting and wintering	Habitats: mountainous canyon land, rimrock terrain of open desert and grassland areas, open rolling foothills of grasslands, oak savannas, oak and juniper woodlands, chaparral, mountain areas, and desert, open habitats including grasslands, deserts, savannahs, and shrublands Characteristics: hilly or mountainous country, deeply cut canyons rising to open mountain slopes and crags are ideal habitat	Yes	Yes	Not expected to occur. This species is characteristic of remote, open areas and avoids human developments and activities. There is no suitable nesting or foraging habitat in the BSA. There is no potential for this species to occur in the BSA.
Athene cunicularia	burrowing owl	SSC, BCC, Season of Concern: burrowing sites and some wintering sites	Habitats: open, dry, flat ground or low rolling hills with sparse vegetation and available burrows Characteristics: dig their own burrows in the soft banks of irrigation canals and ditches	Yes	Yes	High potential to occur. The BSA is in of the known distributional range of the species and contains friable soils and mammalian burrows (California ground squirrel) preferred by the species. This species is tolerant of human disturbances. Due to these factors, there is high potential for the species to occur in the BSA.
Strix occidentalis occidentalis	California spotted owl	SSC, BCC	Habitats: forests and woodlands with large old trees and snags, high basal areas of trees and snags, dense canopies (>70% canopy closure), multiple canopy layers, and downed woody debris Characteristics: low elevations, it uses coastal oak woodland, valley foothill riparian, and redwood (Sequoia sempervirens) forests	Yes	No	Not expected to occur. The BSA does not contain suitable oak/conifer woodland or montane forest breeding, roosting, or foraging habitats to support this species.
Asio otus	long-eared owl	SSC Season of Concern: nesting	Habitats: conifer, oak, riparian, pinyon-juniper, and desert woodlands Characteristics: long-eared owl appears to be more associated with forest edge habitat	Yes	Yes	Not expected to occur. There is no suitable foraging, roosting, or nesting habitat in the BSA. There is no potential for this species to occur in the BSA.
Falco mexicanus	prairie falcon	WL, BCC, Season of Concern: nesting	Habitats: annual grasslands to alpine meadows on open, dry, level or hilly terrain, perennial grasslands, savannahs, rangeland, some agricultural fields, desert scrub areas and even marshland and ocean shores Characteristics: during the winter- reside in cultivated fields, lakeshores, desert scrub	Yes	Yes	Low potential to occur. The BSA does not contain suitable nesting habitat (rocky cliffs), and there is no potential for this species to nest in the BSA. There is marginal foraging habitat in the BSA, and there is low potential for this species to occur in the BSA as a forager.,
Lanius ludovicianus	loggerhead shrike	SSC, BCC, Season of Concern: nesting	Habitats: agricultural fields, pastures with fence rows, old orchards, savannas, prairies mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs Characteristics: nest in isolated trees or large shrubs	Yes	Yes	Moderate potential to occur. The BSA is in of the known distributional range of the species and contains potentially suitable nesting and foraging habitat (open habitat, Joshua trees). Due to these factors, there is moderate potential for the species to occur in the BSA.
Vireo vicinior	gray vireo	SSC, BCC	Habitats: arid, shrub-covered slopes in pinyon-juniper, juniper, and chamise-redshank chaparral habitats on foothills and mesas Characteristics: they forage, nest, and sing in areas formed by a continuous growth of twigs, 1-5 feet above ground	Yes	Yes	Not expected to occur.The BSA is outside of the known breeding range of the species and does not support habitat (dense, shrubby vegetation) needed to support breeding populations of the species. Due to these factors, there is no potential for the species to occur or nest in the BSA.
Toxostoma lecontei	Le Conte's thrasher	SSC, BCC	Habitats: open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub, Joshua tree habitats with scattered shrubs, open desert flats, washes and alluvial fans with sandy and/or alkaline soil Characteristics: usually does not occur in areas of monotypic creosote bush scrub	Yes	Yes	Not expected to occur. There is no suitable foraging or nesting habitat in the BSA. There is no potential for this species to occur in the BSA.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						
<i>Setophaga petechia</i> (= <i>Dendroica petechia</i>)	yellow warbler	SSC, BCC, Season of Concern: nesting	Habitats: deciduous trees of the riparian woodland from coastal desert woodlands to the Sierra Nevada – willows (<i>Salix</i> sp.), cottonwoods (<i>Populus</i> sp.), aspens (<i>Populus</i> sp.), California sycamores (<i>Platanus racemosa</i>), and alders (<i>Alnus</i> sp.) Characteristics: nests are deep cups, placed in an upright fork in a deciduous sapling or shrub, typically 2 to 16 feet high	Yes	No	Not expected to occur. The BSA is outside of the known breeding range of the species and does not support habitat (riparian vegetation) needed to support breeding populations of the species. Due to these factors, there is no potential for the species to occur or nest in the BSA.
<i>Icteria virens</i>	yellow-breasted chat	SSC, Season of Concern: nesting	Habitats: dense riparian thickets of willows, vines, and brush associated with streams and other wetland habitats Characteristics: nest is an open cup placed in dense shrubs or thickets within 3 to 8 feet above ground along a stream or river	Yes	No	No potential to occur. The BSA is outside of the known breeding range of the species and does not support habitat (dense riparian thickets) needed to support breeding populations of the species. Due to these factors, there is no potential for the species to occur or nest in the BSA.
<i>Piranga rubra</i>	summer tanager	SSC, Season of Concern: nesting	Habitats: desert riparian habitat, mature, dense, desert riparian habitat dominated by cottonwoods (<i>Populus</i> sp.) and willows (<i>Salix</i> sp.) along streams and rivers	Yes		Not expected to occur. There is no suitable foraging or nesting habitat in the BSA. There is no potential for this species to occur in the BSA..
Sensitive Mammals						
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	SSC	Habitats: sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California Characteristics: mainly in arid coastal and desert border areas	Yes	No	Not expected to occur. The BSA is in of the known distributional range of the species and contains sandy soils, but the soils there have been subjected to repeated surface disturbances. There is a lack of natural vegetation and rocky or gravelly inclusions in the soil that is preferred by this species. Due to these factors, there is no potential for the species to occur in the BSA
<i>Microtus californicus mohavensis</i>	Mohave river vole	SSC	Habitat: grassy or riparian habitats within the Mojave River corridor Characteristics: inhabits areas of infrequent flooding	Yes	No	Not expected to occur. The BSA does not support habitat (riparian) needed to support populations of the species. Due to these factors, there is no potential for the species to occur or nest in the BSA
<i>Lasiurus cinereus</i>	hoary bat	ND	Habitats: near open grassy areas in coniferous and deciduous forest or near lakes, open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding Characteristics: winter roosts include sides of buildings and tree trunks	Yes	No	Not expected to occur. The BSA is in of the known distributional range of the species, but it does not contain habitat that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA..
<i>Vulpes macrotis arsipus</i>	desert kit fox	Protected by Section 460 of the California Code of Regulations [CCR], Title 14	Habitats: sparsely vegetated scrub habitats and native or annual grasslands, alkali sink scrub, saltbush scrub, and chenopod scrub, although oak woodlands, vernal pools, alkali meadows and playas also provide habitat Characteristics: located on gradual west to northwest facing slopes, with characteristically deep, light-textured and virtually stoneless soils	Yes	No	Low potential to occur. The BSA contains low-quality foraging habitat for this fox, however occurrence of this species in the BSA would likely be restricted to passage and/or occasional foraging. There is a lack of suitable, undisturbed breeding habitat for this species as the BSA frequently experiences various disturbaces including human activity, vehicle traffic, and soil compaction,
<i>Taxidea taxus</i>	American badger	SSC	Habitats: alpine meadows to elevations as low as Death Valley Characteristics: requirements - sufficient food, friable soils, and relatively open, uncultivated ground	Yes	No	Not expected to occur. The BSA is in of the known distributional range of the species, but it does not contain habitat that would support populations of this species. Due to these factors, there is no potential for the species to occur in the BSA.

Legend and Notes

Federal Endangered Species Act (ESA) Listing Codes: the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened animals is published in 50 CFR § 17.11.

- FE** = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
- ET** = federally listed as threatened: any species of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.
- EC** = federal candidate for listing: candidate species are plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them for listing as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by higher priority listing actions to address species in greater need. A proposed regulation has not yet been published in the Federal Register for these species.
- EPE** = federally proposed for listing as endangered: a candidate species that has been proposed by USFWS or NMFS for listing as endangered and the proposed rule, but not a final rule, to list has been published in the Federal Register.
- EPT** = federally proposed for listing as threatened: a candidate species that has been proposed by USFWS or NMFS for listing as threatened and the proposed rule, but not a final rule, to list has been published in the Federal Register.
- EPD** = federally proposed for delisting: a species that has been proposed by USFWS or NMFS for delisting (or down listing from endangered to threatened) and the proposed rule to delist has been published in the Federal Register.

California Endangered Species Act (CESA) Listing Codes: the CESA is administered by CDFW. The official listing of Animals of California Declared To Be Endangered or Threatened is contained in the California Code of Regulations, Title 14, § 670.5. Species and subspecies of California native animals are declared to be endangered or threatened as defined by §§ 2062 and 2067 of the Fish and Game Code.

- SE** = state-listed as endangered: "endangered species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (Fish and Game Code § 2062).
- ST** = state-listed as threatened: "threatened species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts (Fish and Game Code § 2067).
- SCE** = state candidate for listing as endangered: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of endangered species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).
- SCT** = state candidate for listing as threatened: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed by publication in the California Regulatory Notice Register as being under review by CDFW for addition to the list of threatened species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).
- SCD** = state candidate for delisting: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for removal from either the list of endangered species or the list of threatened species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to remove the species to either list.

California Department of Fish and Wildlife (CDFW) Designations:

- For some wildlife species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nesting colonies. For many species of birds, the primary emphasis is on the breeding population in California. For some species which do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering
- SSC = species of special concern:** a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.
 - Fully protected:** fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Lists were created for fish (Fish and Game Code § 5515), amphibians and reptiles (Fish and Game Code § 5050), birds (Fish and Game Code § 3511) and mammals (Fish and Game Code § 4700).
 - WL = watch list:** this list includes birds identified in the California Bird Species of Special Concern (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species.
 - Special Animals List:** The Special Animals List contains taxa that are actively inventoried, tracked, and mapped by the CNDDB, as well as taxa for which mapped data may not yet be incorporated into CNDDB user products

United States Fish and Wildlife Service (USFWS) Designations:

- ESC = federal species of concern:** federal species of concern is an informal term. It is not defined in the ESA. The term commonly refers to species that are declining or appear to be in need of conservation.
- BCC = bird of conservation concern:** a bird of conservation concern is listed in the USFWS' 2008 Birds of Conservation Concern report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.						

Western Bat Working Group (WBWG) Designations:

The WBWG is composed of agencies, organizations, and individuals interested in bat research, management, and conservation from 13 western states and provinces. Species are ranked as High, Medium, or Low Priority in each of 10 regions in western North America.

- H = High Priority:** These species are considered the highest priority for funding, planning, and conservation actions, Information about status and hreats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.
- M = Medium Priority:** These species warrant 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.

Resources

- *Check-List of North American Birds, 7th edition (AOU, 1998);*
- *(AOU website);*
- *Amphibian species accounts (Amphibiaweb website);*
- *Terrestrial Mammal Species of Special Concern in California (Bolster, 1998);*
- *Mammals of North America (Bowers et al., 2004);*
- *Special Status Animals in California, Including BLM Designated Sensitive Species (BLM, 2010);*
- *Life History Accounts and Range Maps (CDFG, 1988a and updates; CDFG, 1988b and updates; CDFG, 1988c and updates);*
- *The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000–2004 (CDFG, 2005);*
- *Atlas of the Biodiversity of California (CDFG, 2003);*
- *RareFind, CDFW, California Natural Diversity Database (CNDDDB);*
- *State & Federally Listed Endangered & Threatened Animals of California (CDFW, 2016);*
- *Special Animals List (CDFG, 2016);*
- *CDFW's California Wildlife Habitat Relationships: Online Life History Accounts and Range Maps ;*
- *California Herps website ;*
- *California Partners in Flight website ;*
- *CNAH website ;*
- *AOU supplement (Chesser et al., 2015);*
- *A Field Guide to Hawks of North America, Second Edition (Clark and Wheeler, 2001);*
- *Mammals of California (Eder, 2005);*
- *Fairy Shrimps of California's Puddles, Pools, and Playas (Eriksen and Belk, 1999);*
- *Atlas of Breeding Birds, Orange County, California (Gallagher, 1997);*

Notes:

- Yes** = the BSA is located within the wildlife species' known distribution, elevation range, and/or the BSA contains suitable habitats or conditions to support the species. The wildlife species has a potential to occur within the BSA. Further evaluation is needed.
- No** = the BSA is located outside the wildlife species' known distribution, elevation range, and/or the BSA lacks suitable habitats or conditions to support the species. It is highly unlikely for the wildlife species to have a potential to occur within the BSA. No further evaluation is needed.
- Present** = observed within the BSA during surveys.
- Elevation:** The BSA contains elevations ranging from approximately 3,606 to 3,620 feet above mean sea level (amsl; Google Earth, 2022).