Biological Resources Technical Report

Desert Valley Hospital Emergency Department and Medical Surgery Building Addition Project

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Acronyms and Abbreviations

Acronym	Definition
3DHP	3D Hydrography Program
amsl	above mean sea level
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
BLM	Bureau of Land Management
BMP	Best Management Practice
BSA	biological study area
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Commission	California Fish and Game Commission
County General Plan	San Bernardino County General Plan
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
Dipodomys	Dipodomys Ecological Consulting
DOD	Department of Defense
DRECP	Desert Renewable Energy Conservation Plan
EPA	U.S. Environmental Protection Agency
FESA	federal Endangered Species Act
GIS	geographic information system
HUC	Hydrologic Unit Code
I	Interstate
IPaC	Information for Planning and Consultation
ISA	International Society of Arboriculture
ITP	Incidental Take Permit
Joshua Tree Plan	Joshua Tree Preservation, Protection, and Relocation Plan
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
NCCP/HCP	Natural Community Conservation Plan/Habitat Conservation Plan
NRCS	Natural Resources Conservation Service
OHWM	ordinary high water mark
RWQCB	Regional Water Quality Control Board
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board

Acronym	Definition
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMC	City of Victorville Municipal Code
WJTCA	Western Joshua Tree Conservation Act
WRCC	Western Regional Climate Center

1 Introduction

This report documents the results of surveys conducted to identify potential biological resources constraints for the Desert Valley Hospital Emergency Department and Medical Surgery Building Addition Project (project) located in the City of Victorville (City), San Bernardino County, California. The purpose of this report is to (1) describe the conditions of biological resources within the project site in terms of vegetation communities, plants, wildlife, wildlife habitats, and wetlands; (2) quantify potential direct and indirect impacts to special-status biological resources that would result from the project; (3) discuss those impacts in terms of biological significance in view of federal, state, and local laws; and (4) specify measures to avoid, minimize, and/or mitigate any significant impacts that would occur to special-status biological resources as a result of project implementation.

1.1 Project Location

The project is located within the Victor Valley/High Desert region of western San Bernardino County. Specifically, it is in the southeastern portion of the City of Victorville, immediately north of Bear Valley Road and east of Interstate (I) 15 with proposed off-site improvements located along Bear Valley Road, 1st Avenue, and Jasmine Street, and is. Figure 1, Project Location, shows the regional location of the project, as well as the site vicinity. The on-site development footprint would occur on Assessor's Parcel Numbers (APNs) 3091-371-01, 3091-371-04, 3091-371-05, 3091-371-07, 3091-371-09, 3091-371-10. Off-site roadway improvements associated with the project also include APNs 3091-361-05 and 3091-371-05, as well as the adjacent rights-of-way. The project occurs in Section 33, Township 5 North, Range 4 West, and Section 4, Township 4 North, Range 4 West, as depicted on the U.S. Geological Survey (USGS) Hesperia, California 7.5-minute topographic quadrangle map (USGS 2015). Local access to the project is provided via 1st Avenue or Bear Valley Road.

1.2 Project Description

The project involves the construction of a new two-story building addition to the existing Desert Valley Hospital (Hospital) totaling 83,369 square feet within a 6.69-acre development footprint in Victorville (City), California (Figure 2, Site Plan). The building addition will include a new emergency department on the first floor and a new medical-surgical department on the second floor with direct connections on both floors. As part of the project, a new service yard and parking areas will be built on site to accommodate the building addition. On-site and off-site improvements are planned as part of the project to accommodate additional parking spaces and efficient traffic flow. The purpose of this project is to provide a new emergency department for the facility that will address the needs of the Hospital and community. Specifically, the building addition provides an opportunity to create capacity for current and future demand and to resolve the challenges and deficiencies in the existing departments.

Building and Site Design

The building addition will be located east of the existing medical office building and will occupy the southeast corner of the Hospital complex.

Emergency Department and Medical-Surgical Department

The first floor of the building addition will include 39,036 square feet for a new emergency department. The new emergency department will connect to the existing Hospital on the first floor through an existing corridor that will be widened. The second floor of the building addition will include 38,269 square feet for a medical-surgical department. The medical-surgical department will connect to the existing Hospital through a new bridge over the existing Hospital's low roof. The vertical transportation system is planned to be traction-type elevators with hospital-size cabins. Two patient/staff/service elevators will be provided. The exterior building will have the modern façade consisting of corrugated metal and composite panels integrated with an Exterior Insulation and Finish System applied on metal stud framing.

Helipad Area

The Hospital has an existing ground-based helipad on site, which is located east of the existing medical office building with access to the helipad through a driveway along Bear Valley Road. The existing ground-based helipad and associated gurney ramp would be demolished as part of the site make ready for the proposed building addition and new driveway location. A new helipad is proposed for the Hospital and will be located on the roof level of the proposed building addition. The new helipad will accommodate a regional emergency medical services helicopter. The top of the helideck will be approximately 45' above grade.

Service Yard

The project will include a new service yard on the northeast portion of the project site to accommodate utilities for the building addition. The service yard will include a pump house, a cooling tower, a chiller room, a normal power electrical room, and an emergency power electrical room. The portions of the service yard housing the pump house and the cooling tower will be open to the sky. East of the service yard will be a new bulk oxygen storage yard. North of the service yard in the existing employee parking lot with be two new emergency water storage tanks that will be located underground.

Off-Site Improvements

Off-site improvements for the project would include the relocation of two existing electrical poles and improvements at Bear Valley Road and 1st Avenue. Improvements along Bear Valley Road include the installation of a median and sidewalk. Off-site improvements along 1st Avenue would consist of sidewalk improvements and the continuation of 1st Avenue to Bear Valley Road. The primary purpose of this extended connection is to provide emergency fire access to the site. Access to 1st Avenue via Bear Valley Road will not be restricted to the public but will be limited to a left-in, right-in, and right-out configuration.

Site Access, Circulation, and Parking

Access to the project site would be provided by three driveways, two restricted-access (right-in, right-out) driveways along Bear Valley Road, and one full-access driveway along 1st Avenue via Jasmine Street.

The project will provide additional parking for emergency department walk-in patients and physicians east of the proposed building addition. A total of 143 new parking stalls would be provided, for a total of 943 parking stalls on site. Of these new parking stalls, 19 will be accessible (for a total of 54 accessible stalls on site, and 3 will be

van-accessible stalls (for a total of 9 van-accessible stalls). Additionally, 9 stalls will be clean air stalls, and 29 will be future EV charging-only stalls.

The north end of the building addition will include an ambulance canopy for ambulance patient drop-off. Emergency vehicles will access the site from either 2nd Avenue or Bear Valley Road. There will be 4 ambulance parking spaces provided at the ambulance canopy. An additional 4 parking spaces for emergency vehicles are located on the opposite side of this driveway for ambulance overflow parking and other emergency vehicles.

Construction Schedule and Post-Construction Operations

Construction of the project is anticipated to commence in July 2025 and would continue through January 2028. The project would operate as a hospital facility, keeping with its current use. It is anticipated that the facilities would be operated 24 hours a day, 7 days a week.

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2 Regulatory Setting

2.1 Federal

2.1.1 Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to "take" any listed species; "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of Incidental Take Permits (ITPs) for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the intentional and unintentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). Currently, the Migratory Birds office considers nests that support eggs, nestlings, or juveniles to be active. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

2.1.3 Clean Water Act

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 Code of Federal Regulations (CFR) Parts 320 through 332. Guidelines for implementation are referred to as the

Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3[a]) has changed multiple times over the past few decades, starting with the United States v. Riverside Bayview Homes Inc. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers), 2006 (Rapanos v. United States), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule), and 2021 (Pasqua Tribe et al v. EPA resulting in remand and vacatur of the Navigable Waters Protection Rule and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in Sackett v. EPA., in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface water connection to traditional navigable waterways would be afforded federal protection under the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water[s] of the United States (i.e., a relatively permanent body of water connected to traditional interstate navigable waters), and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins. On August 29, 2023, the EPA and USACE announced the final rule amending the 2023 definition of "waters of the United States," conforming with the Sackett v. EPA decision. Some of the key changes include removing the significant nexus test from consideration when identifying tributaries and other waters as federally protected and revising the adjacency test when identifying federally jurisdictional wetlands. Under the EPA's new definition, a "water of the United States" is a relatively permanent, standing, or continuously flowing body of water that has an apparent surface connection to a "traditionally navigable water" to fall within federal purview. The new rule applies to wetlands and streams throughout the U.S. Although the Sackett opinion did not specifically reference streams, the EPA's new rule extends the "continuous surface connection" standard to streams, thereby removing non-permanent, ephemeral streams that do not meet these standards from federal jurisdiction.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

2.2 State

2.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050–2068) provides protection and prohibits the take of plant, fish, and wildlife species listed by the State of California. Unlike FESA, under CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to FESA and is prohibited for both listed and candidate species. Take authorization may be obtained by a project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of mitigation implementation, and monitoring of mitigation measures.

Western Joshua Tree

On October 21, 2019, the California Fish and Game Commission (Commission) received a petition from the Center for Biological Diversity to list western Joshua tree (*Yucca brevifolia*). On September 22, 2020, the Commission accepted the candidacy proposal for western Joshua tree, effective October 9, 2020 (CDFW 2020). When a plant or wildlife species is granted candidacy under the CESA, the species is given the same protection as a threatened or endangered species while the Commission evaluates whether formal listing as threatened or endangered under the CESA is warranted.

The Commission voted on the proposed listing at a meeting in June 2022, but the vote resulted in a 2–2 tie. It was decided to extend Joshua tree's candidate status discussion until their February 23, 2023, meeting, which was anticipated to be the final meeting before a listing decision was made. On July 1, 2023, the Western Joshua Tree Conservation Act (WJTCA) was passed. While western Joshua tree is a candidate species, take for western Joshua tree can be received through payment of pre-determined mitigation fees.

The WJTCA introduces a streamlined permitting framework that applies to specific development activities and mandates the collection of mitigation fees. These fees are intended to facilitate the acquisition and preservation of western Joshua tree habitat, as well as to support conservation measures aimed at safeguarding the western Joshua tree. The underlying goal is to counterbalance the adverse impacts on western Joshua trees resulting from authorized projects and to promote species conservation on a landscape scale.

Under the WJTCA, CDFW is authorized to perform the following key functions:

- Issue permits for the trimming and removal of hazardous or deceased western Joshua trees.
- Grant permits for the incidental take of western Joshua trees, contingent upon the fulfillment of specific conditions.
- Establish agreements with counties or cities to delegate limited authority for the issuance of the aforementioned permits, provided that predetermined conditions are met.

Furthermore, the WJTCA instructs CDFW to develop a comprehensive conservation plan for the western Joshua tree by the conclusion of the year 2024.

The WJTCA institutes two categories of mitigation fees: reduced fees and standard fees, depending on the geographical location, as defined in the California Department of Fish and Game Code (Section 1927). It empowers the CDFW to issue permits for the incidental take of one or more western Joshua trees, subject to compliance with stipulated conditions. Permit holders may opt to remit specified fees in lieu of undertaking mitigation activities. Additionally, the WJTCA authorizes the CDFW to issue permits for the removal of deceased western Joshua trees and the trimming of live western Joshua trees under specific circumstances.

Notably, all in-lieu fees collected under the WJTCA are directed to the Western Joshua Tree Conservation Fund, with the explicit purpose of allocation to the CDFW. These funds are designated exclusively for the acquisition, conservation, and management of western Joshua tree conservation lands, as well as the execution of other initiatives designed to safeguard the western Joshua tree.

Permitting

The initial step in the project permitting process necessitates the comprehensive survey and documentation of western Joshua trees located on the project site as well as within a 50-foot radius surrounding the project area. This census must adhere to precise specifications outlined on the CDFW's official website.

Simultaneously, a permit application, available on the CDFW's website, must be completed. The application mandates that the applicant complies with the California Environmental Quality Act (CEQA). Notably, there are no stipulated statutory deadlines governing the permitting process; however, CDFW is committed to expeditiously processing the applications upon receipt. Upon successful processing of the application by CDFW, the permittee will be issued an invoice for the mandatory mitigation fee. This fee is to be remitted via check or money order, with the invoice securely attached, following the precise instructions provided by CDFW.

2.2.2 California Fish and Game Code

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as California Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Sections 1600–1616

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration

Agreement and is applicable to all projects. Applications to CDFW must include a complete, certified CEQA document.

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of definable bed and banks, and existing fish or wildlife resources. CDFW takes jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high water mark to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the Commission the power to designate native plants as "endangered" or "rare," and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, the categories of "threatened" and "endangered" species were added to CESA. All "rare" animals in CESA were converted to "threatened," but this did not change for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and project proponents.

Nesting Birds

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

2.2.3 California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources, and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

The State of California CEQA Guidelines (CEQA Guidelines) Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to

be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under FESA, CESA, and other California Fish and Game Code provisions, and includes lists developed by other organizations, including, for example, the Audubon Watch List. Guidance documents prepared by other agencies, including the Bureau of Land Management (BLM) Sensitive Species and USFWS Birds of Special Concern, are also included on this CDFW Special Species list. Additionally, CDFW has concluded that plant species listed as California Rare Plant Rank (CRPR) 1 and 2 by the California Native Plant Society (CNPS), and potentially some CRPR 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV, Appendix G, Environmental Checklist Form, of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or the USFWS."

2.2.4 Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Act, the RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code, Section 13260[a]). The State Water Resources Control Board (SWRCB) defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). All waters of the United States are waters of the state. Waters of the state include wetlands, and the SWRCB definition of wetlands (SWRCB 2019) includes the following:

1. Natural wetlands.
2. Wetlands created by modification of a surface water of the state.
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration.
    b. Specifically identified in a water quality control plan as a wetland or other water of the state.
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape.
    d. Greater than or equal to 1 acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

Wetlands that may not meet all of USACE's wetland delineation criteria are considered wetland waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2019). Additionally, aquatic resources that USACE determines to not be waters of the United States because they lack a significant nexus to a traditional navigable water or are above the OHWM limit of federal jurisdiction, may also be considered waters of the state. If a CWA Section 404 permit is not required for a project, the RWQCB may still require a permit (waste discharge requirements) for impacts to waters of the state under the Porter–Cologne Act.

2.2.5 California Desert Native Plants Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee. More information on the CDNPA, including the species protected under the law, is available by reading the provisions of the law.

2.3 Local

2.3.1 City of Victorville General Plan

The City's Resource Element (City of Victorville 2008) addresses biological resources in Goal #4 (Conservation of Important Habitat), wherein objectives and policies are set forth to achieve the goal of preserving native vegetation that provides habitat for rare, threatened, and/or endangered plant and wildlife species. The following objectives and policies pertain to biological resources and are relevant to the project:

Objective 4.1. Preservation of natural communities that support rare, threatened, and or endangered plant and wildlife species throughout the planning area.

Policy 4.1.1. Encourage development natural habitat that supports rare, threatened, or endangered plants and wildlife (i.e., "sensitive" species), or require restoration of the same type of impacted habitat within an existing, planned, or potential conservation area.

Policy 4.1.2. Support and participate in the West Mojave Plan.

Objective 4.2. Permanent Conservation of Mojave River Corridor Ecological Values.

Policy 4.2.1. Generally, prohibit private or public development projects or major infrastructure facilities on land within the Mojave River Corridor, where biological surveys have determined there is habitat that supports rare, threatened, and/or endangered plants or wildlife. Allow minor encroachments into such habitat for critical public facilities and recreational trails, where reliable assurances are provided that no loss of sensitive species would occur.

2.3.2 City of Victorville Municipal Code

The City of Victorville Municipal Code (VMC) provides some protections for western Joshua trees in Chapter 13.33 of the Code of Ordinances, titled Preservation and Removal of Joshua Trees.

Per Chapter 13.33 of the VMC (City of Victorville 2023a), it is determined by the City council that proper and necessary steps be taken to protect and preserve, to the greatest extent possible, Joshua trees in all areas of the City to preserve the unique natural desert environment throughout the City and for the health, safety, and welfare of the community (VMC 13.33.010). The VMC continues to state that it is unlawful for any person to cut, damage, destroy, dig up, or harvest any Joshua tree without the prior written consent of the Director of Parks and Recreation or their designee (VMC 13.33.040).

Furthermore, Section 16-5.02.060 of the VMC states the following regarding western Joshua trees and as a requirement of the grading and permit requirements of Article 2, Grading Regulations VMC (City of Victorville 2023b):

> All Joshua trees, as per Chapter 13.33 of the Victorville Municipal Code, shall be indicated by showing the exact center of its trunk as established by a licensed surveyor. Its tag number, trunk diameter and height must be indicated. The health and proposed disposition of the tree must be indicated. Where a tree or trees are to be removed, the applicant shall meet all current requirements and standards as set forth by the California Department of Fish and Wildlife, and proof shall be submitted to the Building Department prior to issuance of a permit. Alternatively, the Applicant may provide a detailed report, from a licensed Arborist or Biologist, for protecting and preserving, the tree or trees in accordance with applicable California Department of Fish and Wildlife standards, which may be affected by the proposed grading.

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3 Methods

Data regarding biological resources present within the 23.33-acre biological study area (BSA), which includes the project site (6.69-acre on-site development footprint and 3.89 acres of off-site improvement areas) and a 100-foot buffer, were obtained through a review of pertinent literature, field reconnaissance, habitat assessments, and protocol/focused surveys, which are described in detail below.

3.1 Literature Review

Prior to conducting the field investigation, a literature search and database review was conducted by Dudek biologists to evaluate the natural resources found or potentially occurring within the BSA. The database review included queries of the most recent versions of the CDFW CNDDB Rarefind and the CNPS Inventory of Rare and Endangered Plants of California (CDFW 2024a; CNPS 2024a). These databases were reviewed to identify sensitive biological resources present or potentially present for the USGS 7.5-minute quadrangle on which the BSA is located (i.e., Hesperia) and the 8 surrounding quadrangles (i.e., Apple Valley North, Silverwood Lake, Lake Arrowhead, Apple Valley South, Victorville, Baldy Mesa, Adelanto, and Cajon). The review also included the resource list returned in the USFWS Information for Planning and Consultation (IPaC) tool query for the BSA (USFWS 2024a).

Other literature reviewed included the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2024a); CDFW Biogeographic Information and Observation System (CDFW 2024b); A Manual of California Vegetation, Online Edition (CNPS 2024b); the California Natural Community list (CDFW 2024c); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2024d); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2024e); and the CDFW California Wildlife Habitat Relationships (CWHR) Life History Accounts and Range Maps (CDFW 2017).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2024; NETR 2024); the subject USGS 7.5-minute topographic quadrangle map (USGS 2015); the USGS 3D Hydrography Program (3DHP) and Watershed Boundary Dataset (USGS 2024); and the USFWS National Wetland Inventory (USFWS 2024b).

3.2 Special-Status Definitions

Special-Status Plant Species

Endangered, rare, or threatened plant species as defined in Section 15380(b) of the CEQA Guidelines (14 CCR 15000 et seq.) are referred to as “special-status plant species” and, as used in this report, include (1) plant species listed or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2024d); (2) plant species with a CRPR 1 or 2 as designated by the CNPS (2024a). Species with CRPR 3 or 4 generally do not qualify for protection under CEQA; therefore, are not analyzed in this report; and (3) plant species protected under the CDNPA.

Special-Status Wildlife Species

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) wildlife species listed or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2024e); (2) California Species of Special Concern as designated by CDFW (2024f); (3) mammals and birds that are fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2024g); and (4) species designated by California Fish and Game Code Section 4000 as fur-bearing mammals.

Special-Status Vegetation Communities

Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Communities List (CDFW 2024c) by a state rarity ranking of S1, S2, or S3. In addition, communities that are regulated by CDFW under California Fish and Game Code Sections 1600–1616, and/or that provide suitable habitat for special-status species may also be considered special status under CEQA. Areas regulated by CDFW under California Fish and Game Code Sections 1600–1616 are discussed under separate cover.

3.3 Special-Status Species Assessment

Dudek biologists performed a desktop review of literature, existing documentation, and geographical information system (GIS) data to evaluate the potential for special-status plant or wildlife species to occur within the BSA. Each special-status plant or wildlife species was assigned a rating of "not expected," "low," "moderate," or "high" potential to occur based on relative location to known occurrences, vegetation communities and soils present, current site conditions, and each species' known range, habitat associations, and/or elevation. Additional detail related to each rating is provided below:

- **Observed:** Species was documented within the BSA during field survey efforts
- **High:** Habitat within the BSA is suitable and species has been documented either within the BSA or immediately adjacent to project boundary in recent records (i.e., within 20 years)
- **Moderate:** Habitat within the BSA is suitable and species has been documented within 5 miles of BSA in recent records (i.e., within 20 years)
- **Low:** Habitat within the BSA is marginal and/or documented occurrences of species are historical (i.e., over 20 years old)
- **Not expected:** Habitat within the BSA is unsuitable or BSA is outside of the known geographic range of the species, or the species was confirmed absent from the BSA during protocol surveys for the species

3.4 Resource Mapping

Dudek biologists Tracy Park and Shana Carey conducted an initial biological reconnaissance-level field survey of the BSA to document biological resources and vegetation communities in October 2023. Additional field surveys conducted by Dudek included a western Joshua tree census, a protocol survey for Mojave desert tortoise, a desert kit fox (*Vulpes macrotis arsipus*) habitat assessment, protocol burrowing owl surveys, a special-status plant survey, and a desert native plant survey. Table 1 lists the dates, survey type, and personnel for each survey. Habitat

assessments for Mohave ground squirrel were conducted by Dipodomys Ecological Consulting (Dipodomys) in the fall of 2023.

Table 1. Survey Schedule

Date	Personnel[1]	Survey Type	Survey Conditions[2]
9/11/2023	Dipodomys Ecological Consulting	Mohave Ground Squirrel Habitat Assessment	91–94°F; 70% cc; 3–5mph wind
10/18/2023	Dipodomys Ecological Consulting	Mohave Ground Squirrel Habitat Assessment	91–94°F; 70% cc; 3–5mph wind
10/23/2023	TP, SC	Biological Reconnaissance; Vegetation Mapping; Desert Kit Fox Survey	11:15 AM–1:38 PM 70–73°F; 0% cc; 0–3 mph wind
10/23/2023	TP, SC	Mojave Desert Tortoise Protocol Survey	8:23 AM–11:15 AM 62–73°F; 0% cc; 1 mph wind
12/5/2023	AP, HL	Western Joshua Tree Census	Survey conditions not collected.
12/9/2023	AP	Western Joshua Tree Census	Survey conditions not collected.
3/21/2024	TP	Burrowing Owl Protocol Survey Pass 1	7:37 AM–9:49 AM 48–62°F; 0% cc; 0–2 mph wind
4/30/2024	ES	Burrowing Owl Protocol Survey Pass 2	7:45 AM–9:05 AM 56–58°F; 0% cc; 1–3 mph wind
4/30/2024	ES	Special-Status Plant Protocol Survey; California Desert Native Plant Survey	9:08 AM–1:46 PM 61–70°F; 0–10% cc; 1–3 mph wind
5/21/2024	DA	Burrowing Owl Protocol Survey Pass 3	7:50 AM–9:56 AM 57–62°F; 0% cc; 1–3 mph wind
6/26/2024	LB, DS	Burrowing Owl Protocol Survey Pass 4	7:44 AM–9:43 AM 77–87°F; 0% cc; 0–6 mph wind

Notes:

1 TP=Tracy Park; SC=Shana Carey; AP=Ana Pfleeger; HL=Hansen LeClair; ES=Eilleen Salas; DA=Dylan Ayers; LB=Luz Badillo; DS=Dahlia Serrato

2 °F = degrees Fahrenheit; mph = miles per hour; cc = cloud cover

3.4.1 Vegetation Community and Land Cover Mapping

Methods for vegetation mapping followed CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and the Survey of California Vegetation Classification and Mapping Standards (CDFW 2024h). Where feasible, vegetation communities within the BSA were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2024c), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2024b). These classification systems focus on a quantified, hierarchical approach that includes both floristic (plant species) and physiognomic (community structure and form) factors as currently observed (as opposed to predicting climax or successional stages). Vegetation communities and land covers were delineated to the vegetation association level. In cases where the vegetation classification standards from the CDFW Natural Communities List did not apply, modifications such as the Preliminary Descriptions of the Terrestrial Natural

Communities of California (Holland 1986; Oberbauer et al. 2008) were incorporated to accommodate the lack of conformity of conditions observed on site (e.g., developed/disturbed land cover types).

Vegetation mapping surveys were conducted on foot to visually cover 100% of the BSA. Vegetation communities and other land cover types within the BSA were mapped in the field using the Esri Field Maps, a mobile data collection application, on a digital aerial-based background (Esri 2023). Communities were classified based on dominant species and associated cover classes, site factors, stand descriptions (e.g., slope aspect, canopy structure), geographic setting, and characteristic species present within an area. Minimum mapping units were established to standardize the scale and appropriate evaluation of stands, as recommended by CDFW (2024h). Mapping standards call for a minimum mapping unit of not greater than 10 acres for upland natural communities not considered sensitive, but usually 1 or 2 acres, and 0.25 acres for sensitive vegetation communities and wetland or riparian vegetation communities were used as minimum mapping units. Visible disturbance factors were also be noted during vegetation mapping. Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the BSA was determined.

3.4.2 Flora

All plant species encountered during the field surveys were identified and recorded. Latin and common names for plant species with a CRPR follow the CNPS Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2024a). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2024), and common names follow the USDA NRCS PLANTS Database (USDA 2024b).

3.4.3 Fauna

All wildlife species, as detected during the field survey—by sight, calls, tracks, scat, or other signs—were identified and recorded. Binoculars were used to aid in the identification of observed wildlife. In addition to species observed, expected wildlife usage of the BSA was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. Latin and common names for wildlife species referred to in this report follow Crother (2017) for reptiles and amphibians, American Ornithological Society Checklist (2024) for birds, Mammal Diversity Database (2024) for mammals, North American Butterfly Association (2016) or San Diego Natural History Museum (2002) for butterflies, and Moyle (2002) for fish.

3.4.4 Focused Special-Status Plant Survey

Based on the results of the literature review discussed in Section 3.1 and results of the reconnaissance-level field survey conducted in October 2023, eight special-status plant species were preliminarily determined to target species based on known species distribution, species-specific habitat preferences, and habitat conditions on site: Beaver Dam breadroot (*Pediomelum castoreum*), Booth's evening primrose (*Eremothera boothii* ssp. *boothii*), desert cymopterus (*Cymopterus deserticola*), Latimer's woodland-gilia (*Saltugilia latimeri*), Mojave milkweed (*Asclepias nyctaginifolia*), Mojave monkeyflower (*Diplacus mohavensis*), short-joint beavertail (*Opuntia basilaris* var. *brachyclada*), western Joshua tree, and white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*). Therefore, focused surveys were conducted for these target species on April 30, 2024, within the blooming period range for these species.

Surveys for special-status species were conducted by walking meandering transects throughout the entire BSA, where accessible. The survey date and biologists for the focused special-status plant surveys within the BSA are included in Table 1. Focused special-status plant surveys conformed to CNPS Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFW 2018), and USFWS General Rare Plant Survey Guidelines (Cypher 2002). All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Moreover, all plant species encountered in the field were recorded.

A desert native plant survey was conducted concurrently with the special-status plant survey for desert native and special-status target species other than western Joshua tree. Survey methods are further discussed below in Section 3.4.5, Desert Native Plant Survey. Western Joshua tree mapping was conducted during a separate focused survey and is discussed in Section 3.4.6, Focused Western Joshua Tree Survey.

Victorville received a total of approximately 6.13 inches of precipitation from November 2023 to April 2024 (AgACIS 2024) as compared with the average annual precipitation is 5.52 inches (WRCC 2024); therefore, the area received average precipitation totals for the rain year thus far thereby asserting that surveys for special-status plant species adequately covered flora that are known to bloom within the vicinity.

3.4.5 Desert Native Plant Survey

As mentioned above, a desert native plant mapping survey was conducted concurrently with the special-status plant survey and in accordance with the CDNPA. The survey date, biologists, and weather conditions are included in Table 1. All of the desert native plant target species are conspicuous shrubs or succulent plants that would have been identifiable during the survey.

In accordance with the CDNPA, Chapter 3, the following desert native plants, or any part thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

A. All species of the family Agavaceae (century plants, nolinas, yuccas).
B. All species of the family Cactaceae (cacti), except for the plants listed in subdivisions (b) and (c) of Section 80072 which may be harvested under a permit obtained pursuant to that section.
C. All species of the family Fouquieriaceae (e.g., ocotillo [*Fouquieria splendens*]).
D. All species of the genus *Prosopis* (mesquites).
E. All species of the genus *Cercidium* (palos verdes).
F. *Acacia greggii* (catclaw acacia).
G. *Atriplex hymenelytra* (desert holly).
H. smoke tree.
I. desert ironwood, including both dead and live desert ironwood.

3.4.6 Focused Western Joshua Tree Survey

Per the CDNPA and the WJTCA, an International Society of Arboriculture (ISA) Certified Arborist performed a focused western Joshua tree survey (Table 1) to inventory and evaluate the health and relocation potential for each western Joshua tree within the project site and a 50-foot buffer (hereafter referred to as the Western Joshua Tree Inventory

Survey Area). The western Joshua tree inventory and evaluation survey methods are provided in Appendix A, Joshua Tree Preservation, Protection, and Relocation Plan (Joshua Tree Plan). During the inventory, the geographic location of each western Joshua tree found in the Western Joshua Tree Inventory Survey Area was recorded. Dudek ISA Certified Arborists walked the entire Western Joshua Tree Inventory Survey Area in parallel transects to ensure documentation of each western Joshua tree on site.

Dudek collected the following attributes of each tree:

- Species
- Size class (Size A - <1m, Size B - >1m and <5m, and Size C - >5m)
- Actual height (meters)
- Health (excellent, good, fair, poor, critical, and dead)[1]
- Live or dead
- Tree maturity (mature if branching occurs, not mature if no branching occurs)
- Flowering or fruiting stage (flowers or fruits present)

If a tree had a severe bend in the trunk, height was recorded with two measurements, h1 and h2, h1 being the main, upright trunk, and h2 being the remaining, non-vertical trunk or branch. H1 and h2 were then added together to get an overall height and size class. If a tree was found leaning, the height was measured from the base of the tree along the leaning trunk to the top of the furthest leaf.

All inventoried and assessed protected trees were tagged with an aluminum tag bearing a unique identification number, which was placed on the main trunk on the north side of each Joshua tree. Tagging on the north side allows for proper orientation during relocation (each relocated Joshua tree will need to be oriented in the same direction as it was in its original location). Photographs for each tree were taken in accordance with CDFW requirements for western Joshua tree photographs and included an object for frame of reference.

The WJTCA, Fish and Game Code Section 1927.3 requires the applicant to mitigate by paying the statutorily prescribed fees. Trees located in the area described in Fish and Game Code Section 1927.3 (e) are in the standard fee area; therefore, impacts to western Joshua tree can be mitigated on a per-tree basis as follows:

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

[1] **Health Rating Descriptions**
Excellent. Tree has excellent health and strong vigor. No damage. Flowering and fruiting expected. Typically, only given to large, high-quality specimens (taller than 15 feet in height). Transplanting generally not recommended due to size.
Good. Tree has good health and vigor. All branches are alive and healthy. Damage is very localized and minimal. Flowering and fruiting likely, if tree is large enough. Tree is transplantable.
Fair. Tree health is average. Some stressors or damage possible, but any damage is minimal to moderate (e.g., rodent grazing, insect damage). No dead/broken branches. Tree is transplantable.
Poor. Tree is under stress, and overall health is in decline, or tree has taken significant damage. Mortality likely unless stressors relieved and/or conditions change. Broken/dead limbs likely present. Tree is generally not transplantable.
Critical. Tree is in extreme decline. One or more branches dead. One or more branches dying. Physical damage likely present. Damage is significant and extensive. Mortality expected within 2 to 4 years. Tree is not transplantable.
Dead. Tree is dead.

3.4.7 Focused Burrowing Owl Survey

Focused breeding season burrowing owl surveys were conducted in accordance with the March 7, 2012, Staff Report on Burrowing Owl Mitigation (CDFW 2012). Dudek biologists conducted four survey passes in March through June 2024 under suitable weather conditions, between morning civil twilight and 10:00 a.m. (Table 1). Surveys were scheduled at least 3 weeks apart as per CDFW protocol, with the first survey visit between February 15 and April 15, two survey visits between April 15 and June 15, and one survey visit after June 15. The first visit included a habitat assessment concurrent with searching for suitable burrows and burrowing owls.

Dudek biologists conducted the survey on foot by slowly walking transects to inspect all vegetation for evidence of burrowing owl within the project site as well as the surrounding 500-foot buffer area. The surveys covered all portions of site that included suitable burrowing owl habitat (i.e., short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils). Pauses were taken to scan the area with appropriate binoculars to search for burrowing owls. Any potentially suitable burrows or burrow surrogates (e.g., rock cavities, pipes, culverts, debris piles with crevices) greater than 11 centimeters (4 inches) in diameter were mapped using Esri Field Maps, a mobile data collection application, equipped with sub-meter accuracy and inspected for burrowing owl sign (e.g., owl pellets, whitewash, abundant insect remains, feathers).

3.4.8 Mojave Desert Tortoise Protocol Survey

On April 2, 1990, the Mojave population of the desert tortoise was listed by USFWS as threatened (55 FR 12178-12191). Proposed actions within the range of the Mojave desert tortoise fall under purview of FESA. Because the project lies within the range of the Mojave desert tortoise (Zeiner et al. 1990) within the Western Recovery Unit (USFWS 2011), Dudek conducted focused surveys for desert tortoise to determine the status of the species on site. To evaluate the impacts to desert tortoise, protocol surveys were conducted in accordance with the Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats section included in "Preparing for Any Action That May Occur within the Range of the Mojave Desert Tortoise (*Gopherus agassizii*)" (USFWS 2019). Biologists surveyed the site by walking approximately 10-meter-wide transects for 100% coverage of the BSA, searching for live tortoises, suitable burrows, scat, carcasses, or other signs. Desert tortoise survey forms are included as Appendix B, Desert Tortoise Survey Forms.

3.4.9 Desert Kit Fox Survey

Dudek biologists conducted an assessment for the presence of desert kit fox individuals, burrows, or other signs during the biological reconnaissance survey. Dudek biologists walked pedestrian transects spaced 30 feet apart searching for any evidence that would indicate presence of desert kit fox, such as scat, suitable dens (i.e., burrows with entrances approximately 5 to 8 inches in diameter), tracks, prey remains.

3.4.10 Mohave Ground Squirrel Habitat Assessment

Dipodomys biologists conducted habitat assessment surveys within the BSA for Mohave ground squirrel in September and October 2023 (Appendix C, Mohave Ground Squirrel Habitat Assessment). The habitat assessment surveys were conducted by walking meandering transects throughout the project footprint, including the off-site improvement areas, plus a surrounding 100-foot buffer to identify suitable habitat for Mohave ground squirrel,

which is consistent with the methods described in the 2003 CDFW Mohave Ground Squirrel Survey Guidelines (CDFW 2003). Field methods are described in detail in Appendix C.

3.4.11 Jurisdictional Delineation of Aquatic Resources

Although a formal wetlands delineation following the methodology described in USACE's A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008a), Wetlands Delineation Manual (USACE 1987), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008b) was not conducted during the field survey, the BSA was evaluated for the potential to support jurisdictional aquatic resources regulated under CWA, California Fish and Game Code, and Porter-Cologne Water Quality Act.

3.4.12 Survey Limitations

Limitations of the surveys include a diurnal bias and the absence of trapping for reptiles, amphibians, and small mammals at night. The surveys were conducted during the daytime to maximize the detection of most wildlife. As such, birds represent the largest component of vertebrate fauna recorded during the surveys, as they are usually most active during daytime hours. Conversely, diurnal surveys usually result in few observations of mammals, many of which may only be active at night. In addition, many species of reptiles and amphibians are secretive in their habits and are difficult to observe using standard meandering transects.

Despite these limitations, the survey work conducted in the BSA provides an adequate overall assessment of floral and faunal resources for purposes of evaluating potential biological constraints.

4 Environmental Setting

The purpose of this section is to describe the general existing conditions within and adjacent to the BSA to document the baseline conditions for this report and subsequent analysis.

4.1 Climate

The BSA is located in the High Desert region of western San Bernardino County, located approximately 69 miles from the Pacific Ocean on the trans-montane slope of the San Gabriel and San Bernardino Mountains. July is the warmest month with an average high temperature of 98.1°F, and December is the coolest month with an average low temperature of 29.2°F (WRCC 2024). Significant rainfall occurs primarily between November and March, with the maximum average precipitation occurring in January and February. The average annual precipitation for Victorville is 5.52 inches (WRCC 2024). Periods of extended drought are common throughout the region.

4.2 Terrain

The BSA is located in Victor Valley, which lies northeast of the San Gabriel Mountains and northwest of the San Bernardino Mountains. The topography of the BSA and surrounding area is generally a flat plane, which slopes gently in a northeasterly direction. The BSA is located approximately 2.3 miles west of the Mojave River and approximately 5.4 miles southwest of Pioneer Mountain (Google Earth 2024). Elevations within the BSA range from approximately 3,000 to 3,050 feet above mean sea level (amsl).

4.3 Soils

According to the USDA NRCS Web Soil Survey (USDA 2024a), the BSA is included within the Soil Survey for the San Bernardino County, Mojave River Area (USDA 1986). The BSA consists of one soil mapping unit type: Bryman loamy fine sand, 5% to 9% slopes. This soil type is described in more detail below and is presented in Figure 3, Soils.

Bryman Series consists of deep, well-drained soils that formed in alluvium from dominantly granitic sources. The Bryman loamy fine sand, 5% to 9% slopes mapping unit occurs on terraces and older alluvial fans at elevations between 2,800 to 3,800 feet amsl (USDA 2024c).

4.4 Surrounding Land Uses

The BSA is partially composed of currently vacant, undeveloped land immediately adjacent to developed property located at the southeastern edge of Victorville, north of Hesperia. The BSA is surrounded by commercial and residential development immediately north, west, and east of the subject parcels, and portions of undeveloped land occur south of Bear Valley Road, east of 1st Avenue, and between Jasmine Street and the Hospital.

According to the City of Victorville General Plan Land Use Element, the land use for the BSA is planned for health and wellness overlay (City of Victorville 2022). 1st Avenue has been present as a dirt road since the early 1990s and was developed for parking access around the early 2010s. Soon after, the hospital helipad was constructed on a previously undeveloped portion of the project site (Google Earth 2024).

4.5 Watersheds and Hydrology

The BSA is located within the southwestern portion of the Mojave River subbasin, Hydrologic Unit Code [HUC] 18090208 (Figure 4, Hydrologic Setting). The Mojave River subbasin comprises approximately 4,600 square miles and is almost entirely within San Bernardino County (USGS 2024). The primary geographic and surface hydrologic feature of the watershed is the Mojave River, which flows north for approximately 120 miles until it reaches Silver Dry Lake near the community of Baker. Some reaches of the Mojave River flow underground in the confined riverbed channel. The Mojave River is approximately 2.5 miles east of the BSA.

Within this subbasin, the BSA occurs primarily within Desert Knolls Wash-Mojave River subwatershed (HUC 180902080703) of the Bell Mountain Wash-Mojave River watershed (HUC 1809020807) (Figure 4).

5 Results

This section describes the results of the literature review, field surveys, and habitat assessments within the BSA. Representative photos of the BSA are included in Appendix D, Site Photos.

5.1 Vegetation Communities and Land Covers

Five vegetation communities and land cover types were mapped within the BSA: creosote bush scrub (*Larrea tridentata* association), fourwing saltbush scrub (*Atriplex canescens* association), rubber rabbitbrush scrub (*Ericameria nauseosa* association), disturbed habitat, and urban/developed land. The vegetation communities and land cover types mapped within the BSA are detailed below in Table 2. The spatial distribution of the vegetation communities and land covers are presented in Figure 5, Vegetation Communities and Land Cover Types.

Table 2. Existing Vegetation Communities and Land Cover Types within the Biological Study Area

Vegetation Community or Land Cover Type	Alliance	Association	Ranking[1]	Project Site (acres)	Off-Site Areas (acres)	Total BSA (acres)[2]
Vegetation Community						
Creosote Bush Scrub	*Larrea tridentata* Shrubland	*Larrea tridentata*	G5S5	0.47	0.95	3.00
Fourwing Saltbush Scrub	*Atriplex canescens* Shrubland	*Atriplex canescens*	G5S4	0.00	0.00	0.04
Rubber Rabbitbrush Scrub	*Ericameria nauseosa* Shrubland	*Ericameria nauseosa*	G5S5	1.50	0.16	3.28
Land Cover Type						
Disturbed Habitat	N/A	N/A	N/A	1.93	1.03	5.03
Urban/Developed	N/A	N/A	N/A	2.80	1.75	11.99
			Total[2]	**6.69**	**3.89**	**23.33**

Notes: BSA = biological study area (on-site development footprint, off-site areas, and 100-foot buffer); N/A = not applicable.

1 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, N = national, and S = subnational). The numbers have the following meaning (NatureServe 2024):
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = no applicable ranking
GNR = unranked, global rank not yet assessed
SNR = unranked, subnational rank not yet assessed

2 Total acreages may not sum exactly due to rounding.

5.1.1 Creosote Bush Scrub (33.010.00)

Creosote bush scrub alliance communities include creosote bush as the dominant or co-dominant shrub in the canopy. If brittle bush (*Encelia farinosa*) is present, it is less than three times the cover of creosote bush, or if white bursage (*Ambrosia dumosa*) is present, it is less than two times the cover of creosote bush. Creosote bush scrub has an intermittent to open shrub canopy less than 3 meters (9.8 feet) in height with an herbaceous layer that is open to intermittent with seasonal annuals or perennial grasses. This alliance is found in a variety of desert landforms, including alluvial fans, upland slopes, and small intermittent washes on well-drained soils. Species associated with the Creosote bush scrub alliance include Shockley's goldenhead (*Acamptopappus shockleyi*), desert holly, California jointfir (*Ephedra californica*), and western Joshua tree (CNPS 2024b).

The creosote bush scrub alliance is ranked by the CDFW (2024c) as a G5S5 alliance. This ranking indicates that globally and within California the alliance is considered secure (NatureServe 2024). The association within the creosote bush scrub alliance mapped on site is the *Larrea tridentata* association. This association is also ranked as G5S5 and is therefore not considered sensitive by CDFW (2024c).

On site, patches of creosote bush scrub are present throughout the BSA (Figure 5). Other shrub species observed in the community on site include rubber rabbitbrush (*Ericameria nauseosa*), fourwing saltbush (*Atriplex canescens*), rocket species (*Sisymbrium* sp.), and redstem stork's bill (*Erodium cicutarium*). Three western Joshua trees were mapped in creosote bush scrub community within the BSA; however, they make up less than 1% absolute cover and therefore did not warrant its own community.

5.1.2 Fourwing Saltbush Scrub (36.310.00)

Fourwing saltbush scrub alliance communities include fourwing saltbush as the dominant or co-dominant shrub in the canopy. Per membership rules, fourwing saltbush must make up more than 2% of absolute cover and over 50% of relative cover in the shrub canopy. Fourwing saltbush scrub has an open to intermittent shrub canopy less than 3 meters (9.8 feet) in height with an herbaceous layer that is variable with seasonal herbs and non-native grasses. This alliance is found in playas, lake deposits, dissected alluvial fans, rolling hills, or channel beds with carbonate-rich, alkaline, sandy, or sandy clay loam soils. Species associated with the fourwing saltbush scrub alliance include white bursage, cheesebush (*Ambrosia salsola*), allscale (*Atriplex polycarpa*), creosote bush, and bush seepweed (*Suaeda nigra*) (CNPS 2024b).

The fourwing saltbush scrub alliance is ranked by the CDFW (2024c) as a G5S4 alliance. This ranking indicates that the alliance is considered globally secure and apparently secure within California (NatureServe 2024). The association within the fourwing saltbush scrub alliance mapped on site is the *Atriplex canescens* association. This association is also ranked as G5S4 and is therefore not considered sensitive by CDFW (2024c).

This community is found exclusively in the northeast corner of the BSA, outside of the project area, but within the 100-foot buffer (Figure 5).

5.1.3 Rubber Rabbitbrush Scrub (35.310.00)

Rubber rabbitbrush scrub alliance communities include rubber rabbitbrush as the dominant or co-dominant shrub in the canopy. Per membership rules, rubber rabbitbrush must make up over 50% of relative cover in the shrub canopy. It can also make up at least 2% of absolute cover or more than 25% of relative cover in the shrub canopy. Rubber rabbitbrush scrub has an open to continuous shrub canopy less than 3 meters (9.8 feet) in height with an herbaceous layer that is sparse or grassy. This alliance can be found in all topographic settings, especially in disturbed settings with well-drained sands and gravelly soils. Species associated with the rubber rabbitbrush scrub alliance include big sagebrush (*Artemisia tridentata*), jointfirs (*Ephedra* spp.), California buckwheat (*Eriogonum fasciculatum*), bitter brush (*Purshia tridentata*), California juniper (*Juniperus californica*), and western Joshua tree (CNPS 2024b).

The rubber rabbitbrush scrub alliance is ranked by the CDFW (2024c) as a G5S5 alliance. This ranking indicates that globally and within California the alliance is considered secure (NatureServe 2024). The association within the rubber rabbitbrush scrub alliance mapped on site is the *Ericameria nauseosa* association. This association is also ranked as G5S5 and is therefore not considered sensitive by CDFW (2024c).

Within the BSA, this community is found in patches along the eastern and southern buffer and east of the helipad (Figure 5). Other shrub species observed in the community on site include flatspine bur ragweed (*Ambrosia acanthicarpa*), prickly Russian thistle (*Salsola tragus*), redstem stork's bill, and some California buckwheat (*Eriogonum fasciculatum* var. *polifolium*), rocket species, and shortpod mustard (*Hirschfeldia incana*).

5.1.4 Disturbed Habitat

Disturbed habitat land covers refer to areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. If vegetation is present, it is typically composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (Oberbauer et al. 2008).

Disturbed habitat is not a listed vegetation community under the California Natural Community List (CDFW 2024c), but it has been used in this report because it best describes what was observed in the field. As such, this community is not globally, or state ranked and is not considered a sensitive natural community under CEQA.

On-site, disturbed habitat is found in patches throughout the entire BSA (Figure 5). Two western Joshua trees were mapped in disturbed habitat within the BSA; however, they make up less than 1% absolute cover and therefore did not warrant their own community.

5.1.5 Urban/Developed Land

Urban or developed land covers refer to areas that have been constructed on or otherwise physically altered to the point where vegetation is no longer present. Urban or developed areas are characterized by permanent or semi-permanent structures, hardscapes, and landscaped areas that require irrigation. Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping (Oberbauer et al. 2008).

Urban or developed land is not a listed vegetation community under the California Natural Community List (CDFW 2024c), but it has been used in this report because it best describes what was observed in the field. As such, this community is not globally, or state ranked and is not considered a sensitive natural community under CEQA.

Within the BSA, the urban/developed land cover consists of established roadways, buildings, parking lots, and the hospital helipad (Figure 5).

5.2 Plants

A total of 73 plant species, 59 native (81%) and 14 non-native (19%), were recorded within the BSA. A comprehensive list of species is available in Appendix E, Plant Compendium. Special-status plants that were observed within the BSA are discussed below in Section 5.2.1.

5.2.1 Special-Status Plant Species Assessment

Dudek biologists performed an extensive desktop review of literature, existing documentation, and GIS data to evaluate the potential for special-status plant species to occur within the BSA. Each special-status plant species was assigned a rating of "not expected," "low," "moderate," or "high" potential to occur based on relative location to known occurrences, vegetation community, soil, and elevation. Listed species with any potential to occur and non-listed special-status species with a moderate or higher potential to occur are discussed herein. Those special-status plant species that occur in the region but are not expected or have low potential to occur in the BSA due to a lack of suitable habitat, the BSA being located outside of the species' known geographic or elevation range, or not being observed during the focused 2024 special-status plant survey are also included in Appendix F, Special-Status Plant Species Potential to Occur within the Biological Study Area; however, these species are not discussed further because no significant direct, indirect, or cumulative impacts to them are expected.

Twenty-seven plant species considered special-status in this report were returned in the queries of the CNDDB and the CNPS Inventory for the subject USGS 7.5-minute quadrangles (i.e., Hesperia) and the 8 surrounding quadrangles (i.e., Apple Valley North, Silverwood Lake, Lake Arrowhead, Apple Valley South, Victorville, Baldy Mesa, Adelanto, and Cajon) or were included in the USFWS IPaC list generated for the BSA (CDFW 2024a; CNPS 2024a; USFWS 2024a).

One special-status plant species, western Joshua tree, was observed within the BSA. This species is discussed in further detail below, and its regulatory status, ecological associations, and presence within the BSA are summarized in Table 3, Special-Status Plant Species Detected within the Biological Study Area. No other listed species or non-listed CRPR 1 or CRPR 2 plants were observed during focused surveys. Due to focused surveys being conducted during the appropriate blooming period during a good rain year, all other special-status plants are not expected to occur. The BSA does not overlap with any USFWS-designated critical habitat for listed plant species (USFWS 2024c).

Table 3. Special-Status Plant Species Detected within the Biological Study Area

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet amsl)	Potential to Occur
Yucca brevifolia	Western Joshua tree	None/SC/CBR	Great Basin grassland, Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland, Sonoran desert scrub, valley and foothill grassland/perennial leaf succulent/April–May/ 1,310–6,560	Present. This species was detected within the BSA.

Notes: BSA = biological study area (on-site development footprint, off-site areas, and 100-foot buffer); CRPR = California Rare Plant Rank; amsl = above mean sea level; SC = State candidate for listing; CBR = Considered but Rejected.

Western Joshua Tree

Western Joshua tree is a California state candidate for listing. This monocot tree in the asparagus family (*Agavaceae*) typically blooms between April and May but is a conspicuous tree identifiable at any time of year. It is found within Joshua tree woodland, Great Basin grassland and scrub, Mojavean desert scrub, pinyon and juniper woodland, Sonoran desert scrub, and valley and foothill grassland between 1,310 and 6,560 feet amsl (CNPS 2024a). This species occurs on desert flats and slopes in San Bernardino County and other southern and eastern counties of California (Calflora 2024; Jepson Flora Project 2024).

A total of 6 western Joshua tree individuals were observed within the Joshua Tree Western Joshua Tree Inventory Survey Area (project site and 50-foot buffer) (Figure 6, Special-Status Plants and Wildlife). Of the 6 trees found within the Western Joshua Tree Inventory Survey Area, 3 western Joshua tree individuals are located within the project footprint, with the remaining 3 western Joshua tree individuals located within the 50-foot Western Joshua Tree Inventory Survey Area buffer. Further details on phenological data of western Joshua tree individuals observed are provided in Appendix A.

5.2.2 California Desert Native Plants

Other than western Joshua tree, no plant species protected under CDNPA were mapped within the BSA (Figure 6). Although the CDNPA is codified in state law (California Food and Agricultural Code Division 23), enforcement powers and administrative responsibilities are given to the subject County commissioner, sheriff, and board of supervisors as stipulated in Chapter 4 of the CDNPA (Enforcement Powers and Administrative Responsibilities). Therefore, potential impacts to desert native plant species are analyzed in Section 6.7, which discusses the project consistency with local policies or ordinances.

5.3 Wildlife

A total of 23 wildlife species, consisting of 20 native species and 3 non-native species, were recorded within the BSA or vicinity during surveys.

Avifauna comprised the majority of wildlife species detections with a total of 18 bird species due a detection bias for their mobility and diurnal activity. Some commonly observed bird species include Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), and house finch (*Haemorhous mexicanus*). One reptile species, western fence lizard (*Sceloporus occidentalis*), was observed. Two common mammal species were observed: desert cottontail (*Sylvilagus audubonii*) and California ground squirrel (*Otospermophilus beecheyi*). No amphibian species were observed due to lack of suitable aquatic habitat. Two invertebrate species were observed: painted lady (*Vanessa cardui*) and checkered white (*Pontia protodice*). A comprehensive list of wildlife species observed during surveys is available in Appendix G, Wildlife Compendium. Special-status wildlife species detected within the BSA are discussed below in Section 5.3.1.

5.3.1 Special-Status Wildlife

As with special-status plants, Dudek biologists performed an extensive desktop review of literature, existing documentation, and GIS data to evaluate the potential for special-status wildlife species to occur within the BSA. Each special-status wildlife species was assigned a rating of "not expected," "low," "moderate," or "high" potential to occur based on relative location to known occurrences and vegetation community/habitat association. Listed species with any potential to occur and non-listed special-status species with a moderate or higher potential to occur are discussed herein. Those special-status wildlife species that are not expected or have low potential to occur in the BSA are also included in Appendix H, Special-Status Wildlife Species Potential to Occur within the Biological Study Area; however, these species are not discussed further as no significant direct, indirect, or cumulative impacts expected.

Thirty-six wildlife species considered special-status in this report were returned in the query of the CNDDB for the subject USGS 7.5-minute quadrangles (i.e., Hesperia) and the 8 surrounding quadrangles (i.e., Apple Valley North, Silverwood Lake, Lake Arrowhead, Apple Valley South, Victorville, Baldy Mesa, Adelanto, and Cajon) or were included in the USFWS IPaC list generated for the BSA (CDFW 2024a; USFWS 2024a). Desert kit fox and mountain lion (*Puma concolor*) were also included in the special-status wildlife species assessment.

No special-status wildlife species were detected within the BSA during surveys for the project. Two special-status non-listed wildlife species have a moderate or high potential to occur due to the presence of suitable habitat and site conditions: loggerhead shrike (*Lanius ludovicianus*) and burrowing owl. These special-status wildlife species are discussed in further detail below. Their regulatory status, ecological associations, and presence or potential to occur within the BSA are summarized in Table 4, Special-Status Wildlife Species with Moderate to High Potential to Occur within the Biological Study Area.

Dudek also conducted focused surveys for Mojave desert tortoise and desert kit fox. In addition, a habitat assessment for Mohave ground squirrel was conducted by Dipodomys. After completion of these surveys, these species were determined to be not expected to occur within the BSA. The results of the focused wildlife surveys are discussed further below. The BSA does not overlap with any designated critical habitat for listed wildlife species (USFWS 2024c).

Table 4. Special-Status Wildlife Species with Moderate to High Potential to Occur within the Biological Study Area

Scientific Name	Common Name	Status (Federal/ State)	Habitat	Potential to Occur
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Moderate potential to occur.
Lanius ludovicianus (nesting)	Loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Moderate potential to occur.

Notes: BSA = biological study area (on-site development footprint, off-site areas, and 100-foot buffer);CNDDB = California Natural Diversity Database; BCC = U.S. Fish and Wildlife Bird of Conservation Concern; SSC = California Species of Special Concern.

Burrowing Owl

Burrowing owl is a USFWS bird of conservation concern and a CDFW California Species of Special Concern. With a relatively wide-ranging distribution throughout the west, burrowing owls are considered to be habitat generalists (Lantz et al. 2004). In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon–juniper and ponderosa pine habitats (Zeiner et al. 1990). Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils (Haug et al. 1993).

The presence of burrows is the most essential component of burrowing owl habitat as they are required for nesting, roosting, cover, and caching prey (Coulombe 1971; Martin 1973; Green and Anthony 1989; Haug et al. 1993). In California, western burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may occur in human-altered landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable (i.e., open and sparse); usable burrows are available; and foraging habitat occurs in close proximity (Gervais et al. 2008). Debris piles, riprap, culverts, and pipes can be used for nesting and roosting.

Focused surveys for burrowing owl were conducted between March 21, 2024, and July 26, 2024, in four passes according to CDFW protocol. Although protocol surveys were negative for burrowing owl individuals or diagnostic sign, Dudek biologists did document and map suitable burrows scattered throughout the BSA. Additionally, there are 16 CNDDB occurrences within 5 miles, 4 of which are located within 1 mile of the BSA (CDFW 2024a). All of these CNDDB occurrences were documented between 2004 and 2007 (CDFW 2024a). In addition, the BSA contains suitable nesting or overwintering habitat for the species due to presence of open scrub vegetation and burrows of suitable size. Therefore, burrowing owl could use the site as overwintering habitat or for breeding in subsequent years.

Loggerhead Shrike

Loggerhead shrike is a CDFW California Species of Special Concern. This stocky, large-headed songbird is widespread throughout the United States (Humple 2008) where they are yearlong residents in California east to Virginia and south to Florida, and in Mexico. In California, this species is present at the lower elevations with the largest breeding populations located in portions of the Central Valley, coast ranges, and southeastern deserts (Humple 2008).

Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the type of vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed (Yosef 2020). This species was not detected during 2024 surveys; however, the BSA supports suitable foraging and nesting habitat (e.g., open desert scrub with scattered shrubs) for this species. In addition, there are CNDDB occurrences mapped in the vicinity of the project, with the closest occurrences located approximately 2.5 miles to the north along the Mojave River (CDFW 2024a). Therefore, loggerhead shrike has a moderate potential to occur within the BSA.

Mojave Desert Tortoise

Desert tortoise is listed under FESA and CESA as a threatened species. The range of the Mohave population of the desert tortoise includes portions of the Mojave Desert and the Colorado Desert in Southern California (parts of Inyo, Kern, Los Angeles, San Bernardino, and Riverside Counties), southern Nevada (Clark, Esmeralda, Nye, and Lincoln Counties), northwestern Arizona (Mohave County), and southwestern Utah (Washington County).

Typical habitat for desert tortoise in the Mojave Desert is creosote bush scrub where precipitation ranges from 2 to 8 inches, with relatively high diversity of perennial plants and high productivity of ephemeral plants. Throughout most of the Mojave Desert, desert tortoises occur most commonly on gently sloping terrain with sandy gravel soils and where there is sparse cover of low-growing shrubs, which allows for the establishment of herbaceous plants. Soils must be friable enough for digging of burrows, but firm enough that burrows do not collapse (USFWS 2008). Although populations of desert tortoise are not generally known to inhabit elevations much above 4,000 feet amsl, they occur from below sea level to an elevation of 7,300 feet amsl. Occupied habitat varies from flats and slopes dominated by creosote bush scrub at low elevations to rocky slopes in blackbrush and juniper woodland ecotones at higher elevations (USFWS 2008).

Protocol surveys in 2024 resulted in no observations of active desert tortoise burrows, active desert tortoise sign (e.g., scat, drink basins, tracks, tortoise remains), or observations of individual desert tortoises. Although the BSA contains sandy soils and creosote scrub, the BSA is surrounded by major thoroughfares and urban development. The nearest CNDDB occurrences mapped 5.6 and 6 miles northwest and northeast of the BSA (CDFW 2024a) are separated from the project site by U.S. Highway 18 and I-15. Additionally, the BSA is located outside of the predicted habitat modeling for the species (CDFW 2017). Therefore, this species is not expected to occur within the BSA.

Desert Kit Fox

Desert kit fox is considered a "fur-bearing mammal," protected from take under the Commission's Mammal Hunting Regulations (Subdivision 2, Chapter 5), which effectively protects it from hunting pressure. A petition was filed to list the desert kit fox under CESA in 2013 but was rejected by the Commission due to gaps in literature (Center for Biological Diversity 2013). The species is not currently listed under FESA or CESA, or under any other special-status designation, but is analyzed in this report due to its status as a game animal. The desert kit fox lives in the open desert, on creosote bush flats, and amongst the sand dunes (National Park Service 2015).

No desert kit fox individuals, suitable burrows between 5 and 8 inches in diameter, or scat were detected during the assessment for desert kit fox conducted during the biological reconnaissance survey. As such, the species has a low potential to occur given the small patch size and highly developed land use in the immediate vicinity of the BSA.

Mohave Ground Squirrel

Mohave ground squirrel is listed under CESA as a threatened species. The distribution range for this species is restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo Counties (Zeiner et al. 1990). This species generally inhabits areas where the soil is friable and sandy or gravelly. Mohave ground squirrels occur in desert scrub habitats dominated by creosote bush and desert saltbush scrub at elevations between 1,800 and 5,000 feet amsl.

Although friable soils for burrowing and plants known to be associated with suitable habitat are present (e.g., winterfat, Joshua tree, fiddleneck, and red-stemmed filaree) within the BSA, the Mohave ground squirrel habitat assessment surveys conducted by permitted biologists concluded that it is highly unlikely for the species to be present on site given the highly developed surrounding land use and the small size of the patches of suitable habitat (Appendix C). While the nearest CNDDB occurrence is located approximately 3 miles to the south, it takes back to 1921. Additionally, the closest core population of this species is located over 20 miles northwest of the BSA (CDFW 2024a). Therefore, protocol surveys for Mohave ground squirrel were deemed not necessary. Although a habitat assessment alone is not sufficient to demonstrate Mohave ground squirrel absence to CDFW, this species is not expected to occur within the BSA due to low-quality, patchy, habitat and surrounding development and no impacts are expected to occur to the species. More details about this species and the results of the habitat assessment are provided in Appendix C.

5.3.2 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires). Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

The BSA is not mapped as an essential connectivity area, natural landscape block, or linkage for the California Essential Habitat Connectivity Network nor the California Desert Linkage Network. The nearest wildlife corridor/habitat linkage is the Mojave River linkage, which is approximately 1.8 miles east of the BSA and is not connected to the project site. The BSA is mapped as a rank 1 Area of Conservation Emphasis (CDFW 2019). According to CDFW (2019), Rank 1 is defined as:

> **Limited connectivity opportunity.** Areas where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models. Includes lakes. Some DOD (Department of Defense) lands are also in this category because they have been excluded from models due to lack of conservation opportunity, although they may provide important connectivity habitat.

The BSA is likely mapped as Rank 1 due to the presence of the surrounding developed areas. Due to the undeveloped land on the BSA, there are opportunities for passage or live-in habitat for some small, urbanized wildlife. However, the BSA does not currently function as a corridor or linkage between two larger habitat blocks due to surrounding development and lack of connectivity to open spaces. As such, the project would not create a significant impediment to wildlife movement.

5.3.3 Native Wildlife Nursery Sites

No diagnostic signs of bird rookeries (e.g., numerous nests, whitewash) or large maternal or overwintering bat roosts (e.g., large concentrations of guano or guano odors) were identified in the BSA. Additionally, the lack of aquatic resources identified within the BSA would not support fisheries due to a lack of perennially available water. The lack of typical urban roosting habitat (bridges and older buildings with structural deficiencies) and minimal stands of large trees makes it unlikely for the BSA to support roosting bats. However, vegetation throughout the BSA could provide suitable nesting habitat for some native bird species.

5.4 Jurisdictional Aquatic Resources

Hydrology and vegetation were examined throughout the BSA during the reconnaissance site visit to identify potential wetland sites and/or non-wetland waters (e.g., drainages, channels), though a formal jurisdictional delineation was not performed. No wetlands or waters with the potential to be jurisdictional under state and federal resource agencies were identified within the BSA (USFWS 2024b). A potential jurisdictional feature occurs west of the northern portion of the BSA, where a culvert is located along Jasmine Street (USGS 2024). However, this feature appears to move toward 2nd Avenue, west of the BSA and outside of the project footprint and would not be impacted by project activities.

6 Project Impacts

This section addresses direct and indirect impacts to special-status biological resources that would result from the implementation of the project. The significance determinations for proposed or potential impacts are described in this section, and proposed mitigation is provided in Section 7, Mitigation.

6.1 Explanation of Findings of Significance

Impacts to special-status vegetation communities, plant and wildlife species, and jurisdictional waters, including wetlands, must be quantified and analyzed to determine whether such impacts are significant under CEQA. CEQA Guidelines Section 15064(b) states that an ironclad definition of "significant" effect is not possible because the significance of an activity may vary with the setting. Appendix G, Environmental Checklist, of the CEQA Guidelines, however, does provide "examples of consequences which may be deemed to be a significant effect on the environment" (14 California Code of Regulations [CCR] 15064[e]). These effects include substantial effects on rare or endangered species of animal or plant or the habitat of the species. CEQA Guidelines Section 15065(a) is also helpful in defining whether a project may have a significant effect on the environment. Under that section, a proposed project may have a significant effect on the environment if the project has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or animal, or (6) eliminate important examples of a major period of California history or prehistory.

The following are the significance thresholds for biological resources provided in the CEQA Guidelines Appendix G, which states that a project would potentially have a significant effect if it does any of the following:

- Impact BIO-1. Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Impact BIO-2. Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Impact BIO-3. Has 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.
- Impact BIO-4. Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impedes the use of native wildlife nursery sites.
- Impact BIO-5. Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Impact BIO-6. Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

The evaluation of whether an impact to a particular biological resource is significant must consider both the resource itself and the role of that resource in a regional context. Substantial impacts are those that contribute to, or result in, permanent loss of an important resource, such as a population of a rare plant or wildlife species.

Impacts may be important locally, because they result in an adverse alteration of existing site conditions but considered not significant because they do not contribute substantially to the permanent loss of that resource regionally. The severity of an impact is the primary determinant of whether that impact can be mitigated to a level below significance.

6.2 Definition of Impacts

Direct impacts refer to complete loss of a biological resource. For purposes of this report, it refers to the area where vegetation clearing, grubbing, or grading replaces biological resources. Direct impacts were quantified by overlaying the proposed impact limits on the biological resources map of the BSA. Direct impacts would occur from the construction of a new 2-story Building Addition to the existing Hospital, and associated service yard, passenger vehicle parking species, landscaped areas, and off-site road and utility improvements. All on-site and off-site direct impacts are considered permanent.

Indirect impacts are reasonably foreseeable effects caused by a project's implementation on remaining or adjacent biological resources outside the direct disturbance zone. For purposes of this report, indirect impacts may affect areas outside the disturbance. Indirect impacts may be short-term and construction-related, or long-term and associated with development in proximity to biological resources.

The evaluation of project impacts is organized below using Appendix G of the CEQA Guidelines.

6.3 Impact BIO-1: Special-Status Species

No non-listed special-status plant species were observed or have high or moderate potential to occur within the BSA; therefore, the project would have no direct or indirect impacts to non-listed special-status plant species. Plant species that are not considered special status but are protected under the locally enforced CDNPA are discussed below in Section 6.7, Impact BIO-5: Local Policies and Ordinances.

One listed special-status plant species (i.e., western Joshua Tree) was detected within the project's Western Joshua Tree Inventory Survey Area (project footprint plus a 50-foot buffer). Two special-status wildlife species have a moderate potential to occur within the BSA due to the presence of suitable habitat and site conditions: loggerhead shrike and burrowing owl. The project could have significant impacts on these special-status species absent mitigation or avoidance. Impacts to these species and proposed mitigation measures are discussed below.

The BSA does not occur within federally designated critical habitat for any special-status species; therefore, there would be no direct impacts to critical habitat.

6.3.1 Impacts to Special-Status Plants

6.3.1.1 Direct Impacts

One listed special-status plant species was observed within the BSA: western Joshua tree. Potential direct impacts to this special-status species and proposed avoidance/minimization measures are discussed below.

Western Joshua Tree

Western Joshua tree, a candidate for state listing under CESA, was observed and would be directly impacted by the project. Based on the site plan, implementation of the project would result in direct impacts to 3 western Joshua trees. All ground-disturbing activities are considered permanent impacts to western Joshua trees. Direct impacts to western Joshua tree would be significant absent mitigation under CEQA.

Based on the WJTCA, Fish and Game Code Section 1927.3 requires the applicant to mitigate by paying the statutorily prescribed fees. Trees located in the area described in Fish and Game Code Section 1927.3 (e) are in the standard fee area; therefore, impacts to western Joshua tree can be mitigated on a per-tree basis as follows:

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

The project would result in direct impacts to one Joshua tree that is 5 meters or greater in height, two Joshua trees 1 meter or greater but less than 5 meters in height, and no trees less than 1 meter in height.

As required by **Mitigation Measure (MM)-BIO-1** (Western Joshua Tree Fee Payment), mitigation for direct impacts to three western Joshua trees, their seed bank, and associated habitat would be fulfilled through conservation of western Joshua trees through a payment of fees consistent with the WJTCA or through payment to a CDFW approved mitigation bank.

Furthermore, the implementation of **MM-BIO-2** (Biological Monitoring and Best Management Practices) gives the project biologist the authority to stop work if construction is not compliant with this CEQA document; requires that a qualified biologist oversee compliance with the protective measures, including limiting impacts to the project footprint; provide construction personnel with training related to special-status plant species that occur adjacent to the impact footprint. Additionally, **MM-BIO-3** (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to special-status plants that are outside the permitted project footprint.

Therefore, implementation of **MM-BIO-1**, **MM-BIO-2**, and **MM-BIO-3** would reduce potential direct impacts to western Joshua trees to less than significant.

6.3.1.2 Indirect Impacts

No non-listed special-status plant species were observed or have a high or moderate potential to occur within the 100-foot buffer outside of the project footprint; therefore, the project would have no indirect impacts to non-listed special-status plant species. Three western Joshua trees were mapped within the 50-foot buffer outside of the project footprint and would be preserved in place. Although these trees would not be directly impacted, implementation of the project may result in indirect impacts to these western Joshua trees.

Western Joshua Tree

Construction-related, short-term indirect impacts may include dust accumulation on Joshua trees, stormwater erosion and sedimentation, chemical spills, and inadvertent spillover impacts outside of the construction footprint. Potential long-term (post-construction) indirect impacts from operation and maintenance activities may include effects of herbicides, changes in water quality, , induced demand of the surrounding area, increased traffic and vehicle emissions, and accidental chemical spills. Indirect impacts to Joshua trees would be significant absent mitigation.

To reduce fugitive dust resulting from project construction and to minimize adverse air quality impacts, the project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's (AQMDs) Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented to prevent all construction pollutants from contacting stormwater during construction activities, with the intent of keeping sediment and any other pollutants from moving off site and into receiving waters. Best Management Practice (BMP) categories employed on site would include erosion control, sediment control, and non-stormwater good housekeeping. Preparation and implementation of a SWPPP would help to avoid and minimize the potential effects of stormwater erosion during construction.

Implementation of low-impact-development features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); the improper management of hazardous materials, trash, and debris; and the improper management of portable restroom facilities (e.g., regular service) in accordance with all relevant local and state development standards. Therefore, impacts to special-status plants due to changes in water quality would be avoided and minimized through the implementation of low-impact-development features and BMPs.

Therefore, construction impacts involving wildland fires would be less than significant. Furthermore, **MM-BIO-2** requires that a qualified biologist oversee compliance with BMPs. **MM-BIO-3** requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated so that no impacts occur outside of the impact footprint. Lastly, the Joshua Tree Plan provides measures for protecting the remaining western Joshua trees, such as the establishment of a tree-protected zone (crown/canopy plus 6 feet), protective fencing and signage, pre-construction meetings, measures for protection and maintenance during construction, and procedures for maintenance after construction.

Accordingly, implementation of the Joshua Tree Plan, **MM-BIO-2**, and **MM-BIO-3** would reduce potential indirect impacts to western Joshua tree to less than significant.

6.3.2 Impacts to Special-Status Wildlife

6.3.2.1 Direct Impacts

Two special-status wildlife species that were determined to have a moderate to high potential to occur within the BSA: burrowing owl and loggerhead shrike. The project could result in significant, direct impacts to these special-status wildlife species as a result of injury or mortality of individuals from construction activities. Potential direct impacts to these special-status species and proposed avoidance/minimization measures are discussed below. The focused

survey conducted for Mojave desert tortoise and the Mohave ground squirrel habitat assessment were negative; therefore, impacts to these species are not expected to occur and will not be analyzed further.

Burrowing Owl

Protocol burrowing owl surveys were negative; however, burrowing owl has a moderate potential to occur within the BSA due to the presence of suitable nesting and overwintering habitat (e.g., disturbed habitat and desert habitat) within the BSA, numerous documented occurrences in the vicinity, and the presence of suitable burrows. Therefore, burrowing owl could breed or overwinter within the BSA immediately prior to the start of construction.

Direct impacts could occur to burrowing owl if nesting or overwintering individuals occur within the BSA during construction. Construction activities could cause disruptions to breeding activities and mortality or injury to individuals in burrows if present within the disturbance footprint during construction. Harm to or loss of individuals as a result of construction activities would be significant absent mitigation under CEQA. Pursuant to the California Fish and Game Code and MBTA, a pre-construction survey in compliance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) would be necessary to reevaluate the presence of breeding or overwintering burrowing owl and/or occupied burrows within the project limits so take of owls or active owl nests can be avoided. **MM-BIO-4** (Pre-Construction Burrowing Owl Survey and Avoidance) would require a pre-construction survey for burrowing owl in areas supporting potentially suitable habitat within 14 days prior to the start of construction activities. Additionally, **MM-BIO-5** (Pre-Construction Nesting Bird Survey and Avoidance) would require that vegetation removal activities be conducted outside the general bird nesting season (February 1 through August 31). If vegetation removal cannot avoid the nesting bird season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. Furthermore, **MM-BIO-2** requires that a qualified biologist conduct pre-construction sweeps ahead of construction each day with ground disturbance or vegetation removal and provide construction personnel with training related to special-status wildlife species that may potentially occur within the project site.

Accordingly, implementation of **MM-BIO-2**, **MM-BIO-4**, and **MM-BIO-5** would reduce potential direct impacts to burrowing owl to less than significant.

Loggerhead Shrike

Loggerhead shrike was determined to have a moderate potential to occur in the BSA due to suitable foraging and nesting habitat present on site. Additionally, loggerhead shrike has been documented in the vicinity of the BSA along the Mojave River (CDFW 2024a). Direct impacts could occur to loggerhead shrike if nesting individuals are present within the BSA during construction. Construction activities could cause disruptions to breeding activities and mortality or injury to nestlings or brooding individuals if present in vegetation being removed during construction. Harm to or loss of active nests or individuals as a result of construction activities would be significant absent mitigation under CEQA.

To avoid potential direct impacts to nesting loggerhead shrike, vegetation removal activities would be conducted outside the general bird nesting season (February 1 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in **MM-BIO-5**. Furthermore, **MM-BIO-2** requires that a qualified biologist conduct pre-construction sweeps ahead of construction each day with ground disturbance or vegetation removal

and provide construction personnel with training related to special-status wildlife species that may potentially occur within the project site.

Accordingly, implementation of **MM-BIO-2** and **MM-BIO-5** would reduce potential direct impacts to loggerhead shrike to less than significant.

Nesting Migratory Birds and Raptors

The BSA contains trees, shrubs, and other vegetation suitable for birds of prey (raptors) and other avian species to nest on site. Native nesting bird species with the potential to occur within the BSA are protected by California Fish and Game Code Sections 3503 and 3503.5, and by the federal MBTA (16 USC 703–711). In particular, California Fish and Game Code Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Currently, California considers any nest that is under construction or modification, or is supporting eggs, nestlings, or juveniles, as "active." Therefore, impacts to nesting migratory birds and raptors would be significant absent mitigation under CEQA.

To ensure compliance with the California Fish and Game Code and MBTA and to avoid potential impacts to nesting birds, vegetation removal activities would be conducted outside the general bird nesting season (February 1 through August 31), and if vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in **MM-BIO-5**.

Accordingly, the implementation of **MM-BIO-5** would reduce potential direct impacts to nesting migratory birds and raptors to less than significant.

6.3.2.2 Indirect Impacts

Indirect impacts to special-status wildlife species are those that occur during construction to species present near the site, but not within the construction zone. Such impacts include fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat, or that can result in the disruption of bird nesting and abandonment of nests; increased human presence, which can also disrupt daily activities of wildlife and cause them to leave an area; generation of trash, such as food packaging and cigarette butts, and debris from construction-related materials, which can degrade wildlife habitat and can attract nuisance and pest species. Implementation of the project could result in significant indirect impacts to special-status wildlife species absent mitigation.

MM-BIO-2 would require ongoing biological monitoring and compliance with all biological resource mitigation measures and dust and trash minimizing BMPs. To reduce fugitive dust resulting from project construction and to minimize adverse air quality impacts, the project would employ dust mitigation measures in accordance with the Mojave Desert AQMDs Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. In addition, pre-construction surveys as required by **MM-BIO-4** and **MM-BIO-5** would require establishment of construction buffers around any occupied burrows or active nests found, thus limiting effects from most indirect impacts, including noise and vibration, increased human presence, and fugitive dust.

Accordingly, **MM-BIO-2**, **MM-BIO-4**, and **MM-BIO-5** would reduce potential indirect impacts to special-status wildlife to less than significant.

6.4 Impact BIO-2: Riparian Habitat and Sensitive Vegetation Communities

A total of approximately 10.59[2] acres, including 6.69 acres within the on-site development footprint and 3.89 acres within the off-site areas, would be impacted by the project within the BSA (Figure 7, Impacts to Biological Resources). Table 5 summarizes permanent direct impacts to vegetation communities and land covers within the BSA.

Table 5. Impacts to Vegetation Communities and Land Cover Types within the Biological Study Area

Vegetation Community or Land Cover Type	State Ranking[1]	Total BSA (acres)	On-Site Permanent Impacts (acres)	Off-Site Permanent Impacts (acres)	Total Impacts (acres)
Creosote Bush Scrub	S5	3.00	0.47	0.95	1.42
Fourwing Saltbush Scrub	S4	0.04	0.00	0.00	0.00
Rubber Rabbitbrush Scrub	S5	3.28	1.50	0.16	1.66
Disturbed Habitat	NA	5.03	1.93	1.03	2.96
Urban/Developed	NA	11.99	2.80	1.75	4.55
	Total[2]	**23.33**	**6.69**	**3.89**	**10.59**

Notes: BSA = biological study area (on-site development footprint, off-site areas, and 100-foot buffer); N/A = not applicable.

1 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, N = national, and S = subnational). The numbers have the following meaning (NatureServe 2024):
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = no applicable ranking
GNR = unranked, global rank not yet assessed
SNR = unranked, subnational rank not yet assessed

2 Total acreages may not sum exactly due to rounding.

The BSA does not contain any riparian habitat or vegetation communities considered a sensitive biological resource by CDFW under CEQA. Therefore, project implementation would have no impact on riparian habitat or any other sensitive vegetation communities.

2 Totals may not sum due to rounding.

6.5 Impact BIO-3: State or Federally Protected Wetlands or Waters

The BSA does not contain any potential wetlands, streams, or lakes under the jurisdiction of the state or U.S. nor does it support hydrophytic vegetation; therefore, the project would have no impact to state or federally protected waters or wetlands.

6.6 Impact BIO-4: Wildlife Corridors and Nurseries

No significant impacts would occur on wildlife movement or use of native wildlife nursery sites associated with project activities. Existing nearby habitat linkages and wildlife corridor functions would remain intact while construction activities are conducted and following project completion. The BSA has very limited function as a wildlife corridor due to the urbanized nature of the project vicinity and the project's lack of connectivity to open spaces. Therefore, construction would not disrupt wildlife movement beyond existing conditions. Nearby corridors that could support wildlife movement in the region, such as the Mojave River, are located at least 2 miles east of the BSA and would not be impacted by the project. Further, the BSA does not contain nursery sites, such as bat colony roosting sites or colonial bird nesting areas. Therefore, impacts associated with wildlife movement, wildlife corridors, and wildlife nursery sites would be less than significant under CEQA.

6.7 Impact BIO-5: Local Policies or Ordinances

Applicable local ordinances protecting biological resources within the biological study area include the City of Victorville General Plan, City of Victorville Municipal Code, and the locally enforced CDNPA. Biological resources protected under these ordinances and policies are present within the BSA. These ordinances and proposed mitigation measures to ensure compliance are discussed below.

City of Victorville General Plan

The City's Resource Element (City of Victorville 2008) addresses biological resources in Goal #4 (Conservation of Important Habitat), wherein objectives and policies are set forth to achieve the goal of preserving native vegetation that provides habitat for rare, threatened, and/or endangered plant and wildlife species (Table 6).

Table 6. City of Victorville General Plan Goal #4 Conservation of Important Habitat

Protection of Biological Resources – Policies	Consistency	Analysis
Objective 4.1: Preservation of natural communities that support rare, threatened, and or endangered plant and wildlife species throughout the planning area		
Policy 4.1.1: Encourage natural habitat that supports rare, threatened, or endangered plants and wildlife (i.e., "sensitive" species), or require restoration of the same type of impacted habitat within an existing, planned, or potential conservation area.	Yes, with mitigation.	Focused surveys for special-status (or sensitive) species were conducted as part of the biological study of the project site. Impacts to special-status species would be reduced to a less-than-significant impact with the implementation of **MM-BIO-1** through **MM-BIO-5.**

Table 6. City of Victorville General Plan Goal #4 Conservation of Important Habitat

Protection of Biological Resources – Policies	Consistency	Analysis
Policy 4.1.2: Support and participate in the West Mojave Plan.	N/A	Although the BLM issued a Record of Decision for the West Mojave Plan in 2006, the West Mojave Plan has not been formally adopted. Therefore, the City of Victorville is not currently a participant to the West Mojave Plan.
Objective 4.2: Permanent Conservation of Mojave River Corridor Ecological Values		
Policy 4.2.1: Generally, prohibit private or public development projects or major infrastructure facilities on land within the Mojave River Corridor, where biological surveys have determined there is habitat that supports rare, threatened, and/or endangered plants or wildlife. Allow minor encroachments into such habitat for critical public facilities and recreational trails, where reliable assurances are provided that no loss of sensitive species would occur.	Yes.	The proposed project does not occur within the Mojave River Corridor and therefore would not be in conflict with this goal or policy.

Impacts to biological resources goals and objectives provided within the City of Victorville General Plan would not impact, is less than significant, or would be mitigated to a less-than-significant level. The project would comply with requirements of the City of Victorville General Plan biological resource goals and policies through the implementation of the recommended mitigation measures. Additionally, the project would not be in conflict with the City's General Plan Land Use Element as more intensive uses are permitted by the Health and Wellness Overlay and Mixed Use 2 zoning designations. Therefore, the project would not conflict with the City of Victorville General Plan.

City of Victorville Municipal Code

The City of Victorville Municipal Code prohibits the removal or damage to western Joshua trees without prior consent of the Director of Parks and Recreation or their designee per VMC 13.33.040. The VMC also requires coordination with any laws and standards enforced by CDFW.

As required by **MM-BIO-1** (Western Joshua Tree Fee Payment), mitigation for direct impacts to western Joshua trees will be fulfilled through attainment of a WJTCA ITP and payment of fees consistent with the Western Joshua Tree Conservation Plan. In addition, **MM-BIO-1** requires that the project attain prior written consent from the City of Victorville Director of Parks and Recreation in accordance with the City of Victorville Municipal Code Chapter 13.33, Preservation and Removal of Joshua Trees. Therefore, the project would not conflict with City of Victorville Municipal Code.

California Desert Native Plants Act

A total of 6 western Joshua tree individuals were observed within the Western Joshua Tree Inventory Survey Area (project site and a 50-foot buffer) (Figure 6). Of the 6 trees found within the Western Joshua Tree Inventory Survey

Area, 3 western Joshua tree individuals are within the project impact area and would be directly impacted by project implementation (Figure 7). No other plants protected under CDNPA were found within the BSA.

As required by **MM-BIO-1** (Western Joshua Tree Fee Payment), mitigation for direct impacts to 3 western Joshua trees will be fulfilled through payment of fees consistent with the Western Joshua Tree Conservation Plan. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the project site. In addition, **MM-BIO-1** requires that the project attain prior written consent from the City of Victorville Director of Parks and Recreation in accordance with the City of Victorville Municipal Code Chapter 13.33, Preservation and Removal of Joshua Trees. The mitigation also requires that the project pay fees and acquire a CDNPA permit with San Bernardino County pursuant to California Food and Agriculture Code Division 23, Sections 80001-80201.

Implementation of **MM-BIO-1** would reduce potential impacts associated with local policies and ordinances to less than significant.

6.8 Impact BIO-6: Natural Community Conservation Plan/Habitat Conservation Plan

The project is not located within any formally adopted Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (CDFW 2023). The project is within the BLM California Desert Conservation Area Plan (BLM 1980), the Draft West Mojave Plan area (BLM 2005), and the Desert Renewable Energy Conservation Plan (DRECP) area (BLM 2016) but is not located within BLM-managed lands. Therefore, impacts associated with an adopted habitat conservation plan would be less than significant.

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7 Mitigation

The project could result in potentially significant impacts to species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, including special-status plant species such as western Joshua trees, burrowing owl, loggerhead shrike, and nesting migratory birds and raptors. Implementation of **MM-BIO-1** through **MM-BIO-5** is required to reduce impacts to a less-than-significant level.

MM-BIO-1 Western Joshua Tree Fee Payment. Mitigation for direct impacts to 3 western Joshua trees will be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit (ITP) prior to their removal and payment of the elected fees as described in Section 1927.3 of the WJTCA. In conformance with the standard fee schedule prescribed for the project area, mitigation will consist of payment of $2,500 for each western Joshua tree 5 meters or greater in height, $500 for each western Joshua tree less than 5 meters but greater than 1 meter in height; and $340 for each western Joshua tree less than 1 meter in height. California Department of Fish and Wildlife (CDFW) determines the final fee. Alternatively, mitigation will occur through off-site conservation or through a CDFW-approved mitigation bank, or as required by a Section 2081 ITP, if received. The project shall implement relocation specifications and tree protection measures provided in The Joshua Tree Preservation, Protection, and Relocation Plan (Joshua Tree Plan) for this project (Appendix A), including activities that ensure proper root ball extraction, tree storage, watering techniques, fence installation, root system avoidance, among others.

Other local regulations (i.e., City of Victorville Municipal Code, Chapter 13.33 and California Desert Native Plants Act, Food and Agricultural Code, Division 23)) also require permitting or notification prior to removal of western Joshua trees. Therefore, the project applicant must also receive written consent from the City of Victorville's Director of Parks and Recreation or their designee prior to the removal or relocation of western Joshua trees in accordance with the City of Victorville Municipal Code, Chapter 13.33, Preservation and Removal of Joshua Trees. Additionally, the project applicant shall obtain a permit through the San Bernardino County and pay fees pursuant to the California Desert Native Plants Act, Sections 80001-80201, for all western Joshua trees to be removed prior to the issuance of grading permits.

MM-BIO-2 Biological Monitoring and Best Management Practices. To prevent impacts to areas outside the limits of disturbance, a qualified biologist shall be present on site to monitor during initial ground disturbance or vegetation removal activities.

Biological monitoring shall include the following tasks and responsibilities:

- The monitoring biologist shall have authority to immediately stop any activity that does not comply with the biological mitigation measures and/or to order any reasonable measure to avoid the unauthorized take of a western Joshua tree or any other special-status species that may occur during construction.
- Conduct a pre-construction briefing at the tailgate with construction personnel prior to vegetation removal or initial ground disturbance to outline the biological resources present, prohibition of littering, locations of covered trash receptacles, disturbance limits,

procedures/training for minimizing harm to or harassment of wildlife encountered during construction.

- Conduct pre-construction sweeps where construction work is scheduled for the day. Flush wildlife species from occupied areas immediately prior to vegetation-clearing and earth-moving activities during pre-construction sweeps.
- If slow-moving and/or fossorial special-status species that do not easily flush are detected in the work area, the biologist will capture and relocate individuals to nearby undisturbed areas with suitable habitat outside of the construction area, but as close to their origin as possible. All wildlife moved during project activities shall be documented by the biologist on site.
- Verify that the construction contractor QSP is implementing the SWPPP and maintaining physical Best Management Practices. Perform regular inspections of fencing and erosion control measures (daily during rain events, if safe).
- Supervise and conduct regular spot checks during construction work, focusing on areas determined to have potential to support special-status species (as determined by a qualified biologist), to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved.
- Ensure avoidance of western Joshua trees to be preserved in place. Prior to the commencement of construction, a qualified biologist shall flag (using highly visible fluorescent flagging tape) western Joshua tree within a 100-foot buffer for avoidance.
- Periodically monitor the construction site to see that dust is minimized. If the biological monitor determines that dust may adversely affect nearby special-status species, the monitor shall require the construction personnel to implement best available control measures to reduce dust. Examples of such best available control measures include periodic watering of work areas, application of environmentally safe soil stabilization materials, and/or roll compaction.

MM-BIO-3 Delineation of Property Boundaries. Prior to ground disturbance activities, the contractor shall, in consultation with the biological monitor, clearly delineate the boundaries with fencing, stakes, or flags, consistent with the grading plan, within which the impacts will take place. All impacts outside the fenced, staked, or flagged areas shall be avoided, and all fencing, stakes, and flags shall be maintained until the completion of impacts in that area.

MM-BIO-4 Pre-Construction Burrowing Owl Survey and Avoidance. A pre-construction burrowing owl survey shall be completed no more than 14 days before initiation of site preparation or grading activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction surveys, the project site shall be re-surveyed. Surveys for burrowing owl shall be conducted by a qualified biologist in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Game (now CDFW) in 2012 or current version.

If burrowing owls are detected, a Burrowing Owl Relocation Plan shall be implemented in consultation with CDFW. As part of the Burrowing Owl Relocation Plan, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers will be established around occupied burrows as determined by a qualified biologist. No project activities shall be allowed to encroach into established buffers without the consent of a monitoring biologist. The

buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed.

Outside of the nesting season, passive owl relocation techniques approved by CDFW shall be implemented. Owls shall be excluded from burrows in the immediate project area and within a buffer zone by installing one-way doors in burrow entrances if there is a threat to the surface or subterranean burrow structure. These doors will be placed at least 48 hours prior to ground-disturbing activities. The project area shall be monitored daily for 1 week to confirm owl departure from burrows prior to any ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat will be provided following the guidance in the CDFW 2012 Staff Report on Burrowing Owl Mitigation or current version.

Where possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any wildlife inside the burrow.

If the above measures are followed, it is assumed that the project shall not need to obtain authorization from CDFW through the CESA ITP process. If the burrows cannot be avoided during the nesting season, as outlined in this measure, the project applicant will consult with CDFW regarding the need to obtain an ITP. Any measures determined to be necessary through the permit process to offset impacts to burrowing owl may supersede measures provided in this CEQA document and shall be incorporated into the relocation plan.

In the event an ITP is needed, mitigation for direct impacts to burrowing owl habitat will be fulfilled through compensatory mitigation at a minimum 1:1 in-kind habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the permit process. Mitigation will be accomplished either through off-site conservation or through a CDFW-approved mitigation bank. If mitigation is not purchased through a mitigation bank, and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will consider all management activities required in the ITP to fulfill the requirements of the conservation easement(s), which are currently in review and development.

MM-BIO-5 Pre-Construction Nesting Bird Survey and Avoidance. Construction activities shall avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting on the survey area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along

with an appropriate buffer established around the nest, which will be determined by the biologist based on the species' sensitivity to disturbance (typically 300 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall also be conducted when construction occurs in close proximity to an active nest buffer. No project activities may encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined the nestlings have fledged and the nest is no longer considered active.

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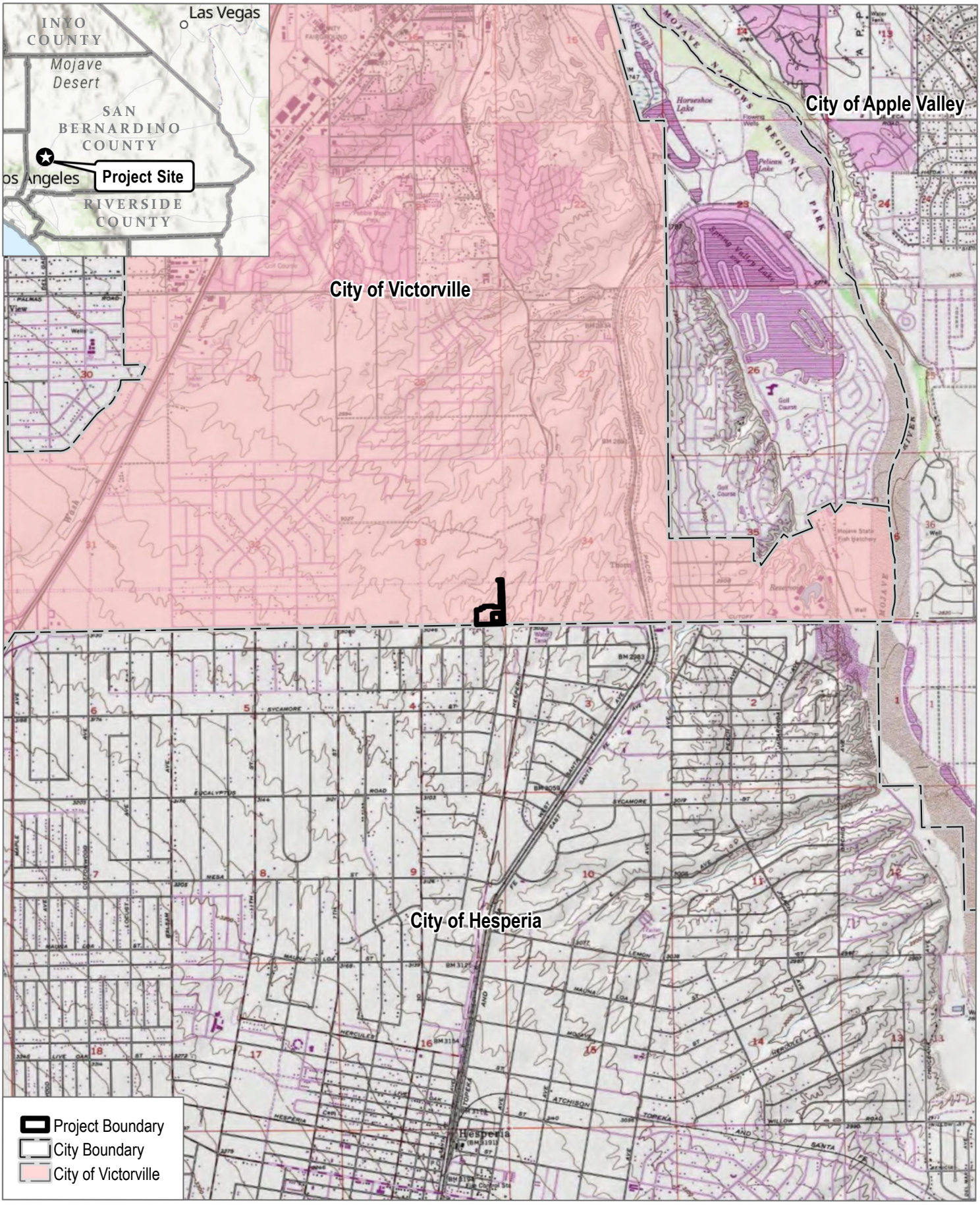
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SOURCE: USGS Topo Maps

FIGURE 1

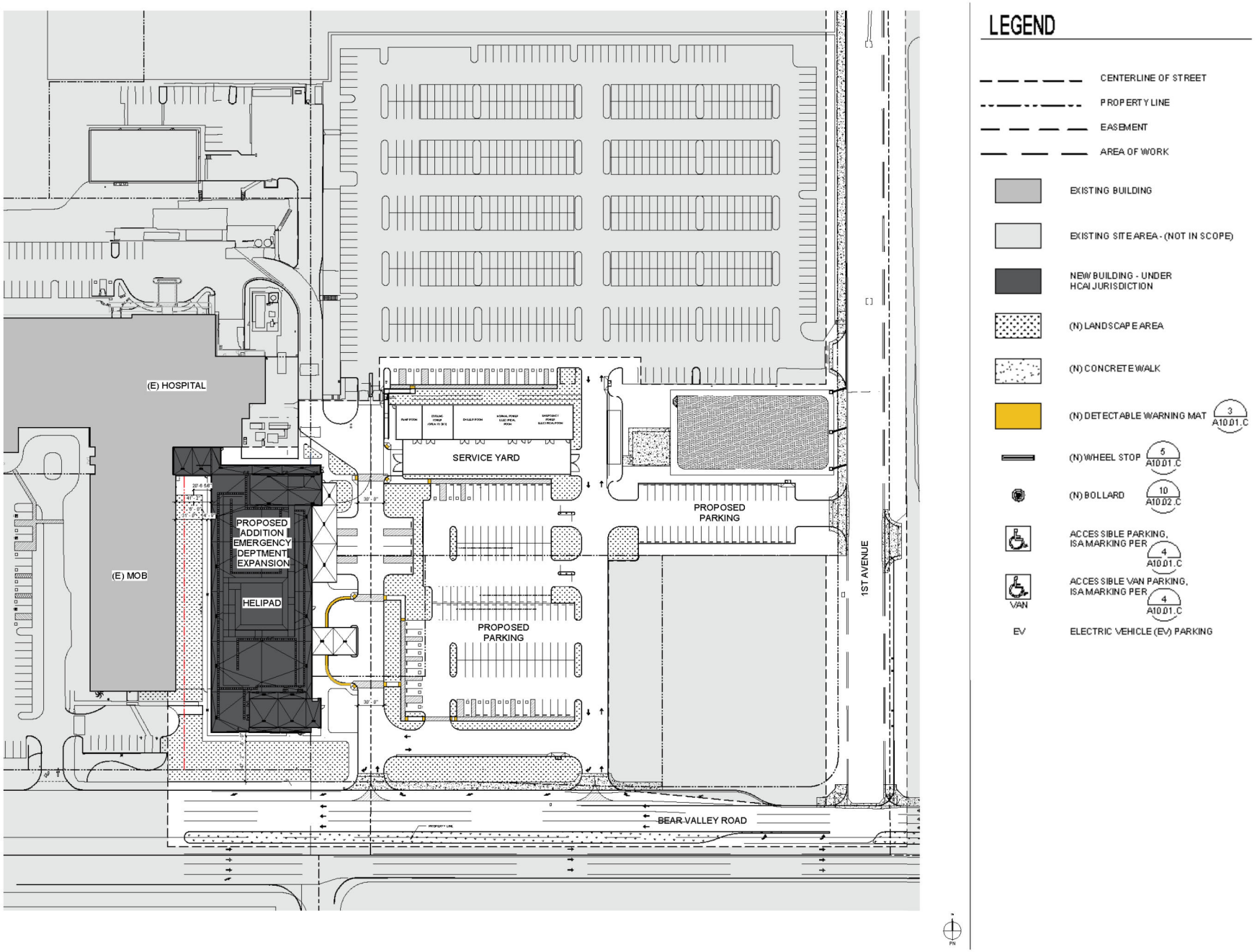
Project Location

Desert Valley Prime Hospital Project

DUDEK

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SOURCE: HMC Architects 2024

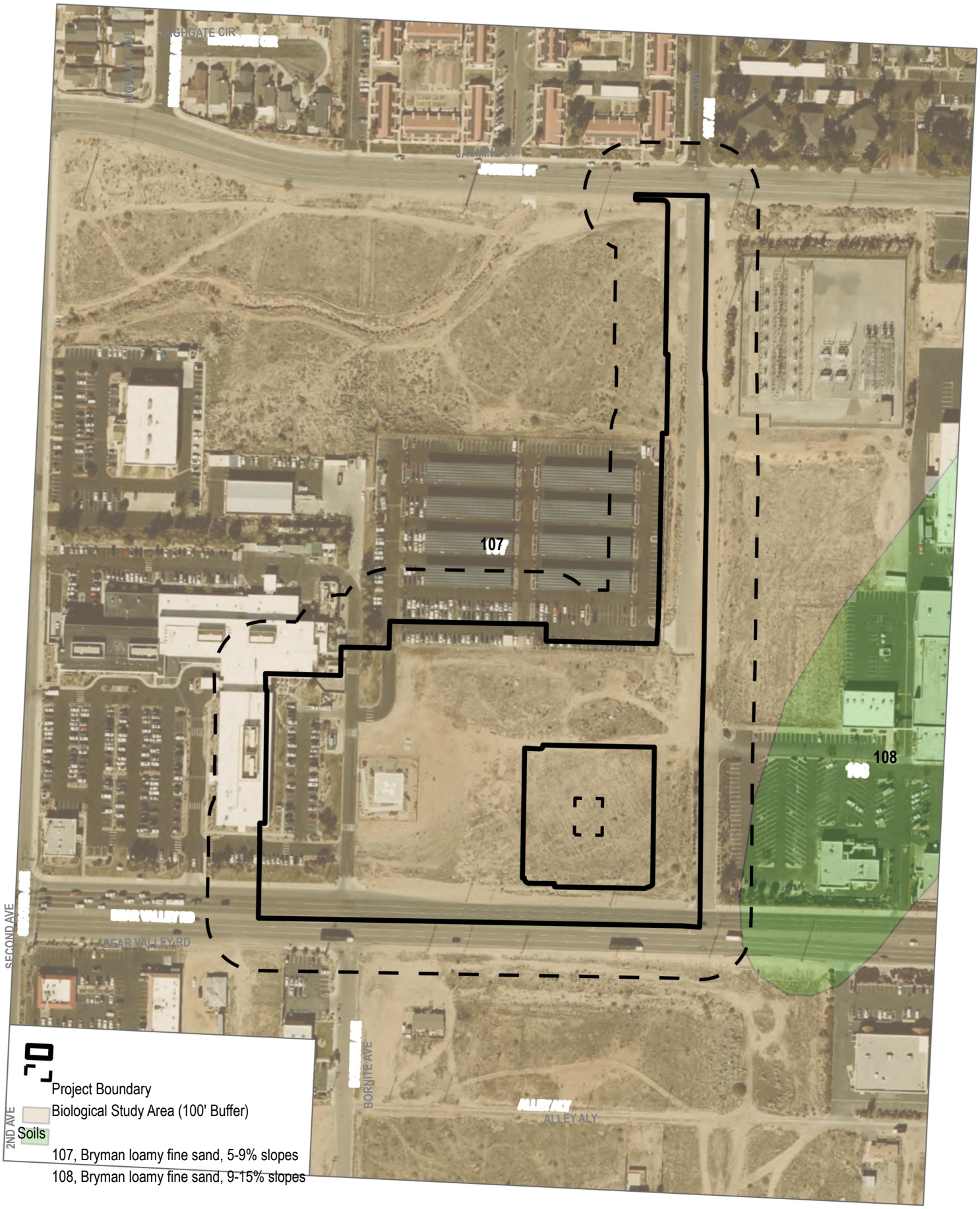
DUDEK

FIGURE 2

Site Plan

Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap; USDA 2024

DUDEK

0 115 230 Feet

FIGURE 3
Soils
Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap; USGS WBD and NHD 2024

DUDEK

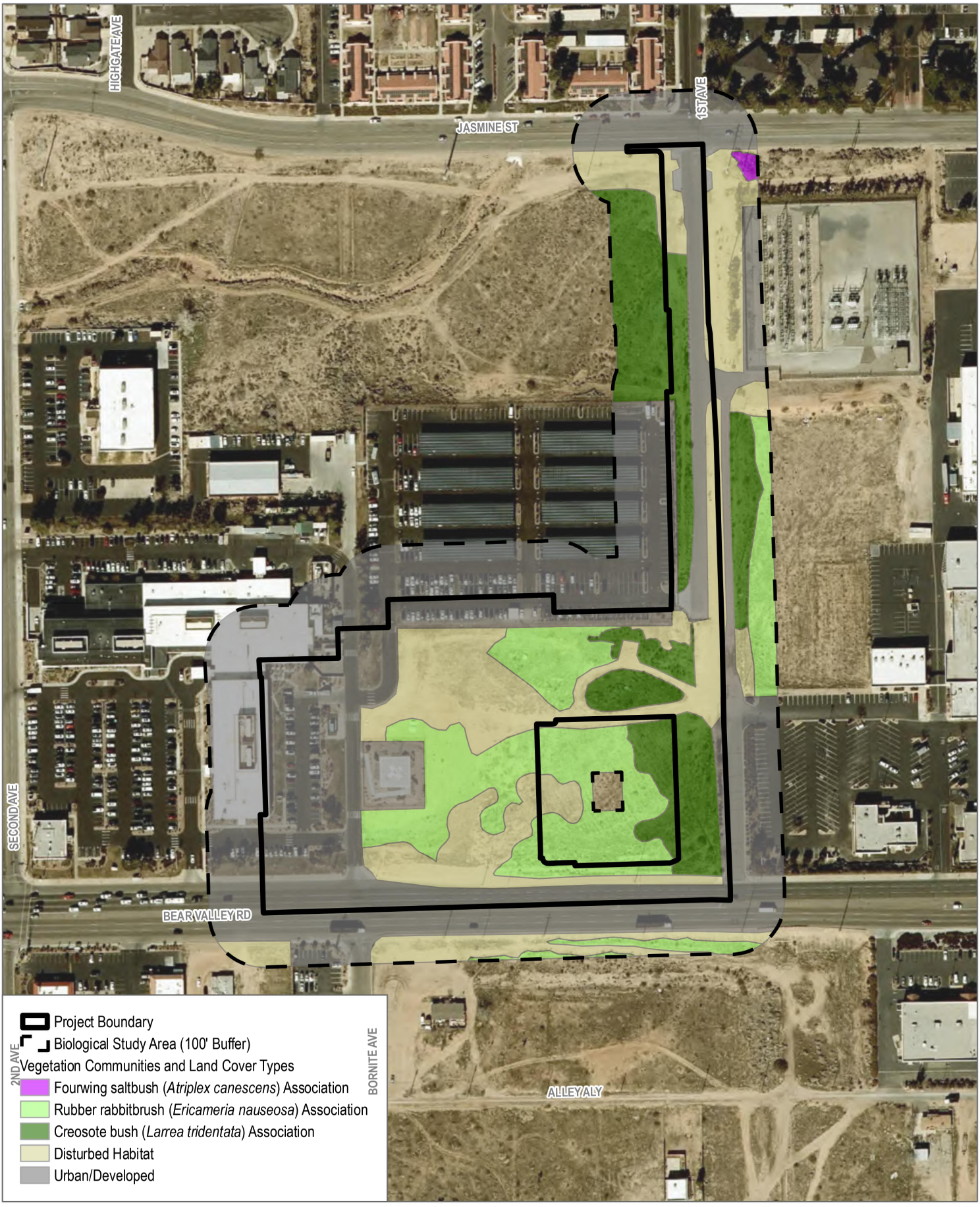
0 1,500 3,000 Feet

FIGURE 4

Hydrologic Setting

Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap

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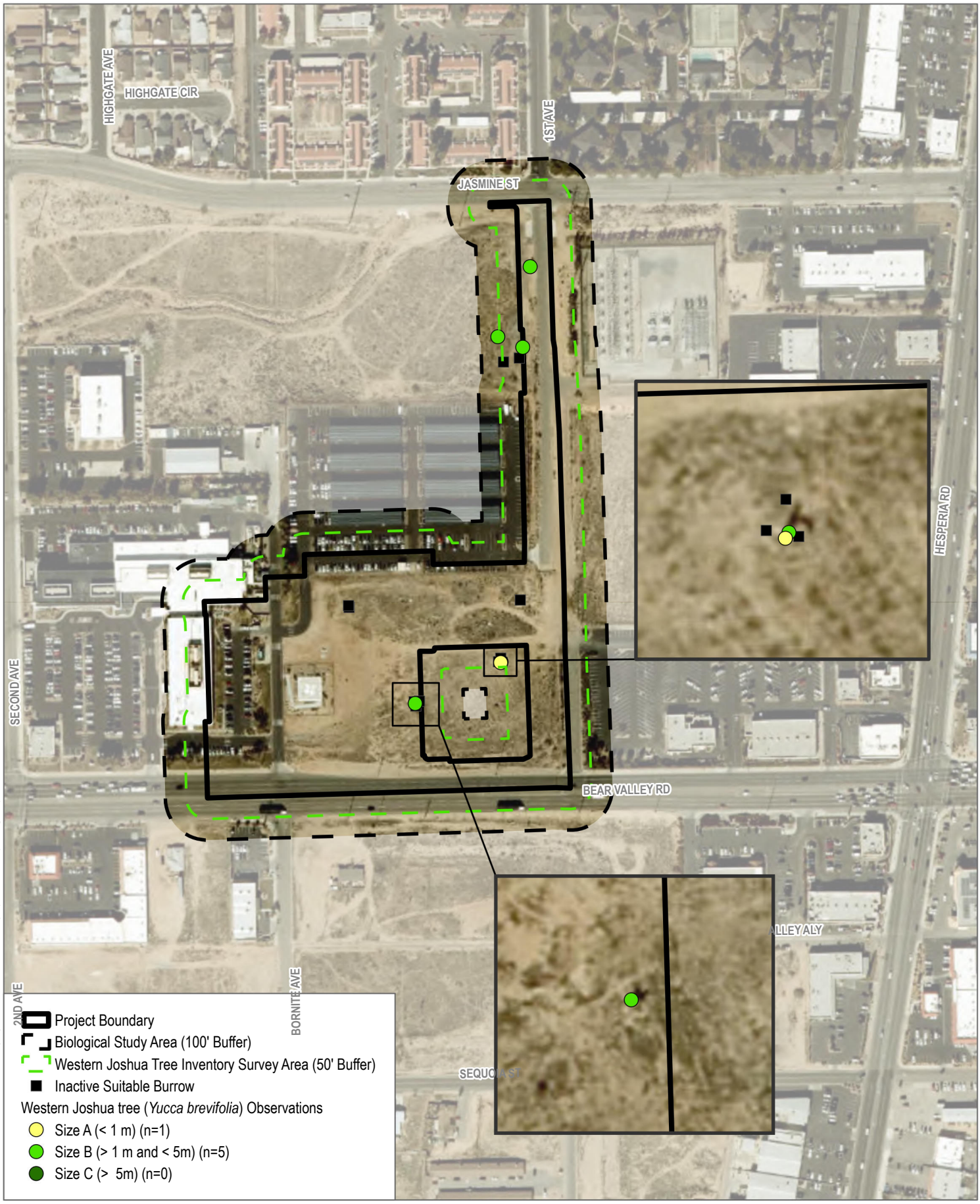
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FIGURE 5

Vegetation Communities and Land Cover Types

Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap

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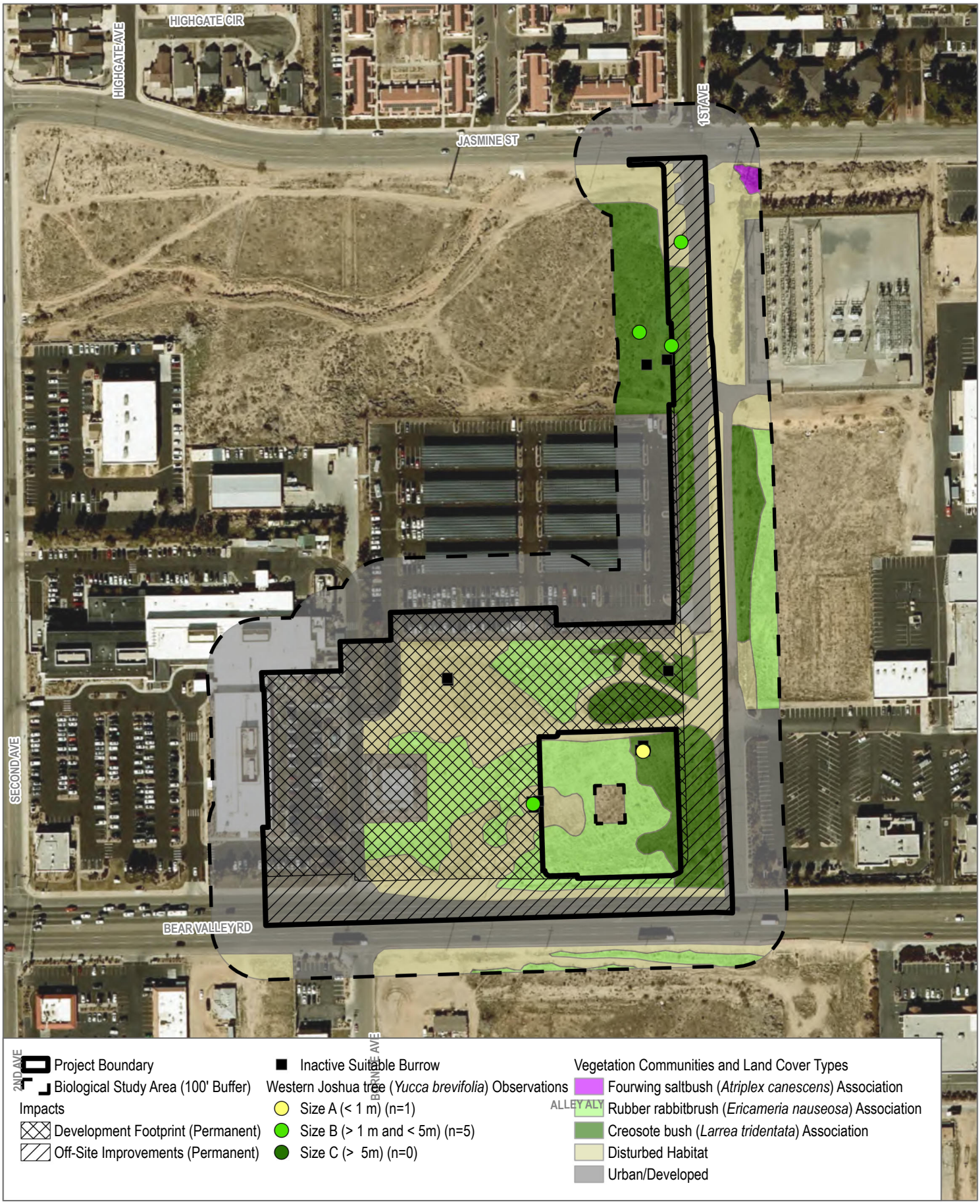
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FIGURE 6

Special-Status Plants and Wildlife

Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap

DUDEK

0 115 230 Feet

FIGURE 7

Impacts to Biological Resources

Desert Valley Prime Hospital Project

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Appendix A

Joshua Tree Preservation, Protection, and Relocation Plan

Joshua Tree Preservation, Protection, and Relocation Plan

Desert Valley Hospital Emergency Department and Medical Surgery Building Addition Project

AUGUST 2024

Prepared for:

PRIME HEALTHCARE DESERT VALLEY HOSPITAL
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
City	City of Victorville
ISA	International Society of Arboriculture
ITP	Incidental Take Permit
Joshua Tree Plan	Joshua Tree Preservation, Protection, and Relocation Plan
Project	Mojave Industrial Park Project
VMC	Victorville Municipal Code
WJTCA	Western Joshua Tree Conservation Act

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1 Introduction

The purpose of this Joshua Tree Preservation, Protection, and Relocation Plan (Joshua Tree Plan) for the proposed Desert High Valley Hospital Emergency Department Project (project) is to provide detailed specifications to meet the requirements of Chapter 13.3 of the City of Victorville (City) Municipal Code, which follows the California Department of Fish and Wildlife (CDFW) requirements to protect, preserve, and mitigate impacts to Joshua trees (*Yucca brevifolia*).

On September 22, 2020, the California Fish and Game Commission granted approval of the petition for candidacy of the western Joshua tree, marking the effective commencement of this status on October 9, 2020 (CDFW 2020). The acceptance of candidacy under the California Endangered Species Act endows the western Joshua tree with equivalent protection as that afforded to threatened or endangered species. This protection is sustained during the period in which the California Fish and Game Commission conducts an evaluation to determine whether formal listing as threatened or endangered under California Endangered Species Act is warranted.

Within this assessment interval, the removal or disturbance of western Joshua trees necessitates the acquisition of a 2081 Incidental Take Permit (ITP) issued by CDFW. Until recently, obtaining a 2081 ITP represented the principal avenue for obtaining permissions to undertake activities impacting western Joshua trees. A significant development occurred with the enactment of the Western Joshua Tree Conservation Act (WJTCA) in July 2023, which introduced an additional permitting mechanism for activities involving western Joshua trees.

Under the WJTCA, the act regards the relocation of western Joshua trees as a minimization measure, in contrast to the previous Section 2081 ITP process where relocation was viewed as an experimental approach. Specifically, the WJTCA outlines the following provisions related to relocation:

> (4)(A) The department [CDFW] may require the permittee to relocate one or more of the western Joshua trees. The permittee shall implement measures to assist the survival of relocated trees and shall comply with any other reasonable measures required by the department to facilitate the successful relocation and survival of the western Joshua trees, including, but not limited to:
>
> > (i) A requirement that the relocated western Joshua tree is placed in a location and with proper orientation to improve its survival.
> >
> > (ii) A requirement that western Joshua trees are relocated between October and March.
> >
> > (iii) Adherence to performance criteria to ensure that relocated trees have at least an 80-percent survivability rate.
> >
> > (iv) A requirement that a desert native plant specialist be on site to oversee relocation.
>
> (B) The department [CDFW] may limit relocation to certain size classes of trees

Chapter 13.3 of the Victorville Municipal Code (VMC) states that "It is unlawful for any person to cut, damage, destroy, dig up, or harvest any Joshua tree without the prior written consent of the director of parks and recreation or his designee." Furthermore, Section 16-5.02.060 of the VMC states that where a tree or trees are to be removed, the Applicant shall meet all current requirements and standards as set forth by CDFW, and proof shall be submitted

to the Building Department prior to issuance of a permit. Alternatively, the Applicant may provide a detailed report, from a licensed arborist or biologist, for protecting and preserving the tree or trees in accordance with applicable CDFW standards, which may be affected by the proposed grading.

As such, this Joshua Tree Plan addresses the requirements of the City's Joshua Tree Policy and the proposed mitigation required by CDFW under the WJTCA, and provides details regarding the project site's Joshua trees, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees requiring removal and relocation.

1.1 Applicability

The provisions of this Joshua Tree Plan apply toward the protection and removal of Joshua trees located within the City of Victorville, California, as defined in Chapter 13.3 and Section 16-5.02.060 of the City's Municipal Code.

1.2 Project Location

The project is located in the southeastern portion of the City, which is located in the Victor Valley/High Desert region of western San Bernardino County. Figures 1 and 2, Regional Vicinity and Project Vicinity, respectively, show the regional location of the project, as well as the site vicinity. The project is located immediately north of Bear Valley Road and east of Interstate 15 with proposed off-site improvements located along Bear Valley Road, 1st Avenue, and a small portion of Jasmine Street. The project consists of Assessor's Parcel Numbers 309137101, 309137104, 309137105, 309137107, 309137109, and 309137110 and adjacent rights-of-way. Specifically, the project is located in Section 33, Township 5 North, Range 4 West, and Section 4, Township 4 North, Range 4 West, as depicted on the U.S. Geological Survey (USGS) Hesperia, California 7.5-minute topographic quadrangle map (USGS 2015). Local access to the project is provided via 1st Avenue or Bear Valley Road.

1.3 Project Characteristics

Prime Healthcare, Inc. proposes to develop approximately 23.33 acres of desert land. The project involves the construction of a new two-story Building Addition to the existing Desert Valley Hospital totaling 83,369 square feet on an approximately 1.91-acre site in Victorville, California (Figure 3, Site Plan). The Building Addition will include a new Emergency Department on the first floor and a new Medical-Surgical Department on the second floor with direct connections on both floors. As part of the project, a new Service Yard will be provided on site to accommodate utilities for the Building Addition. On-site and off-site improvements are planned as part of the project to accommodate additional parking spaces and efficient traffic flow. The purpose of this project is to provide a new Emergency Department for the facility that will address the needs of the hospital and community. Specifically, the Building Addition provides an opportunity to create capacity for current and future demand and to resolve the challenges and deficiencies in the existing departments.

1.4 Site Characteristics

The project site is partially composed of currently vacant, undeveloped land immediately adjacent to developed property located at the southeastern edge of Victorville, north of Hesperia. The project site is surrounded by commercial and residential development immediately north, west, and east of the subject parcels, and portions of undeveloped land occur south of Bear Valley Road, east of 1st Avenue, and between Jasmine Street and Desert Valley Hospital.

According to the City of Victorville General Plan Land Use Element, the land use for the project site is planned for health and wellness overlay (City of Victorville 2022). 1st Avenue has been present as a dirt road since the early 1990s and was developed for parking access around the early 2010s. Soon after, the hospital helipad was constructed on a previously undeveloped portion of the project site (Google Earth 2024).

Climate

The project site is located in the High Desert region of western San Bernardino County, located approximately 69 miles from the Pacific Ocean on the trans-montane slope of the San Gabriel and San Bernardino Mountains. July is the warmest month with an average high temperature of 98.1°F, and December is the coolest month with an average low temperature of 29.2°F (WRCC 2024). Significant rainfall occurs primarily between November and March, with the maximum average precipitation occurring in January and February. The average annual precipitation for Victorville is 5.52 inches (WRCC 2024). Periods of extended drought are common throughout the region.

Topography and Soils

The project site is located in Victor Valley, which lies northeast of the San Gabriel Mountains and northwest of the San Bernardino Mountains. The topography of the project site and surrounding area is generally a flat plane, which slopes gently in a northeasterly direction. The project site is located approximately 2.3 miles west of the Mojave River and approximately 5.4 miles southwest of Pioneer Mountain (Google Earth 2024). Elevations within the project site range from approximately 3,000 to 3,050 feet above mean sea level (amsl).

According to the USDA NRCS Web Soil Survey (USDA 2024a), the project site is included within the Soil Survey for the San Bernardino County, Mojave River Area (USDA 1986). The project site consists of one soil mapping unit type: Bryman loamy fine sand, 5% to 9% slopes.

Bryman Series consists of deep, well-drained soils that formed in alluvium from dominantly granitic sources. The Bryman loamy fine sand, 5% to 9% slopes mapping unit occurs on terraces and older alluvial fans at elevations between 2,800 to 3,800 feet amsl (USDA 2024b).

Vegetation

The project site is primarily composed of rubber rabbitbrush scrub (*Ericameria nauseosa* association) and creosote bush scrub (*Larrea tridentata* association). Dominant plants include rubber rabbitbrush (*Ericameria nauseosa*) and creosote bush (*Larrea tridentata*). A total of six western Joshua tree individuals were observed within the survey area, defined as the project site and an additional 50-foot buffer.

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2 Policy and Permits

2.1 City of Victorville

2.1.1 City Policy and Permits

Per Chapter 13.3 of the VMC (2023a), it is determined by the City council that proper and necessary steps be taken to protect and preserve, to the greatest extent possible, Joshua trees in all areas of the City to preserve the unique natural desert environment throughout the City and for the health, safety, and welfare of the community (VMC 13.33.010). The VMC continues to state that it is unlawful for any person to cut, damage, destroy, dig up, or harvest any Joshua tree without the prior written consent of the Director of Parks and Recreation or their designee (VMC 13.33.040).

Furthermore, Section 16-5.02.060 of the VMC states the following regarding western Joshua trees and as a requirement of the grading and permit requirements of Article 2, Grading Regulations VMC (2023b):

> All Joshua trees, as per Chapter 13.33 of the Victorville Municipal Code, shall be indicated by showing the exact center of its trunk as established by a licensed surveyor. Its tag number, trunk diameter and height must be indicated. The health and proposed disposition of the tree must be indicated. Where a tree or trees are to be removed, the applicant shall meet all current requirements and standards as set forth by the California Department of Fish and Wildlife, and proof shall be submitted to the Building Department prior to issuance of a permit. Alternatively, the Applicant may provide a detailed report, from a licensed Arborist or Biologist, for protecting and preserving, the tree or trees in accordance with applicable California Department of Fish and Wildlife standards, which may be affected by the proposed grading.

2.2 California Department of Fish and Wildlife

2.2.1 Western Joshua Tree Conservation Act

Background

The WJTCA was enacted in July 2023 with the primary objective of preserving the western Joshua tree and its associated habitat, while aligning with the state's broader renewable energy and housing priorities.

The WJTCA introduces a streamlined permitting framework that applies to specific development activities and mandates the collection of mitigation fees. These fees are intended to facilitate the acquisition and preservation of western Joshua tree habitat, as well as to support conservation measures aimed at safeguarding the western Joshua tree. The underlying goal is to counterbalance the adverse impacts on western Joshua trees resulting from authorized projects and to promote species conservation on a landscape scale.

Under the WJTCA, CDFW is authorized to perform the following key functions:

- Issue permits for the trimming and removal of hazardous or deceased western Joshua trees
- Grant permits for the incidental take of western Joshua trees, contingent upon the fulfillment of specific conditions
- Establish agreements with counties or cities to delegate limited authority for the issuance of the aforementioned permits, provided that predetermined conditions are met

Furthermore, the WJTCA instructs CDFW to develop a comprehensive conservation plan for the western Joshua tree by the conclusion of 2024.

The WJTCA institutes two categories of mitigation fees, reduced fees and standard fees, depending on the geographical location, as defined in the California Fish and Game Code (Section 1927). It empowers CDFW to issue permits for the incidental take of one or more western Joshua trees, subject to compliance with stipulated conditions. Permit holders may opt to remit specified fees in lieu of undertaking mitigation activities. Additionally, the WJTCA authorizes CDFW to issue permits for the removal of deceased western Joshua trees and the trimming of live western Joshua trees under specific circumstances.

Notably, all in-lieu fees collected under the WJTCA are directed to the Western Joshua Tree Conservation Fund, with the explicit purpose of allocation to CDFW. These funds are designated exclusively for the acquisition, conservation, and management of western Joshua tree conservation lands, as well as the execution of other initiatives designed to safeguard the western Joshua tree.

Permitting

The initial step in the project permitting process necessitates the comprehensive survey and documentation of western Joshua trees located on the project site and within a 50-foot radius surrounding the project site. This census must adhere to precise specifications outlined on CDFW's official website.

Simultaneously, a permit application, available on CDFW's website, must be completed. The application mandates that the Applicant complies with the California Environmental Quality Act. There are no stipulated statutory deadlines governing the permitting process; however, CDFW is committed to expeditiously processing the applications upon receipt. Upon successful processing of the application by CDFW, the permittee will be issued an invoice for the mandatory mitigation fee. This fee is to be remitted via check or money order, with the invoice securely attached, following the precise instructions provided by CDFW.

3 Joshua Tree Survey

3.1 Joshua Tree Survey Methods

Per Chapter 13.3 and Section 16-5.02.060 of the VMC, and the WJTCA, Dudek's International Society of Arboriculture (ISA) Certified Arborist performed a Joshua tree survey to inventory and evaluate the health and relocation potential for each Joshua tree located on and within 50 feet of the project site (Appendix A, Joshua Tree Locations). The inventory was conducted by ISA Certified Arborist Ana Pfleeger (WE-13583A) and ISA Certified Arborist Hansen LeClair (WE-11959A) on December 5, 2023, and by Ana Pfleeger on December 9, 2023. During the inventory, the GPS position of each Joshua tree found on site was recorded. The Dudek Certified Arborist and biology field assistant walked the entire site in parallel transects to ensure documentation of each Joshua tree on site.

Dudek collected the following attributes of each tree:

- Species
- Size class (Size A = less than 1 meter, Size B = greater than 1 meter and less than 5 meters, and Size C = greater than 5 meters)
- Actual height (meters)
- Health (excellent, good, fair, poor, critical, and dead)[1]
- Live or dead
- Tree maturity (mature if branching occurs, not mature if no branching occurs)
- Flowering or fruiting stage (flowers or fruits present)

If a tree had a severe bend in the trunk, height was recorded with two measurements, h1 and h2; h1 being the main, upright trunk, and h2 being the remaining, non-vertical trunk or branch. H1 and h2 were then added together to get an overall height and size class. If a tree was found leaning, the height was measured from the base of the tree along the leaning trunk to the top of the farthest leaf.

All inventoried and assessed protected trees were tagged with an aluminum tag bearing a unique identification number, which was placed on the main trunk on the north side of each Joshua tree. Tagging on the north side allows for proper orientation during relocation (each relocated Joshua tree will need to be oriented in the same direction as it was in its original location). Photographs for each tree were taken in accordance with CDFW requirements for western Joshua tree photographs and included an object for frame of reference.

[1] **Health Rating Descriptions:**
Excellent. Tree has excellent health and strong vigor. No damage. Flowering and fruiting expected. Typically only given to large, high-quality specimens (taller than 15 feet in height). Transplanting generally not recommended due to size.
Good. Tree has good health and vigor. All branches are alive and healthy. Damage is very localized and minimal. Flowering and fruiting likely if tree is large enough. Tree is transplantable.
Fair. Tree health is average. Some stressors or damage possible, but any damage is minimal to moderate (e.g., rodent grazing, insect damage). No dead/broken branches. Tree is transplantable.
Poor. Tree is under stress, and overall health is in decline, or tree has taken significant damage. Mortality likely unless stressors relieved and/or conditions change. Broken/dead limbs likely present. Tree is generally not transplantable.
Critical. Tree is in extreme decline. One or more branches dead. One or more branches dying. Physical damage likely present. Damage is significant and extensive. Mortality expected within 2 to 4 years. Tree is not transplantable.
Dead. Tree is dead.

3.2 Joshua Tree Survey Findings

Dudek's Arborists recorded six Joshua trees within and adjacent to (within 50 feet of) the limits of the project site, as presented in Appendix B, Tree Information Matrix. In total, two Joshua trees are located within the project site, and an additional four trees are located within 50 feet of the project site (survey area). Trees in the tree survey area vary in size and stature according to age and location. Five trees within the survey area fall into CDFW's size class B, which are those trees greater than 1 meter in height but less than 5 meters in height (83.33%). All of the trees with the survey area are mature (100.00%). Because the Joshua tree survey was conducted in the fall, no trees were flowering or fruiting. All of the trees (100.00%) exhibit good health. Individual attributes of each tree are presented in Appendix B, and individual photographs are presented in Appendix C, Site Photographs.

3.3 Project Impacts: Joshua Trees

There is wide variation in tolerance to construction impacts among tree species, and the response of an individual tree to impacts also varies with age and condition. Impacts assessed for the project include western Joshua trees that are located within the proposed project footprint that will require removal (as defined in the project site plan). The impact discussion in this section identifies all impacts to protected Joshua trees that are anticipated to occur based on an evaluation of tree locations compared with the project site plan. Trees identified for retention and removal are graphically presented in Appendix D, Joshua Tree Impacts.

Project impact types were classified into three groups: direct, indirect, and no impact. Parameters for impacts are as follows:

- Direct
  - All trees within the project footprint or off-site impact area
- Indirect
  - Size class A trees within 25 feet of impacts that are live
  - Size class B and C trees within 50 feet of impacts that are live
- No Impact
  - Size class A trees that are outside of the project footprint/off-site impact area but within 25 feet of the project footprint/off-site impact area that are dead
  - Size class A trees that are not within 25 feet of project footprint/off-site impact area (live or dead)
  - Size class B and C trees that are outside of the project footprint/off-site impact area that are dead

Based on grading and development plans for the proposed project, it is estimated that two (33.33%) trees would experience direct impacts, two (33.33%) trees would experience indirect impacts, and two (33.33%) trees would experience no impacts. Table 1 summarizes impact determinations for Joshua trees within the tree survey area that are subject to regulation under Chapter 13.3 of the VMC (2023a) and CDFW's WJTCA.

Table 1. Summary of Protected Tree Impact Determinations

Health	Impact Determination			Total (number)
	Direct (number)	Indirect (number)	No Impact (number)	
Good	2	2	2	6
Fair	0	0	0	0
Poor	0	0	0	0
Very Poor	0	0	0	0
Dead	0	0	0	0
Total	**2**	**2**	**2**	**6**

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4 City of Victorville Requirements

4.1 Plot Plan Requirements

Section 16-5.02.060 of the VMC (2023b) states the following:

> All Joshua trees, as per Chapter 13.33 of the Victorville Municipal Code, shall be indicated by showing the exact center of its trunk as established by a licensed surveyor. Its tag number, trunk diameter and height must be indicated. The health and proposed disposition of the tree must be indicated. Where a tree or trees are to be removed, the applicant shall meet all current requirements and standards as set forth by the California Department of Fish and Wildlife, and proof shall be submitted to the Building Department prior to issuance of a permit. Alternatively, the Applicant may provide a detailed report, from a licensed Arborist or Biologist, for protecting and preserving, the tree or trees in accordance with applicable California Department of Fish and Wildlife standards, which may be affected by the proposed grading.

As such, Appendices A and D details the current location and status of each mapped and evaluated Joshua tree found on the project site.

4.2 Relocation and Protection Trees

As of the date of this Joshua Tree Plan, relocation of western Joshua trees is not a City or CDFW requirement. However, relocation may be requested by CDFW following review of the WJTCA ITP application and, as such, each western Joshua tree found within the project area was evaluated for its relocation potential. Due to the low success rate of mature western Joshua tree relocation, only single-stemmed trees in good health and less than 15 feet in height were selected as potential relocation candidates. Based on project-related impacts, two Joshua trees would be directly impacted by the project. Of the two direct impacts, one directly impacted Joshua tree meets the defined criteria for improved likelihood of post-transplant success. As such, the site contains one potentially relocatable tree. As stated, relocation may be requested by CDFW following review of the WJTCA ITP application; should relocation be required by CDFW, it is recommended that any potentially transplantable western Joshua trees, as required by CDFW, be relocated in accordance with the relocation specifications detailed in Section 4.3 of this Joshua Tree Plan.

Furthermore, based on the impact analysis, four Joshua trees would not be directly impacted by the proposed project (two indirectly impacted trees and two non-impacted trees). As such, it is recommended that the four non-impacted trees be protected in place in accordance with the tree protection measures identified in this Joshua Tree Plan. The location of the one impacted Joshua tree that is a potential candidate for relocation and the four preservations are shown in Appendix D.

4.3 Relocation Specifications

The following sections provide details and specifications for the relocation of potentially transplantable western Joshua trees should relocation be required by the CDFW. Details and specifications for the Joshua tree relocation, storage, and care in the post-development landscape are also provided in this section.

4.3.1 Salvage

Joshua trees have fragile, shallow root systems that are easily damaged during the salvaging and relocation process. During the excavation of the root ball, it is important that as much of the existing root structure as possible be captured so that an intact root ball is maintained during the salvaging and relocation process. The following sections include recommendations to help increase the chances of successful salvage/relocation.

4.3.1.1 Contractor

Joshua tree salvage and relocation should be completed by an experienced Joshua tree relocation specialist.

4.3.1.2 Pre-salvage Meeting

Prior to initiating Joshua tree salvage, all contractors involved in the salvage project should attend a site meeting with the project arborist. The project arborist should provide the contractor(s) with a copy of the Joshua Tree Plan and review all relevant components of the Joshua Tree Plan.

4.3.1.3 Salvage Timing

To increase the chances of a successful relocation, trees should be relocated during October through February. To increase Joshua tree survivability, the trees should not be dug out and/or salvaged in warmer months (April through September). However, should project limitations and timing require a date not during the recommended October through February salvage period, salvaged trees should be stored in a temporary, on-site location, per the recommendations in Section 4.4, Storage.

4.3.1.4 Pre-irrigation

Prior to Joshua tree digging, each identified Joshua tree relocation candidate should be pre-watered. Specifically, each tree should be watered 24 hours prior to relocation. Pre-watering thoroughly soaks the root ball of each tree.

4.3.1.5 Equipment Sanitization

Equipment should be sterilized prior to digging up and transplanting each tree. Equipment sterilization reduces the likelihood of pathogens being passed from tree to tree.

4.3.1.6 Digging

Tree relocation is best completed through the use of machinery. A front-end loader or hydraulic tree spade is recommended. The hydraulic tree spade may be best used in instances where the soil type is sandy or silty. However, hand-digging of smaller Joshua trees (1 to 2 feet in height) is acceptable. The goal of relocation is to maintain a high root-to-shoot ratio. Joshua tree excavation should capture as much of the root ball as possible; however, due to the tree's shallow root system, holes do not need to be deep. In general, the digging holes may range from 12 to 18 inches in depth for smaller trees (1 to 2 feet tall) to 24 to 36 inches in depth for larger trees. The entire root ball should be removed intact, if possible.

4.3.1.7 Root Maintenance

All attempts should be made to minimize exposure of the root ball to air; exposed roots should be kept wet at all times during the relocation process. Damaged and exposed roots should be cleaned and dusted with sulfur or a fungicide to decrease the likelihood of root pathogens.

4.4 Storage

All Joshua trees recommended for relocation could be transplanted to locations off site or throughout the project site depending on the WJTCA ITP process. If the trees are relocated, they may be stored within a temporary storage location approved by a qualified arborist. The temporary storage location should be based on the development schedule. The storage location should be determined at a later date once the final schedule is confirmed. Trees requiring storage or stockpiling in the short term (i.e., 1 to 4 weeks) should adhere to the storage recommendations provided in the following sections.

4.4.1 Storage Guidelines

Trees stockpiled for longer than 2 weeks should be temporarily stored in shallow ditches, backfilled with native soils, and tamped down. The shallow ditches should be dug prior to tree relocation, and the final depth should be comparable to the depth at which each Joshua tree is dug. Temporary storage trench depths should be approximately 12 to 24 inches deep, depending on the size of the tree's root ball. Trench widths should be 1 foot larger than the root ball of the tree, and long enough to accommodate the tree, with enough room for equipment between each tree. Multiple trenches may be required to accommodate all salvaged trees.

4.4.2 Storage Direction

During storage, all trees should be oriented in the same direction that they were prior to removal. Each Joshua tree should be tagged on its northern side and be reoriented with the tagged side facing north. Prior to tree relocation, each tag should be inspected to ensure that it securely attached to the tree.

4.4.3 Stabilization

Larger plants, more than 5 feet tall, may require stabilization until the roots have had the opportunity to become reestablished. To support larger trees, guy-wire staking may be necessary. Guy-wires should be connected to the ground (i.e., preferably via a "dead-man" anchor below grade) and attached to the trunk or limbs with an expandable, non-abrasive connector. Multiple guy-wires may be required (i.e., recommended three equally spaced around the root ball for stability).

4.4.4 Irrigation

Stored trees should be watered 1 to 2 times per week during the storage period to ensure tree health and increase relocation success. During the storage period, the trees should be watered by hand or by temporary irrigation. Should temporary irrigation be installed, the use of drip emitters is recommended. Irrigation emitters should be spaced according to the watering zone specified for each tree. The total amount of water required for each tree is dependent on the season and tree size. Irrigation needs may range from 2 to 20 gallons per watering cycle, and is

dependent on ambient daytime temperatures and rainfall totals. Additionally, persistent wet soil may cause mildew and root rot. As such, soil moisture levels should be routinely checked at the time of watering and allowed to dry out between watering cycles. The irrigation schedule should be adjusted to meet the conditions described above.

4.4.5 Duration

Trees should not be stockpiled or stored for longer than 45 days.

4.4.6 Summer Salvage: Temporary Shade Structure

Per Section 4.3.1.3, Salvage Timing, should project limitations and timing require an earlier start date than the recommended October through February salvage period, salvaged trees should be stored as described in Section 4.3.1, Salvage. Furthermore, to reduce tree stress and reduce the risk of post-transplant mortality, the salvaged trees should be stored underneath a temporary shade structure. The temporary shade structure should be sufficient in size to cover the salvaged trees and provide protection from the direct heat of the summer sun. The shade structure should use a minimum 30% shade cloth to shade the trees during the warmer months. The shade structure should be installed per the manufacturer's recommendations.

4.5 Transplant Planting

The following sections detail transplanting guidelines for the salvaged Joshua trees.

4.5.1 Site Preparation

Prior to tree transplantation, each receiver location should be dug. The final planting locations should be finalized once the final landscape plan has been developed and approved. Prior to digging, the sites should be flagged for identification by the project arborist or registered botanist. In general, the digging hole may range from 12 to 18 inches in depth for smaller trees (1 to 2 feet tall) to 24 to 36 inches in depth for larger trees. The width of the hole should be approximately 1 foot larger than the root ball of the transplanted tree. Holes may require additional digging prior to Joshua tree installation.

4.5.2 Pre-watering

A water and root hormone mixture should be prepared prior to transplanting the trees. The mixture should be composed of vitamin B1, which is commonly sold by nurseries. The mixture should be mixed per the manufacturer's directions, which is typically at a 1:250 ratio (B1-to-water ratio). The receiving hole should be filled with the diluted mixture of rooting hormone and water, and allowed to drain prior to placing the tree in the hole.

4.5.3 Planting Direction

Proper orientation of the relocated trees is important to the success of the salvaged trees. Improper planting can result in sunburn and growth distortion. As such, the north side of each tree should be clearly marked/tagged prior to digging, and each tree should be replanted (and stored) in the same orientation as it was in prior to removal.

4.5.4 Planting

Prior to final installation, the hole size should be inspected by the project arborist to ensure that the planting hole is at minimum 1 foot wider than the root ball and is neither too deep nor too shallow. The hole may require minor adjustments prior to installation. The depth of the hole should be less than the height of the root ball. If the hole is inadvertently dug too deep, soil should be added and compacted by hand or foot. Breaking up compacted soil in a large area around the tree (outside the drip line of the tree) provides the newly emerging roots room to expand into loose soil. This should hasten root growth, translating into quicker establishment. Once the size of the hole is finalized, the tree should be lowered into the hole in the proper orientation, backfilled with native soil, and watered again. Following backfilling and placement, the root ball should be tamped down into the hole to eliminate water pockets.

Following planting, a water basin should be installed approximately 1 foot outside of the pre-determined watering zone. The watering basin should be approximately 3 to 4 inches in height and surround the tree. The basin should be left intact throughout the establishment period.

4.5.5 Post-transplant Stabilization

Larger plants, more than 5 feet tall, may require stabilization until the roots have had the opportunity to become reestablished. To support larger trees, guy-wire staking may be necessary. Guy-wires should be connected to the ground (i.e., preferably via a “dead-man” anchor below grade) and attached to the trunk or limbs with an expandable, non-abrasive connector. Multiple guy-wires may be required (i.e., recommended three equally spaced around the root ball for stability). Guy-wires should be removed once the tree is determined to be established by the project arborist.

4.6 Post-relocation Care

4.6.1 Irrigation

Trees that have been relocated to their final planting location should be watered 1 to 2 times per week for an initial 2 to 3 months, depending on the season, rainfall totals, tree size, and watering zone size. Irrigation should be adjusted seasonally with a goal of removing the transplanted trees from supplemental irrigation after 2 years have passed and growth has resumed. The total amount of water required for each tree is dependent on the season and tree size. Persistent wet soil may cause mildew and root rot. As such, soil moisture levels should be routinely checked at the time of watering, and the soil should be allowed to drain and dry out between watering cycles. Watering should be accomplished by hand or by a temporary irrigation system. During irrigation, the tree basin should be filled and allowed to fully drain. Irrigation needs may range from 2 to 20 gallons per watering. The watering cycle should be adjusted based on tree health and season.

4.6.2 Stabilization

Trees that have been stabilized should be routinely inspected by the project arborist to ensure that the guy-wires and straps are not damaging the trees. The expandable, non-abrasive connectors should be adjusted, as needed, to minimize damage to the trees. The guy-wires can be removed once the project arborist has determined that the trees have become established. In general, little to no movement should be observed on the root ball when the tree

is gently pushed. Once the roots are well established, it is important to remove the tree stakes. This encourages a natural strengthening of the tree trunk so it can support the weight of the branches as they begin grow and spread.

4.6.3 Fertilization

Post-transplantation fertilization is not required.

4.7 Monitoring and Reporting

Tree relocation, stockpiling, maintenance, and watering should be monitored by a Certified Arborist or registered botanist.

4.7.1 Monitoring

Neither the City nor CDFW define a minimum post-transplantation monitoring period. However, an annual inspection and report for a 4-year period is recommended. For the initial 3 months following transplantation, weekly monitoring by a Certified Arborist or registered botanist should occur to ensure that the watering needs of each relocated tree are being met. Following the initial 3-month monitoring period, the relocated trees should be monitored on a monthly basis for 9 months. Following the first year of monitoring, the trees should be monitored quarterly (every 3 months) for 3 years to ensure tree establishment. Monitoring may be adjusted based on tree health and observations by the project arborist. The monitoring period should begin once all trees have been installed.

4.7.2 Reporting

Annual reports should be prepared at the end of each calendar year to document the status of the transplantation program and the health/survivability of the relocated trees. Reports of all monitoring should be submitted to the City and CDFW, if required. Monitoring should track the location, health, and status of each transplanted Joshua tree. The monitoring arborist or registered botanist should include recommendations for maintenance and irrigation, should they be needed.

4.8 Transplantation Success Criteria

The City does not define a minimum success ratio for transplanted Joshua trees. However, per CDFW requirements, adherence to an 80% survivability rate is required. As such, the transplantation program would be considered successful if, after four growing seasons (4 years)—including two growing seasons with supplemental irrigation and two without—the transplanted trees maintain a minimum of 80% survivability. Should the surviving number of trees drop below 80%, it is recommended that trees be obtained from a local adoption program or from a local nursery to meet the 4-year, 80% threshold. The City or CDFW may define alternative minimum success criteria. The final 80% survivability rate will be based on the total number of western Joshua trees required for relocation by CDFW, should relocation be required.

5 California Department of Fish and Wildlife Minimization and Mitigation

The following section details the proposed mitigation program described within the ITP application for the project (Item No. 9 in the ITP application).

5.1 Proposed Minimization and Mitigation

As described in Section 1, Introduction, under the WJTCA, relocation of western Joshua trees is considered a minimization measure, in contrast to the previous Section 2081 ITP process, where relocation was viewed as an experimental approach. Relocation in the WJTCA is described as follows:

> (4) (A) The department [CDFW] may include permit conditions that require the permittee to relocate one or more of the western Joshua trees. If relocation is required, the permittee shall implement measures to assist the survival of relocated trees, and to comply with any other reasonable measures required by the department to facilitate the successful relocation and survival of the western Joshua trees. These relocation measures shall include, but are not limited to, all of the following:
>
> > (i) A requirement that the relocated western Joshua tree is placed in a location and with proper orientation to improve its survival.
> >
> > (ii) A requirement that western Joshua trees are relocated at a time that maximizes their survival when feasible.
> >
> > (iii) A requirement that a desert native plant specialist be onsite to oversee relocation

Beyond the option of relocation, the California Fish and Game Commission also established the Western Joshua Tree Conservation Fund. This dedicated fund serves the acquisition, preservation, and responsible management of western Joshua tree conservation lands, as well as the facilitation of various other initiatives aimed at the conservation of the western Joshua tree.

Regarding the acquisition of permits for the incidental take of western Joshua trees, permittees are required to remit an in-lieu fee contingent on the project's geographical location. This fee structure is divided into two categories: (1) the reduced mitigation fee area, characterized by lower mitigation fees, and (2) the standard fee area, where mitigation fees are comparatively higher. The project is situated within the standard fee area. The standard fees are as follows:

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

Mitigation for Direct and Indirect Impacts

Mitigation for direct and indirect impacts to four western Joshua trees will be fulfilled through the WJTCA in-lieu fee program. As described, the project is located in the standard fee area. Table 2 summarizes the impacts to western Joshua trees by height class, the mitigation fee per tree by height class, and the total cost of mitigation. However, note that CDFW calculates the mitigation fee and sends an invoice to the Applicant after the application is submitted.

Table 2. In-Lieu Mitigation Fees for Impacts to Western Joshua Tree

Western Joshua Height Class	Count of Western Joshua Trees	Mitigation Fee Per Tree by Height Class	Total Cost
5 m or greater in height	0	$2,500	$0
1 m to less than 5 m in height	4	$500	$2,000
Less than 1 m in height	0	$340	$0
Total	**4**	—	**$2,000**

Notes: m = meter.

6 Tree Protection

For Joshua trees that do not require relocation, the following measures are recommended so that they have protected zones (crown/canopy width plus 6 feet) around each tree within and immediately adjacent to (within 25 feet of) all active construction areas. For protected trees on site that remain within undisturbed areas, similar tree protection measures are recommended to ensure against potential inadvertent disturbance.

6.1 Tree Protection Measures Prior to Construction

Fencing: Orange polyethylene construction fencing, no less than 4 feet in height, with tree protection signs, should be erected around all undisturbed trees (or tree groups). The protective fencing should be installed at the protected zone boundary of each tree (or tree group), which is defined as 6 feet beyond the tree crown/canopy dripline. The intent of protective fencing is to prevent root damage and/or compaction of the soil by grading equipment. An ISA Certified Arborist may be required on site if grading activities occur within a tree's protected zone. Fencing should be secured to 6-foot-tall, heavy-gauge T-bar posts pounded into the ground a minimum of 18 inches and spaced a minimum of 8 feet on center. Fencing should be attached to the T-bar posts with minimum 14-gauge wire fastened to the top, middle, and bottom of each post. Tree protection signs should be attached to every fourth post. The contractor should maintain the fence to keep it upright, taut, and aligned at all times. Fencing should be removed only after all construction activities in the vicinity of the protected trees are complete.

Pre-construction Meeting: A pre-construction meeting should be held between all contractors (including grading, tree removal/pruning, and builders) and an ISA Certified Arborist or registered botanist. The meeting should focus on instructing the contractors on tree protection practices and on answering any questions. All equipment operators and spotters, assistants, and those directing operators from the ground should provide written acknowledgment of having received tree protection training. This training should include information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that will accomplish these tasks.

6.2 Protection and Maintenance during Construction

Once construction activities have begun, the following protection measures should be followed:

Equipment Operation and Storage: Contractors should avoid heavy equipment operation around protected trees. Operating heavy machinery around the root zones of trees will increase soil compaction, which decreases soil aeration and consequently reduces water penetration into the soil. All heavy equipment and vehicles should, at minimum, stay out of the fenced protected tree zone except where specifically approved in writing and under the supervision of a Certified Arborist or registered botanist.

Materials Storage and Disposal: Contractors should not store or discard any supplies or materials, including paint, lumber, and concrete overflow, within the protected zone, and should remove all foreign debris within the protected zone. However, the contractors should leave the duff, mulch, chips, and other organic material around the retained trees for water retention and nutrient supply. In addition, the contractors should avoid draining or leakage of equipment fluids near retained trees. Fluids such as gasoline, diesel, oils, paint, paint thinners, and glycol (anti-freeze), as well as hydraulic, brake, and transmission fluids, should be disposed of properly. Contractors should

ensure that equipment is parked outside of the protected zone to avoid the possibility of leakage of equipment fluids into the soil. The effect of toxic equipment fluids on the trees could result in tree decline and mortality.

Grade Changes: Contractors should ensure that grade changes, including adding fill, are not permitted within the protected zone without special written authorization and under supervision by an ISA Certified Arborist or registered botanist. Lowering the grade within the protected zone would necessitate cutting main support and feeder roots, jeopardizing the health and structural integrity of the trees. Adding soil, even temporarily, on top of the existing grade would compact the soil further and decrease water and air availability to the tree roots. Contractors should ensure that grade changes made outside of the protected tree zone will not create conditions that allow water to pond at the base of trees. Water trapped at the base of a tree could lead to root rot and other detrimental tree impacts.

Moving Construction Materials: Contractors should ensure that care is exercised when moving construction equipment and supplies near undisturbed Joshua trees, especially overhead. Contractors should ensure that damage to the trees is avoided when transporting or moving construction materials and working around trees (even outside of the fenced protected zone). Contractors should flag aboveground tree parts that could be damaged (e.g., low limbs, scaffold branches, and trunks) with high-visibility flagging, such as fluorescent red or orange flagging.

Trenching: Except where specifically approved in writing beforehand, all trenching should be outside the fenced protected zone. Where trenching is necessary in areas that contain roots from retained trees, contractors should use trenching techniques that include the use of either a root pruner (Dosko root pruner or equivalent) or an Air-Spade to limit root impacts. An ISA Certified Arborist or registered botanist should ensure that all pruning cuts are clean and sharp to minimize ripping, tearing, and fracturing of the root system. Root damage caused by backhoes, earthmovers, dozers, or graders is severe and may result in tree mortality. Use of root-pruning and Air-Spade equipment should be accompanied only by hand removal of soil from trench locations. The trench should be made no deeper than necessary to accommodate the intended materials.

Irrigation/Hand Watering: Irrigation/hand watering of retained Joshua trees on site should seek to mimic natural rainfall patterns in Southern California. As such, irrigation/hand watering is not required unless recommended by the monitoring ISA Certified Arborist or registered botanist.

Inspection/Reporting: An ISA Certified Arborist or registered botanist should inspect the preserved trees adjacent to grading and construction activity on a monthly basis for the duration of the project's construction period. A site observation report summarizing site conditions, observations, tree health, and recommendations for minimizing tree damage should be submitted by the ISA Certified Arborist or registered botanist following each inspection. Annual monitoring reports to document year-end conditions should also be submitted.

6.3 Maintenance after Construction

Following completion of the construction activity within 20 feet of the protected zones of undisturbed Joshua trees, the tree protection fencing may be removed and the following measures may be performed to sustain and enhance the vigor of the trees:

Pruning: Regular pruning of the trees is not required.

Watering: The retained trees should not require regular irrigation/hand watering, other than during the 12 months following substantial root pruning, if applicable. Supplemental irrigation/hand watering for the retained trees that sustained root pruning and any newly planted trees may be necessary, especially in years with low winter rainfall.

Watering Adjacent Plant Material: All watering near retained Joshua trees and adjacent vegetation should mimic natural rainfall patterns. Supplemental irrigation of adjacent plant material should not be required.

Monitoring: For the initial 3 months, weekly monitoring by an ISA Certified Arborist or registered botanist is recommended to ensure that the watering needs of each tree are being met. Following the initial 3-month monitoring period, it is recommended that the trees be monitored on a monthly basis for 9 months. Following the first year of monitoring, it is recommended that the trees be monitored quarterly (every 3 months) for 3 years. Following each monitoring visit, a site observation report summarizing site conditions, observations, tree health, and recommendations for promoting tree health should be submitted. Any tree mortality will be noted, and any tree dying during the monitoring period should be replaced with the same species as specified per City replacement standards.

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7 Fees

Where permits or reviews are required and they are not incorporated into other review or permit procedures, fees will be paid in accordance with the City's fee schedule. In addition to any City-required fees, per Section 5, California Department of Fish and Wildlife Minimization and Mitigation, of this report, mitigation for direct and indirect impacts to four western Joshua trees will be fulfilled through the WJTCA in-lieu fee program. As described, the project is in the standard fee area. Table 2 summarizes the impacts to western Joshua trees by height class, the mitigation fee per tree by height class, and the total cost of mitigation. However, note that CDFW calculates the mitigation fee and sends an invoice to the Applicant after the application is submitted.

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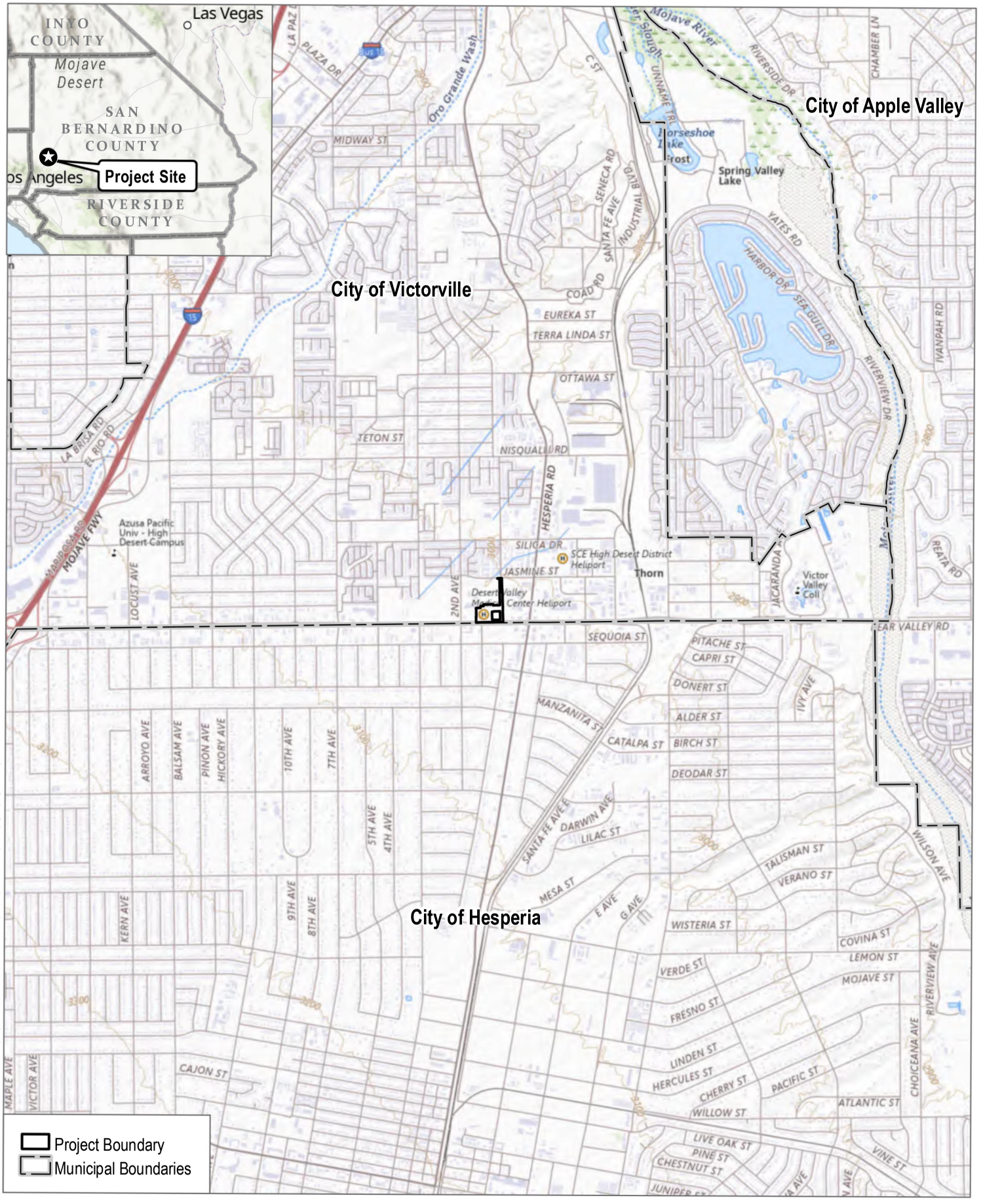
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SOURCE: USGS Topo Maps

DUDEK

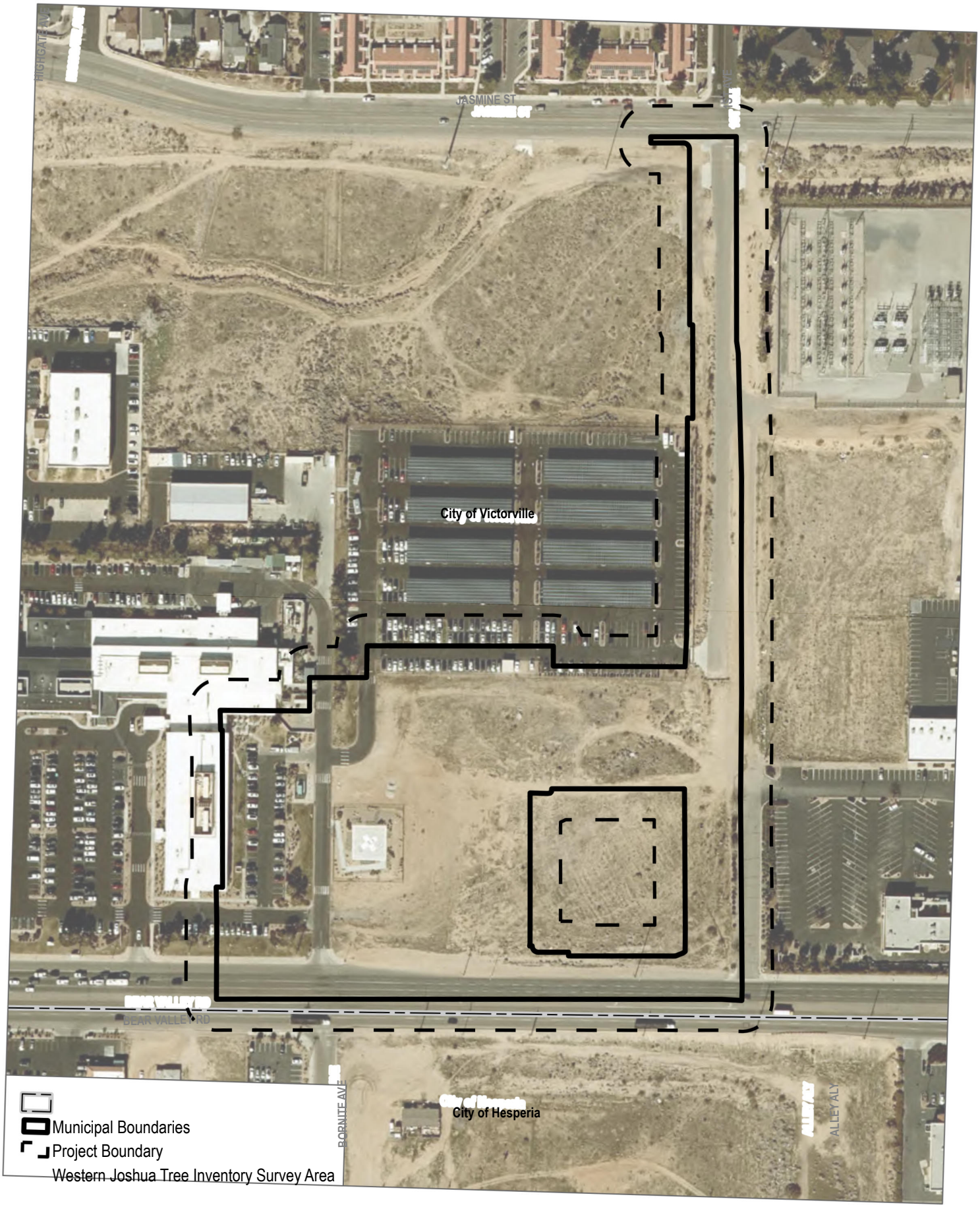
0 1,500 3,000 Feet

FIGURE 1

Regional Vicinity

Desert Valley Prime Hospital Project

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SOURCE: Esri World Imagery Basemap; San Bernadino County 2024

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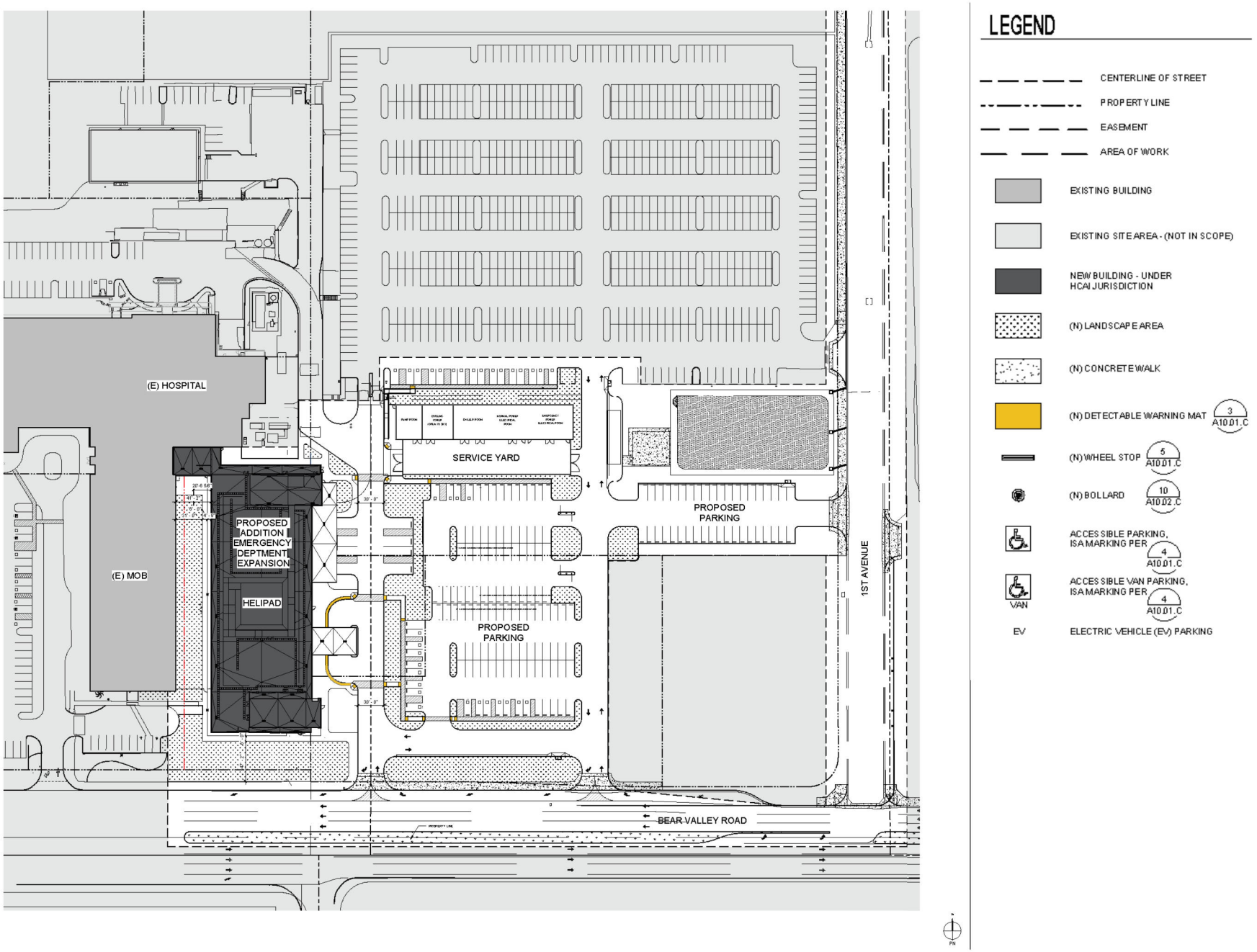
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FIGURE 2

Project Vicinity

Desert Valley Prime Hospital Project

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SOURCE: HMC Architects 2024

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FIGURE 3

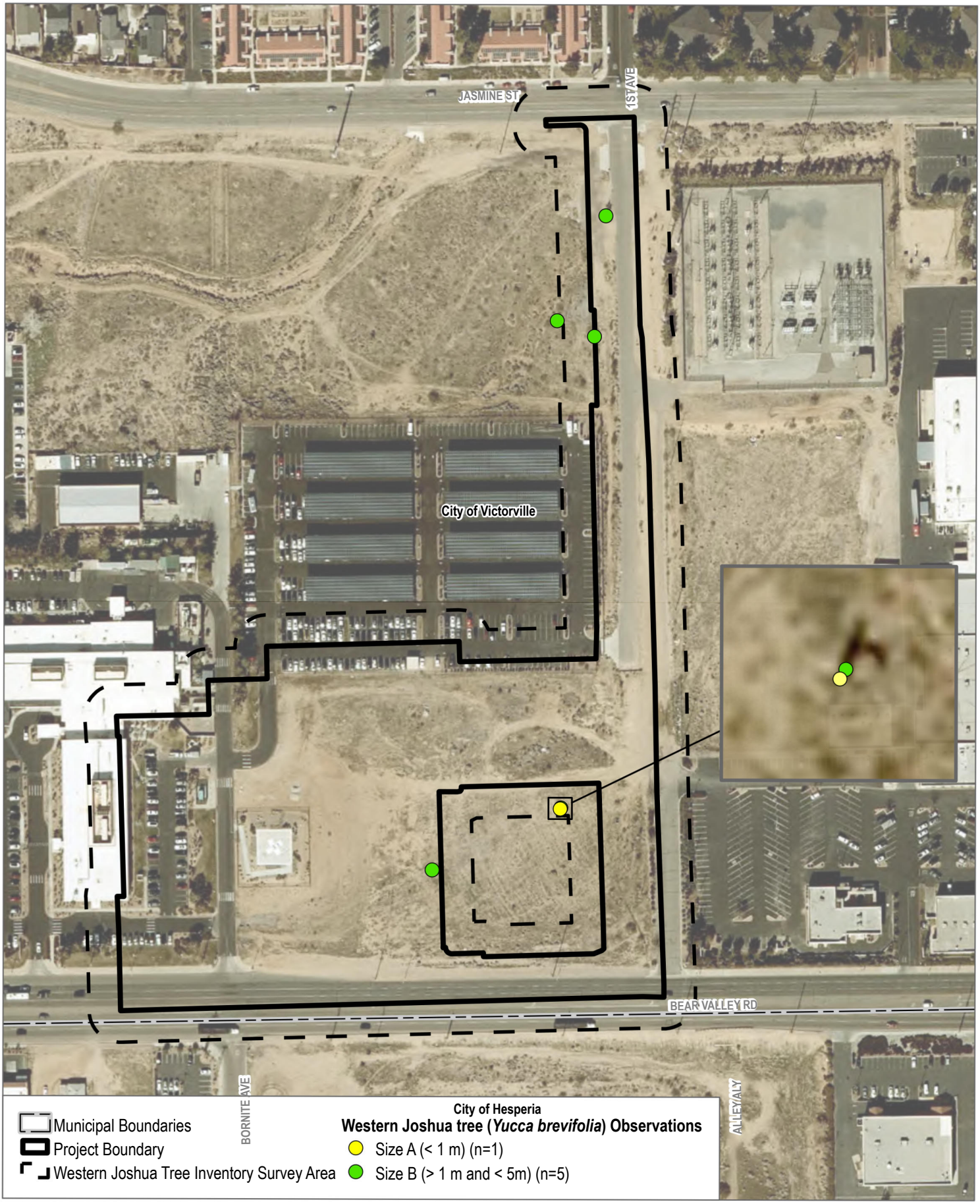
Site Plan

Desert Valley Prime Hospital Project

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Appendix A

Joshua Tree Locations



SOURCE: Esri World Imagery Basemap; San Bernadino County 2024

DUDEK

0 100 200 Feet

APPENDIX A

Western Joshua Tree Locations

Desert Valley Prime Hospital Project

Appendix B
Tree Information Matrix

Tree ID	Size Class	Height (m)	Mortality	Mature (Branched)	Flower or Fruit	Tree Health	Relocation Potential	Notes	Photograph No.	Latitude	Longitude
1	Size B (> 1 m and < 5m)	3.7	Live	Yes	None	Good	No	—	PDVHE_WJT_Tree_1	34.47	-117.30
2	Size B (> 1 m and < 5m)	4.9	Live	Yes	None	Good	No	—	PDVHE_WJT_Tree_2	34.47	-117.30
3	Size B (> 1 m and < 5m)	4.0	Live	Yes	None	Good	No	—	PDVHE_WJT_Tree_3	34.47	-117.30
4	Size B (> 1 m and < 5m)	2.6	Live	Yes	None	Good	Yes	—	PDVHE_WJT_Tree_4	34.47	-117.30
5	Size B (> 1 m and < 5m)	2.1	Live	Yes	None	Good	Yes	Relocate with tree 6	PDVHE_WJT_Tree_5	34.47	-117.30
6	Size A (< 1 m)	0.9	Live	Yes	None	Good	Yes	Relocate with tree 5	PDVHE_WJT_Tree_6	34.47	-117.30

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Appendix C
Site Photographs

Prime Desert Valley Hospital Expansion Project
Appendix C: Photo Log

Prepared for:
DESERT VALLEY HOSPITAL
16850 Bear Valley Road
Victorville, California 92395
Contact: Rakesh Seth

Prepared by:
DUDEK
38 North Marengo Avenue
Pasadena, California 91101
Contact: Chris Kallstrand
ISA-Certified Arborist, No. WE-8208A

All pictures were taken December 5 to 8, 2023



Tree 1



Tree 2



Tree 3



Tree 4

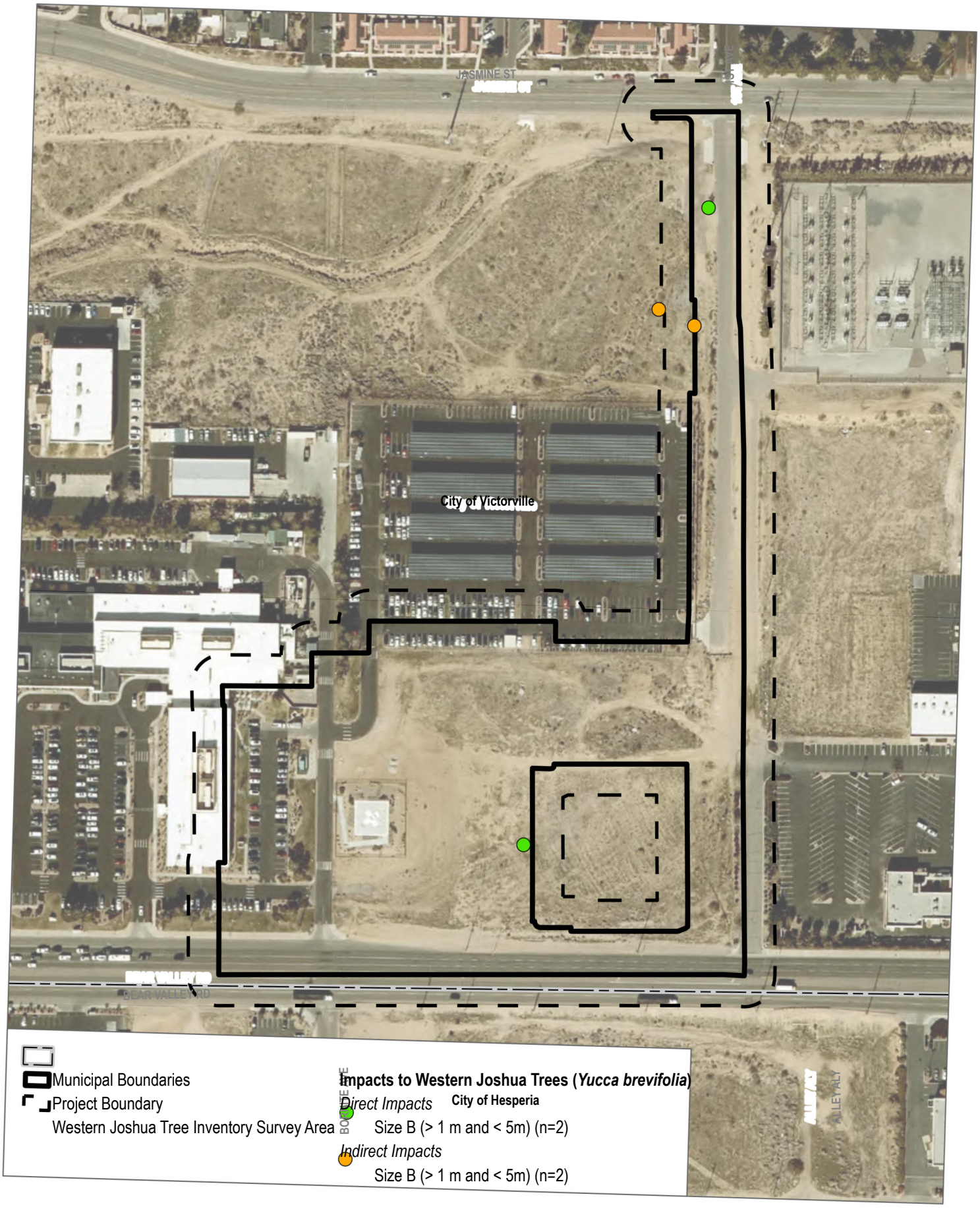


Tree 5



Tree 6

Appendix D
Joshua Tree Impacts



SOURCE: Esri World Imagery Basemap; San Bernadino County 2024

DUDEK

0 100 200 Feet

APPENDIX D

Impacts to Western Joshua Tree

Desert Valley Prime Hospital Project

Appendix B
Desert Tortoise Survey Forms

Date of survey: 23 October 2023 (day, month, year) Survey biologist(s): Tracy Park, tpark@dudek.com, (442) 287-3435, Shana Carey (name, email, and phone number)

Site description: Desert Valley Hospital Emergency Department Project, 10.58 acres; southeastern area of Victorville, California (project name and size; general location)

County: San Bernardino County Quad: Hesperia, CA Location: Easting: 472826m, Northing: 3814494; Zone 11N (UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: ~~100% coverage or Sampling~~ Area size to be surveyed: 11.34 acres Transect #: 29 Transect length: 0.1-mile

GPS Start-point: Easting: 472725, Northing: 3814526; Zone 11N (easting, northing, elevation in meters) Start time: 8:23 (am)/pm

GPS End-point: Easting: 472862, Northing: 3814837; Zone 11N (easting, northing, elevation in meters) End time: 11:15 (am)/pm

Start Temp: 16.67 ºC End Temp: 22.78 ºC

Live Tortoises

Detection number	GPS location Easting	GPS location Northing	Time	Tortoise location (*in burrow*: all of tortoise beneath plane of burrow opening, or *not in burrow*)	Approx MCL ≥180 mm? (*Yes, No or Unknown*)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting	GPS location Northing	Type of sign (*burrows, scats, carcass, etc*)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

No live tortoises, suitable burrows, or tortoise sign were observed during the survey.

The survey area included the Desert Valley Hospital Emergency Department Project Site and off-site improvement areas. All potentially suitable habitat (i.e., creosote bush scrub, fourwing saltbush scrub, rubber rabbitbrush scrub, and disturbed habitat) within the project area and a 100-foot buffer was surveyed on foot using 10m-wide transects.

Appendix C

Mohave Ground Squirrel Habitat Assessment

October 23, 2023

Anna Touchstone
Dudek
605 Third Street
Encinitas, CA 92024
Via email: atouchstone@duek.com

Subject: Results of a Mohave Ground Squirrel Habitat Assessment for the Desert Valley Hospital Emergency Department Expansion Project, San Bernardino County, California

Dear Anna:

The purpose of this report is to document the results of a Mohave ground squirrel (*Xerospermophilus mohavensis*; MGS) Habitat Assessment conducted by Dipodomys Ecological Consulting, LLC (DEC) for the Desert Valley Hospital Emergency Department Expansion Project (project). Presented in this report are a description of the project, project location, MGS natural history, survey methodology, results of the MGS Habitat Assessment, and conclusions/recommendations.

Project Description and Location

Prime Healthcare, Inc. proposes to develop approximately 24 acres of desert land. The 24-acre project is located within the City of Victorville in San Bernardino County, California. The project is bordered by Bear Valley Road on the south and Jasmine Street on the north, 1st Avenue on the east and 2nd Avenue on the west. Surrounding land use is residential and commercial to the north and east respectively. An undeveloped dirt lot sits to the west of the project. The lots to the south consist of sparsely developed commercial land use and open lots (**Figures 1-2**). Vegetation consists primarily of disturbed creosote bush scrub and ruderal grassland (**Figure 4**). The primary sources of disturbance are roadside debris, previous grading, and off-highway vehicle use. The project site is located on the U.S. Geological Survey (USGS) 7.5-minute Hesperia topographic quadrangle map within Section 33, Township 5 North, and Range 4 West.

Mohave Ground Squirrel Natural History

Mohave ground squirrels are medium-sized (210-230mm, 85-130g), diurnal squirrels. Their dorsal pelage is light gray to cinnamon-brown, while their ventral side is creamy. Unlike round-tailed ground squirrels, which occur sympatrically in the southeast portion of their range, MGS have a short, flat tail that is light-colored on its underside, and have brown cheeks instead of white.

MGS inhabits a small geographic area in the western Mojave Desert. This species ranges from Palmdale in the southwest, the Lucerne Valley in the southeast, Olancha in the northwest, and the Avawatz Mountains in the northeast (Gustafson 1993). Although occurrences in the southern portion of their range are rare, occurrences have been documented on the California Natural Diversity Database (CNDDB) as recently as 2011. Vegetation communities (as classified by the California Native Plant Society) typically associated with MGS include Mojave Creosote Scrub, Shadscale Scrub, Desert Saltbush Scrub, Desert

Sink Scrub, and Joshua Tree Woodland. MGS feed primarily on the leaves and seeds of forbs and shrubs. In the northern portion of their range, MGS have been found to feed on spiny hopsage (*Grayia spinosa*), winterfat (*Krascheninnikovia lanata*) and saltbush (*Atriplex* sp.), especially in early spring when forbs are unavailable, during summer when forbs have dried out, and during drought conditions (Leitner and Leitner 1998). Recent studies have also indicated that MGS feed on the following forbs and shrubs: freckled milkvetch (*Astragalus lentiginosus*), Mojave lupine (*Lupinus odoratus*), buckwheat (*Eriogonum* sp.), white mallow (*Eremalche exilis*), fiddleneck (*Amsinckia tessellata*), Russian thistle (*Salsola tragus*), desert pincushion (*Chaenactis* sp.), Cryptantha (*Cryptantha pterocarya*), Coreopsis (*Leptosyne bigelovii*), Valley lessingia (*Lessingia glandulifera*), desert dandelion (*Malacothrix glabrata*), Phacelia (*Phacelia* sp.), wire lettuce (*Stephanomeria* sp.) Anderson's boxthorn (*Lycium andersonii*), spiny horsebrush (*Tetradimya spinosa*), and Joshua tree *(Yucca brevifolia*) (Leitner and Leitner 2017).

MGS have adapted to live in hot desert environments by limiting their activity aboveground through estivation and hibernation. The timing of emergence from hibernation varies by location: in the northern portion of their range male MGS emerge mid-March (Leitner and Leitner 1998); however, in the southern portion of their range, MGS may emerge as early as mid-January (Recht 1977). Throughout their active period, MGS store fat in preparation for estivation, which typically occurs between July and September, but may occur as early as April or May during drought conditions (Leitner et al. 1995). MGS reproduction is dependent on fall and winter rains and individuals may forgo breeding entirely if low rainfall (<80mm) results in reduced herbaceous plants (Leitner and Leitner 2017).

Throughout the range of MGS, they may co-occur with antelope ground squirrels, round-tailed ground squirrels, and California ground squirrels. MGS may be misidentified with round-tailed ground squirrels, but this is unlikely to occur with antelope ground squirrels, because the latter species has white dorsal stripes that makes them resemble a chipmunk more than an MGS. California ground squirrels are notably larger and are not typically confused with MGS.

MGS are classified as threatened and are protected under the California Endangered Species Act. Primary threats to MGS include limited distribution, low abundance, and habitat loss from by converting suitable habitat to urban, suburban, agricultural, and military land uses (Gustafson 1993, Leitner and Leitner 2017).

Methods

Prior to carrying out the habitat assessment in the field, a nine-quadrangle query of the California Natural Diversity Database (CNDDB) was conducted to determine the locations of historical occurrences of MGS near the project site (**Figure 3**).

The MGS habitat assessment was conducted during two sites visits; the first on September 11, 2023, and the second on October 18, 2023. Site visits were conducted by by permitted biologists Karla Flores (MOU Principal Investigator, Scientific Collecting Permit SC-10572) and Karl Fairchild (MOU Principal Investigator, SCP S-182820007-18333-001). The habitat assessment consisted of walking meandering transects throughout the project footprint while recording vegetation communities and individual plants present and highlighting those plants that provide forage for MGS. The presence of burrows within the survey area was noted as an indication that the soil is friable and suitable for burrowing rodents.

Results

The results of the nine-quad CNDDB query yielded 12 MGS occurrences within the vicinity of the project. The most recent of these occurrences was recorded in 2011, approximately 9.6 miles northwest of the project. The closest MGS occurrence was documented in 1921, approximately 3.1 miles south of the project (**Figure 3**).

The survey area and 100-foot buffer consist of disturbed (previously graded) creosote bush scrub (CA CDFW Code 33.010.00), ruderal grassland and developed land (**Figure 4**). Perennial plants present onsite consist of creosote bush *(Larrea tridentata*), Joshua tree, rubber rabbitbrush (*Ericameria nauseosa*), Mexican bladdersage (*Scutellaria mexicana*), Nevada joint-fir (*Ephedra nevadensis*), California buckwheat (*Eriogonum fasciculatum*), Cooper's boxthorn (*Lycium cooperi*), Anderson's thornbush, cheesebush (*Ambrosia salsola*), winterfat, silver cholla (*Cylindropuntia echinocarpa*), cottonthorn (*Tetradymia stenolepis*). Annuals present onsite included fiddleneck, red-stemmed filaree (*Erodium cicutarium*), rattlesnake sandmat (*Euphorbia albomarginata*), annual bursage (*Ambrosia acanthicarpa*), Russian thistle, short-podded mustard (*Hirschfeldia incana*), cheatgrass (*Bromus tectorum*), foxtail brome (*Bromus madritensis*) and common Mediterranean grass (*Schismus barbatus*). Soils consist of Bryman loamy fine sand (5-9% slope). The project site is approximately 2,923 feet above mean sea level.

Weather conditions during the habitat assessments were generally sunny, with temperatures between 91°F and 94°F, wind speeds between 3 and 5mph, and 70% cloud cover. Wildlife observed during the survey included: California ground squirrel (*Otospermophilus beecheyi*), house finch (*Haemorhous mexicanus*), mourning dove *(Zenaida macroura*), rock pigeon (*Columba livia*) and common raven (*Corvus corax*).

Conclusions and Recommendations

The Desert Valley Hospital Emergency Department Expansion Project consists primarily of disturbed creosote bush scrub and developed/disturbed areas. Plants known to be associated with suitable MGS habitat such as winterfat, are present onsite (CDFW 2019). Additionally, other plants present onsite that are associated with suitable MGS habitat are Joshua tree, fiddleneck, and red-stemmed filaree (Leitner 2022). The presence of these plants along with friable soils for burrowing indicate that MGS habitat is present on site, albeit in small patches that are highly disturbed and surrounded by residential and commercial development.

The results of the CNDDB query showed that the most recent MGS occurrence was documented in 2011, approximately 9.6 miles northwest of the project in an area that was developed into a solar project. The closest MGS occurrence to the project was recorded in 1921 approximately 3.1 miles south of the project.

Even though some small patches of MGS habitat are present within the survey area, DEC concludes that it is highly unlikely for MGS to be present within the project footprint given the highly developed surrounding land use and the small size of the patches of suitable habitat.

The closest MGS core populations (Edwards Air Force Base core population and Harper Lake core population) are over 20 miles to the northwest. Based on this MGS Habitat Assessment, DEC concludes that MGS are unlikely to occur within the survey area and MGS protocol surveys are not necessary for this site. It should be noted, however, that an MGS Habitat Assessment alone is not sufficient to demonstrate MGS absence to CDFW. Only MGS live trapping protocol surveys demonstrate absence to CDFW and may be required despite this Habitat Assessment.

I hereby certify that the information in this report is true, and that it conforms to accepted biological standards. Please feel free to contact Karla Flores by phone at (619) 972-4319 or by email at kflores@dipodomysecological.com with any questions regarding this report.

Sincerely,



Karla L. Flores
Principal Biologist

Figures and Attachments
Figure 1-Project Location
Figure 2-Survey Area
Figure 3- Historical MGS Occurrences
Figure 4- Vegetation Communities

Attachment A- Representative Photographs

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SOURCE: ESRI

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Prime Desert Valley Hospital Project

Figure 1

Project Location



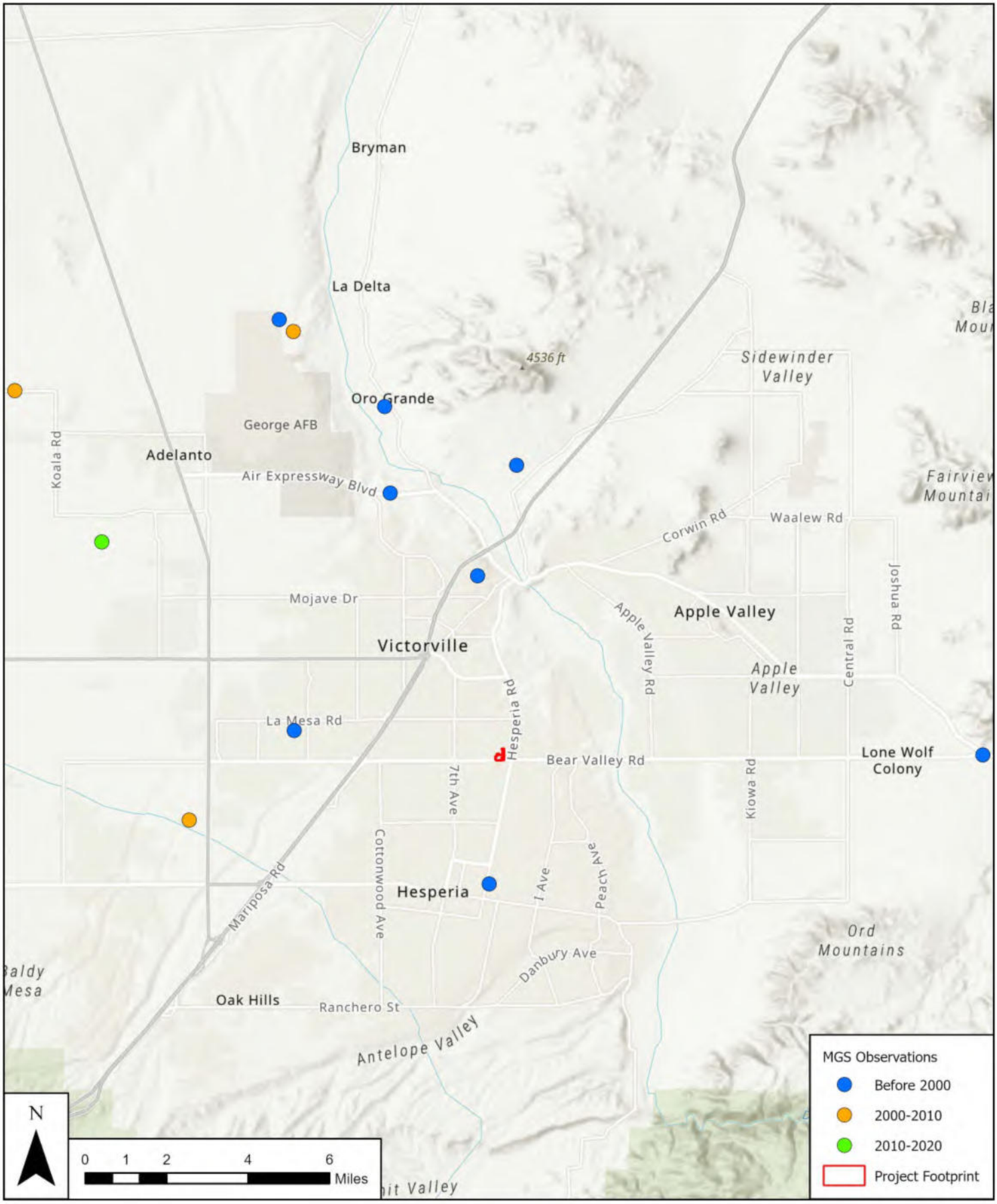
SOURCE: ESRI

Prime Desert Valley Hospital Project

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Figure 2

Survey Area



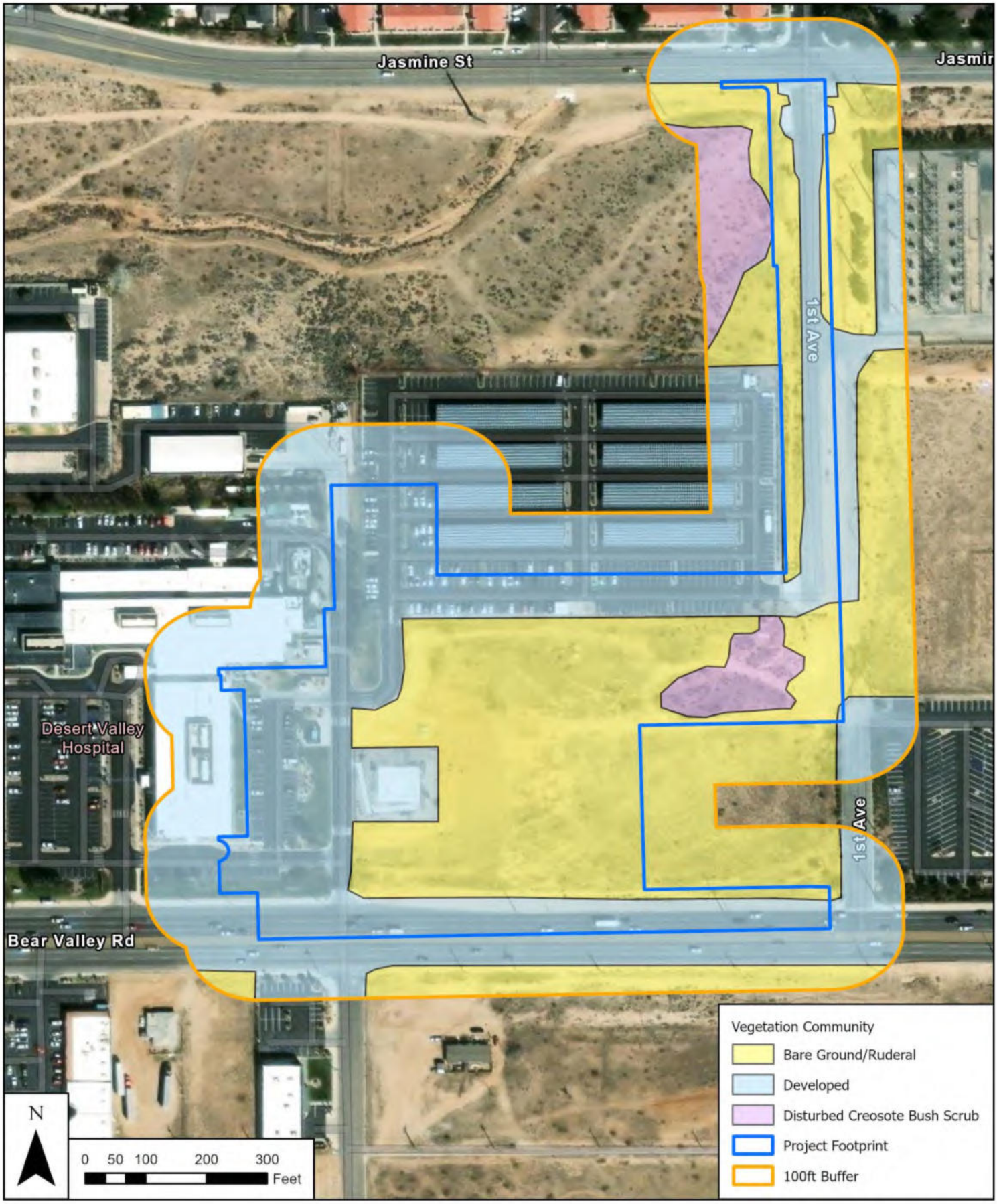
SOURCE: ESRI

Prime Desert Valley Hospital Project

Figure 3

Historical MGS Occurrences

DIPODOMYS
ECOLOGICAL CONSULTING, LLC



SOURCE: ESRI

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Prime Desert Valley Hospital Project

Figure 4

Vegetation Communities

Attachment A



Photograph 1: Vegetation on southern portion of project, facing west.



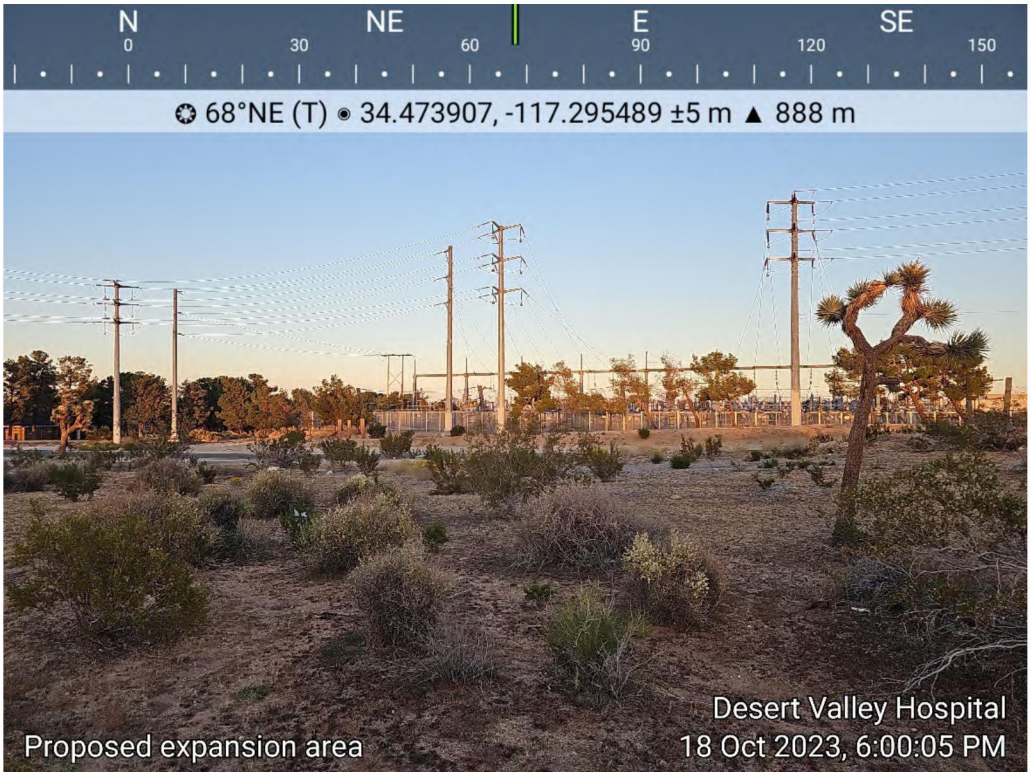
Photograph 2: Vegetation on southern portion of project, facing east.



Photograph 3: Vegetation on northern portion of project, facing north.



Photograph 4: Winterfat (*Krascheninnikovia lanata*), MGS food plant on northern portion of site, facing northeast.



Photograph 5: Vegetation on northern portion of project, facing northeast.



Photograph 6: Vegetation on central portion of project, facing south.



Photograph 7: Vegetation on central portion of project, facing northeast.

Appendix D
Site Photos



Photo 1. Facing northwest form the southwestern portion of the project site. View of the existing Desert Valley Hospital building.



Photo 2. Facing northeast from the northwestern portion of the project site. View of existing ornamental vegetation, paved roads, and parking lot present in the northwestern corner of the project site.



Photo 3. Facing east from the western portion of the project site. View of disturbed areas and rubber rabbitbrush scrub present in the central portion of the project site.



Photo 4. Facing north-northeast from the center of the project site. View of creosote bush scrub present in the eastern portion of the project site.



Photo 5. Facing west from the southwestern corner of the project site. View of existing ornamental vegetation, paved roads, parking lots, and building present within the southwestern portion of the project site.



Photo 6. Facing north from eastern boundary of the project site. View of trash and remnants of homeless encampments present within the project boundary and adjacent areas.



Photo 7. Facing east eastern boundary of the project site. View of existing commercial development adjacent to the project site.



Photo 8. Facing north along the Jasmine Street roadway extension. View of paved and dirt roads within the corridor, as well as creosote bush scrub and the sub-station adjacent to the project site.



Photo 9. Facing north along the Jasmine Street roadway extension. View of creosote bush scrub present west of the corridor.



Photo 10. Facing east from the northern extent of the Jasmine Street roadway extension. View of transmission line, sub-station, and Fourwing saltbush scrub adjacent to the project site.

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Appendix E
Plant Compendium

Plant Species

Eudicots

AMARANTHACEAE—AMARANTH FAMILY

* *Amaranthus albus* – prostrate pigweed

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia acanthicarpa – flatspine bur ragweed
Ambrosia psilostachya – western ragweed
Ambrosia salsola – cheesebush
Baccharis salicifolia ssp. *salicifolia* – mulefat
Ericameria nauseosa var. *hololeuca* – rubber rabbitbrush
* *Erigeron bonariensis* – asthmaweed
Erigeron canadensis – Canadian horseweed
* *Lactuca serriola* – prickly lettuce
Lasthenia gracilis – needle goldfields
Pectis papposa var. *papposa* – manybristle chinchweed
Stephanomeria exigua ssp. *exigua* – small wirelettuce
Tetradymia stenolepis – Mojave cottonthorn

BORAGINACEAE – BORAGE FAMILY

Amsinckia sp. – fiddleneck

BRASSICACEAE – MUSTARD FAMILY

* *Hirschfeldia incana* – short-pod mustard
* *Sisymbrium irio* – London rocket

CHENOPODIACEAE—GOOSEFOOT FAMILY

Atriplex canescens – fourwing saltbush
Krascheninnikovia lanata – winterfat
* *Salsola tragus* – prickly Russian thistle

EUPHORBIACEAE—SPURGE FAMILY

Euphorbia albomarginata – whitemargin sandmat

FABACEAE—LEGUME FAMILY

Acmispon brachycarpus – foothill deervetch

Lupinus concinnus – bajada lupine

GERANIACEAE—GERANIUM FAMILY

* *Erodium cicutarium* – redstem stork's bill

LAMIACEAE—MINT FAMILY

Scutellaria mexicana – Mexican bladdersage

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis var. *villosa* – wishbone-bush

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum deflexum var. *deflexum* – flatcrown buckwheat

Eriogonum fasciculatum var. *polifolium* – California buckwheat

* *Polygonum aviculare* – prostrate knotweed

SOLANACEAE—NIGHTSHADE FAMILY

Lycium andersonii – Anderson's boxthorn

Lycium cooperi – peach thorn

ZYGOPHYLLACEAE—CALTROP FAMILY

Larrea tridentata – creosote bush

* *Tribulus terrestris* – puncturevine

Gymnosperms and Gnetophytes

EPHEDRACEAE—EPHEDRA FAMILY

Ephedra nevadensis – Nevada joint fir

PINACEAE—PINE FAMILY

* *Pinus halepensis* – aleppo pine

Monocots

AGAVACEAE—AGAVE FAMILY

Yucca brevifolia – Joshua tree

LILIACEAE—LILY FAMILY

Calochortus kennedyi var. *kennedyi* – desert mariposa lily

POACEAE—GRASS FAMILY

* *Bromus rubens* – red brome
* *Bromus tectorum* – cheatgrass
* *Hordeum murinum* – mouse barley
* *Pennisetum setaceum* – fountain grass
* *Schismus barbatus* – common Mediterranean grass

* signifies introduced (non-native) species.

Appendix F

Special-Status Plant Species Potential to Occur within the Biological Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Allium howellii var. *clokeyi*	Mt. Pinos onion	None/None/1B.3	Great Basin scrub, Meadows and seeps (edges), Pinyon and juniper woodland/perennial bulbiferous herb/Apr–June/4,265–6,065	**Not expected to occur.** The biological study area is outside of the species' known elevation range.
Asclepias nyctaginifolia	Mojave milkweed	None/None/2B.1	Mojavean desert scrub, Pinyon and juniper woodland/perennial herb/May–June/2,870–5,575	**Not expected to occur.** Suitable habitat is present within the biological study area. However, there are no documented occurrences within 5 miles. Additionally, this species was not detected during the focused botanical survey conducted when this species would have been detectable in its vegetative state.
Boechera dispar	pinyon rockcress	None/None/2B.3	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland; Granitic, Gravelly/perennial herb/Mar–June/3,935–8,330	**Not expected to occur.** The biological study area is outside of the species' known elevation range.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps; Mesic/perennial bulbiferous herb/Apr–July/2,325–7,840	**Not expected to occur.** The biological study area lacks suitable habitat for this species and there are no documented occurrences within 5 miles. Additionally, this species was not detected during the focused botanical survey conducted during this species' blooming season.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	None/None/1B.2	Chaparral, Meadows and seeps, Pebble (Pavement) plain, Riparian woodland, Upper montane coniferous forest; Mesic/annual herb (hemiparasitic)/May–Aug/4,265–7,840	**Not expected to occur.** The biological study area is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Chorizanthe xanti var. *leucotheca*	white-bracted spineflower	None/None/1B.2	Coastal scrub (alluvial fans), Mojavean desert scrub, Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–June/985–3,935	**Not expected to occur.** Suitable habitat is present within the biological study area. However, there are no documented occurrences within 5 miles. Additionally, this species was not detected during the focused botanical survey conducted during this species' blooming season.
Cymopterus deserticola	desert cymopterus	None/None/1B.2	Joshua tree "woodland", Mojavean desert scrub; Sandy/perennial herb/Mar–May/2,065–4,920	**Not expected to occur.** Suitable habitat is present within the biological study area. However, the only CNDDB occurrence in the nine-quadrangle query, located approximately 5 miles northeast of the project site, is presumed extirpated. Additionally, this species was not detected during the focused botanical surveys conducted during this species' blooming season.
Deinandra mohavensis	Mojave tarplant	None/SE/1B.3	Chaparral, Coastal scrub, Riparian scrub; Mesic/annual herb/(Jan–May) June–Oct/2,095–5,245	**Not expected to occur.** The biological study area lacks suitable habitat for this species. Additionally, there are no documented occurrences within 5 miles.
Diplacus mohavensis	Mojave monkeyflower	None/None/1B.2	Joshua tree "woodland", Mojavean desert scrub; Gravelly banks of desert washes/annual herb/Apr–June/1,965–3,935	**Not expected to occur.** The biological study area lacks suitable microhabitat habitat for this species.
Dudleya abramsii ssp. *affinis*	San Bernardino Mountains dudleya	None/None/1B.2	Pebble (Pavement) plain, Pinyon and juniper woodland, Upper montane coniferous forest; Carbonate (sometimes), Granitic (sometimes)/perennial herb/Apr–July/4,100–8,530	**Not expected to occur.** The biological study area is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Eremothera boothii ssp. *boothii*	Booth's evening-primrose	None/None/2B.3	Joshua tree "woodland", Pinyon and juniper woodland/annual herb/Apr–Sep/2,670–7,870	**Not expected to occur.** Suitable habitat is present within the biological study area. However, this species was not detected during the focused botanical survey conducted during this species' blooming season.
Erigeron parishii	Parish's daisy	FT/None/1B.1	Mojavean desert scrub, Pinyon and juniper woodland; carbonate, limestone, and/or granite slopes and drainages/perennial herb/May–Aug/2,620–6,560	**Not expected to occur.** The biological study area lacks suitable microhabitat for this species, such as carbonate, limestone, and/or granite slopes and drainages. Additionally, there are no documented occurrences within 5 miles.
Fimbristylis thermalis	hot springs fimbristylis	None/None/2B.2	Meadows and seeps (alkaline, near hot springs)/perennial rhizomatous herb/July–Sep/360–4,395	**Not expected to occur.** The biological study area lacks suitable habitat for this species. Additionally, there are no documented occurrences within 5 miles.
Heuchera parishii	Parish's alumroot	None/None/1B.3	Alpine boulder and rock field, Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; Carbonate (sometimes), Rocky/perennial rhizomatous herb/June–Aug/4,920–12,465	**Not expected to occur.** The biological study area is outside of the species' known elevation range.
Ivesia argyrocoma var. *argyrocoma*	silver-haired ivesia	None/None/1B.2	Meadows and seeps (alkaline), Pebble (Pavement) plain, Upper montane coniferous forest/perennial herb/June–Aug/4,795–9,710	**Not expected to occur.** The biological study area is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Lilium parryi	lemon lily	None/None/1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; Mesic/perennial bulbiferous herb/July–Aug/4,000–9,005	**Not expected to occur.** The biological study area is outside of the species' known elevation range.
Loeflingia squarrosa var. *artemisiarum*	sagebrush loeflingia	None/None/2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub; Sandy/annual herb/Apr–May/2,295–5,295	**Not expected to occur.** The biological study area lacks suitable habitat for this species. Additionally, there are no documented occurrences within 5 miles.
Lycium parishii	Parish's desert-thorn	None/None/2B.3	Coastal scrub, Sonoran desert scrub/perennial shrub/Mar–Apr/445–3,280	**Not expected to occur.** The biological study area lacks suitable habitat for this species. Additionally, there are no documented occurrences within 5 miles.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/None/1B.2	Chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/perennial stem/Apr–June (Aug)/1,390–5,905	**Not expected to occur.** Suitable habitat is present within the biological study area. However, this species was not observed during the focused botanical survey. This species is a conspicuous perennial that would have been detected if present.
Pediomelum castoreum	Beaver Dam breadroot	None/None/1B.2	Joshua tree "woodland", Mojavean desert scrub; Roadsides, Open areas, sandy/perennial herb/Apr–May/2,000–5,000	**Not expected to occur.** Suitable habitat is present within the biological study area. However, this species was not detected during the focused botanical survey conducted during this species' blooming season.
Perideridia parishii ssp. *parishii*	Parish's yampah	None/None/2B.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest/perennial herb/June–Aug/4,805–9,840	**Not expected to occur.** The biological study area is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Saltugilia latimeri	Latimer's woodland-gilia	None/None/1B.2	Chaparral, Mojavean desert scrub, Pinyon and juniper woodland; coarse sand to rocky soils, often granitic/annual herb/Mar–June/1,310–6,230	**Not expected to occur.** Suitable habitat is present within the biological study area. However, this species was not detected during the focused botanical survey conducted during this species' blooming season.
Schoenus nigricans	black bog-rush	None/None/2B.2	Marshes and swamps (often alkaline)/perennial herb/Aug–Sep/490–6,560	**Not expected to occur.** The biological study area lacks suitable habitat for this species. Additionally, there are no documented occurrences within 5 miles.
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Mesic/perennial rhizomatous herb/June–Aug/1,390–6,560	**Not expected to occur.** The biological study area lacks suitable mesic habitat for this species.
Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland (vernally mesic); Streambanks/perennial rhizomatous herb/July–Nov/5–6,690	**Not expected to occur.** The biological study area lacks suitable streambank habitat for this species.
Symphyotrichum greatae	Greata's aster	None/None/1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland; Mesic/perennial rhizomatous herb/June–Oct/985–6,590	**Not expected to occur.** The biological study area lacks suitable mesic habitat for this species.
Yucca brevifolia	western Joshua tree	None/SC/CBR	Great Basin grassland, Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland, Sonoran desert scrub, Valley and foothill grassland/perennial leaf succulent/Apr–May/1,310–6,560	**Present.** Multiple individuals were mapped within the biological study area during the Joshua Tree inventory survey.

Status Designations:

Federal:

FT: Federally listed threatened species

State:

SE: State listed endangered species

SC: State listed candidate species

CRPR (California Rare Plant Rank):

1A: Plants presumed extirpated in California and either rare or extinct elsewhere

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

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

CBR: Considered but Rejected

Threat Rank:

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

0.2: moderately threatened in California (20%–80% of occurrences threatened/moderate degree and immediacy of threat)

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

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Appendix G
Wildlife Compendium

Wildlife Species

Birds

FALCONIDAE—CARACARAS & FALCONS

Falco sparverius – American kestrel

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Carpodacus mexicanus – house finch

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Accipiter cooperii – Cooper's hawk

TROCHILIDAE—HUMMINGBIRDS

Calypte anna – Anna’s hummingbird

CORVIDAE—JAYS & CROWS

Aphelocoma californica – California scrub-jay

Corvus brachyrhynchos – American crow

Corvus corax – common raven

ALAUDIDAE—LARKS

Eremophila alpestris – horned lark

MIMIDAE—MOCKINGBIRDS & THRASHERS

Mimus polyglottos – northern mockingbird

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura – mourning dove

* *Columba livia* – rock pigeon (rock dove)

CHARADRIIDAE—LAPWINGS & PLOVERS

Charadrius vociferus – killdeer

STURNIDAE—STARLINGS

Sturnus vulgaris – European starling

PARULIDAE—WOOD-WARBLERS

Setophaga coronata – yellow-rumped warbler

PICIDAE—WOODPECKERS & ALLIES

Colaptes auratus – northern flicker

PASSERELLIDAE—NEW WORLD SPARROWS

Spizella breweri – *Brewer's sparrow*

Zonotrichia leucophrys – *white-crowned sparrow*

Invertebrates

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Vanessa cardui – painted lady

PIERIDAE—WHITES & SULFURS

Pontia protodice – checkered white

Mammals

LEPORIDAE—HARES & RABBITS

Sylvilagus audubonii – desert cottontail

SCIURIDAE—SQUIRRELS

Otospermophilus beecheyi – California ground squirrel

Reptiles

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis – western fence lizard

* signifies introduced (non-native) species

Appendix H

Special-Status Wildlife Species Potential to Occur within the Biological Study Area

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	**Not expected to occur.** No suitable aquatic habitat or stream-adjacent upland habitat is present within the biological study area to support this species.
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	**Not expected to occur.** No suitable aquatic habitat or stream-adjacent upland habitat is present within the biological study area to support this species.
Rana muscosa	mountain yellow-legged frog	FE/SE	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	**Not expected to occur.** No suitable aquatic habitat or stream-adjacent upland habitat is present within the biological study area to support this species.
Reptiles				
Anniella stebbinsi	southern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	**Not expected to occur.** No suitable broadleaved upland forest, chaparral, coastal dunes, or coastal scrub vegetation with loose, moist soils are present within the biological study area to support this species. Additionally, there are no California Natural Diversity Database (CNDDB) occurrences within 5 miles (CDFW 2024a).
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	**Not expected to occur.** The study area is located outside of the geographic range for this species (Nafis 2024).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Charina umbratica	southern rubber boa	None/ST	Montane oak–conifer and mixed-conifer forests, montane chaparral, wet meadows; usually in vicinity of streams or wet meadows	**Not expected to occur.** This species is limited to montane habitat between 5,000 and 8,200 feet above sea level. The biological study area lacks suitable habitat and is located outside of this elevation range (Nafis 2024).
Gopherus agassizii	Mojave desert tortoise	FT/ST	Arid and semi-arid habitats in Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats, and hillsides	**Absent. Not expected to occur.** Although suitable habitat is present within the biological study area, there are no CNDDB occurrences within 5 miles (CDFW 2024a). Additionally, the biological study area is located outside of the California Wildlife Habitat Relationships (CWHR) predicted habitat model for this species (CDFW 2017). Furthermore, protocol surveys were negative for desert tortoise individuals, suitable burrows, and sign.
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	**Low potential to occur.** Suitable habitat is present within the biological study area. A CNDDB occurrence overlaps the biological study area, and another occurrence is located approximately 2 miles to the south; however, both occurrences are historical, the first being a museum specimen and the other dating back to 1919 (CDFW 2024a). The biological study area is located within the CWHR range of the species but outside of the predicted habitat model (CDFW 2017, 2021).
Thamnophis hammondii	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	**Not expected to occur.** No suitable aquatic habitat or stream-adjacent upland habitat is present within the biological study area to support this species.
Actinemys pallida	southwestern pond turtle	FPT/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	**Not expected to occur.** No suitable aquatic habitat or stream-adjacent upland habitat is present within the biological study area to support this species.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Birds				
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	**Not expected to occur.** No suitable vegetation or freshwater habitat is present within the biological study area to support this species.
Aquila chrysaetos (nesting & wintering)	golden eagle	None/FP	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	**Not expected to occur.** While the biological study area does provide open desert habitat, it lacks the hilly topography preferred by the species for wintering. The biological study area also lacks large trees and cliffs required for this species to nest.
Asio otus (nesting)	long-eared owl	None/SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	**Not expected to occur.** The biological study area does not contain any riparian vegetation, live oak thickets, or other dense stands of trees to support nesting for this species.
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	**Moderate potential to occur.** The biological study area contains suitable habitat and burrows for this species, and there are numerous CNDDB occurrences within 5 miles (CDFW 2024a). Focused surveys for burrowing owl conducted in 2024 were negative; however, burrowing owl is a transient species and may incidentally occur in future years.
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	**Not expected to occur.** No suitable habitat is present in the biological study area to support nesting for this species.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	**Not expected to occur.** No suitable riparian vegetation is present in the biological study area to support nesting for this species.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	**Not expected to occur.** No suitable riparian vegetation is present in the biological study area to support this species.
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FPD/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	**Not expected to occur.** The biological study area lacks the forested, mountainous topography preferred by the species for wintering. The study area also lacks large trees and cliffs required for this species to nest.
Icteria virens (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	**Not expected to occur.** No suitable vegetation or riparian habitat is present in the biological study area to support this species.
Lanius ludovicianus (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	**Moderate potential to occur.** The biological study area contains suitable habitat, although this species was not detected during the biological reconnaissance survey. The nearest CNDDB occurrence is located approximately 2.5 miles to the north along the Mojave River (CDFW 2024a).
Piranga rubra (nesting)	summer tanager	None/SSC	Nests and forages in mature desert riparian habitats dominated by cottonwoods and willows	**Not expected to occur.** The biological study area does not contain mature desert riparian habitats dominated by cottonwoods or willows that is required by this species.
Setophaga petechia (nesting)	yellow warbler	None/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	**Not expected to occur.** No suitable vegetation or riparian habitat is present in the biological study area to support this species.
Toxostoma lecontei	LeConte's thrasher	BCC/SSC	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	**Not expected to occur.** The CDFW SSC designation only refers to the San Joaquin population (CDFW 2024b).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	**Not expected to occur.** The biological study area lacks suitable dense riparian thickets to support nesting for this species.
Vireo vicinior (nesting)	gray vireo	None/SSC	Nests and forages in pinyon–juniper woodland, oak, and chamise and redshank chaparral	**Not expected to occur.** The biological study area lacks pinyon-juniper woodlands, oaks, chamise, and redshank chaparral, used by this species for nesting.
Fishes				
Rhinichthys osculus ssp. 8	Santa Ana speckled dace	None/SSC	Headwaters of the Santa Ana and San Gabriel Rivers; may be extirpated from the Los Angeles River system	**Not expected to occur.** The biological study area does not have perennial aquatic habitat that could support this species.
Siphateles bicolor mohavensis	Mohave tui chub	FE/FP, SE	Lacustrine ponds or pools; 4 feet min water depth; freshwater flow; mineralized and alkaline environment; habitat for aquatic invertebrate prey and egg attachment substrate; Ruppia maritima preferred for egg attachment and thermal refuge in summer months	**Not expected to occur.** The biological study area does not have perennial aquatic habitat that could support this species.
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	**Not expected to roost, low potential to forage.** The biological study area lacks rocky crevices, abandoned mines, caves, cavern-like building features, or hollow trees suitable for this species to use as maternity roosting habitat. This species could occasionally forage in open desert habitat within the biological study area. The nearest CNDDB occurrence is located approximately 2 miles to the east along the Mojave River (CDFW 2024a).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	**Not expected to roost or forage.** The biological study area lacks suitable roosting or foraging habitat.
Glaucomys oregonensis californicus	San Bernardino flying squirrel	None/SSC	Coniferous and deciduous forests, including riparian forests	**Not expected to occur.** The biological study area lacks suitable forest habitat to support this species.
Microtus californicus mohavensis	Mojave river vole	None/SSC	Wet, weedy, herbaceous areas along the Mojave River	**Not expected to occur.** No suitable wet herbaceous vegetation is present in the biological study area to support this species.
Puma concolor	mountain lion – Southern California/Central Coast ESU	None/SCT	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	**Not expected to occur.** Although suitable habitat is present within the biological study area, there are no CNDDB occurrences within 5 miles (CDFW 2024a). Additionally, the biological study area is outside of the species' CWHR range (CDFW 2021).
Spermophilus (*Xerospermophilus*) *mohavensis*	Mohave ground squirrel	None/ST	Desert scrub habitats including those dominated by creosote bush and burrobush, desert sink scrub, and desert saltbush scrub	**Not expected to occur.** Suitable habitat was not observed during the 2024 Mohave ground squirrel habitat assessment surveys conducted by a permitted biologist. Although the biological study area contains creosote bush that may be marginally suitable, it is highly unlikely for this species to be present given the highly developed surrounding land use and small size of the patches of habitat. The nearest CNDDB occurrence is located approximately 3 miles to the south dates back to 1921 (CDFW 2024a), and the closest core populations of this species are located over 20 miles to the northwest (Leitner 2021).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Vulpes macrotis arsipus	Desert kit fox	None/FM	Sparse scrub habitats such as creosote scrub communities that support abundant rodent populations (Center for Biological Diversity 2013)	**Absent. Low potential to occur.** Suitable habitat is present within the biological study area. The biological study area is located within the CWHR range of the species but outside of the predicted habitat model (CDFW 2017, 2021). Additionally, focused surveys were negative for desert kit fox individuals, suitable burrows, and sign.
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	**Low potential to occur.** The biological study area contains open desert and scrub habitats capable of supporting this species; however, it is highly unlikely for this species to be present within the biological study area given the highly developed surrounding land use and small size of the patches of suitable habitat. Moreover, no suitable burrows or sign were observed during several surveys, including those focused on burrowing animals. There are no CNDDB occurrences within 5 miles (CDFW 2024a).
Invertebrates				
Bombus crotchii	Crotch bumble bee	None/SCE	Open grassland and scrub communities supporting suitable floral resources.	**Low potential for foraging but not expected to nest.** Floral resources within the BSA are limited to an early spring blooming period and does not extend into late spring and summer due to a lack of spring/summer flowering shrubs. Additionally, flower patches that are present are small and disjointed, forming marginal potential habitat for this species. As such, foraging opportunities for the species are limited on the project site and surrounding area. The BSA is not expected to provide the necessary resources for the life cycle of an active nesting colony. The species could be transient during long range foraging and dispersal.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Euphydryas editha quino	quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, P. patagonica, and Antirrhinum coulterianum, among others	**Not expected to occur.** The biological study area is located outside of the current known range of this species. Additionally, host plants and clay soils were not detected during 2023 and 2024 surveys.
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	**Not expected to occur.** Suitable overwintering habitat for the species is not present in the biological study area.

Status Designations:
FE: Federally listed as endangered
FT: Federally listed as threatened
FPT: Federally proposed for listing as threatened
FC: Federal candidate species (former Category 1 candidates)
FPD: Federally proposed for delisting
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
SE: State listed as endangered
ST: State listed as threatened
SCT: State candidate for listing as threatened
SCE: State candidate for listing as endangered
SSC: California Species of Special Concern
FP: California Fully Protected Species
FM: Species considered a “fur-bearing mammal” protected under Fish and Game Code Section 4000

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