Biological Resources Technical Report for the Well 152 Drilling and Equipping Project, Highland, San Bernardino County, California

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PREPARED FOR

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BIOLOGICAL RESOURCES TECHNICAL REPORT FOR THE WELL 152 DRILLING AND EQUIPPING PROJECT, HIGHLAND, SAN BERNARDINO COUNTY, CALIFORNIA

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1 INTRODUCTION

This biological resources technical report (BRTR) has been prepared by SWCA Environmental Consultants (SWCA) to support the preparation of an Initial Study (IS) and resulting documents for the proposed drilling and equipping of Well No. 152 at 31111 Greenspot Road in Highland, San Bernardino County, California (project). This report evaluates the potential for the project to impact sensitive biological resources. The analysis is based on the biological resources characteristics and species potential for the project site and its surroundings. It includes a review of published literature and online databases, as well as the results of a reconnaissance-level flora and fauna survey of the project site; the survey was conducted on October 28, 2025. The study area included a 50-foot buffer surrounding the project site.

1.1 Project Background

The East Valley Water District (EVWD) proposes to construct a new potable groundwater supply well, to be designated Well No. 152, at its headquarters located at 31111 Greenspot Road in the city of Highland, San Bernardino County, California (hereafter referred to as the "project"). The project involves the drilling and equipping of a potable water production well designed to produce approximately 2,000 gallons per minute. The new well will serve the EVWD Canal Pressure Zone and will include associated facilities for disinfection, emergency power, and compliance with EVWD's operational and maintenance standards.

The project will be implemented in two primary phases: 1) drilling design and 2) equipping design. As part of the drilling design phase, an Initial Study and Mitigated Negative Declaration (IS/MND) will be prepared in compliance with the California Environmental Quality Act (CEQA). This BRTR has been prepared to support the IS/MND by evaluating potential impacts to biological resources associated with project implementation.

The EVWD has received a Bureau of Reclamation (Reclamation) WaterSmart Grant; therefore, in addition to compliance with CEQA, the project also constitutes a federal undertaking and is subject to the NEPA and other applicable federal compliance requirements. The project will comply with NEPA and relevant federal natural resource regulations to support preparation of an MND under the CEQA and the corresponding federal environmental document to be determined by Reclamation. The combined NEPA and CEQA process is referred to as CEQA-Plus. Because the project involves federal funding and oversight, environmental review will also follow the CEQA-Plus process to ensure compliance with both state and federal environmental statutes. Under CEQA-Plus, EVWD serves as the state lead agency responsible for compliance with CEQA, and Reclamation serves as the federal lead agency responsible for compliance with NEPA and Section 106 of the National Historic Preservation Act (NHPA).

1.1.1 Location and Setting

The project site is located at 31111 Greenspot Road in the city of Highland, San Bernardino County, California (Figure 1). The approximately 1.13-acre project footprint is located within the eastern portion of the existing EVWD administrative headquarters. The EVWD administrative headquarters site consists of approximately 23.5 acres on accessor parcel numbers 029-705-124 and 029-705-123, and is within Section 7, Township 1 South, Range 2 West, San Bernardino Baseline and Meridian, identified on the U.S. Geological Survey Redlands, California, quadrangle (Figure 2). The project site is generally flat and landscaped with ornamental trees and shrubs.

Disturbed, undeveloped areas occur along the southern portion of the project site within the existing fenced boundary. The project site lies at the base of the San Bernardino Mountains within a developed urban setting to the north and predominantly undeveloped natural setting to the south. Surrounding land uses include agricultural plots and residential development to the northwest and northeast, open natural lands and water retention basins to the south, and other urban uses in the vicinity.

The Santa Ana River main channel is approximately 0.75 mile south of the project site, and the Santa Ana Canal, a human-made drainage channel containing perennial or intermittent flow, occurs approximately 20 feet south of the southern property boundary. The Seven Oaks Dam is approximately 1.6 miles northeast of the project site.

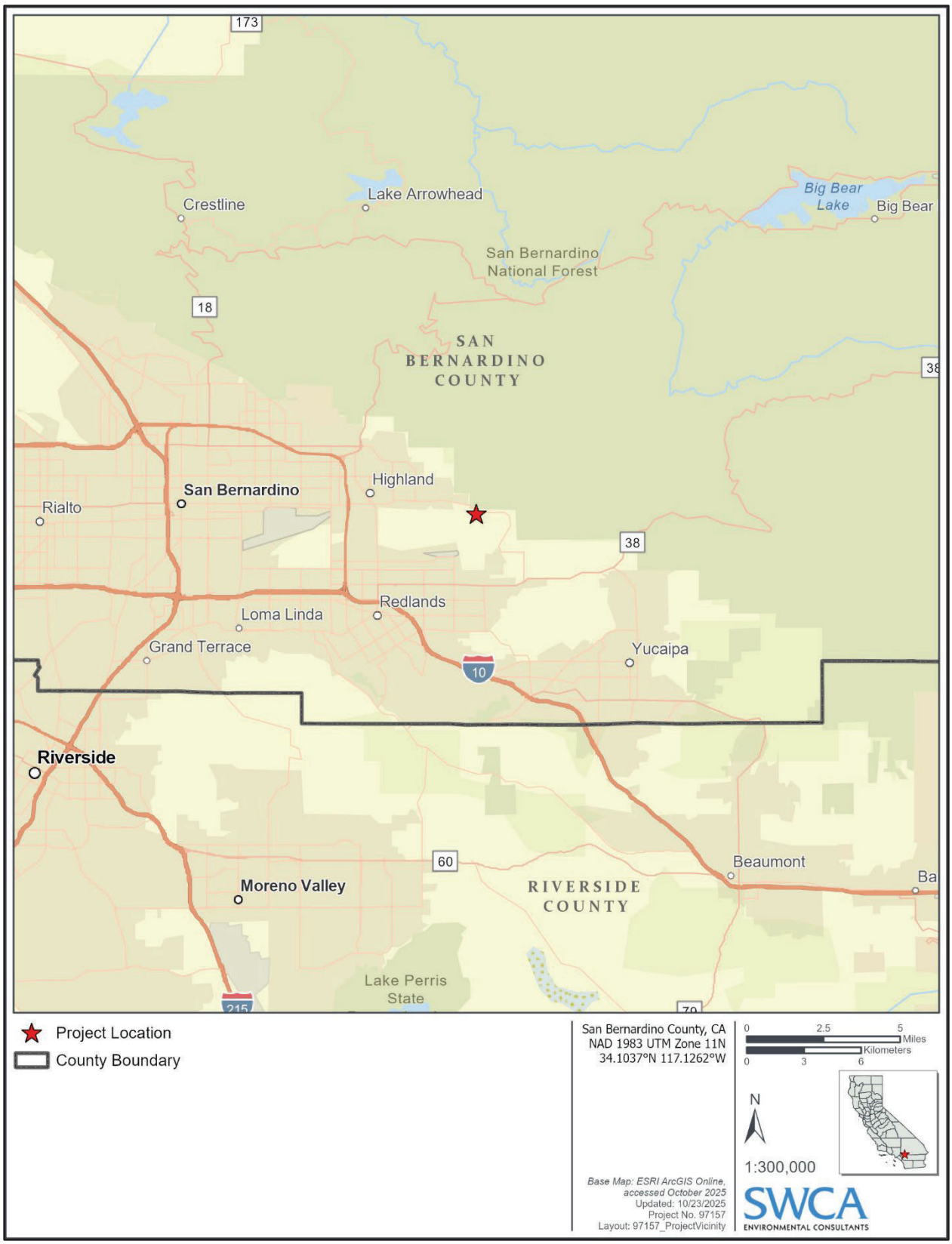

Figure 1. Regional project location.

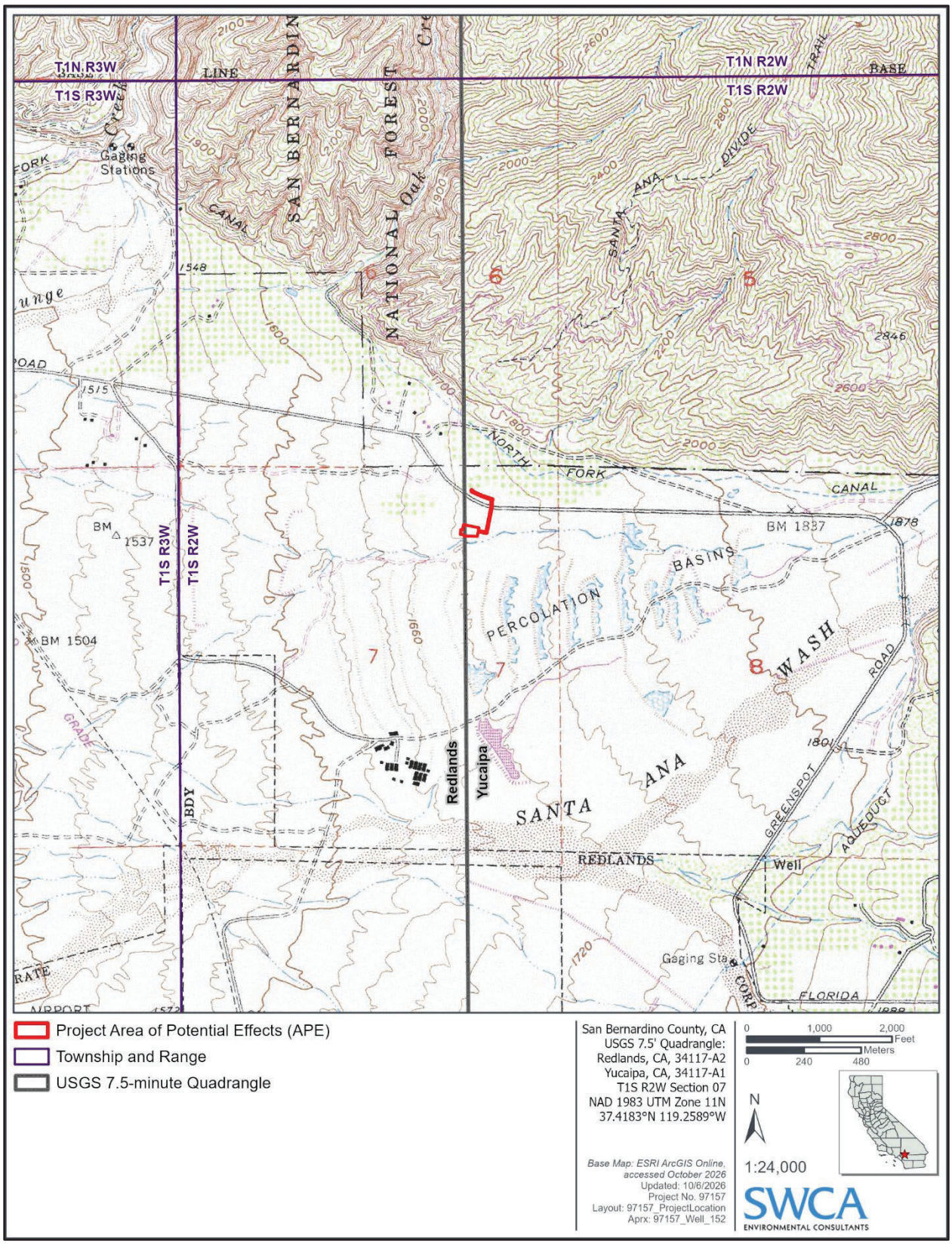

Figure 2. Project location map.

1.1.2 Project Description

Figure 3 shows the layout of the proposed well site, which includes a new wellhead, chemical building, booster station, and aboveground storage tank. During construction activities the following equipment and structures would be used on the project site: an air compressor, a drill rig, a pipe trailer, two mud tanks, a doghouse, two holding tanks, and two aboveground conveyance lines.

The project is proposed on the south and east side of the EVWD headquarters site. Due to the built-out nature of the project site, project construction will require the demolition, relocation, and reconstruction of storage areas, and a portion of the parking area. To incorporate the project within the EVWD headquarters site, parking stalls currently occupied with storage containers would be permanently removed. The storage containers would be relocated on-site to allow for the well building, and a new underground 18-inch diameter storm drain and 24-inch diameter storm drain pipeline would be constructed to connect to the existing 18-inch diameter storm drain and 24-inch diameter storm drain conveyance route between the parking lot and the Water Quality Management Plan Basin and drainage channel to the south, respectively. A 58,000-gallon tank and a booster station are proposed near the proposed well.

The well would be installed with a maximum 42-inch diameter casing and drilled to a depth of approximately 800 feet below ground surface (bgs). Well No. 152 would be equipped with a 200-horsepower (hp) electric motor and designed to produce 2,000 gallons per minute. The project would include a standby backup diesel generator on a pad mount. The wellhead would be constructed inside an approximately 900-square-foot (SF) split-face concrete masonry unit well building. The maximum height of the well building would be 18 feet. The well water would be pumped to the aboveground storage tank located to the southwest. The aboveground storage tank height would be 18 feet and a diameter of 25 feet. The aboveground storage tank allows entrained air from the well water to degas before being transferred to the booster station. The booster station footprint would be approximately 400 SF and would be enclosed. The maximum height of the booster station pumps would be 6 feet. The booster station would pump water from the storage tank through a new 12-inch diameter water pipeline in the parking lot where it would connect to the existing potable water pipeline within Greenspot Road.

The well building would include an electrical room to house the electronics to operate the well. A separate chemical building would be approximately 200 SF and 12 feet tall; it would house both a chlorine tank and orthophosphate tank in separate rooms. Chemicals used in the water production process would be chlorine (sodium hypochlorite 12.5%) for disinfection and orthophosphate as a corrosion inhibitor for existing copper lines within the District's distribution system. The chemicals would be introduced into the pumped groundwater prior to the water entering EVWD's potable water system. The chlorine tank would be double-walled to provide secondary containment.

The project proposes to pave the area surrounding the chemical building, well building, water storage tank, and booster station.

Operation of Well No. 152 would entail regular maintenance of the equipment and would be integrated into EVWD's existing Supervisory Control and Data Acquisition (SCADA) system. The SCADA antennae would be a maximum of 25 feet tall.



Figure 3. Project site map.

1.1.3 Project Construction

During project construction, approximately 36 existing parking stalls would be temporarily unavailable. Construction activities would require potable water; thus, an on-site fire hydrant would be used during construction.

Construction of the proposed project would consist of site preparation; installation of temporary on-site facilities, including two 21,000-gallon holding tanks measuring approximately 40 × 8 feet, two mud tanks measuring approximately 45 × 8 feet, a dog house (office) measuring approximately 30 × 10 feet, pipe trailer measuring approximately 40 × 8 feet, drilling rig measuring approximately 45 × 10 feet, air compressor measuring approximately 20 × 8 feet; and two discharge conveyance lines. The drill rig would be a maximum of 65 feet tall. Other than the well drilling, site preparation is expected to result in ground disturbance ranging from 5 feet bgs for most improvements to 15 feet bgs for the booster station equipment. During construction, well discharge would be transferred to the mud tanks, where debris settles into the holding tanks prior to clean water being discharged in the adjacent open drainage channel through a temporary aboveground conveyance line. All drill cuttings and fluids used to drill (i.e., drilling mud) would be stockpiled for drying prior to being moved to an on-site location.

The estimated construction period for the proposed project's initial well drilling and testing is approximately 3 months. During the initial drilling and testing stage, several phases of the work would require 24-hour continuous operations on the part of the drilling contractor. The subsequent well site construction (equipping) would take approximately 15 months.

2 REGULATORY SETTING

This section summarizes federal, state, and local regulations pertinent to biological resources potentially affected by the proposed project.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The U.S. Congress passed the Endangered Species Act (ESA) in 1973 to protect endangered species and species threatened with extinction (federally listed species). The ESA operates in conjunction with the NEPA to help protect the ecosystems on which endangered and threatened species depend.

The U.S. Fish and Wildlife Service (USFWS) can issue permits under Sections 7 and 10 of the ESA. Section 10 of the ESA includes provisions to authorize take that is incidental to, but not the purpose of, activities that are otherwise lawful. Under Section 10(a)(1)(B), the USFWS may issue permits (incidental take permits) for take of ESA-listed species if the take is incidental and does not jeopardize the survival and recovery of the species. To obtain an incidental take permit, an applicant must submit a habitat conservation plan outlining steps to minimize and mitigate permitted take impacts to listed species.

2.1.2 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 United States Code [USC] 668–668d), originally enacted in 1940 and subsequently amended, affords specific protection to bald eagle (*Haliaeetus* leucocephalus) and golden eagle (*Aquila chrysaetos*). The act prohibits any person without a valid permit issued by the Secretary of the Interior from taking bald or golden eagles, including any part, such as feathers, nests, or

eggs. It establishes criminal penalties for any individual who takes, possesses, sells, purchases, barters, offers to sell or purchase, transports, exports, or imports, by any means or at any time, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof.

Under the act, "take" is defined as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb an eagle. Implementing regulations further define "disturb" as to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best available scientific information, 1) injury to an eagle, 2) a decrease in productivity through substantial interference with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment through substantial interference with normal breeding, feeding, or sheltering behavior (50 Code of Federal Regulations 22.6).

Permits for activities that may result in take of eagles or their parts may be issued by the USFWS under specific conditions when such activities are consistent with the preservation of eagle populations.

2.1.3 Clean Water Act

The Clean Water Act (CWA) (33 USC 1251–1387), originally enacted as the Federal Water Pollution Control Act in 1948 and substantially amended in 1972, regulates the discharge of pollutants into waters of the United States (WOTUS). The act authorizes the EPA to implement pollution control programs and establish water quality standards for surface waters. Several provisions of the CWA are relevant to federal and federally authorized projects. Section 404 regulates the discharge of dredged or fill material into WOTUS, including wetlands, and requires a permit from the U.S. Army Corps of Engineers (USACE). Section 401 requires applicants for federal permits or licenses that may result in discharges to WOTUS to obtain a water quality certification from the applicable state or tribal authority confirming that the activity will comply with water quality standards.

2.1.4 Coastal Barriers Resources Act

The U.S. Congress enacted the Coastal Barrier Resources Act (16 USC 3501–3510) in 1982 to minimize the loss of life, reduce federal expenditures, and protect natural resources associated with coastal barrier systems. The act discourages development within designated Coastal Barrier Resources System units by restricting most new federal expenditures and financial assistance that could encourage development in these areas. Federal agencies must review proposed actions to determine whether they occur within a Coastal Barrier Resources System unit and ensure that federal funding or assistance is not provided for activities that are inconsistent with the provisions of the Act, except under limited statutory exceptions.

2.1.5 Coastal Zone Management Act

The Coastal Zone Management Act (16 USC 1451–1466) was enacted in 1972 to encourage effective management, protection, and responsible development of the nation's coastal resources. The act established the National Coastal Zone Management Program, which is administered by the National Oceanic and Atmospheric Administration. Under the program, coastal states and territories may develop federally approved coastal management programs that guide the use and protection of coastal resources within their coastal zones. The Coastal Zone Management Act includes a requirement that federal agency actions that are reasonably likely to affect natural resources of a state's coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of that state's approved coastal management program. Federal agencies must coordinate with the appropriate state coastal management agency to ensure compliance with these policies before undertaking, funding, or approving activities that may affect coastal resources.

2.1.6 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 661–667e), originally enacted in 1934 and amended in 1946, was established to ensure that fish and wildlife resources receive equal consideration during the planning and development of federal water-resource projects. The act requires that federal agencies that propose to impound, divert, control, or otherwise modify any stream or body of water must consult with the USFWS, National Marine Fisheries Service, and appropriate state wildlife agencies. Through this consultation process, these agencies evaluate potential impacts to fish and wildlife resources and recommend measures to prevent loss of, or damage to, wildlife resources and to promote the conservation and enhancement of fish and wildlife habitats. The recommendations developed during consultation are intended to inform project planning and decision-making so that fish and wildlife conservation can be integrated into water-resource development activities. The act applies broadly to federal actions that modify water bodies and provides a mechanism for coordination among federal and state agencies to minimize impacts to aquatic and terrestrial wildlife resources.

2.1.7 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC 1801–1891d), originally enacted in 1976, is the primary federal law governing the conservation and management of marine fisheries in U.S. federal waters. The act establishes a national program to prevent overfishing, rebuild overfished stocks, ensure sustainable fisheries, and protect marine ecosystems. The MSA authorizes the development of fishery management plans by regional fishery management councils and requires the identification and conservation of Essential Fish Habitat, which includes waters and substrate necessary for fish to spawn, breed, feed, or grow to maturity. Federal agencies must consult with the National Marine Fisheries Service on actions that may adversely affect Essential Fish Habitat and must consider recommendations to avoid, minimize, or mitigate impacts to these habitats.

2.1.8 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), first enacted in 1918, prohibits any person, unless permitted by regulations, to:

> pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatsoever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird. (16 USC 703)

The list of migratory birds includes nearly all bird species native to the United States. The MBTA was extended in 1974 to include parts of birds, as well as eggs and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all nonnative species. Thus, it is illegal under MBTA to directly kill or destroy a nest of nearly any native bird species, not just endangered species. Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. Removal of unoccupied nests and bird mortality resulting indirectly from disturbance activities are not considered violations of the MBTA.

2.1.9 National Environmental Protection Act

NEPA was adopted in 1970, established a nationwide framework for evaluating the environmental consequences of discretionary actions directly undertaken, financed, or permitted by federal government lead agencies. NEPA requires that a project's effects on environmental resources be analyzed and assessed using criteria determined by the federal lead agency, often through the preparation of an environmental assessment or environmental impact statement.

2.1.10 Executive Order 11990 – Protection of Wetlands

Executive Order (EO) 11990, Protection of Wetlands, was issued in 1977 to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The EO directs federal agencies to avoid undertaking or providing assistance for new construction in wetlands unless there is no practicable alternative and all practicable measures to minimize harm have been incorporated into the proposed action. Federal agencies must evaluate potential impacts to wetlands when planning and implementing projects and must consider alternatives that would avoid wetland impacts. Compliance with EO 11990 is typically addressed as part of the NEPA review process and requires agencies to ensure that wetland protection is integrated into federal decision-making.

2.1.11 Rivers and Harbors Act – Section 10

Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) regulates activities that may affect navigable WOTUS. The law prohibits the unauthorized obstruction or alteration of navigable waters and requires authorization from the USACE for the construction of structures or the performance of work in, over, or under these waters. Activities requiring a Section 10 permit may include the construction of piers, docks, bulkheads, or other structures; dredging or excavation; and the placement of fill or other materials that could affect navigation. The permitting process ensures that proposed actions do not impair navigation or adversely affect the public interest.

2.1.12 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC 1271–1287), enacted in 1968, established the National Wild and Scenic Rivers System to preserve selected rivers or that possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values" in a free-flowing condition. The surrounding environment of designated rivers or river segments will be protected for the benefit and enjoyment of future generations. The act protects designated rivers or river segments by restricting federal support for water-resource projects, such as dams or other developments, that would directly and adversely affect these rivers or river segments. Federal agencies must consider potential impacts to designated or study rivers during project planning and ensure that their actions do not degrade the river's protected characteristics.

2.2 State Regulations

2.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the "taking" of listed species except as otherwise provided in state law. Section 86 of the California Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the

CESA, state lead agencies (as defined under California Public Resources Code Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species. The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA, and of Species of Special Concern (or watch list species).

2.2.2 Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles, and Section 3515 prohibits take of fully protected fish species. Eggs and nests of fully protected birds are covered under Section 3511. Migratory nongame birds are protected under Section 3800, and mammals are protected under Section 4700. Except for take related to scientific research, all take of fully protected species is prohibited.

2.2.3 Nesting Birds and Raptors

California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 provides protection for all birds of prey, including their eggs and nests.

2.2.4 Migratory Bird Protection

Take or possession of any migratory nongame bird as designated in the MBTA is prohibited by California Fish and Game Code Section 3513.

2.2.5 Bats

California Fish and Game Code Section 4150 prohibits the take of bats, regardless of their listing status.

2.2.6 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Section 1900–1913) directed the California Department of Fish and Game (now known as CDFW) to carry out the California Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

CESA has largely superseded NPPA for all plants designated as endangered by the NPPA. The NPPA nevertheless provides limitations on take of rare and endangered species as follows: "no person will import into this state, or take, possess, or sell within this State" any rare or endangered native plant, except in compliance with provisions of the CESA. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

2.2.7 California Environmental Quality Act

CEQA was adopted in 1970 and applies to discretionary actions directly undertaken, financed, or permitted by state or local government lead agencies. CEQA requires that a project's effects on environmental resources be analyzed and assessed using criteria determined by the lead agency. CEQA defines a rare species in a broader sense than the definitions of threatened, endangered, or California species of concern. Under this definition, the CDFW can request additional consideration of species not otherwise protected.

2.2.8 CEQA-Plus

As previously discussed, CEQA-Plus is an environmental review process that addresses compliance with both state and federal regulations when a federal nexus is established during project execution. A federal nexus has been established for this project due to the receipt of federal funding from Reclamation. CEQA-Plus requires that a project's effects on environmental resources be analyzed and assessed not only under CEQA criteria, but also under additional federal requirements, such as the ESA, NHPA, and CWA. The CEQA-Plus review uses environmental documents developed under CEQA and includes supplemental information/documents prepared for a project to comply with applicable federal environmental laws and regulations.

2.2.8.1 FEDERAL AND STATE ENVIRONMENTAL COMPLIANCE UNDER CEQA-PLUS

Under CEQA-Plus, EVWD serves as the state lead agency responsible for compliance with CEQA, and Reclamation serves as the federal lead agency responsible for compliance with NEPA and Section 106 of the NHPA.

3 METHODS

3.1 Thresholds of Significance

For purposes of this analysis, consistent with Appendix G of the State CEQA Guidelines, impacts associated with biological resources would be significant if the project would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

b. Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 Literature Review

SWCA biologists conducted a comprehensive review of online databases, mapping tools, and relevant literature to identify state and federally listed biological resources previously documented in the vicinity of the project site. The literature review encompassed a 1-mile search radius surrounding the project site. This search radius was selected based on the highly developed and landlocked condition of the parcel, as confirmed through aerial imagery review, and the limited potential for wide-ranging biological impacts in the urbanized setting of the city of Highland.

Potential jurisdictional water features were evaluated through desktop analysis using the USFWS National Wetlands Inventory (NWI) and recent Google Earth satellite imagery (Google Earth 2025; USFWS 2025a).

Preliminary review of on-site vegetation communities was conducted using current aerial imagery and reference of publicly available vegetation datasets, followed by on-site field verification to confirm vegetation classifications. Vegetation communities were characterized according to the California Native Plant Society (CNPS) Manual of California Vegetation Online (CNPS 2025a).

The following resources were evaluated during the desktop literature review:

- California Natural Diversity Database (CNDDB) RAREFIND 5 (CDFW 2025a)
- CNPS Inventory of Rare and Endangered Plants (CNPS 2025b)
- Calflora online database of California plants (Calflora 2025)
- Consortium of California Herbaria (CCH) specimen data (CCH 2025)
- NWI (USFWS 2025a)
- USFWS Critical Habitat Mapper (USFWS 2025b)
- Google Earth aerial imagery (Google Earth 2025)
- CNPS A Manual of California Vegetation Online (CNPS 2025a)
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2025)
- San Bernardino Valley Water Conservation District (SBVWCD) *Upper Santa Ana River Wash Habitat Conservation Plan* (ICF 2020)
- eBird (Cornell Lab of Ornithology 2025)
- iNaturalist (iNaturalist 2025)

3.3 Field Survey

SWCA biologist Parker Richardson conducted a reconnaissance-level biological field survey on October 28, 2025. The survey encompassed the project site and a 50-foot buffer (collectively referred to as the “study area”) to identify and document existing biological resources (Figure 4).

The primary objectives of the survey were to verify land cover and vegetation community types identified during desktop analysis, document plant and wildlife species observed, and assess the potential for occurrence of special-status species or sensitive biological features that could be affected by project implementation.

Field methods included systematic pedestrian coverage of accessible portions of the study area. On-site vegetation and land cover types were classified and verified in the field, with particular attention given to native or regionally significant plant species, sensitive habitats, and potential jurisdictional features. Wildlife species were documented through direct observation aided by binoculars and indirect evidence such as tracks, scat, burrows, and other diagnostic sign.

Taxonomic nomenclature for vascular plants follows the Jepson eFlora, and wildlife taxonomy follows the American Ornithological Society (AOS) for birds and California Herps for reptiles and amphibians (AOS 2025; Jepson Flora Project 2025; Nafis 2025).

Following a redesign of the project in September 2026, portions of the revised project footprint extended beyond the area evaluated during the October 28, 2025 field survey. To assess biological resources within these areas, SWCA conducted a supplemental desktop review using current aerial imagery, available biological records, mapped vegetation and land cover information, and observations documented during the field survey. Information obtained through this desktop review was used to characterize biological conditions and evaluate the potential for special-status species and other biological resources within portions of the revised project footprint that were not directly surveyed in the field.

Representative photographs of the project site and surrounding study area are provided in Appendix A. Comprehensive lists of plant and wildlife species observed during the field survey are presented in Appendices B and C, respectively.

No jurisdictional delineation of WOTUS or waters of the State was performed within the project parcel boundary, and no protocol-level surveys for special-status species were conducted.

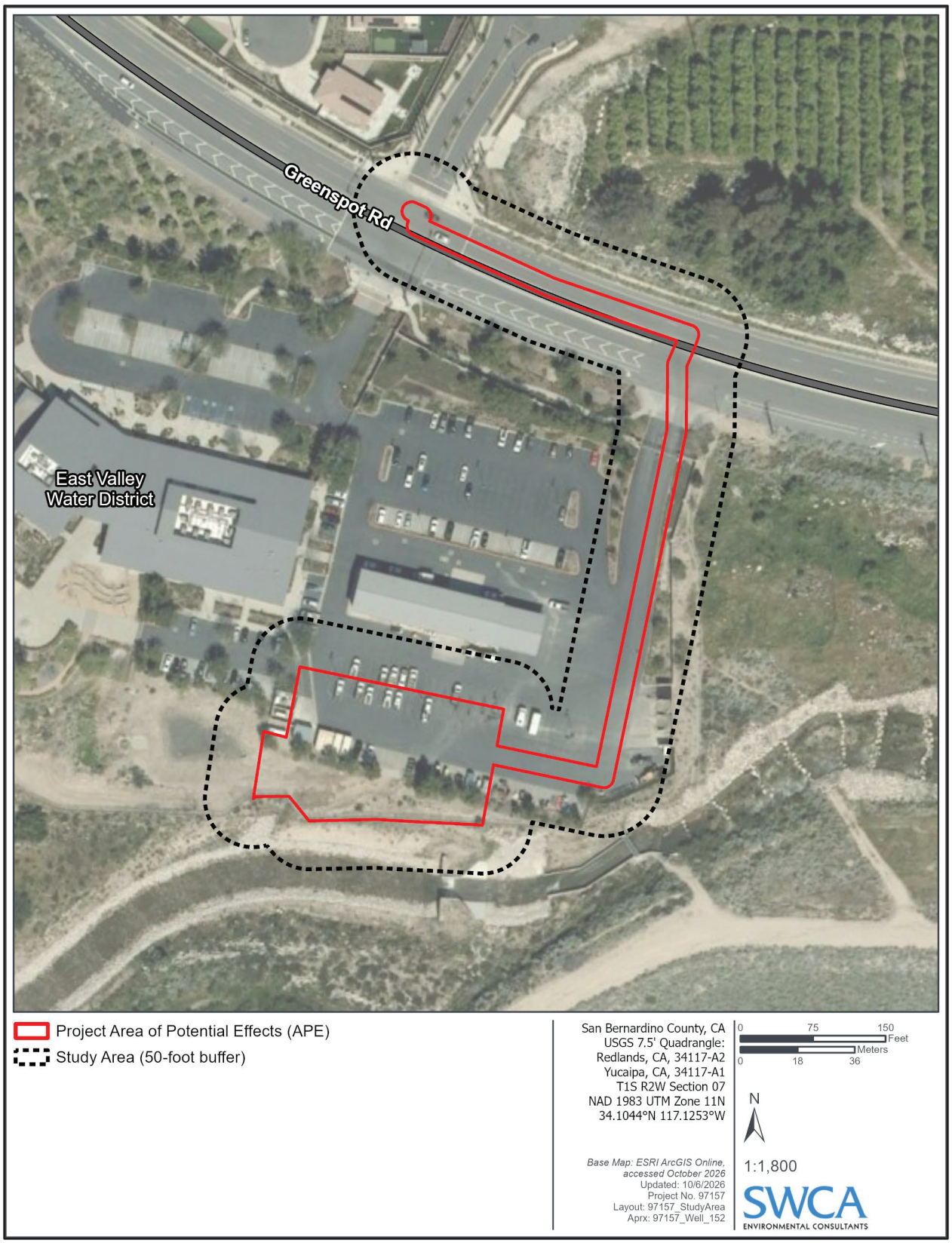

Figure 4. Study area map.

4 EXISTING CONDITIONS

The study area features a mix of relatively flat and gently sloping terrain and exhibits significant anthropogenic alteration. It is predominantly developed, including infrastructure and landscaping for the EVWD administrative headquarters and a human-made drainage channel to the south. Undeveloped portions of the study area were present toward the west end and include native vegetation communities as described below. Soils within the undeveloped portions of the project site are sandy and friable and have been substantially disturbed by anthropogenic activity.

4.1 Vegetation Communities and Land Cover

The study area largely consists of developed and disturbed land covers associated with the EVWD administrative headquarters and Greenspot Road (Table 1, Figure 5). Vegetation in disturbed and unpaved developed areas consists primarily of ornamental landscape plantings as well as isolated native species and nonnative ruderal species. The only native vegetation communities present within the study area included a small area of brittlebush scrub (*Encelia farinosa* Shrubland Alliance) along Greenspot Road within the 50-foot buffer surrounding the project site.

Table 1. Vegetation Communities and Land Cover Types within the Project Site and Study Area

Vegetation Community/Land Cover Type	Acreage within Project Site	Acreage within Study Area
Developed	0.93	3.12
Disturbed habitat	0.20	1.05
Brittlebush scrub (*Encelia farinosa* Shrubland Alliance)	-	0.03

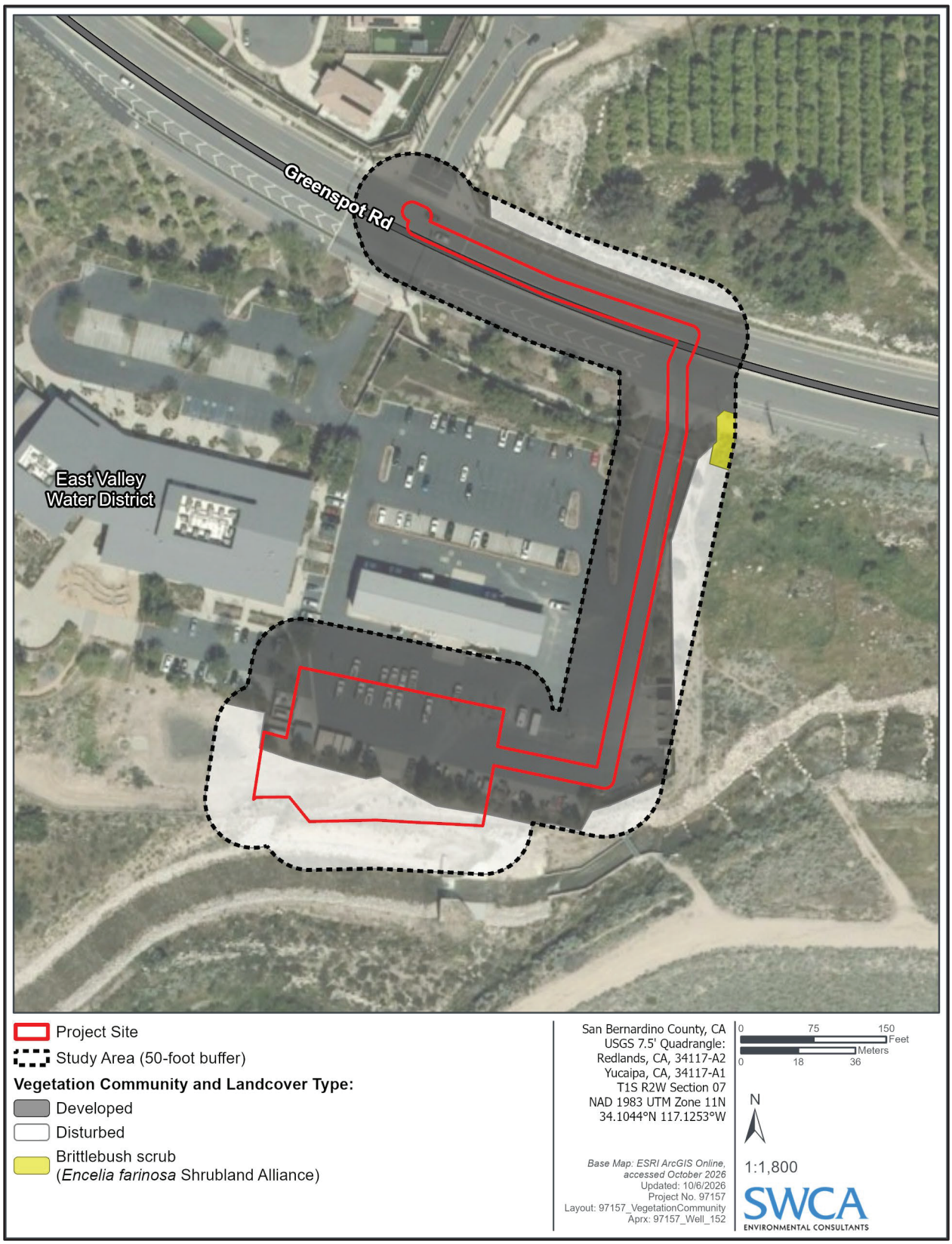

Figure 5. Vegetation communities and land cover types within the study area.

4.1.1 Disturbed Habitat

Disturbed habitat refers to areas previously altered by human activities, no longer maintaining their original native or naturalized vegetation associations. These areas are typically characterized by nonnative plant species, soil disturbance, and reduced ecological function compared to surrounding natural habitats.

Disturbed areas of the study area include unpaved and non-landscaped areas within the EVWD administrative headquarters and most undeveloped areas within the 50-foot buffer surrounding the project site. EVWD conducts weed abatement in the unpaved portions of the facility, and overall plant cover is low in disturbed areas within the facility at the time of the field survey. Vegetation consists of few individual native shrubs including California buckwheat (*Eriogonum fasciculatum*) and brittlebush (*Encelia farinosa*), and recently emerged seedlings of nonnative plants such as nonnative grasses (e.g., *Bromus* ssp.), shortpod mustard (*Hirschfeldia incana*), and redstem filaree (*Erodium cicutarium*). Outside the fenced boundary of the EVWD facility, disturbed areas are dominated by Russian thistle (*Salsola australis*), senesced shortpod mustard, and scattered native species such as brittlebush and deerweed (*Acmispon glaber*). Although biologically significant in having value as habitat for native wildlife species, native species in these disturbed areas are too sparse to form an independent native vegetation community.

4.1.2 Urban/Developed

Urban/developed areas are defined by extensive human modification, resulting in a landscape dominated by impervious surfaces and built structures. Native vegetation is largely displaced, with landscaping typically featuring ornamental plantings chosen for aesthetics or low maintenance, often composed of nonnative species. This transformation fundamentally alters the original ecosystem, prioritizing human use over ecological value.

Developed areas within the study area include paved surfaces such as parking lots and walkways and landscaped areas of the EVWD administrative headquarters. Landscaping along the borders of paved surfaces consists primarily of ornamental vegetation, including trees such as pine (*Pinus* sp.), mesquite (*Prosopis* sp.), paloverde (*Parkinsonia* sp.), and Peruvian pepper tree (*Schinus molle*), and shrubs such as rosemary (*Salvia rosmarinus*) and Texas sage (*Leucophyllum frutescens*).

4.1.3 Brittlebush Scrub (Encelia farinosa Shrubland Alliance)

Brittlebush scrub vegetation stands are found widely throughout southern California in deserts and mountain ranges from 246 to 4,593 feet amsl. This alliance typically occurs on slopes or alluvial fans with well-drained and potentially rocky soils sometimes covered by desert pavement.

This alliance is defined by the dominance or co-dominance of brittlebush within an open to intermittent shrub canopy. Commonly associated species include desert agave *(Agave deserti*), white bursage (*Ambrosia dumosa*), California sagebrush, teddybear cholla (*Cylindropuntia bigelovii*), Englemann's hedgehog cactus (*Echinocereus engelmannii*), thick-leaved yerba santa (*Eriodictyon crassifolium*), California buckwheat, California barrel cactus (*Ferocactus cylindraceus*), chaparral yucca, wishbone bush (*Mirabilis laevis*), and white sage. Emergent trees or tall shrubs such as ocotillo (*Fouquieria splendens*) may be present at low cover.

In the study area, brittlebush scrub occurs as a small, highly disturbed stand adjacent to Greenspot Road within the 50-foot buffer surrounding the project site. The area is dominated by brittlebush and supported high cover (30-40%) of nonnative ruderal species including nonnative grasses (e.g., *Bromus* sp.) and shortpod mustard.

4.2 General Wildlife

Wildlife species observed during the field survey primarily included species that are common in urbanized environments such as black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), California towhee (*Melozone crissalis*), and western honeybee (*Apis mellifera*). A great egret (*Ardea alba*) and red-tailed hawk (*Buteo jamaicensis*) were observed flying over the study area, and coyote (*Canis latrans*) tracks were observed outside the fenced boundary of the EVWD facility. Overall, wildlife activity was highest in the intact vegetation communities outside the EVWD facility, and bird activity was noted in the landscaped trees within the facility. Minimal wildlife activity was observed within the paved areas of the EVWD facility, and the areas containing the retention basins that had low plant cover. A complete list of wildlife species observed during the field survey is provided in Appendix C.

4.3 Local Regulations

4.3.1 Upper Santa Ana River Wash Habitat Conservation Plan

The Upper Santa Ana River Wash Habitat Conservation Plan (hereafter "Wash Plan") was developed by the SBVWCD in coordination with the USFWS, CDFW, and other participating entities to provide a regional, coordinated habitat conservation strategy for a defined plan area of approximately 4,892 acres within the upper Santa Ana River Wash in San Bernardino County (ICF 2020). The Wash Plan is designed to facilitate efficient permitting and implementation of "Covered Activities" (such as wells and water infrastructure, aggregate mining, flood-control infrastructure, transportation and recreation/trails, maintenance of existing facilities, and habitat restoration) while achieving conservation of special-status species and natural communities within the plan area.

EVWD is a Participating Entity under the Wash Plan and may implement qualifying Covered Activities under the Plan. SBVWCD serves as the permit holder and administrator and is responsible for reviewing proposed Covered Activities for consistency with the Wash Plan, coordinating with Participating Entities, and overseeing implementation of applicable conservation requirements. The proposed project consists of construction and operation of a new groundwater extraction well within the Plan Area and qualifies as a Wells and Water Infrastructure Covered Activity. Participating Entities may seek coverage for qualifying Covered Activities under the Wash Plan through a Certificate of Inclusion issued by SBVWCD, which documents that a proposed activity is consistent with the Wash Plan and provides access to the permit coverage available under the Plan. Should project implementation result in a need for authorization of take of a Wash Plan covered species, EVWD may seek coverage under the Wash Plan. In the absence of Wash Plan coverage, project activities that may result in take of a covered species could require separate coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to obtain the appropriate federal and state authorizations for impacts to the species. The recommendations provided in this report were developed with consideration of applicable Wash Plan requirements and other project-specific biological resource considerations to support consistency with the Wash Plan's conservation objectives.

4.3.2 City of Highland Tree Protection Ordinance

The City of Highland Tree Protection Ordinance (Highland Municipal Code Title 16, Chapter 16.64 – Environmental Management) was adopted to regulate the removal and preservation of trees within the city and applies to discretionary actions directly undertaken, financed, or permitted by local government agencies. The ordinance requires that a project's effects on urban forest resources be analyzed and assessed using criteria determined by the Community Development Department. The ordinance defines

protected trees broadly, including heritage trees, riparian vegetation such as willows (*Salix* ssp.) and cottonwoods (*Populus* ssp.), and front yard trees that contribute to neighborhood character. Under this definition, the City can request additional consideration of trees not otherwise protected under state or federal law, ensuring that community character, habitat value, and environmental quality are preserved. The removal of protected trees requires a tree removal permit.

5 SPECIAL-STATUS BIOLOGICAL RESOURCES

This section evaluates the potential for special-status species, habitat, and other resources to occur in the project site based upon searches of background resource literature and databases, existing project documents, and the October 2025 field survey. The assessment of special-status species' potential to occur is based on known ranges and habitat preferences for the species, species occurrence records from the CNDDB and other sources in the vicinity of the study area. The potential for each special-status species to occur in the project site was evaluated according to the following criteria:

- **Not Expected**. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low**. Few habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate**. Some habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High**. All habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present**. Species was observed on the site or has been recorded (e.g., CNDDB, other reports) on the site within the last 5 years.

5.1 Special-Status Species

For the purposes of this report, special-status species are those plants and animals that meet one or more of the following criteria:

- Listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the ESA;
- Listed as rare, threatened, or endangered by the CDFW under the CESA;
- Recognized as Species of Special Concern (SSC) by the CDFW;
- Identified as covered species under the Wash Plan; or
- Included on CNPS California Rare Plant Rank (CRPR) Lists 1, 2 3, or 4.

In addition, biological resources, including vegetation communities, are ranked globally (G) and state-wide (S) (critically imperiled) through 5 (secure) (NatureServe 2026). Vegetation communities are

considered special-status biological resources if they have limited distributions, have high value for sensitive wildlife, contain special-status species, or are particularly susceptible to disturbance. The CDFW ranks special-status communities as threatened.

Special-status species considered in this report include:

- Species, subspecies, and populations listed or proposed for listing as threatened or endangered pursuant to the federal ESA, and species that are candidates for such listing (CDFW 2024b, 2024c);
- Plants listed or proposed for listing by the State of California as threatened or endangered pursuant to CESA (CDFW 2025b, 2025c);
- Plants designated as CRPR 1, 2, 3, or 4 by the CNPS (CNPS 2025); and
- Animals listed on the California Special Animals List as SSC, fully protected, or Special Animal (CDFW 2025b).

The desktop review encompassed a 1-mile radius surrounding the project site and identified 20 special-status species with recorded observations within 1 mile of the site (Tables 2 and 3). These species represent federally and state-protected taxa, as well as CNPS-listed plants. Based on the results of the field survey, 5 of these species were determined to have potential to occur in the project site (see Tables 2 and 3).

Table 2. Special-Status Plant Species and Potential for Occurrence

Common Name/ Scientific Name	Status*	Habitat Requirements	Elevational Range/Life Form/ Flowering Period	Potential to Occur
Plummer's mariposa lily (*Calochortus plummerae)*	CRPR 4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland.	330–5,580 feet amsl Perennial bulbiferous herb May–July	**Not expected.** Habitat within the project site is entirely disturbed/developed. No recent CNDDB occurrences are recorded near the project site. The most recent and closest recorded occurrence is from 1997, approximately 1.2 miles west southwest of the project site. Disturbed coastal scrub habitat is present in the study area, within 50 feet of the proposed project boundary. However this species is not well suited to mowing, foot traffic, or other human disturbances.
Parry's spineflower *(Chorizanthe parryi* var. *parryi)*	CRPR 1B.1	Chapparal, cismontane woodlands, coastal scrub, valley and foothill grassland.	900–4,005 feet amsl Annual herb April–June	**Not expected.** Habitat within the project site is entirely disturbed/developed. Multiple CNDDB occurrences have been recorded within 1 mile of the project site, as close as 0.15 mile to the northwest. The most recent occurrence within 1 mile of the project site is from 2008, approximately 1 mile to the southeast. Marginally suitable habitat is present in the study area, within 50 feet of the proposed project boundary. However this species has limited tolerance of sustained human disturbance.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii)*	CRPR 4.3	Chaparral, coastal scrub.	5–2,905 feet amsl Annual herb January–July	**Not expected.** Habitat within the project site is entirely disturbed/developed. No recent CNDDB occurrences are recorded near the project site. The most recent and closest recorded occurrence is from 1987, approximately 0.65 mile to the southeast. Marginally suitable habitat is present in the study area, within 50 feet of the proposed project boundary.
Santa Ana River woollystar (*Eriastrum densiflorum* ssp. *sanctorum)*	CRPR 1B.1, FE, SE, HCP Covered	Chapparal, coastal scrub (alluvial fans)	300–2,000 feet amsl Perennial herb April–September	**Not expected.** Habitat within the project site is entirely disturbed/developed. Multiple CNDDB occurrences have been recently recorded within 1 mile of the project site. The species was recorded across a wide area to the south of the project site in 2024, as close as 0.16 mile. Moderately suitable habitat is present in the study area, within 50 feet of the proposed project boundary. The project site does not receive periodic flooding, and the species has a limited tolerance of sustained human disturbance.

Common Name/ Scientific Name	Status*	Habitat Requirements	Elevational Range/Life Form/ Flowering Period	Potential to Occur
Slender-horned spineflower *(Dodecahema leptoceras)*	CRPR 1B.1, FE, SE, HCP Covered	Chaparral, cismontane woodland, coastal scrub (alluvial fans).	655–2,495 feet amsl Annual herb April–June	**Not expected.** Habitat within the project site is entirely disturbed/developed. No recent CNDDB occurrences are recorded near the project site. The most recent and closest recorded occurrence was from 1994, approximately 0.6 mile to the south southwest. Moderately suitable habitat is present in the study area, within 50 feet of the proposed project boundary. However, the species has a low tolerance of sustained human disturbance.

Notes:

* Status Codes:

HCP Covered = Species covered under the Upper Santa Ana River Wash Habitat Conservation Plan (ICF 2020).

Federal Status: FE = Federally listed endangered

California State Status:

SE = California State-listed endangered

California Rare Plant Rank (CRPR):

1B.1 = Rare plant in California and elsewhere; seriously threatened in California.
4.2 = Watch list species of limited distribution; moderately threatened in California.
4.3 = Watch list species of limited distribution; not very threatened in California.

Table 3. Special-Status Wildlife Species and Potential for Occurrence

Common Name (*Scientific Name*)	Status*	Habitat Requirements	Potential to Occur
Birds			
Bald eagle *(Haliaeetus leucocephalus)*	SE, SFP	Requires large bodies of water or free-flowing rivers with abundant fish, and adjacent tall trees, snags, or rocks for perching. Feeds on fish, water birds, mammals, and carrion; hunts by swooping from perches, soaring flight, or wading in shallow water. Roosts in dense, remote conifer stands, often within 1.6 kilometers of water. Nests in large, dominant trees with open branchwork, typically 16–61 meters (m) above ground, often near permanent water.	**Not expected.** The project site itself lacks large water bodies, suitable nesting trees, and perches; no suitable nesting habitat present. A large water retention basin occurs approximately 0.05 mile southeast and may provide suitable foraging habitat; however, bald eagle nesting within the project site is not expected due to the lack of mature trees. The nearest occurrence recorded on CNDDB is approximately 10 miles to the northwest.
Burrowing owl *(Athene cunicularia)*	SC, SSC	Inhabits open grasslands, agricultural fields, and deserts with low vegetation and burrows. Nests and roosts in abandoned burrows or artificial structures. Feeds on insects and small vertebrates.	**Not expected.** Disturbed soils and landscaping reduce burrow and foraging availability; fenced and graded site limits movement; no activity observed during the field survey. The nearest occurrence recorded on CNDDB is from 1983, approximately 4.9 miles west of the project site.
Cactus wren (*Campylorhynchus brunneicapillus*)	SSC, HCP Covered	Inhabits deserts and other arid terrain with thickets or tracts of large, branching cacti, stiff-twigged thorny shrubs, and small trees. Forages on the ground and in low vegetation for insects, spiders, other small invertebrates, cactus fruits, other fruits, nectar, and seeds (fruits comprise 15%–20% of diet). Nests are built in cholla or other large cacti, yucca, or thorny shrubs, 1.2–1.5 m above ground. Roosts in nests or dense vegetation; activity is diurnal year round.	**Not expected.** The project site contains minimal native scrub or cacti. Small patches of Riversidean Alluvial Fan Sage Scrub are insufficient to support nesting or foraging. Adjacent natural areas may offer more suitable habitat, but movement within the project area is not expected. No occurrences of this species are recorded on CNDDB near the project site.
Coastal California gnatcatcher *(Polioptila californica californica)*	FT, SSC, HCP Covered	Endemic to southern California and Baja California, distributed across coastal regions from sea level to 2,500 feet amsl. Obligate permanent resident of dense coastal scrub habitats, occupying mesas and coastal hill slopes. Specialized habitat requires dense coastal scrub with specific vegetation, particularly California buckwheat and coastal sages. Forages primarily on insects by gleaning from shrub foliage.	**Not expected.** No suitable coastal scrub habitat is present within the project site. Marginally suitable coastal scrub habitat is present in the study area, within 50 feet of the proposed project boundary; however, the habitat in the study area lacks characteristics that this species prefers, including dense scrub and dominance of California sagebrush (*Artemisia californica*). This species was recorded on CNDDB as close as 0.25 mile east from the project site in 2024.

Common Name (*Scientific Name*)	**Status***	**Habitat Requirements**	**Potential to Occur**
Least Bell's vireo *(Vireo bellii pusillus)*	FE, SE	Summer resident distributed across southern California riparian zones, typically found below 4,000 feet amsl. Inhabits low, dense riparian environments along water courses and intermittent streams. Preferred habitats include areas with willow, cottonwood, baccharis, wild blackberry, and mesquite in desert localities. Requires dense thicket environments providing comprehensive nesting and roosting cover. Diet consists exclusively of insects, captured through diverse foraging techniques including direct plucking from vegetation and hover-gleaning. Breeding season corresponds with summer months, with nesting restricted to dense riparian vegetation.	**Not expected.** No suitable habitat is present within the project site or surrounding area. The nearest CNDDB record of the species is approximately 1.2 miles to the northwest of the project site.
Southwestern willow flycatcher *(Empidonax traillii extimus)*	FE, SE	Breeds in dense riparian habitats along rivers, streams, and wetlands with willow, cottonwood, box elder (*Acer negundo*), and other shrubs. Feeds exclusively on insects; nests in shrub or tree forks.	**Not expected.** The project site and surrounding area lacks dense riparian vegetation combined with perennial water sources. The nearest CNDDB record of the species is approximately 6.25 miles east of the project site from 1997.
Mammals			
San Bernardino (Merriam's) kangaroo rat *(Dipodomys merriami parvus)*	FE, SE, SSC, HCP Covered	Inhabits alluvial slopes, floodplains, washes, and adjacent uplands with sandy, loamy, or gravelly soils. Feeds on seeds, grains, insects, and green vegetation; stores seeds near burrows. Breeds year round, peak late June; one litter of two to three young.	**Low.** Disturbed soils reduce suitability of the project site. The project site is within USFWS mapped critical habitat and moderately suitable habitat exists within the study area, within 50 feet surrounding the proposed project boundary. CNDDB records for the species exist immediately adjacent to the project site from 2023.
San Diego desert woodrat *(Neotoma lepida intermedia)*	SSC	Distributed across southern California, the Great Basin, Mojave, and Colorado Deserts from sea level to moderate elevations. Inhabits environments with moderate to dense canopy cover, showing strong preference for rock outcrops, rocky cliffs, and slopes. Occupies diverse habitats including Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert environments.	**Not expected.** No suitable habitat is present within the project site or study area. The nearest CNDDB record for the species is approximately 0.2 mile east of the project site from 2000.
Reptiles			
California glossy snake *(Arizona elegans occidentalis)*	SSC	Widely distributed across multiple ecological zones from below sea level to 6,000 feet amsl. Most common in desert habitats but also occurs in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grasslands. Primarily nocturnal, with daytime and winter inactivity periods spent in mammal burrows, rock outcrops, and occasionally under surface objects like flat rocks and vegetation residue. Habitat preferences include open sandy areas with scattered brush but also adapts to rocky terrain. Diet consists primarily of desert lizard species. Burrowing capability allows for thermal regulation and predator avoidance in diverse substrate conditions.	**Low.** Moderately suitable habitat, including open sandy areas, and rocky areas are present in the project site and marginally suitable scrub vegetation is present in the surrounding buffer. However, disturbed soil within the project site limits burrowing opportunities. A CNDDB occurrence for the species was recorded in 2014 adjacent to the project site.

Common Name (*Scientific Name*)	**Status***	**Habitat Requirements**	**Potential to Occur**
Coast horned lizard *(Phrynosoma blainvillii)*	SSC	Diurnal; inhabits open sandy areas with sparse vegetation. Feeds primarily on harvester ants; burrows in loose soils. Uses cryptic coloration and defense behaviors against predators.	**Low.** Suitable open sandy areas are present in the project site but landscaping and nonnative vegetation reduce prey and burrowing opportunities. The nearest CNDDB record for the species is approximately 3.1 miles west of the project site from 1991.
Southern California legless lizard *(Anniella stebbinsi*)	SSC	Distributed throughout southern California from near sea level to 6,000 feet amsl. Occurs in coastal dune, valley-foothill, chaparral, and coastal scrub habitats. Requires areas with sandy or loose organic soils and abundant leaf litter. Moisture is an essential habitat requirement, with preference for environments providing high humidity and organic ground cover. Habitat adaptability includes coastal zones, desert drainages, and interior foothills.	**Moderate.** Marginally suitable habitat exists in the project site with loose moist soils and leaf litter conditions that are preferred by this species. This species is sometimes found in suburban gardens in southern California, which is present in the project vicinity and in the surrounding residences. A CNDDB occurrence for the species was recorded in 2013 adjacent to the project site to the northwest.
Amphibians			
Southern mountain yellow-legged frog *(Rana muscosa)*	FE, SE	Restricted to montane streams, lakes, or ponds (370–2,290 m amsl). Adults feed on terrestrial and aquatic invertebrates; tadpoles graze algae and diatoms. Requires perennial, well-oxygenated water.	**Not expected.** No perennial streams or pools are present in the project site. A CNDDB record for the species is adjacent to the project to the northeast from 1905.
Western spadefoot *Spea hammondii*	FPT, SC, SSC	Primarily occurs in grassland habitats from low to moderate elevations. Vernal pools are essential for breeding and egg laying. Sometimes found in pools associated with streambeds.	**Low**. The project site contains no suitable breeding habitat for western spadefoot and the species was not detected during field surveys. The nearest CNDDB observation was recorded less than 0.1 mile to the north of the project site in 2017. Potentially suitable breeding habitat is present in the greater study area within 50 feet of the project site in the human-made retention basin to the west, particularly following winter rains.
Insects			
Crotch's bumble bee *Bombus crotchii*	SC	Terrestrial, open grasslands and scrub habitats; can persist in seminatural habitats within heavily modified landscapes. Nests underground. Forages on a variety of flowers for nectar and pollen. Males perch and chase moving objects while searching for mates. Activity primarily during warm daylight hours.	**Moderate.** The project site is heavily disturbed, landscaped, and lacked extensive native flowering plants; however, landscaped plants or ruderal species may provide foraging opportunities. Open scrub habitat with native nectar sources is present in the greater study area, within 50 feet of the proposed project boundary. A CNDDB occurrence for the species was recorded in 2024 adjacent to the project site.

Common Name (*Scientific Name*)	**Status***	**Habitat Requirements**	**Potential to Occur**
Fish			
Southern California steelhead – Distinct Population Segment *(Oncorhynchus mykiss irideus* pop. 10*)*	FE,SE	Anadromous; inhabits coastal streams. Migrates between freshwater spawning streams and marine habitats. Requires perennial, well-oxygenated streams with deep pools and riffles.	**Not expected.** No perennial streams or aquatic connectivity in the project site. The species was historically recorded in the stream adjacent to the project site but was presumed extirpated by 1957. Project is unlikely to affect the adjacent stream approximately 40 feet south.

Notes:

* Status Codes:

HCP Covered = Species covered under the Upper Santa Ana River Wash Habitat Conservation Plan (ICF 2020).

Federal Status:

FPT = Federally proposed for listing as threatened.
FE = Federally listed endangered.
FT = Federally listed threatened.

California State Status:

SE = California state-listed endangered.
SC = State candidate for listing.
SSC = CDFW Species of Special Concern.
SFP = CDFW Fully protected species.

5.1.1 *Bald Eagle (*Haliaeetus leucocephalus*)*

Bald eagle is federally delisted under the ESA and is a state-listed endangered and CDFW fully protected species. This large raptor requires large water bodies such as lakes, rivers, or reservoirs with abundant fish and nearby elevated perches for hunting. Foraging occurs from perches or in flight, and scavenging is common. Nests are constructed in large, mature, or dominant trees with open branchwork, often near water, and are reused across years. Breeding occurs from February through July, peaking from March to June, with typical clutches of two eggs. Large trees and water bodies capable of supporting nesting are absent from the project site. There are large human-made retention basins approximately 0.05 mile southeast of the project site that may provide foraging habitat for bald eagle. As a result, bald eagle is not expected to occur on-site, though transient individuals could use adjacent areas.

5.1.2 *Burrowing Owl (*Athene cunicularia*)*

Burrowing owl (*Athene cunicularia*) is a California SSC and state candidate for listing. It occupies open grasslands, agricultural fields, and desert habitats with low vegetation and available burrows. Nests occur in abandoned ground squirrel or other fossorial mammal burrows or occasionally pipes and culverts. Breeding occurs from March through August, with peak activity in spring. Adults feed primarily on insects and small vertebrates. This species is not expected to occur on-site due to landscaped and graded soils, limited burrow availability, and insufficient open foraging habitat. No evidence of burrows or owl activity was detected, and surrounding habitat also lacks sufficient suitability.

5.1.3 *Cactus Wren (*Campylorhynchus brunneicapillus*)*

Cactus wren (*Campylorhynchus brunneicapillus*) is a California SSC and Wash Plan covered species. It inhabits arid scrub and desert habitats with dense thickets, large cacti (e.g., cholla), and thorny shrubs or small trees. It forages on insects, spiders, cactus fruits, nectar, and seeds. Nests are woven into cacti or thorny shrubs, typically 4 to 5 feet above ground. Breeding occurs March through June, with one to two broods per year. This species is not expected to occur on-site due to grading and landscaping, which eliminate suitable cacti and foraging habitat. Adjacent areas may provide transient individuals, but suitable cactus habitat was not observed.

5.1.4 *Coastal California Gnatcatcher (*Polioptila californica*)*

The coastal California gnatcatcher (*Polioptila californica*) is federally listed as threatened under the ESA, is a California SSC, and is a Wash Plan covered species. It is a nonmigratory resident restricted to coastal southern California, primarily below 500 meters (m) in elevation, from Los Angeles and Orange Counties south through San Diego County. The species is strongly associated with dense coastal sage scrub communities on arid slopes, mesas, and washes, typically dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and other native shrubs. Breeding occurs from March through July, with peak activity in April and May. The species is not expected to occur on-site because the site lacks suitable coastal sage scrub habitat, and coastal scrub vegetation communities in the immediate vicinity of the project site lack characteristics that the species require, including dense cover of shrubs and dominance of California sagebrush. The species was recorded approximately 0.25 mile east of the project site in 2024 according to CNDDB records. Although coastal California gnatcatcher is not expected to occur within the project site, habitat within 500 feet of the project site was not fully evaluated and may include areas with greater suitability for the species.

5.1.5 Least Bell's Vireo (Vireo bellii pusillus)

The least Bell's vireo (*Vireo bellii pusillus*) is federally listed as endangered under the ESA and is a state-listed endangered species. It is a small migratory songbird that breeds in dense riparian thickets, often willow-dominated, near perennial or seasonally flowing streams. The diet consists of insects, captured by gleaning. Nesting occurs in low shrubs, generally 1 to 3 m above ground, from March through August. The species is highly sensitive to habitat disturbance and brood parasitism by brown-headed cowbirds. The potential to occur on-site is not expected because the project site and surrounding vicinity lack the suitable composition of riparian vegetation for nesting and foraging.

5.1.6 Southwestern Willow Flycatcher (Empidonax traillii extimus)

The southwestern willow flycatcher (*Empidonax traillii extimus*) is federally listed as endangered under the ESA and state-listed endangered species. It is a small migratory songbird that breeds in dense riparian habitats along rivers, streams, and wetlands, favoring mature stands of willow, cottonwood, box elder (*Acer negundo*), and other shrubs near perennial or seasonally flowing water. The species feeds exclusively on insects, constructs nests in shrub or tree forks, and breeds from late May through July. The potential to occur on-site is not expected due to the absence of dense riparian vegetation and perennial water sources required for nesting and foraging.

5.1.7 San Bernardino (Merriam's) Kangaroo Rat (Dipodomys merriami parvus)

San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is federally listed as endangered under the ESA, California state Species of Special Concern, and is a state-listed endangered and a Wash Plan covered species. It is a nocturnal rodent inhabiting gentle alluvial slopes, floodplains, washes, and adjacent uplands with sandy, loamy, or gravelly soils suitable for burrow construction. Preferred vegetation includes alluvial and coastal sage scrub and chaparral. The species feeds on seeds, grains, insects, and green vegetation, storing seeds near burrows. Breeding occurs year round with peak activity in late June, producing one litter of two to three young, and lifespan is typically 2 to 5 years. The potential to occur on-site is low. Graded and landscaped soils reduce site suitability for the species within the project site. However,the site is within USFWS-mapped critical habitat, and nearby undeveloped areas may support the species. Suitable vegetation and soil types exist in the vicinity of the project site.

5.1.8 San Diego Desert Woodrat (Neotoma lepida intermedia)

The San Diego desert woodrat (*Neotoma lepida intermedia*) is a California SSC. It inhabits arid scrub, chaparral, and rocky habitats, often favoring areas with rock outcrops or dense shrubs. The species constructs stick-and-plant houses ("middens") for nesting, food storage, and predator escape. It feeds on buds, fruits, seeds, leaves, and shoots; breeds from October through May; and maintains small, defined home ranges. Predators include snakes, owls, and mammals; parasitism by bot fly larvae is common. The species is not expected to occur within the project site because the site lacks suitable habitat including native scrub and rock features.

5.1.9 California Glossy Snake (Arizona elegans occidentalis)

The California glossy snake (*Arizona elegans occidentalis*) is a California SSC. This nocturnal, fossorial snake inhabits arid scrub, chaparral, grasslands, and rocky washes, preferring loose soils. It hides under rocks or in burrows by day, emerging late February through November with peak activity in May. Prey includes sleeping diurnal lizards, small snakes, birds, and nocturnal mammals. Females lay three to

23 eggs (typically 5–12) in June and July, hatching in late summer or early fall. The potential to occur on-site is low because the project site and immediate vicinity include suitable habitat elements such as open sandy areas and rocky areas, and marginally suitable scrub habitat is present in the vicinity of the project site. However, disturbed soil within the project site provides limited burrowing opportunities, and prey availability may be low.

*5.1.10 Coast Horned Lizard (*Phrynosoma blainvillii*)*

The coast horned lizard (*Phrynosoma blainvillii*) is a California SSC. This species is diurnal, inhabiting open sandy areas with sparse vegetation, including grasslands, chaparral, woodlands, and semiarid foothills. It relies on loose soils for burrowing and employs cryptic behavior, inflation, biting, and ocular blood-squirting to avoid predation. Diet consists mainly of harvester ants, supplemented by other invertebrates. Breeding occurs in May and June with six to 21 eggs per clutch; hatching occurs in August and September. The potential to occur on-site is low because maintained landscaping and nonnative vegetation reduce prey and burrowing opportunities, although open sandy and rocky areas within the project site may provide limited suitability.

*5.1.11 Southern California Legless Lizard (*Anniella stebbinsi*)*

The southern California legless lizard (*Anniella stebbinsi*) is a California SSC. This species is fossorial and secretive, occurring in coastal sand dunes, sandy washes, and alluvial fan habitats, preferring loose soils for burrowing. Diet consists of small invertebrates such as insects and larvae. Life history details are limited. The potential to occur on-site is moderate because soils and vegetation are marginally suitable and the species can occur in landscaped gardens. Adjacent natural areas provide higher-quality habitat.

*5.1.12 Southern Mountain Yellow-Legged Frog (*Rana muscosa*)*

The southern mountain yellow-legged frog (*Rana muscosa*) is federally listed as endangered and is a California SSC. In southern California, it is restricted to montane streams in the San Gabriel, San Bernardino, and San Jacinto Mountains, typically at 370 to 2,290 m amsl. The species requires perennial, well-oxygenated streams, lakes, or ponds. Adults feed on terrestrial and aquatic invertebrates, while tadpoles graze on algae and diatoms. Breeding occurs from March through May in shallow water, with tadpoles potentially overwintering one to two seasons. Adults seek cover under rocks, in vegetation near water, or occasionally in burrows. The potential to occur on-site is not expected because no perennial streams or pools are present, and the nearest stream habitat is outside the project boundary. Dispersal into the project is unlikely.

5.1.13 Western Spadefoot (Spea hammondii)

The western spadefoot (*Spea hammondii*) is a federally proposed threatened species and a state candidate for listing. It occurs throughout the Central Valley, foothills, and Coast Ranges from Point Conception to the Mexican border, typically from sea level to 1,363 m amsl. It primarily inhabits grasslands, with some populations in valley-foothill hardwood woodlands or ephemeral habitats in orchards and vineyards. The species is fossorial, spending most of the year underground, and emerges to breed in shallow, temporary pools formed by winter rains. Adults feed on insects, worms, and other invertebrates, while tadpoles feed on plankton, algae, and small aquatic organisms. The potential to occur on-site is low because loose soils and seasonal drainage basins in the immediate vicinity of the project site provide ephemeral breeding habitat and transient activity could occur, particularly following winter rains. No individuals were detected during the field survey.

5.1.14 Crotch's Bumble Bee (Bombus crotchii)

Crotch's bumble bee (*Bombus crotchii*) is a state candidate for listing. It inhabits open grasslands and scrub habitat types and nests underground. The species feeds on nectar and pollen from a variety of flowers, and males perch and chase moving objects in search of mates. It can persist in seminatural habitats within heavily modified landscapes. The potential to occur on-site is moderate because habitat surrounding the project site is suitable and landscaped or ruderal plant species that occur in the project site may present foraging opportunities.

5.1.15 Southern California Steelhead (Oncorhynchus mykiss) – Distinct Population Segment

The southern California steelhead – Distinct Population Segment (*Oncorhynchus mykiss irideus* pop. 10) is federally listed as endangered under the ESA and state-listed endangered species. Anadromous, it inhabits coastal streams from the Santa Maria River south to the U.S.–Mexico border, migrating between freshwater spawning streams and marine habitats. Spawning occurs January through early June, peaking in February and March. Juveniles spend 1 to 2 years in freshwater before migrating to the ocean. The species requires perennial, well-oxygenated streams with deep pools and riffles and is sensitive to flow alterations, water quality, barriers, and habitat fragmentation. The potential to occur on-site is not expected because no perennial streams or aquatic connectivity exist. The adjacent stream approximately 20 feet south of the project site historically contained the species; however, the species was presumed extirpated in the stream as of 1957. Project activities are not expected to impact the adjacent stream.

5.1.16 Plummer's Mariposa Lily (Calochortus plummerae)

Plummer's mariposa lily (*Calochortus plummerae*) is a perennial bulbiferous herb with a CRPR of 4.2 (moderately threatened in California). This species is found in a variety of habitats including chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland, typically found in granitic or rocky soils from 330 to 5,580 feet amsl. No recent observations of this species have been recorded in the vicinity of the project site. The nearest recorded occurrence is from 1997, approximately 1.2 miles west southwest of the project site. The potential to occur on-site is not expected due to the predominance of heavily disturbed and developed habitat. The small patch of brittlebush scrub within the study area outside of the project site is disturbed and unlikely to be suitable for this species.

5.1.17 Parry's Spineflower (Chorizanthe parryi *var.* parryi)

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) is an annual herb with a CRPR of 1B.1 (seriously threatened in California). It is found in a variety of habitats, including chaparral, cismontane woodlands, coastal scrub, and valley and foothill grassland, from 900 to 4,005 feet amsl. Within these habitats, it is typically found in openings with sometimes rocky or sandy soils. This species has been recorded in multiple locations within 1 mile of the project site, including an observation from 2003, approximately 0.15 mile to the northwest. The most recently recorded observation within 1 mile of the project site is from 2008, approximately 1 mile to the southeast. The potential to occur on-site is not expected due to the predominance of heavily disturbed and developed habitat. The small patch of brittlebush scrub within the study area outside of the project site is disturbed and unlikely to be suitable for this species.

*5.1.18 Robinson's Pepper-Grass (*Lepidium virginicum *var.* robinsonii*)*

Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) is an annual herb with a CRPR of 4.3 (not very threatened in California). It is found in chaparral and coastal scrub habitat from 5 to 2,905 feet amsl. There are no recently recorded occurrences of this species near the project site. The most recent occurrence was recorded in 1987 approximately 0.65 mile southeast of the project site. The potential to occur on-site is not expected due to the predominance of heavily disturbed and developed habitat. The small patch of brittlebush scrub within the study area outside of the project site is disturbed and unlikely to be suitable for this species.

*5.1.19 Santa Ana River Woollystar (*Eriastrum densifolium *ssp.* sanctorum*)*

Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) is a perennial herb with a CRPR of 1B.1 (seriously threatened in California) that is federally listed as endangered under the ESA and is a state-listed endangered and Wash Plan covered species. It is found in chapparal and alluvial fans containing coastal scrub from 300 to 2,000 feet amsl in sometimes gravelly or sandy soils. This species has been recently recorded widely to the south of the project site in 2024 in areas associated with the Santa Ana River. The mapped extent of the 2024 occurrence comes as close as 0.16 mile from the project site. The potential to occur on-site is not expected due to the predominance of heavily disturbed and developed habitat. The small patch of brittlebush scrub within the study area outside of the project site is disturbed and unlikely to be suitable for this species.

*5.1.20 Slender-Horned Spineflower (*Dodecahema leptoceras*)*

Slender-horned spineflower (*Dodecahema leptoceras*) is an annual herb with a CRPR of 1B.1 (seriously threatened in California) that is federally listed as endangered under the ESA and is a state-listed endangered and Wash Plan covered species. No recent occurrences are recorded near the project site. The most recent and closest recorded occurrence was from 1994, approximately 0.6 mile to the south southwest of the project site. The potential to occur on-site is not expected due to the predominance of heavily disturbed and developed habitat. The small patch of brittlebush scrub within the study area is disturbed and unlikely to be suitable for this species.

5.1.21 Nesting Birds and Raptors

The project site and adjacent study area contain potentially suitable nesting habitat for passerine bird species, primarily within mature trees, native shrubs, and landscape vegetation; however, the project site itself exhibits low potential for raptor nesting, with raptors more likely to use the trees within the project site for perching or foraging rather than nesting. Mature trees capable of supporting raptor nesting are present within 500 feet of the project site. Federal and state laws protect active nesting birds (see Section 2.1.1). The list of migratory birds includes nearly all bird species native to the United States. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all nonnative species. Thus, it is illegal under the MBTA to directly kill, or destroy a nest of, nearly any native bird species.

5.2 Wildlife Movement

The project site does not support the movement of wildlife on a regional level, nor is it recognized as a vital corridor for dispersal or seasonal migration; however, the site may provide refuge for transitory and migrating bird species, and the large network of street trees in the nearby area may enhance migration to open space areas, particularly to the Santa Ana River floodplain south of the project site. The project site does not contain on-site drainage courses that would provide migratory fish movement.

5.3 Locally Protected Resources

5.3.1 Upper Santa Ana River Wash Habitat Conservation Plan

Five covered species are protected under the Wash Plan: slender-horned spineflower, Santa Ana River woollystar, cactus wren, coastal California gnatcatcher, and San Bernardino kangaroo rat. As described above, slender-horned spineflower, Santa Ana River woollystar, cactus wren, are not expected to occur in the project site. Therefore, these species are not expected to be impacted by project-related activities. San Bernardino kangaroo rat has low potential to occur within the project site due to the presence of disturbed undeveloped areas and the location of the project within mapped critical habitat for the species. Coastal California gnatcatcher is not expected to occur within the project site due to the absence of suitable habitat; habitat within 500 feet of the project site was not comprehensively evaluated and may provide greater suitability for the species. Accordingly, project activities have a low potential to impact San Bernardino kangaroo rat or indirectly affect coastal California gnatcatcher occurring in adjacent habitat. Implementation of the recommended avoidance and minimization measures included below would avoid conflicts with the conservation objectives of the Wash Plan.

5.4 Protected Aquatic Resources

Several potentially jurisdictional aquatic resources were identified and mapped within the study area outside of the project site (Figure 5). These features include the human-made drainage channel to the south of the EVWD facility (Feature 1) and a human-made retention basin within the EVWD facility (Feature 2). The human-made drainage is approximately 20 feet south of the project site. This feature contained flowing water at the time of the survey and is mapped in the NWI (USFWS 2025). The human-made retention basin is a potentially jurisdictional feature, as it had obvious evidence of hydrologic activity, including culvert inlets and soil cracking; however, it did not contain hydrophytic vegetation. None of the potentially jurisdictional features overlap the project site.



Figure 6. Potentially jurisdictional aquatic features.

6 CONCLUSIONS AND RECOMMENDATIONS

This section describes the anticipated direct and indirect impacts to biological resources at the project site that may result from project activities, and the recommended measures pertinent to specific resource types are discussed below.

6.1 Special-Status Species

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

a) Have a substantial adverse effect directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Five special-status wildlife species were identified as having low to moderate potential to occur within the project site (see Table 3), based on the habitat conditions in the study area as well as the proximity and recency of historical observations. Although the project site is dominated by developed and disturbed land cover types that limit habitat suitability for most special-status species, project activities could result in direct or indirect impacts to species with potential to occur within the project site or adjacent habitats. Therefore, the following subsections provide recommended mitigation measures. Species not included in the subsections below are not expected to be impacted by project activities.

6.1.1 Coastal California Gnatcatcher

Coastal California gnatcatcher is not expected to occur within the project site due to the lack of suitable coastal scrub habitat within the study area. The surrounding scrub habitat within the study area lacks characteristics that are typically preferred by the species (i.e., dense scrub and dominance of California sagebrush); however, scrub habitat within 500 feet of the project site may be more suitable. Additionally, the species was recorded approximately 0.25 mile east of the project site in 2024 on CNDDB. Therefore, construction activities conducted during the breeding season could result in indirect impacts to nesting coastal California gnatcatchers occurring in adjacent habitat. Because suitable habitat is absent from the project site and field surveys did not evaluate all habitat within 500 feet of the project site, SWCA recommends the following conservative mitigation measure to avoid impacts to coastal California gnatcatcher:

> **MM BIO-1:** If feasible, avoid conducting construction activities during the coastal California gnatcatcher breeding season (February 15 to August 30). If vegetation clearing or initial ground disturbance occurs during the breeding season, a qualified biologist familiar with the identification and natural history of coastal California gnatcatcher shall conduct a pre-activity nesting bird survey no more than 3 days prior to the start of work. The survey shall include the impact area and all accessible habitat within a 500-foot buffer of the project site to determine whether active coastal California gnatcatcher nests or other protected native bird nests are present. If there is a lapse in construction activities of 5 or more days, the area to be disturbed and surrounding 500-foot buffer shall be resurveyed no more than 3 days before vegetation clearing or initial ground disturbance resumes. If an active coastal California gnatcatcher nest is identified, a 300-foot avoidance buffer shall be established and maintained until the qualified biologist determines that nesting has been completed. Appropriate species-specific avoidance buffers shall be established for other protected native bird species, as determined by the qualified biologist.

6.1.2 San Bernardino (Merriam's) Kangaroo Rat

San Bernardino kangaroo rat has a low potential to occur in the project site. Although the suitability of the habitat within the project site is poor due to the prevalence of disturbed and developed land cover types, areas within the greater study area contain friable soils that may allow burrowing and moderately suitable vegetation communities. The project site is within USFWS-mapped critical habitat for San Bernardino kangaroo rat, and the species has been historically recorded in the immediate vicinity of the project. As a result, the project could result in direct or indirect impacts to San Bernardino kangaroo rat. SWCA recommends the following mitigation measure to avoid impacts to San Bernardino kangaroo rat. The measure is consistent with applicable Wash Plan impact avoidance and minimization requirements for the San Bernardino kangaroo rat.

> **MM BIO-2:** A qualified biologist or biological monitor with San Bernardino kangaroo rat expertise will be present when construction or ground-disturbing activities that could result in take of San Bernardino kangaroo rat occurs in, or within 100 meters of San Bernardino kangaroo rat habitat. Construction or ground-disturbing activities for this project that could result in take of San Bernardino kangaroo rat include, but are not limited to, site grading, drilling, excavation, trenching, stockpiling of soils or drill cuttings, and repeated vehicle or heavy-equipment travel in unpaved areas. The biological monitor shall ensure that construction activities remain within the approved project footprint and that avoidance buffers established during preconstruction surveys are maintained. The qualified biologist or biological monitor will have the authority to stop work if a San Bernardino kangaroo rat is found. If a San Bernardino kangaroo rat is observed within the project area during construction, work in the immediate vicinity of the observation shall stop and the biological monitor shall allow the individual to leave the area on its own. If necessary, the monitor shall establish an appropriate avoidance buffer and notify the project proponent and the SBVWCD (Wash Plan administrator). Construction activities may resume once the individual has moved out of the work area and the monitor determines that work can proceed without risk of take.

6.1.3 California Glossy Snake, Coast Horned Lizard, and Southern California Legless Lizard

The potential for occurrence for California glossy snake in the project site is low due to the existence of open, sandy and rocky areas in the project site and marginally suitable scrub habitat in the immediate surrounding area. The potential for coast horned lizard to occur is low due to the presence of marginally suitable habitat (i.e., open sandy areas) in the project site and surrounding areas. However anthropogenic activity and disturbed habitat reduce the habitat quality for both species. The potential for southern California legless lizard to occur in the project site is moderate because loose moist soil and leaf litter are present and the species can occur in landscaped gardens. Therefore, project construction could result in impacts to these species. SWCA recommends the following mitigation measure to avoid impacts to California glossy snake, coast horned lizard, and southern California legless lizard:

> **MM BIO-3:** A qualified biologist familiar with the identification and natural history of California glossy snake, coast horned lizard, and southern California legless lizard shall conduct a preconstruction survey no more than 2 days prior to the start of ground disturbance or vegetation clearing activities. If any California glossy snakes, coast horned lizards, or southern California legless lizards are observed within the project impact area, the qualified biologist shall allow the individual to move out of harm's way on its own, if feasible, or relocate the individual to suitable habitat outside the project footprint.

6.1.4 Western Spadefoot

The potential for western spadefoot to occur in the project site is low. Although suitable breeding habitat is absent from the project site, a human-made retention basin located within 50 feet of the project site may provide potentially suitable breeding habitat following winter rainfall events. Therefore, construction activities conducted adjacent to the retention basin could result in direct or indirect impacts to western spadefoot if the retention basin supports breeding western spadefoot during the construction period. SWCA recommends the following mitigation measures to avoid impacts to western spadefoot:

> **MM BIO-4:** Limit construction activities within 50 feet of the retention basins to outside of the breeding season (approximately January-May depending on rainfall) to the extent feasible to avoid impacting western spadefoot breeding in the manmade retention basins and drainage.
>
> **MM BIO-5:** If construction activities within 50 feet of the retention basins occur during the western spadefoot breeding season, a qualified biologist familiar with the identification and life history of western spadefoot will conduct a preconstruction survey no more than 14 days prior to the start of construction to identify potentially suitable western spadefoot breeding habitat and determine whether western spadefoot are present. The survey area shall include the project site and a 50-foot buffer. If suitable western spadefoot breeding habitat is identified, best management practices will be implemented during construction activities to avoid runoff into the breeding habitat. If western spadefoot individuals are found, a minimum 50-foot avoidance buffer shall be established around occupied breeding habitat and maintained until a qualified biologist determines that western spadefoot are no longer present. The avoidance buffer will be removed when western spadefoot are confirmed to be absent from the breeding habitat by the qualified biologist. If construction activities are delayed for more than 14 days during the breeding season, or if substantial rainfall occurs after the survey and prior to the start or resumption of work, a qualified biologist shall determine whether additional surveys are necessary based on current site conditions and the potential for western spadefoot breeding habitat to have developed.

6.1.5 Crotch's Bumble Bee

The project site and surrounding area provide moderately suitable habitat for Crotch's bumble bee because nearby native vegetation communities may support foraging and nesting habitat. SWCA recommends the following mitigation measure to avoid impacts to Crotch's bumble bee:

> **MM BIO-6:** A qualified biologist familiar with identification and life history of Crotch's bumble bee will conduct a preconstruction survey no more than 14 days prior to the start of construction to look for Crotch's bumble bee nests within the project site and a 50-foot buffer. Potential nests will be flagged and a minimum 50-foot avoidance buffer shall be established. If construction activities are delayed for more than 30 days following completion of the survey, an additional survey shall be conducted prior to the initiation or resumption of ground-disturbing activities. If an active nest is identified during construction, the avoidance buffer shall remain in place until a qualified biologist determines that the nest is no longer active.

6.1.6 Special-Status Plants

No special-status plants are expected to occur within the project site due to the prevalence of developed and highly-disturbed land covers. Therefore, no direct or indirect impacts are expected to occur to special-status plant species as a result of project construction.

6.1.7 Nesting Birds and Raptors

Project construction could result in direct and indirect impacts to birds nesting in the project site by impacting vegetation supporting nests or by construction noise causing active nests to fail. SWCA recommends the following mitigation measure to avoid impacts to nesting birds and raptors:

> **MM BIO-7: Nesting Birds.** Prior to vegetation removal the following nesting bird mitigation requirements shall be implemented:
>
> a. If possible, site disturbance and landscaping activity shall not occur during the nesting bird breeding season (February 1 through August 31; January 1 through June 30 for raptors).
>
> b. If activities associated with vegetation removal, construction, or grading must be conducted during the bird nesting/breeding season (February 1 through August 31; January 1 through June 30 for raptors), a qualified biologist shall conduct surveys for active nests. Preconstruction nesting bird surveys shall be conducted no more than 3 days prior to the start of clearance/construction work. If ground-disturbing activities are delayed or suspended for 5 or more consecutive days, additional preconstruction surveys shall be conducted such that no more than 3 days have elapsed between the survey and start of ground-disturbing activities.
>
> c. If active nests are discovered during the nest survey, those nests shall be avoided until the young have fledged. The qualified biologist shall establish appropriate avoidance buffers based on the factors such as the nest location, surrounding vegetation, topography, construction activities, and anticipated noise levels. Buffers may be modified by the qualified biologist if the nest remains active and breeding behavior indicates that construction activities are not adversely affecting nesting success. The avoidance buffer shall remain in place until the qualified biologist determines that the young have fledged and are no longer reliant on the nest site. Any temporary exclusionary fencing or flagging installed to delineate the buffer shall be maintained for the duration of the nesting period and removed only at the direction of the qualified biologist.

6.2 Riparian Habitats or Sensitive Natural Communities

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on riparian habitats or other sensitive communities if it would:

> b) Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

No sensitive natural communities or riparian habitat were identified in the study area; however, riparian habitat may exist downstream of the project site. To avoid impacts to riparian habitat, SWCA recommends the following mitigation measure:

> **MM BIO-8:** Best management practices will be implemented during construction to prevent erosion and runoff from the project into offsite riparian habitat.

6.3 Protected Aquatic Resources

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on aquatic resources if it would:

> c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

No potentially jurisdictional aquatic features are within the project site; therefore no direct impacts are anticipated to protected aquatic resources. SWCA recommends the following mitigation measure to avoid indirect impacts to protected aquatic resources:

> **MM BIO-9:** Implement best management practices during construction to prevent erosion or runoff from the project into potentially jurisdictional aquatic resources.

6.4 Wildlife Movement

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on wildlife movement if it would:

> d) Interfere substantially with the movement of any resident or migratory wildlife corridors or impede the use of wildlife nursery sites.

The project site does not support the movement of wildlife at a regional level, nor is it recognized as a vital corridor for dispersal, seasonal migration, or use as a wildlife nursery site. For these reasons, no impacts would result to wildlife corridors or nursery sites as a result of the project.

6.5 Compliance with Local Regulations

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

> e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The project site contains landscaped trees which may meet the definition of a "Heritage Tree" according to the City of Highland Tree Protection Ordinance, including woody plants at least 15 feet in height and having a single trunk circumference of 24 inches or more, as measured 4.5 feet above ground level. Therefore, project implementation could conflict with local regulations protecting biological resources if qualifying Heritage Trees are removed without compliance with applicable City of Highland requirements. SWCA recommends the following mitigation measures:

> **MM BIO-10:** The project shall avoid the removal of protected trees whenever feasible. Prior to the removal of any trees within the project site, an International Society of Arboriculture (ISA) Certified Arborist shall evaluate trees proposed for removal and determine whether any qualify as Heritage Trees under the City of Highland Tree Protection Ordinance. If any Heritage Trees would be removed, the project applicant shall comply with all applicable requirements of the City of Highland Tree Protection Ordinance, including obtaining any required Tree Removal Permit

and implementing any permit conditions, such as tree replacement requirements, prior to tree removal.

6.6 Consistency with Habitat Conservation Plans

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

As a water infrastructure project, the project falls within the Wells and Water Infrastructure Covered Activity category identified in the Wash Plan. The recommended mitigation measures were developed with consideration of applicable Wash Plan requirements for covered species. The mitigation measures recommended for the protection of San Bernardino Kangaroo Rat are consistent with the measures required by the Wash Plan. Based on the literature review and field survey conducted for this project, San Bernardino kangaroo rat has a low potential to occur within the project site and implementation of the recommended avoidance and minimization measures is expected to reduce the potential for impacts to the species. Therefore, project implementation is not expected to conflict with the conservation objectives of the Wash Plan.

Cactus wren, Santa Ana River woollystar, and slender-horned spineflower were determined to have no potential to occur within the project site due to the lack of suitable habitat. Although coastal California gnatcatcher is a Wash Plan covered species recorded in the vicinity of the project site, it is not expected to occur within the project footprint due to the absence of suitable habitat. Therefore, the project-specific avoidance measures recommended for coastal California gnatcatcher are intended to address the potential for indirect impacts to adjacent habitat and are not based on the Wash Plan's species-specific avoidance requirements for impacts within occupied gnatcatcher habitat.

6.7 Compliance Federal Environmental and Natural Resource Laws

6.7.1 Compliance with the Coastal Barriers Resources Act

No Coastal Barrier Resource System units are in the vicinity of the project; therefore, this act is not relevant to the proposed project.

6.7.2 Compliance with the Coastal Zone Management Act

The proposed project is not within the coastal zone; therefore, the Coastal Zone Management Act is not relevant to the project.

6.7.3 Compliance with the Fish and Wildlife Coordination Act

The proposed project will not directly impact any body of water, and indirect impacts to nearby bodies of water are not expected; therefore, the Fish and Wildlife Coordination Act is not relevant to the project.

6.7.4 Compliance with the Magnuson-Stevens Fishery Conservation Act

No Essential Fish Habitat is in the vicinity of the proposed project; therefore, the MSA is not relevant to the project.

6.7.5 Compliance with the Rivers and Harbors Act, Section 10

The project does not involve construction below the Ordinary High Water elevation of navigable WOTUS; therefore, Section 10 of the Rivers and Harbors Act does not apply to the project.

6.7.6 Compliance with the Wild and Scenic Rivers Act

The proposed project is not within a wild and scenic river; therefore, the Wild and Scenic Rivers Act does not apply to the project.

7 LITERATURE CITED

American Ornithological Society (AOS). 2025. Checklist of North American birds. Committee on Classification and Nomenclature – North and Middle America. Available at: https://checklist.americanornithology.org/. Accessed November 2025.

Calflora. 2025. Calflora database. Available at: http://www.calflora.org. Accessed November 2025.

California Department of Fish and Wildlife (CDFW). 2025a. California Natural Diversity Database RAREFIND 5 database ver.5.2.14. Available at: www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed October 2025.

———. 2025b. *Special Animals List*. July. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed November 2025.

———. 2025c. *Special Vascular Plants, Bryophytes, and Lichens List*. July. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline. Accessed November 2025.

California Native Plant Society (CNPS). 2025a. A Manual of California Vegetation Online. Available at: https://vegetation.cnps.org/. Accessed March 2026.

———. 2025b. Rare Plant Inventory. Version 9.5.1. Available at: www.rareplants.cnps.org. Accessed November 2025.

Consortium of California Herbaria (CCH). 2025. Consortium of California Herbaria (CCH). Available at: https://ucjeps.berkeley.edu/consortium/. Accessed November 2025.

Cornell Lab of Ornithology. 2025. *eBird: An online database of bird distribution and abundance*. Cornell University. Available at: https://ebird.org. Accessed November 2025.

Google Earth. 2025. Aerial imagery. Available at: https://earth.google.com. Accessed October 2025.

ICF. 2020. *Upper Santa Ana River Habitat Conservation Plan.* Final. Prepared for San Bernardina County Water Valley Conservation District, Redlands, California. Available at: https://www.sbvwcd.org/~documents/route:/download/6246. Accessed November 2025.

iNaturalist. 2025. iNaturalist. California Academy of Sciences & National Geographic Society. Available at: https://www.inaturalist.org. Accessed November 2025.

Jepson Flora Project. 2025. Jepson Herbarium eFlora. Available at: https://ucjeps.berkeley.edu/eflora/. Accessed November 2025.

Nafis, G. 2025. A Guide to the Amphibians and Reptiles of California. Available at: http://www.californiaherps.com/. Accessed November 2025.

Natural Resources Conservation Service (NRCS). 2025. USDA Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed November 2025.

NatureServe. 2026. NatureServe global conservation status ranks. Available at: https://www.natureserve.org/nsexplorer/about-the-data/statuses/conservation-status-categories. Accessed June 2026.

U.S. Fish and Wildlife Service (USFWS). 2025a. National Wetland Inventory. Available at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed November 2025.

———. 2025b. USFWS Threatened & Endangered Species Active Critical Habitat Report. Available at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed October 2025.

APPENDIX A

Site Photographs



Photo A-1. Overview of existing conditions in the southeastern portion of the project site, facing southwest (photograph taken October 28, 2025).



Photo A-2. Overview of existing conditions in the southeastern portion of the project site, facing northwest (photograph taken October 28, 2025).



Photo A-3. Overview of existing conditions in the southern portion of the project site, facing southwest (photograph taken October 28, 2025).



Photo A-4. Overview of existing conditions in the southeastern portion of the project site 50-foot buffer along the edge of the EVWD property, facing west (photograph taken October 28, 2025).



Photo A-5. Overview of existing conditions in the southern portions of the project site, facing east (photograph taken October 28, 2025).



Photo A-6. Overview of existing conditions in the southwestern portion of the project site 50-foot buffer, facing northeast, showing a potential jurisdictional aquatic resource in the surrounding buffer of the project site (Feature 2 in Figure 5) (photograph taken October 28, 2025).



Photo A-7. Overview of existing conditions in the southern portion of the project site, facing east (photograph taken October 28, 2025).



Photo A-8. Overview of existing conditions in the southern portion of the project site 50-foot buffer, facing south, showing the human-made drainage channel (photograph taken October 28, 2025).



Photo A-9. Overview of existing conditions in the southern portion of the project site 50-foot buffer, facing east, showing the human-made drainage channel (photograph taken October 28, 2025).



Photo A-10. Overview of existing conditions in the southern portion of the project 50-foot buffer, facing west, showing the human-made drainage channel (photograph taken October 28, 2025).

APPENDIX B

Flora Observed

Table B-1. Plant Species Observed during Field Survey, October 28, 2025

Common Name	Scientific Name
Brittlebush	*Encelia farinosa*
California buckwheat	*Eriogonum fasciculatum*
California croton	*Croton californicus*
California sagebrush	*Artemisia californica*
Cane cholla	*Cylindropuntia bernardina*
Chamise	*Adenostoma fasciculatum*
Cheatgrass*	*Bromus tectorum*
Coyote brush (unknown cultivar)	*Baccharis pilularis* (unknown cultivar)
Deerweed	*Acmispon glaber*
Fiddleneck	*Amsinckia* sp.
Goodding's black willow	*Salix gooddingii*
Jerusalem oak goosefoot*	*Dysphania botrys*
Kurrajong*	*Brachychiton populneus*
Lantana*	*Lantana* sp.
Mediterranean grass*	*Schismus* sp.
Mexican paloverde*	*Parkinsonia aculeata*
Mulefat	*Baccharis salicifolia*
Peruvian peppertree*	*Schinus molle*
Pigweed amaranth*	*Amaranthus albus*
Pine*	*Pinus* sp.
Pink muhlygrass*	*Muhlenbergia capillaris*
Puncturevine*	*Tribulus terrestris*
Red brome*	*Bromus rubens*
Redstem filaree*	*Erodium cicutarium*
Rosemary*	*Salvia rosmarinus*
Russian thistle*	*Salsola australis*
Sacred datura	*Datura wrightii*
Shortpod mustard*	*Hirschfeldia incana*
Slender buckwheat	*Eriogonum gracile*
Sugar bush	*Rhus ovata*
Tamarisk*	*Tamarix* sp.
Texas sage*	*Leucophyllum frutescens*
Western sycamore	*Platanus racemosa*
Wild oat*	*Avena* sp.
Wire lettuce	*Stephanomeria* sp.
Wishbone bush	*Mirabilis laevis*
Yerba santa	*Eriodictyon* sp.

Note:

* = Nonnative species.

Appendix C

Fauna Observed

Table C-1. Faunal Species Observed during Field Survey, October 28, 2025

Common Name	Scientific Name
Birds	
Anna's hummingbird	*Calypte anna*
Black phoebe	*Sayornis nigricans*
Bushtit	*Psaltriparus minimus*
California towhee	*Melozone crissalis*
Costa's hummingbird	*Calypte costae*
Great egret (flyover)	*Ardea alba*
Hermit thrush	*Catharus guttatus*
House finch	*Haemorhous mexicanus*
Northern flicker	*Colaptes auratus*
Red-tailed hawk (flyover)	*Buteo jamaicensis*
Insects	
Western honey bee	*Apis mellifera*
Mammals	
Coyote (tracks)	*Canis latrans*
Reptiles	
Side-blotched lizard	*Uta stansburiana*
Western whiptail	*Aspidoscelis tigris*