Appendix C.1

Biological Resources and MSCHP Consistency Report

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ROCAS GRANDES II PROJECT
BIOLOGICAL RESOURCES AND MSHCP CONSISTENCY REPORT

Moreno Valley, California

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1 SUMMARY

This report presents the results of a biological resources assessment and Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis conducted by Rocks Biological Consulting (RBC) for the Rocas Grandes II Project (project or proposed project) in the City of Moreno Valley, Riverside County, California. The approximate 17.56-acre project site has been historically used for agricultural purposes and presently supports disturbed habitat. The project site is primarily surrounded by agricultural fields, vacant lots, and development.

The site is not located within an MSHCP Criteria Area Cell, Cell Group, or Linkage area and is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) processes. The project is not located within a Criteria Area Species Survey Area (CASSA) or Narrow Endemic Plant Species Survey Area (NEPSSA); however, it is located within the MSHCP Burrowing Owl Survey Area. RBC conducted focused presence/absence surveys for burrowing owl (*Athene cunicularia*) in 2022 and 2024. Survey results for burrowing owl were negative. In addition, RBC conducted focused Crotch's bumble bee (*Bombus crotchii*) surveys in 2024, which were negative.

No aquatic resources potentially jurisdictional pursuant to U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), or California Department of Fish and Wildlife (CDFW) requirements occur on site. In addition, there are no aquatic resources on the site that would meet the definition of "riparian/riverine" or "vernal pools" pursuant to MSHCP Section 6.1.2.

With the implementation of the proposed avoidance and mitigation measures included in this report, the project would be consistent with the goals/objectives of the MSHCP

2 INTRODUCTION

The purpose of this Biological Resources and MSHCP Consistency Report is to summarize the biological data for the proposed project and to document the project's consistency with the goals and objectives of the MSHCP.

2.1 PROJECT BACKGROUND

The proposed project consists of the development of a 460-unit multi-family residential development on the approximately 17.56-acre site. According to the City of Moreno Valley General Plan Land Use map (2020), the entire project site has a General Plan land use designation of R30. The proposed project is a multi-family residential development, consistent with the R30 General Plan land use designation and zoning district.

The Moreno Valley Municipal Code (MVMC) Section 9.03.020.L. states that "The primary purpose of the R30 district is to provide a broadened range of housing types in an urban setting than is typically found within other areas of the city. This district is intended as an area for development of multifamily residential dwelling units at a maximum allowable density of 30 dwelling units (DUs) per net acre in accordance with the provisions outlined herein." The R30 site development standards are codified under MVMC Section 9.03.040.

2.2 PROJECT LOCATION

The project site is located approximately six miles east of Interstate 215 within the City of Moreno Valley, Riverside County, California (Figure 1). The project site is north of the future extension of Brodiaea Avenue, south of Alessandro Boulevard, east of the future extension of Darwin Drive, and west of vacant land and the future Morrison Street. The following Assessor Parcel Numbers (APNs) are associated with the project site: 486-280-062 and 486-280-063. The project site occurs within Township 03S, Range 03W, Section 16 on the U.S. Geological Survey (USGS) 7.5-minute Sunnymead quadrangle map.

The project site is comprised of disturbed habitat, formerly used for agriculture. The surrounding area is a mix of vacant, undeveloped land, single-family residential subdivisions, multi-family development (undergoing construction), large-lot rural residences, a school, and medical institutional uses. The project site exhibits relatively flat topography.

2.3 PROJECT DESCRIPTION

The project would allow for the development of a 460-unit for-rent multi-family residential community including 80 residential townhome units and 380 residential stacked flats. Project amenities would include a recreational area with a clubhouse and co-work area, swimming pool and spa, fitness center and family room, a dog park, as well as additional common open spaces. The project includes 860 parking spaces, which would be provided in garages, as well as covered carports and open surface parking.

Each of the 80 townhomes and 380 stacked flats would contain a private deck or patio. The proposed townhome product type would be multi-floor units that share one to two side walls with adjacent units. The stacked flats product type would be single-story units that are

constructed in a "stack," where each dwelling unit is either above or below an adjacent unit within a single building. All residential buildings would be three stories. Building heights would vary, with 43.5 feet to the top of the roof for the residential stacked flats buildings and 40 feet, 1 inch to the top of the roof for the townhome buildings.

The 80 townhomes would include one-, two-, and three-bedroom units of 880 square feet (sf), 1,282 sf, and 1,502 sf, respectively. The 80 townhome units would be clustered within nine buildings, each containing nine units, with the exception of one building with eight units. The townhomes would be in the northeast portion of the project site.

The 380 stacked flats would have one or two bedrooms and be 741 sf and 1,087 sf, respectively. The stacked flats would be clustered in ten buildings. Seven buildings would be generally located along the western property boundary adjacent to the future extension of Darwin Drive, two buildings would be located adjacent to the future extension of Brodiaea Avenue, and one building adjacent to the eastern property boundary.

2.4 REGULATORY FRAMEWORK

Federal, state, and local agencies have established several regulations to protect and conserve biological resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the project. The regulating agencies make the final determination as to what types of permits are required.

2.4.1.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA; 16 U.S.C. § 1531 et seq.), as amended, provides for listing of endangered and threatened species of plants and wildlife and designation of critical habitat for listed species. The ESA regulates the "take" of any endangered fish or wildlife species, per Section 9. As development is proposed, the responsible agency or individual landowner is required to consult with the United States Fish and Wildlife Service (USFWS) to assess potential significant impacts on listed species (including plants) or their critical habitat, pursuant to Sections 7 and 10 of the ESA. USFWS is required to make a determination as to the extent of impact a project would have on a particular species. If it is determined that potential significant impacts on a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may issue an incidental take statement, following consultation and the issuance of a Biological Opinion. This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the ESA provides for issuance of incidental take permits (ITPs) to non-federal parties with the development of a habitat conservation plan (HCP); Section 7 provides for permitting of federal projects.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. § 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and listed at 50 Code of

Federal Regulations (CFR) 10.13. The USFWS enforces the MBTA, which prohibits “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act of 1972 (CWA; 33 U.S.C. § 1251 et seq.), the Corps is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3 (88 Federal Register 61964, September 8, 2023; Revised Definition of “Waters of the United States”; Conforming). The Corps, with oversight from the U.S. Environmental Protection Agency, has the principal authority to issue CWA Section 404 permits. Substantial impacts on waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The nine separate RWQCBs, divisions of the State Water Resources Control Board, provide oversight of the Section 401 certification process in California. The RWQCBs are required to provide Water Quality Certification for licenses or permits that authorize an activity that may result in a discharge from a point source into a water of the U.S. Water Quality Certification authorization “is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements” (40 CFR 121.3).

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA (33 U.S.C. § 1342).

2.4.1.2 State Regulations

California Environmental Quality Act

The California Environmental Quality Act (CEQA; California Public Resources Code § 21000 et seq.) was established in 1970 as California’s counterpart to the National Environmental Policy Act (NEPA). CEQA requires state and local agencies to identify significant environmental impacts of their actions and to avoid or mitigate those impacts, where feasible.

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity, which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

California Endangered Species Act

The California Endangered Species Act of 1984 (CESA; California Fish and Game Commission [CFGC] § 2050 et seq.), in combination with the California Native Plant Protection Act of 1977

(CFGC § 1900 et seq.), regulates the listing and take of plant and wildlife species designated as endangered, threatened, or rare within the state. California also lists species of special concern (SSC) based on limited distribution; declining populations; diminishing habitat; or unusual scientific, recreational, or educational value. The CDFW is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

California Fish and Game Code Sections 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CFGC § 1602). CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement.

California Fish and Game Code Sections 3503, 3511, 3513, 3801, 4700, 5050, and 5515

CDFW protects and manages fish, wildlife, and native plant resources within California. The CFGC and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the CFGC address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the CFGC.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) provides for statewide coordination of water quality regulations. The State Water Resources Control Board (SWRCB) was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not

required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

2.4.1.3 Regional and Local Plans

Western Riverside Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive habitat conservation/planning program within Western Riverside County. The intent of the MSHCP is to conserve habitat that meets the needs of multiple species, rather than focusing conservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to special-status species and associated native habitats.

Through permits issued by the USFWS and CDFW, the MSHCP designates 146[1] special-status plant and wildlife species as Covered Species, of which the majority have no project-specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for projects that are consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA. City Municipal Code (Code) 3.48 supports the implementation of the MSHCP through collection of Local Development Mitigation Fees (Ord. 981 § 3.48, 2021).

Covered Species that are not yet adequately conserved have additional requirements for these species to ultimately be considered ‘adequately conserved’. A number of these species have survey requirements based on a project’s occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP Volume I, Section 6.1.3), when identified within a NEPSSA; Criteria Area Plant Species (MSHCP Volume I, Section 6.3.2) when identified within a CASSA; wildlife species (burrowing owl, mammals, amphibians, and invertebrates) when identified within designated survey areas (MSHCP Volume I, Section 6.3.2); and species associated with riparian/riverine areas and vernal pool habitats, including least Bell’s vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and three species of fairy shrimp (MSHCP Volume I, Section 6.1.2). An additional 28 species (MSHCP Volume I, Table 9.3) not yet adequately conserved have species-specific objectives for the species to become adequately conserved. While these species do not have project-specific survey requirements, additional mitigation could be required if one or more of these species would be impacted by a project and the species have not yet been designated as adequately conserved as described in the most recently available MSHCP Annual Report (Regional Conservation Authority [RCA] 2023).

The goal of the MSHCP is to achieve a Conservation Reserve of 500,000 acres. Approximately 347,000 acres on existing Public/Quasi-Public (PQP) Lands have already been conserved, leaving approximately 153,000 acres of Additional Reserve Lands to be acquired within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into

[1] Where a given project is located within both the MSHCP and the Stephens’ Kangaroo Rat (SKR) HCP, the SKR HCP provides take coverage. Where this overlap occurs, the MSHCP would cover 145 species rather than 146 species.

Subunits, and further divided into Criteria Cells and Cell Groups (a group of Criteria Cells). Each Cell Group and independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the HANS process to determine if lands are targeted for inclusion in the MSHCP Reserve. In addition, all projects located within the Criteria Area are subject to the JPR process, including review by the RCA to determine overall compliance/consistency with the biological requirements of the MSHCP. RCA's review is followed by a joint review by CDFW and USFWS, collectively referred to as the "Wildlife Agencies."

Stephens' Kangaroo Rat Habitat Conservation Plan and City of Moreno Valley, California Municipal Code 8.60

The Stephens' Kangaroo Rat (*Dipodomys stephensi*) Habitat Conservation Plan (HCP) was completed in 1996 by the Riverside County Habitat Conservation Agency (RCHCA), the CDFW, and the USFWS (RCHCA 1996). The HCP was created as a region-wide plan for species permitting and conservation so that individual projects could receive ESA take authority for the species through the County, rather than individually. The HCP applies to areas within the MSHCP; however, the two plans act as separate entities. The HCP established 7 "core reserves," totaling more than 41,000 acres, within a planning area of 533,000 acres. The RCHCA is responsible for "completing" the reserves through the addition of land in fee simple or through the acquisition of easements. The HCP also calls for the addition of 2,500 acres of occupied Stephens' kangaroo rat habitat into the reserves, for a total of 15,000 acres of occupied Stephens' kangaroo rat habitat within core reserves.

Code 8.60 also provides a funding mechanism for establishing sufficient habitat areas which can be effectively protected and managed for Stephens' kangaroo rat's survival and recovery. The site is subject to a $500 per acre impact and mitigation fee as outlined in Code 8.60.070 (City Ord. 981 § 8.6, 2021). The fee is applicable to all acres subject to development and includes acreage disturbed for off-site improvement areas.

Storm Water Management, Erosion, and Sediment Control, City of Moreno Valley, California Municipal Codes 8.10 and 8.21

Pursuant to the federal CWA and the state Porter-Cologne Water Quality Control Act, Code 8.10 prohibits illicit, pollutant, and non-stormwater discharges into the storm drain system (Ord. 981 § 8.10, 2021). The project is subject to Code 8.10's instructions to prevent storm water degradation from new development. Firstly, the project design must maintain the permeability of the land by installing porous features (i.e., landscaping and open space) near all driveways, parking stalls, and walkways and incorporating detention basins or infiltration pits into the project design. Retention structures, subsurface areas, cisterns, and similar structures must be used to encourage stormwater storage and slow release. Runoff must be directed from impermeable areas to approved porous green infrastructure (e.g., swales, berms, green strip filters, gravel beds, and rain gardens; Ord. 981 § 8.10, 2021).

Storm water quality is further preserved in Code 8.21 which outlines erosion and sediment control requirements for active construction (Ord. 981 § 8.21, 2021). Prior to ground disturbance, the project must possess an approved erosion control plan detailing all prospective measures to be implemented to protect adjacent or downstream properties from erosion,

flooding, or mud and/or debris deposits. No grading is to take place between October 1st and May 31st and the project must adhere to the civil engineer's cessation of ground disturbance/development activities if an erosional threat is detected. Santa Ana RWQCB requires an NPDES permit (including the development of a stormwater pollution prevention plan [SWPPP]) for all ground disturbance greater than one acre (Ord. 981 § 8.21, 2021).

Tree and Heritage Tree Policy, City of Moreno Valley, California Municipal Code 9.17

Code 9.17 provides policies for tree removal, transplanting, and planting during development. Trees with a diameter of four inches or greater and Heritage Trees are specifically protected by this regulation. If on-site translocation is not feasible, trees with a diameter of four inches or greater which are removed during development are to be replaced at a 3:1 ratio. A Heritage Tree is defined as any tree that embodies the cultural or historical character of Moreno Valley (determined by the ecological historical preservation board); exhibits a diameter of fifteen inches measured at two feet above ground; or reaches fifteen feet in height. Excluding special situations, Code 9.17 prohibits the removal, topping, destroying, or disfiguring of Heritage Trees within Moreno Valley.

3 METHODS

RBC biologists assessed the project site in 2022 and 2024 and conducted vegetation mapping, a general biological survey, focused species surveys, and habitat assessments for special-status plant and wildlife species, including MSHCP-Covered Species. In addition, RBC regulatory specialists conducted constraints-level` aquatic resources assessments of the project site to identify any areas that may be considered jurisdictional under the Corps pursuant to Section 404 of the CWA; the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act; and the CDFW pursuant to Division 2, Chapter 6, Section 1600 – 1602 of the CFGC. RBC regulatory specialists also assessed the project site for MSHCP-designated riparian/riverine and vernal pool habitats, as defined by Section 6.1.2 of the MSHCP, during the constraints-level aquatic resources assessments. All of the aquatic resources and Section 6.1.2 assessments were intended to ensure CEQA compliance and MSHCP consistency. Survey dates and types are presented in Table 1, below.

Table 1. Summary of Surveys Conducted for the Rocas Grandes II Project

Date	Personnel	Time (Start- End)	Activity
4/11/22	HS, AG	0645-0930	Burrowing owl habitat assessment and focused survey
4/11/22	HS	0830-0930	Vegetation mapping and general biological survey
4/11/22	AG	0830-0930	Constraints-level aquatic resources assessment and MSHCP-riparian/riverine resources assessment
5/12/22	AG	0730-1000	Burrowing owl survey
6/17/22	AG, KW	0800-1100	Burrowing owl survey
7/15/22	AG, KW	0800-1015	Burrowing owl survey
7/15/22	KW	0930-1015	Constraints-level aquatic resources assessment and MSHCP-riparian/riverine resources assessment
4/2/24	AG, HS	0700-0830	Burrowing owl survey and review of vegetation mapping and aquatic resources assessment
4/30/24	HS, KW	0630-0800	Burrowing owl survey
4/30/24	DF, HS, KW	0800-1000	Crotch's bumble bee survey
5/22/24	AG, HS	0630-0800	Burrowing owl survey
5/22/24	AG, DF, HS	0800-1030	Crotch's bumble bee survey
6/18/24	GM, HS	0630-0745	Burrowing owl survey
6/18/24	AG, DF, HS	0800-1015	Crotch's bumble bee survey
AG=Alec Goodman; DF=David Faulkner; GM=Garrett Moss; HS=Hannah Swarthout; KW=Kelsey Woldt			

The general biological survey, vegetation mapping, habitat assessments, MSHCP riparian/riverine resources assessments, and constraints-level aquatic resources assessments were conducted within the 17.56-acre project site and a surrounding 100-foot buffer (survey area) for a total of 26.71 acres. The focused biological surveys also included survey buffers which varied in size depending on the type of resources being surveyed. Surveyors directly

accessed survey buffers on foot only when access was authorized, and buffers could be accessed safely; buffer areas were surveyed via binoculars when access was not approved and/or safety concerns were present.

Note that buffer areas are included in this analysis to assess the potential for special-status species or resources in areas immediately adjacent to the project site that could be impacted by the project analyzed herein. Such information should not be considered comprehensive for all biological resources or aquatic resources that may occur in buffer areas, and buffer mapping is intended only for the project analysis outlined herein. Furthermore, such information is not intended for impact analysis of any potential future projects within or adjacent to project buffer areas.

3.1 DATABASE SEARCH

Prior to conducting field surveys, existing information regarding biological resources present or potentially present within the project area was obtained through a review of pertinent literature and databases, including, but not limited to:

- CDFW California Natural Diversity Database (CNDDB; CDFW 2024a)
- California Native Plant Society (CNPS) Electronic Inventory (CNPS 2024)
- USFWS Special-status Species Database (USFWS 2024a)
- USFWS Information for Planning and Consulting (IPaC) Database (USFWS 2024b)
- National Wetlands Inventory (NWI) Database (USFWS 2024c)
- Natural Resources Conservation Service (NRCS) Soils Survey Database (NRCS 2024)
- RCA MSHCP Information Map (RCA 2024a)
- USGS National Hydrography Dataset (NHD; USGS 2024)

The CNDDB and USFWS database queries were conducted for the project site plus a three-mile radius. The ESRI Ground Surface Elevation Tool was applied to the USGS 7.5' Sunnymead quadrangle, revealing an elevation range of approximately 1,560 to 1,590 feet above mean sea level (amsl). The potential for special-status species, including MSHCP-Covered Species, to occur within the project site was refined by considering the habitat affinities of each species, field habitat assessments, vegetation mapping, and knowledge of local biological resources.

The RCA MSHCP Information Map was used to compare the project footprint against any mapped survey or conservation areas as established in the MSHCP. These areas include NEPSSA; CASSA; burrowing owl, mammals, amphibians, and invertebrate survey areas (MSHCP Volume I, Section 6.3.2); and Cell Groups and Criteria Cells. Per compliance with the MSHCP, the project would require habitat assessments and/or focused surveys according to this query.

3.2 VEGETATION MAPPING AND GENERAL BIOLOGICAL SURVEYS

RBC biologists conducted vegetation mapping in the field to provide a baseline of the biological resources that occur or have the potential to occur within the project site on April 11th, 2022. Vegetation mapping was reviewed in 2024 to verify site conditions had not significantly changed. RBC conducted vegetation mapping by walking throughout the survey area and mapping vegetation communities on aerial photographs at a 1:3120 scale (1 inch = 260 feet).

The extent of each habitat type (delineated as a habitat polygon on the vegetation maps) was calculated using the Geographic Information System (GIS) application ArcGIS Collector. Habitats were classified based on the dominant and characteristic plant species in accordance with vegetation community classifications outlined in Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and consistent with MSHCP vegetation mapping classification.

RBC biologists conducted general biological surveys for plants and wildlife (i.e., species compendiums) concurrently with all on-site activities in 2022 and 2024, including vegetation mapping, protocol burrowing owl surveys, and focused Crotch's bumble bee surveys. Photos taken during the general biological surveys are provided in Appendix A. Plant species encountered during the field survey were identified and recorded in field notebooks. Plant species that could not be identified were brought to the laboratory for identification using the dichotomous keys in the *Jepson Manual* (Baldwin et al. 2012) and following the taxonomic treatment of the *Jepson Manual* with input from the *Western Riverside County Annotated Checklist* (Roberts 2004). A complete list of the vascular plant species observed during all site visits to the project site is presented in Appendix B.

Wildlife species were documented during the field survey by sight, calls, tracks, scat, or other signs, and were recorded in field notebooks. Binoculars (10X42 magnification) were used to aid in the identification of wildlife. In addition to species observed during the surveys, RBC assessed the expected wildlife use of the project site based on known habitat preferences of local species and knowledge of their biogeographic distribution in the region. A complete list of wildlife species observed during all visits to the project site is presented in Appendix C; scientific and common names of wildlife follow CDFW's Complete List of Amphibian, Reptile, Bird and Mammal Species in California (CDFW 2016).

3.3 SPECIAL-STATUS SPECIES SURVEYS

The locations of observed biological resources designated as special-status by the USFWS, CDFW, CNPS, and/or the MSHCP, were recorded in field notebooks, on aerial maps, and/or using the GIS application ArcGIS Collector.

3.3.1 BURROWING OWL SURVEYS

The RCA MSHCP Information Map revealed that the project is located within a MSHCP Burrowing Owl Survey Area (RCA 2022). RBC assessed the project site for suitable burrowing owl habitat on April 11th, 2022, in accordance with the MSHCP Burrowing Owl Survey Instructions (RCA 2006). As a result, RBC conducted protocol burrowing owl surveys during the breeding season (March 1 to August 31). RBC biologists conducted four surveys between April

11, 2022, and July 15, 2022 (Appendix D). Surveys were repeated in 2024 between April 2 and June 18. Surveys were not conducted during rain, dense fog, or when high winds were greater than 20 miles per hour.

RBC biologists walked transects spaced 7-20 meters (20-60 feet) apart through suitable burrowing owl habitat within the project site plus a 500-foot buffer; buffer areas not directly accessible were surveyed with binoculars (10x42). RBC biologists used binoculars to scan the project site and 500-foot buffer for owls, active and potential burrows, and/or sign of owls. RBC examined all suitable burrows for sign, including feathers, pellets, excrement (i.e., scat and whitewash), and prey remains. RBC considered burrows to be active if a burrowing owl was observed at or near the entrance or if evidence of recent sign was present. Biologists documented all suitable burrows in ArcGIS Collector.

3.3.2 CROTCH'S BUMBLE BEE SURVEYS

Based on the presence of suitable habitat within the survey area (e.g., the project site), RBC biologists conducted focused surveys in accordance with the CDFW *Survey Considerations for CESA Candidate Bumble Bee Species* (CDFW 2023) at least two to four weeks apart between April and August when detection of Crotch's bumble bee is greatest (Appendix E). Surveys were conducted by walking transects through the survey area focusing on areas where ample nectar sources were present, with a minimum of one person-hour of searching per three acres of suitable habitat. All observed insects and potential nectar sources were identified and recorded during the survey. Surveyors were prepared to record the location of any observed Crotch's bumble bee, along with population size and nesting status, and to collect non-lethal photo vouchers captured at various angles to confirm accurate identification.

3.4 AQUATIC RESOURCES ASSESSMENT

RBC conducted a constraints-level aquatic resources assessment per the Corps, RWQCB, and CDFW regulations, guidelines, and protocols on June 17th and July 15th, 2022 to identify any areas that may be considered potentially jurisdictional under the Corps pursuant to Section 404 of the CWA, the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the CDFW pursuant to Section 1602 of the CFGC; RBC conducted a MSHCP riparian/riverine resources assessment concurrently. The results of the 2022 assessments were reviewed in the field on April 2, 2024 to verify conditions had not changed.

Prior to the constraints-level aquatic resources assessment, field maps were created using GIS and a color aerial photograph at a 1:3120 scale (1 inch = 260 feet). RBC staff reviewed USGS NHD and topography data, USFWS NWI data, and NRCS soils data to further determine the potential locations of aquatic resources. RBC also utilized Google Earth to assess current and historic presence or absence of flows and/or ponding in the review area (Google Earth Pro 2024). Staff evaluated all areas with depressions, drainage patterns, wetland vegetation, and/or riparian vegetation within the review area for potential jurisdictional status, with focus on the presence of defined channels and/or wetland vegetation, riparian vegetation, soils, and hydrology.

4 RESULTS

Special-status biological resources are those defined as follows: 1) species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened/endangered population sizes; 2) species and habitat types recognized by local and regional resource agencies as sensitive; 3) habitat areas or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; 4) wildlife corridors and habitat linkages; and/or 5) biological resources that may or may not be considered sensitive, but are regulated under local, state, and/or federal laws.

4.1 PHYSICAL SETTING

The project site is composed entirely of disturbed habitat dominated by non-native vegetation, which was formerly used for agriculture and is still occasionally tilled, likely as a form of weed abatement. On-site elevations range from approximately 1,560 to 1,590 feet amsl. Two soil units, (Ramona sandy loam, 0-2 percent slopes and Ramona sandy loam, 2-5 percent slopes, eroded), occur on site (Figure 3). Surrounding land uses include vacant lots, agriculture, active construction, residential, and commercial development.

4.2 VEGETATION COMMUNITIES AND LAND USES

The survey area supports two vegetation communities and other land covers (Figure 3; Table 2), as classified in accordance with Holland (1986) and consistent with the MSHCP vegetation mapping classification. The survey area, defined as the project site plus a surrounding 100-foot buffer, is comprised of disturbed and developed land.

Table 2. Summary of Vegetation within the Survey Area

Vegetation Community/Land Use	Survey Area (acres)
Developed	3.47
Disturbed	23.24
Total	26.71

Developed

Developed land is typically classified as lands regularly utilized by humans that are devoid of natural habitat. Developed land within the survey area (3.47 acres) consists of the paved roads and an active construction site.

Disturbed

Disturbed land is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Riversidean sage scrub). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species. Disturbed habitat within the survey area (23.24 acres) is primarily vegetated by short-pod

mustard (*Hirschfeldia incana*), common fiddleneck (*Amsinckia menziesii*), slender wild oat (*Avena barbata*), red brome (*Bromus rubens*), and Russian thistle (*Salsola* sp.).

4.3 PLANTS AND WILDLIFE

The survey area supports a low diversity of vegetation communities and plant species. A total of 43 plant species (35 percent native, 65 percent non-native) were observed during project biological surveys (Appendix B). A total of one reptile species, 29 bird species, three mammal species, and 36 invertebrate species, were observed or presumed present based on track and/or scat (Appendix C). Twilight/nighttime surveys were not conducted, therefore crepuscular and nocturnal wildlife are likely under-represented in the project species list; however, habitat assessments were performed for all special-status species to ensure that any potentially present rare species are adequately addressed herein.

For the purposes of this report, species are considered to have special status if they meet one or more of the following criteria:

- Listed or considered for listing or proposed for listing under the ESA or CESA (CDFW 2024b; USFWS 2024b)
- CDFW Species of Special Concern (SSC) or Watch List (WL) Species (CDFW 2024b)
- CDFW Fully Protected (FP) Species (CDFW 2024b)
- USFWS Bird of Conservation Concern (BCC; USFWS 2024b)
- Listed as having a California Rare Plant Rank (CRPR) 1 or 2 (CNPS 2024)
- Western Riverside MSHCP Section 9.2 Covered Species List (RCA 2003)

4.3.1 NARROW ENDEMIC PLANT SPECIES

The project site does not occur within an MSHCP Section 6.1.3 NEPSSA, and no narrow endemic plant species or associated suitable habitat were observed during the field surveys. Narrow endemic plant species are not expected to occur within the survey area (Table 3).

4.3.2 CRITERIA AREA PLANT SPECIES

The project site does not occur within an MSHCP Section 6.3.2 CASSA, and no criteria area plant species or associated suitable habitat were observed during the field surveys. Criteria area plant species are not expected to occur within the survey area (Table 3).

4.3.3 SPECIAL-STATUS PLANT SPECIES

Special-status plant species include those that are: 1) listed or proposed for listing by federal or state agencies as threatened or endangered; 2) CRPR List 1 or 2 (CNPS 2024); or 3) considered rare, endangered, or threatened by the CDFW (CDFW 2024b) or other local conservation organizations or specialists. Special-status plants with the potential to occur within the survey area are assessed in Table 3.

The CRPR system was created by the CNPS, which is a statewide resource conservation organization that has developed an inventory of California's sensitive plant species. The CRPR

system is recognized by the CDFW and essentially serves as an early warning list of potential candidate species for threatened or endangered status. The CRPR system is categorized as outlined in Table 4.

Table 3. Assessment of Special-Status Plant Species Potential to Occur Within the Survey Area

Species	Status	Habitat Description	Potential to Occur
Brand's star phacelia (*Phacelia stellaris*)	CRPR 1B.1	Annual herb. Blooms March-June. Coastal dunes and coastal scrub. Elevation 5-1310 feet.	Very Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions largely unsuitable for this species.
Bristly sedge (*Carex comosa*)	CRPR 2B.1	Perennial rhizomatous herb. Blooms May-September. Coastal prairie, marshes and swamps, and valley and foothill grassland. Elevation 0-2050 feet.	None. No suitable wetland habitat present on site.
California satintail (*Imperata brevifolia*)	CRPR 2B.1	Perennial rhizomatous herb. Blooms September-May. Chaparral, coastal scrub, meadows and seeps, Mojavean desert scrub, and riparian scrub. Elevation 0-3985 feet.	Very Low. Not known from project vicinity. Habitat on site is disturbed and historically used for agriculture.
California screw moss (*Tortula californica*)	CRPR 1B.2	Moss. Chenopod scrub and valley and foothill grassland. Elevation 35-4790 feet.	None. No suitable habitat present on site. Soil on site is heavily disturbed.
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B.2	Annual herb. Blooms January-April (May). Chaparral, cismontane woodland, and coastal scrub. Elevation 50-2625 feet.	Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions largely unsuitable for this species.
Chaparral sand-verbena (*Abronia villosa* var*. aurita*)	CRPR 1B.1	Annual herb. Blooms (January) March-September. Chaparral, coastal scrub, and desert dunes. Elevation 245-5250 feet.	None. Not known from immediate project vicinity. No suitable habitat present on site.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1; MSHCP CAPS	Annual herb. Blooms February-June. Marshes and swamps, playas, and vernal pools. Elevation 5-4005 feet.	Very Low. Preferred habitat type, wetlands, not present on site. Past agricultural land uses have resulted in conditions largely unsuitable for this species.

Species	Status	Habitat Description	Potential to Occur
Deep Canyon snapdragon (*Pseudorontium cyathiferum*)	CRPR 2B.3	Annual herb. Blooms February-April. Sonoran desert scrub. Elevation 0-2625 feet.	None. Not known from project vicinity. No suitable habitat present on site.
Gamble's water cress (*Nasturtium gambelii*)	CRPR 1B.1; FE; ST	Perennial herb. Blooms April-October. Brackish and freshwater marshes and swamps. Elevation 15-1085.	None. No suitable wetland habitat present on site.
Horn's milk-vetch (*Astragalus hornii* var. *hornii*)	CRPR 1B.1	Annual herb. Blooms May-October. Meadows, seeps, and playas. Elevation 195-2790 feet.	None. Not known from immediate project vicinity. No suitable habitat present on site.
Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*)	CRPR 1B.1; MSHCP Adequately Conserved	Perennial shrub. Blooms December-June. Chaparral, Cismontane woodland, coastal scrub, and valley and foothill grassland. Elevations 1200-3200 feet.	Low. Not known from immediate project vicinity. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	CRPR 1B.2; MSHCP Adequately Conserved	Annual herb. Blooms April-June. Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Elevation 100-5020.	Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)	CRPR 1A	Perennial rhizomatous herb. Blooms August-October. Marshes and swamps. Elevation 35-5005 feet.	None. Presumed extinct. No suitable habitat present on site.
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	CRPR 1B.1	Perennial herb. Blooms February-July (September). Chaparral, cismontane woodland, and coastal scrub. Elevation 230-2660 feet.	Very Low. Not known from project vicinity. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
Mud nama (*Nama stenocarpa*)	CRPR 2B.2; MSHCP CAPS	Annual/perennial herb. Blooms January-July. Marshes and swamps. Elevation 15-1640 feet.	None. No suitable wetland habitat present on site.
Munz's onion (*Allium munzii*)	FE; ST; CRPR 1B.1; MSHCP NEPS	Perennial bulbiferous herb. Blooms March-May. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevation 975-3510 feet.	Very Low. Not known from project vicinity. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.

Species	Status	Habitat Description	Potential to Occur
Nevin's barberry (*Berberis nevinii*)	FE; SE CRPR 1B.1; MSHCP CAPS	Perennial evergreen shrub. Blooms (February) March-June. Chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elevation 230-2705 feet.	None. Not known from immediate project vicinity and would have been observed if present.
Parish's brittlescale (*Atriplex parishii*)	CRPR 1B.1; MSHCP CAPS	Annual herb. Blooms June-October. Chenopod scrub, playas, and vernal pools. Elevation 80-6235.	Very Low. Not known from project vicinity. Although limited native plants are present on site, past land uses have resulted in conditions unsuitable for this species.
Parish's desert-thorn (*Lycium parishii*)	CRPR 2B.3	Perennial shrub. Blooms March-April. Coastal scrub and Sonoran desert scrub. Elevation 445-3280 feet.	None. Not known from immediate project vicinity and would have been observed if present.
Parish's gooseberry (*Ribes divaricatum* var. *parishii*)	CRPR 1A	Perennial shrub. Blooms February-April. Coastal sage scrub in wetland-riparian woodland. Elevation 215-985 feet.	None. Plant presumed extinct in California. Past land uses have resulted in conditions unsuitable for this species.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	CRPR 1B.1; MSHCP Table 9-3: Adequately Conserved	Annual herb. Blooms April-June. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation 900-4005 feet.	Very Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)	CRPR 2B.2	Annual herb or vine. Blooms July-October. Freshwater marshes or swamps. Elevation 50-920 feet.	None. Not known from project vicinity. No suitable habitat present on site.
Prairie wedge grass (*Sphenopholis obtusata*)	CRPR 2B.2	Perennial herb. Blooms April-July. Cismontane woodland, meadows, and seeps. Elevation 985-6560 feet.	None. Not known from project vicinity. No suitable habitat present on site.
Rainbow manzanita (*Arctostaphylos rainbowensis*)	CRPR 1B.1; MSHCP Table 9-3: Adequately Conserved	Perennial shrub. Blooms December-March. Chaparral. Elevation 675-2200 feet.	None. Not known from immediate project vicinity and would have been observed if present.
Salt spring checkerbloom (*Sidalcea neomexicana*)	CRPR 2B.2	Perennial herb. Blooms March-June. Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Elevation 50-5020 feet.	None. Not known from immediate project vicinity. No suitable habitat present on site.

Species	Status	Habitat Description	Potential to Occur
San Bernardino aster (*Symphyotrichum defoliatum*)	CRPR 1B.2	Perennial rhizomatous herb. Blooms July-November. Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, and valley and foothill grassland. Elevation 5-6695 feet.	Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
San Diego ambrosia (*Ambrosia pumila*)	FE; CRPR 1B.1; MSHCP NEPS	Perennial rhizomatous herb. Blooms April-October. Chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Elevation 65-1350 feet.	Very Low. Habitat on site is disturbed and historically used for agriculture. Although limited coastal scrub species are present on site, past land uses have resulted in conditions unsuitable for this species.
San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)	FE; CRPR 1B.1; MSHCP CAPS	Annual herb. Blooms April-August. Playas, valley and foothill grassland, and vernal pools. Elevation 455-1640 feet.	None. Not known from immediate project vicinity. No suitable habitat present on site.
Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)	FE; SE; CRPR 1B.1; MSHCP Adequately Conserved	Perennial herb. Blooms April-September. Chaparral and coastal scrub. Elevation 300-2000 feet.	Very Low. Not known from project vicinity. Although limited native plants are present on site, past land uses have resulted in conditions largely unsuitable for this species.
Slender-horned spineflower (*Dodecahema leptoceras*)	FE; SE; CRPR 1B.1; MSHCP NEPS	Annual herb. Blooms April-June. Chaparral, cismontane woodland, and coastal scrub. Elevation 695-2495 feet.	None. Not known from project vicinity. No suitable habitat present on site.
Smooth tarplant (*Centromadia pungens* ssp. *laevis*)	CRPR 1B.1; MSHCP CAPS	Annual herb. Blooms April-September. Chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. Elevation 0-2100 feet.	Low. Habitat on site is disturbed and historically used for agriculture. Although limited native plant species are present on site, past land uses have resulted in conditions unsuitable for this species.
Spreading navarretia (*Navarretia fossalis*)	FT; CRPR 1B.1; MSHCP NEPS	Annual herb. Blooms April-June. Chenopod scrub, marshes and swamps, playas, and vernal pools. Elevation 100-2150.	None. No suitable wetland habitat present on site.

Species	Status	Habitat Description	Potential to Occur
Thread-leaved brodiaea (*Brodiaea filifolia*)	FT; SE; CRPR 1B.1; MSHCP CAPS	Perennial bulbiferous herb. Blooms March-June. Chaparral, Cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. Elevation 80-3675 feet.	Very Low. Not known from immediate project vicinity. Although limited native plants are present on site, past land uses have resulted in conditions unsuitable for this species.
White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*)	CRPR 1B.2	Annual herb. Blooms April-June. Coastal scrub, Mojavean desert scrub, and pinyon and juniper woodland. Elevation 985-3935 feet.	None. Not known from project vicinity. No suitable habitat present on site.
Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)	CRPR 2B.1; MSHCP NEPS	Annual herb. Blooms May-September. Marshes and swamps, meadows and seeps, riparian forest, vernal pools. Elevation 15-1425 feet.	None. Preferred habitat type, wetlands, not present on site. Past agricultural land uses have resulted in conditions unsuitable for this species.

Definitions:
CRPR: California Rare Plant Rank
CAPS: Criteria Area Plant Species
FE: Federally Endangered
FT: Federally Threatened
MSHCP: Multiple Species Habitat Conservation Plan Covered Species
NEPS: Narrow Endemic Plant Species

Notes:
MSHCP Adequately Conserved – No further action required, other than standard efforts to avoid/minimize, when feasible.
MSHCP CAPS – Because the project is located outside of a CASSA, if impacted, these species would not require mitigation.
MSHCP NEPS – Because the project is located outside of a NEPSSA, if impacted, these species would not require mitigation.
MSHCP Table 9-3: Adequately Conserved – No further action required, other than standard efforts to avoid/minimize, when feasible.

Sources:
Calflora 2024
CDFW 2024b
CNPS 2024
USFWS 2024b

Table 4. California Rare Plant Rank (CRPR) Definitions

CRPR	1A	presumed extirpated in California and rare or extinct elsewhere
	1B	rare, threatened, or endangered in California and elsewhere
	2A	presumed extirpated in California but more common elsewhere
	2B	rare, threatened, or endangered in California but more common elsewhere
	3	plants for which more information needed
	4	plants of limited distribution
CRPR Threat Ranks	0.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
	0.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
	0.3	Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Threatened and Endangered Plant Species

No federally or state-listed threatened or endangered plants were observed during general biological surveys, and none have a moderate or high potential to occur on the project site based on the highly disturbed nature of the site and lack of suitable habitats. The IPaC query identified San Jacinto Valley crownscale (*Atriplex coronata* var*. notatior*; federally endangered [FE]), San Diego ambrosia (*Ambrosia pumila*; FE), thread-leaved brodiaea (*Brodiaea filifolia*; federally threatened [FT]), Nevin's barberry (*Berberis nevinii*; FE), slender-horned spineflower (*Dodecahema leptoceras*), and spreading navarretia (*Navarretia fossalis*; FT) as potentially affected by activities in this location (USFWS 2024b); however, these species have low to no potential to occur on the project site (Table 3).

Other Special-Status Plant Species

No other special-status plant species were observed during surveys, and none have a moderate or high potential to occur on the project site based on the lack of suitable habitats. The CNPS Electronic Inventory identified chaparral sand-verbena (*Abronia villosa* var. *aurita*), smooth tarplant (*Centromadia pungens* ssp*. laevis*), Parry's spineflower (*Chorizanthe parryi* var*. parryi*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), and San Bernardino aster (*Symphyotrichum defoliatum*) as occurring within the USGS 7.5' Sunnymead quadrangle; however, these species have low to no potential to occur on the project site (Table 3).

4.3.4 SPECIAL−STATUS WILDLIFE SPECIES

Special-status wildlife species include those that are: 1) listed or proposed for listing by federal or state agencies as threatened or endangered; 2) considered rare, endangered, or threatened by the CDFW (CDFW 2024b); or 3) Covered Species under the Western Riverside MSHCP. The potential for special-status wildlife to occur within the survey area is assessed in Table 5.

Table 5. Assessment of Special-Status Wildlife Species Potential to Occur Within the Survey Area

Species	Status	Habitat Description	Potential to Occur
INVERTEBRATES			
Crotch's bumble bee (*Bombus crotchii*)	CSE	Arid shrublands and grasslands in coastal and foothill areas of southern California. Nectar plants include milkweeds, buckwheat, and lupines.	Not Present/Moderate. Potential nectar sources present on site. Species was historically documented within the region but was not documented on site during 2024 focused surveys.

Species	Status	Habitat Description	Potential to Occur
Monarch butterfly (*Danaus plexippus*)	FC	Found in a variety of habitats across the United States and Mexico (e.g., grasslands, urban land, mountains, and coastal habitats). Exclusively oviposit on milkweed (*Asclepias* spp.). Nectivorous adults require flowering plants. Roost in eucalyptus, Monterey pines, and Monterey cypresses in California.	Very Low. Ornamental gardens of nearby developed land may offer nectar sources for this species; however, the site consists of disturbed habitat. The project site lacks milkweed essential for larvae maturation. Suitable roosting habitat not present.
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE; MSHCP Section 6.1.2	Vernal pools or other seasonal pools with a depth greater than 30 centimeters.	None. Suitable vernal pool habitat for this species is not present on site. No other depressions, stock ponds, or road ruts potentially suitable for listed fairy shrimp were identified on the site.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT; MSHCP Section 6.1.2	Vernal pools or other seasonal pools with alkalinity ranging from 22 to 274 ppm (parts per million), 48 to 481 ppm total dissolved solids, and a pH range from 6.3 to 8.5. Pools can range in size from 0.01 acre to 0.05 acres in length.	None. Suitable vernal pool habitat for this species is not present on site. No other depressions, stock ponds, or road ruts potentially suitable for listed fairy shrimp were identified on the site.
AMPHIBIANS			
Western spadefoot (*Spea hammondii*)	FPT; SSC	Habitats include coastal sage scrub, chaparral, and grasslands. Require vernal pools for breeding and friable soils for burrowing.	Very Low. No suitable scrub habitat, vernal pools, or aquatic features present on site. Disturbed habitat is marginally suitable as an upland habitat.
REPTILES			
Coast horned lizard (*Phrynosoma blainvillii*)	SSC; MSHCP Adequately Conserved	A variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands. Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.	Very Low. Suitable vegetation with open areas and sandy soils are not present.

Species	Status	Habitat Description	Potential to Occur
Orange-throated whiptail (*Aspidoscelis hyperythra*)	WL; MSHCP Adequately Conserved	Found in coastal sage scrub, chaparral, edges of riparian woodlands, washes and adjacent weedy, disturbed areas. Require open, sunny and shaded areas with an abundant invertebrate prey base (especially *Reticulitermes* sp.)	Low. Site consists of unsuitable disturbed habitat. A vegetated channel runs approximately 440 feet from the eastern border which may offer suitable habitat; however, this area is separated from the site by unsuitable disturbed habitat.
Red-diamond rattlesnake (*Crotalus ruber*)	SSC; MSHCP Adequately Conserved	Found in chaparral and coastal sage scrub, along creek banks, rock outcrops, and piles of debris. Often associated with dense vegetation in rocky areas.	Very Low. Vegetation on site primarily consists of non-native species. A vegetated channel runs approximately 440 feet from the eastern border which may offer suitable habitat; however, this area is separated from the site by unsuitable disturbed habitat.
Southwestern pond turtle (*Actinemys pallida*)	FPT; SSC	Found in ponds, lakes, streams, creeks, marshes, and irrigation ditches with abundant vegetation. Requires logs, rocks, cattail mats, or exposed banks for basking. Associated with permanent or nearly permanent water.	None. No suitable aquatic habitat is present on site. A permanent water source is not located within the project vicinity.
BIRDS			
Bald eagle (*Haliaeetus leucocephalus*)	SE; FP; MSHCP FPP	Nest at the tallest branch crux of large-canopied trees, often near a body of water. Breed in forested habitats.	Very Low. No suitable forested habitat exists on or proximal to the site; sparse vegetation present consists primarily of non-native grasses and shrubs.
Bell's sparrow (*Artemisiospiza belli belli*)	WL	Found in coastal scrub and chaparral dominated by chamise and/or California sagebrush in low, dense stands of shrubs. In winter, alkali desert scrub, and desert scrub frequently associated with *Atriplex* spp. in desert habitats.	Low-to-Moderate. Species has been documented within four miles of the project site. Open habitat, though disturbed, is present on site. Habitat on site is likely not suitable for nesting due to regular vegetation clearing and mowing.

Species	Status	Habitat Description	Potential to Occur
Burrowing owl (*Athene cunicularia*)	CSE; BCC; SSC; MSHCP Section 6.3.2	Found in grasslands and open scrub from the coast to foothills. Strongly associated with California ground squirrel (*Otospermophilus beecheyi*) and other fossorial mammal burrows.	Moderate. Focused surveys of the project site in 2022 and 2024 were negative; however, species is known to exist in the local area. Disturbed, sparse suitable habitat and fossorial symbionts, California ground squirrel, occur on site.
California horned lark (*Eremophila alpestris actia*)	WL; MSHCP Adequately Conserved	Found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline. Also seen in coniferous or chaparral habitats.	High. Species was observed adjacent to the project site during 2022 and 2024 focused burrowing owl surveys. Suitable habitat is present.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT; SSC; MSHCP CAGN	Found in sage scrub habitats, often on slopes. Nests in shrubs including California sagebrush (*Artemisia californica*), buckwheat (*Eriogonum fasciculatum*), and sage (*Salvia* sp.).	Very low. No suitable sage scrub habitat exists on site; existing buckwheat is sparsely scattered.
Cooper's hawk (*Accipiter cooperii*)	WL; MSHCP Adequately Conserved	Usually found in oak woodlands, occasionally in willow or eucalyptus woodlands, shrublands and urban areas where trees are present. Nests in woodlands, often near rivers and streams. Hunts on habitat edges often near riparian areas.	Moderate. Species observed adjacent to the project site during 2024 focused burrowing owl surveys. No suitable nesting habitat is present on site; however, suitable foraging habitat is present.
Ferruginous hawk (*Buteo regalis*)	WL; MSHCP Adequately Conserved	Found in grasslands, agricultural areas, sagebrush flats, desert scrub, low foothills near valleys, and pinyon-juniper habitats edges with abundance of lagomorphic or rodent prey.	Very Low. Although potential prey (i.e., California ground squirrel) is present on site, site is surrounded by development and is composed primarily of disturbed habitat.
Golden eagle (*Aquila chrysaetos*)	FP; WL; MSHCP FPP	Found in rolling foothills, mountain areas, sage-juniper flats, and desert habitats. Diet consists primarily of lagomorphs and rodents.	Very Low. Though an adequate food source (i.e., California ground squirrel) exists on site, area lacks suitable habitat and is surrounded by development.

Species	Status	Habitat Description	Potential to Occur
Grasshopper sparrow (*Ammodramus savannarum*)	SSC MSHCP Table 9-3: Partially Conserved	Found in grassland habitat and agricultural areas with little to no scrub cover and often with some bare ground.	**Low.** Although foraging habitat is present on site, this species is not known from the immediate project vicinity (eBird 2025). The site is not suitable for nesting due to regular vegetation clearing and mowing.
Lawrence's goldfinch (*Spinus lawrencei*)	BCC	Found in chaparral, coastal scrub, pinyon pine-juniper woodlands, oak woodlands, riparian, and disturbed habitats. Also found in semi-urban, weedy, and agricultural environments. Generally associated with a water source, especially in drier regions, since goldfinch species need to drink regularly.	**Present.** Species was observed during 2024 focused burrowing owl surveys. Disturbed habitats on site contain weedy forbs and grasses that are known seed sources for this species. Habitat on site is likely not suitable for nesting due to regular vegetation clearing and mowing.
Least Bell's vireo (*Vireo bellii pusillus*)	FE; SE; MSHCP Section 6.1.2	Found within riparian woodland with understory of dense young willows or mule fat and willow canopy. Nests often placed along internal or external edges of riparian thickets.	**Very Low**. No suitable riparian habitat occurs on site. Riparian habitat exists approximately 440 feet outside of the eastern site border which may attract species to the area, but they are unlikely to occur on site.
Loggerhead shrike (*Lanius ludovicianus*)	SSC; MSHCP Adequately Conserved	Found within grassland, chaparral, desert, and desert edge scrub, particularly near dense vegetation used for nesting.	**Low-to-Moderate.** Suitable foraging habitat present, and dense vegetation suitable for nesting is not present on site but is present adjacent to the site.
Merlin (*Falco columbarius*)	WL; MSHCP Adequately Conserved	Found in a variety of habitats including coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, edges, and early successional stages.	**Low-to-Moderate.** Open habitat near deciduous trees is present on site. Species is known in the area within three miles of the project site. Nesting habitat is not present on site or within adjacent land.

Species	Status	Habitat Description	Potential to Occur
Northern harrier (*Circus hudsonius*)	BCC; SSC; MSHCP Adequately Conserved	Most common in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. Breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrub steppe, and riverside woodlands.	**Moderate.** Suitable foraging habitat is present on site and in the surrounding area. Species is known from the general area. Nesting on site is unlikely due to frequent vegetation removal.
Prairie falcon (*Falco mexicanus*)	WL	Open country including grasslands, shrub steppe desert, areas of mixed shrubs and grasslands, or alpine tundra that supports abundant ground squirrel or pika populations. Breeding birds can utilize agriculture fields to forage. Nests usually on cliff faces, and also trees, and some manmade structures.	**Low-to-Moderate.** Disturbed foraging habitat and prey are available on site. Nesting habitat is not present on site or within adjacent land.
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	SSC	Found in emergent wetland environments along the coast from San Francisco (resident and summer) to San Diego County (winter).	**None**. No emergent wetland habitat is present.
Sharp-shinned hawk (*Accipiter striatus*)	WL; MSHCP Adequately Conserved	Roosts in mid- to high-canopy forests. Nests in single layered forest canopy and prefer conifers. Hunts migratory birds and small animals (e.g., reptiles and insects) at the edge of woodlands, brushy pastures, and shorelines. Breeds in extensive forests.	**None.** Suitable forested habitat is not present on site.

Species	Status	Habitat Description	Potential to Occur
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	WL; MSHCP Adequately Conserved	Found in mostly in sage scrub and chaparral, but also grassland habitats with scattered scrubs. Prefers open habitat with rocky slopes. May also be found in open sage scrub/grassy areas of successional growth for example, after a fire.	None. Suitable habitat is not present on site. Nearest suitable habitat, steep rocky terrain with scattered shrub cover, is approximately 625 feet west of the site and separated from the site by active construction.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE; SE; MSHCP Section 6.1.2	Found within dense riparian woodlands comprised of willows and cottonwoods.	None. No suitable riparian habitat occurs on site. Riparian habitat exists approximately 440 feet outside of the eastern site border but is not suitable for this species.
Summer tanager (*Piranga rubra*)	SSC	Breeds in riparian woodland usually with an extensive canopy of cottonwoods. Forage in tall riparian trees and will utilize trees in parks, gardens, and beach ridges.	Very Low. Suitable habitat is not present on site. Riparian habitat approximately 440 feet outside of the eastern site border may attract species to the area, but they are unlikely to occur on site.
Swainson's hawk (*Buteo swainsoni*)	ST; MSHCP Adequately Conserved	Found in open habitats for foraging including grasslands, prairies, and sometimes pastures. Nest in solitary trees or sometimes very small groves near water.	Moderate. Species was observed soaring above the site during 2024 focused burrowing owl surveys. Suitable breeding habitat is not present. Preferred foraging habitat on site is minimal.
Tricolored blackbird (*Agelaius tricolor*)	ST; BCC; MSHCP Adequately Conserved	Found nesting in grasslands and wetlands with cattails, bulrushes, and willows. Forages in cultivated fields, feedlots associated with dairy farms, and wetlands.	None. No suitable habitat on site. Riparian habitat approximately 440 feet east of the site. The site has low suitability to support a nesting colony.
Vermilion flycatcher (*Pyrocephalus rubinus*)	SSC	Found in open habitats including arid scrublands, farmlands, deserts, parks, and canyon mouths. Often associated with nearby surface water and riparian areas.	Low-to-Moderate. Suitable open foraging habitat is present on site. A riparian corridor potentially suitable for nesting occurs approximately 440 feet to the east of the site.

Species	Status	Habitat Description	Potential to Occur
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FE; ST; MSHCP Section 6.1.2	Found primarily in riparian forests and woodlands with dense cover including low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes. Typically nests in low to moderate elevation with native broadleaf trees, primarily cottonwood-willow-dominated habitats.	**None.** No suitable riparian habitat occurs on site. Riparian habitat approximately 440 feet east of the site is not suitable for yellow-billed cuckoo.
Yellow-breasted chat (*Icteria virens*)	SSC	Found within a variety of riparian habitats and occasionally disturbed and successional habitats. Nest in early-stage riparian habitats with adequate shrub cover and an open canopy where dense thickets and tall perching trees are present.	**None.** No foraging suitable riparian habitat occurs on site; project site consists of disturbed habitat. Riparian habitat approximately 440 feet outside of the eastern site border may attract species to the area, but they are unlikely to occur on site.
Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)	SSC	Forage in grasslands, croplands, or savannah that surround wetlands, marshes, rivers and ponds where they nest in cattails and reeds along the water.	**None.** No suitable freshwater marsh or riparian habitat is present on site. Nearby riparian habitat is not suitable for yellow-headed blackbird nesting colonies.
Yellow warbler (*Setophaga petechia*)	SSC	Found within riparian woodlands, including disturbed habitats, and are associated with streamside cottonwood, willow, alder, and ash trees.	**None.** No suitable riparian habitat occurs on site; project site consists of disturbed habitat. Riparian habitat approximately 440 feet outside of the eastern site border may attract species to the area, but they are unlikely to occur on site.
MAMMALS			
American badger (*Taxidea taxus*)	SSC	Found in a variety of habitats including arid, open grasslands, fields, pastures, deserts, and scrublands containing firm soil suitable for burrowing. May also be found in marshes and deserts.	**Low-to-Moderate.** Open habitat is present on site; however, it is disturbed by regular vegetation clearing and mowing. No burrows suitable for badger were observed on site.

Species	Status	Habitat Description	Potential to Occur
Coyote (*Canis latrans*)	MSHCP Adequately Conserved	Found in a wide range of habitats in its extensive range including grasslands, forests, suburban lands, chaparral, deserts, cropland, and cities.	High. Suitable habitat is present on site and the surrounding area.
Los Angeles pocket mouse (P*erognathus longimembris brevinasus*)	SSC; MSHCP Section 6.3.2	Found in lower elevation grassland, alluvial sage scrub, and coastal sage scrub at elevations of approximately 548 to 2651 feet. Feed primarily on seeds and occasionally, forbs and insect larva.	Low. Non-native grasses and sparse buckwheat exist on site. Entirety of site is disturbed which may limit food sources. Soil is friable and contains burrows of other fossorial species (e.g., California ground squirrel).
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	SSC; MSHCP Adequately Conserved	Commonly found in sandy herbaceous areas near rocks or coarse gravel in dry coastal and desert border areas at elevations of sea level to 6000 feet. Found in the following habitats: coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland.	Low-to-Moderate. Non-native grasses and sparse buckwheat exist on site. Entirety of site is disturbed which may limit food sources. Soil is friable and contains burrows of other fossorial species (e.g., California ground squirrel).
San Bernadino kangaroo rat (*Dipodomys merriami parvus*)	FE; CSE; SSC; MSHCP Section 6.3.2	Found in alluvial fan habitats which experience periodic flooding. Higher elevation terraces (i.e., refuge sites) are required to avoid inundation. Commonly found in areas of low canopy cover with sandy loam substrate which facilitates burrowing and seed storage.	None. No suitable alluvial fan habitat occurs on site. Area does not exhibit sandy loam substrate.

Species	Status	Habitat Description	Potential to Occur
Stephens' kangaroo rat (*Dipodomys stephensi*)	FT; ST; MSHCP SKR	Found in annual grassland and coastal sage scrub with sparse shrub cover. Commonly in association with *Eriogonum fasciculatum*, *Artemisia californica*, and *Erodium cicutarium*, in areas with loose, friable, well-drained soil, and flat or gently rolling terrain.	Low-to-Moderate. Project site consists of disturbed habitat however, *Eriogonum fasciculatum, Erodium cicutarium,* and non-native grasses are sparsely present; soils are suitable for burrowing. Known from within three miles of the project site (Figure 5A).
Western mastiff bat (*Eumops perotis californicus*)	SSC	Requires open spaces with crevices in trees, buildings, tunnels, cliffs, rocks, etc. for roosting and hymenopterous insects for consumption.	Low. The project site is comprised of disturbed habitat and viable roosting locations are not readily available in immediate project vicinity. Open spaces for foraging are present on site. Historically documented within project vicinity.
Western yellow bat (*Lasiurus xanthinus*)	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roost in trees.	Very Low. No palm trees, riparian vegetation, or other suitable habitat is present on site. Although they prefer to forage near riparian habitat, they will occasionally forage over other open landscapes. Historically documented within project vicinity.

Definitions:
CSE: Candidate State Endangered
FC: Federal Candidate Species for listing under the Endangered Species Act
FE: Federally Endangered
FP: California Department of Fish and Wildlife (CDFW) Fully Protected
FPT: Federally Proposed Threatened
FT: Federally Threatened
SE: State Endangered
ST: State Threatened
SSC: CDFW Species of Special Concern
WL: CDFW Watch List Species
MSHCP: Multiple Species Habitat Conservation Plan Covered Species

Notes:
MSHCP Adequately Conserved – No further action required, other than standard efforts to avoid/minimize, when feasible. However, take coverage under the MSHCP does not extend to any birds during nesting season.
MSHCP CAGN – Per the USFWS Permit TE-088609 Special Conditions, CAGN-occupied habitat cannot be removed between March 1 – August 15.
MSHCP FPP – There is no allowable take of a fully protected species under the MSHCP. If impacted, these species would require mitigation.
MSHCP Section 6.1.2 – "Purpose" species associated with riparian/riverine, vernal pool areas, or other depressions, stock ponds, or road ruts. Species have specific survey requirements if suitable habitat is present. Surveys not required for this project based on lack of suitable habitat.
MSHCP Section 6.3.2 – Species with specific habitat assessment and focused survey requirements. Other than burrowing owl, this project is located outside of MSHCP designated wildlife survey areas.
MSHCP SKR – Stephen's kangaroo rat is granted coverage under the MSHCP only where the MSHCP and SKR HCP boundaries do not overlap. This project would be grated take authority under the SKR HCP.
MSHCP Table 9-3: Partially Conserved – If impacted, these species may require mitigation.

Species	Status	Habitat Description	Potential to Occur
Sources: CDFW 2024b eBird 2024 USFWS 2024b			

Threatened and Endangered Wildlife Species

No federally listed wildlife species were documented on the site during the various biological surveys. However, Stephens' kangaroo rat, a federally and state listed threatened species, has a low-to-moderate potential for occurrence on site. One state-listed threatened and MSHCP-covered species, Swainson's hawk, was observed soaring above the project site and has moderate potential to occur. In addition, two CESA candidate species, Crotch bumble bee and burrowing owl, have a moderate potential for occurrence on site. Each of these species is discussed in more detail below.

CNDDB and USFWS database results do not identify federal or state listed wildlife records within one mile of the project site. San Bernadino kangaroo rat (*Dipodomys merriami parvus*) and coastal California gnatcatcher (*Polioptila californica californica*) have been recorded within three miles of the project site (Figure 5A and 5B; CDFW 2024a, USFWS 2024a) but neither of these species are expected on site due to the lack of suitable habitat (Table 5). In addition, the federally and state threatened, Stephen's kangaroo rat has been reported within three miles of the project site; this species has low-to-moderate potential to occur based on the presence of friable, flat soils, annual grasses, and scattered California buckwheat (*Eriogonum fasciculatum*). Crotch's bumble bee has been recorded within five miles of the project site in two locations (CDFW 2024a). Crotch's bumble bee, a candidate for state listing, has moderate potential to occur on site; however, focused surveys for this species in 2024 were negative. Burrowing owl, which is also a candidate for state listing, is known from the region; however, focused surveys for this species in 2022 and 2024 were negative.

No USFWS designated critical habitat occurs within or immediately adjacent the project site, or within three miles of the project site (Figure 5B). No other federally listed species are expected to occur based on the disturbed nature of the site and lack of adjacent contiguous native habitat (Table 5). Please note that federally or state listed wildlife species with low potential to occur or not expected to occur are not addressed further in this report; because these species have low or no potential for occurrence, no impacts are anticipated on these species.

Burrowing Owl

Burrowing owl is currently a candidate for listing under the CESA as of October 10, 2024. The RCA MSHCP Information Map revealed that the project is located within the MSHCP Burrowing Owl Survey Area. Suitable burrowing owl habitat can be found in annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation (Zarn 1974). Suitable burrowing owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface. Burrows are the essential component of burrowing owl habitat; both natural and artificial burrows provide protection, shelter, and nests for burrowing owl (Henny and Blus 1981). Burrowing owl typically use burrows made by rodents, such as ground squirrels or badgers, but may also use human-made structures, such as concrete

culverts; concrete, asphalt, or wood debris piles; or openings beneath concrete or asphalt pavement.

Burrowing owls have declined throughout much of their range because of habitat loss due to urbanization, agricultural conversion, and destruction of ground squirrel colonies (Remsen 1978). The incidental poisoning of burrowing owls and the destruction of their burrows during eradication programs aimed at rodent colonies have also caused their decline (Collins 1979; Remsen 1978). Although burrowing owl are relatively tolerant of lower levels of human activity, human-related impacts, such as shooting and introduction of non-native predators, have negative population impacts. Burrowing owl often nest and perch near roads where they are vulnerable to roadside shooting, fatal car strikes, and general harassment (Remsen 1978).

Suitable habitat for burrowing owl was observed within the project site. California ground squirrels (*Otospermophilus beecheyi*), colonial burrows, and burrows of a suitable size to support burrowing owl were observed throughout the non-native grassland within the project site. Therefore, protocol burrowing owl surveys were conducted during the breeding season (March 1 to August 31) in accordance with the MSHCP. California ground squirrels were active during all surveys, although increased activity was observed along the western portion of the project site. Although the project site has moderate potential to support burrowing owl, no burrowing owl(s) or burrowing owl sign were observed on site during the protocol surveys. The results of the protocol burrowing owl surveys are included as Appendix D. Note that surveys were conducted before candidacy status, and the report classifies the burrowing owl as only a species of special concern, reflecting its status at the time.

Crotch's Bumble Bee

Crotch's bumble bee is currently a candidate for listing under the CESA based on a 2018 petition submitted by the Xerces Society for Invertebrate Conservation, Defenders of Wildlife and Center for Food Safety (CDFW 2022). This species has historically ranged from central California to Baja California Del Norte, though recent records indicate a reduction at longitudinal extremes, with most detections occurring in coastal southern California (Thorp et al. 1983, NatureServe Explorer 2023, Williams et al. 2014). Largely absent from mountainous regions, Crotch's bumble bee is distributed from the coast, east to the desert edge (Thorp et al. 1983, Williams et al. 2014).

Suitable habitat for this species includes a variety of open shrub and grassland vegetation communities supporting ample nectar sources. Due to their short tongue, Crotch's bumble bees tend to nectar on *Medicago*, *Lupinus*, *Chaenactis*, *Asclepias*, *Phacelia*, and *Salvia*, amongst a variety of other genera (Williams et al. 2014). Though Crotch's bumble bee is tolerant of fragmented and/or semi-urban environments, habitat loss, climate change, and pesticide use are considered imminent threats to populations (Williams et al. 2014; CDFW 2022).

Crotch's bumble bee has been recorded within five miles of the project site near the Box Springs Mountain Reserve (i.e., north of the intersection of Cattail Lane and Blue Lupine Lane), and just over five miles to the east near the Moreno Knolls development (i.e., along McGehee Dr north of Gilman Springs Rd, and south of the Alessandro Rd and Gilman Springs Rd intersection; CDFW 2024a). The project site and surrounding area contain moderately suitable

habitat and nectar sources appropriate for Crotch's bumble bee; therefore, the potential for this species to occur is moderate.

Stephens' Kangaroo Rat

Stephens' kangaroo rat is federally and state-listed as threatened; its federal status was down-listed from endangered to threatened effective on March 21, 2022. There are three distinct regions with Stephens' kangaroo rat populations: western Riverside County, western San Diego County, and central San Diego County. Stephens' kangaroo rat historically occurred in southwestern San Bernardino County but is believed to be extirpated from that area (USFWS 1997).

Habitat for Stephens' kangaroo rat includes open grasslands, fallow agricultural fields, and sparse coastal sage scrub in areas with penetrable soils and flat to steep sloping topography (USFWS 1997). Stephens' kangaroo rat is found at elevations of 180 to 4,100 feet amsl, with most populations located at elevations below 2,000 feet amsl (USFWS 1997). Habitat for Stephens' kangaroo rat varies in composition and density from place to place and season to season. Filaree (*Erodium* spp.) frequently dominates the best Stephens' kangaroo rat habitat areas, especially during and shortly after the rainy season (RECON 1989). Areas with dense grass cover are typically not suitable for Stephens' kangaroo rat (USFWS 1997). Stephens' kangaroo rat is a nocturnal species and consumes a diet primarily of seeds. The decline of this species is attributed in large part to habitat loss and fragmentation due to urban development and agriculture. Other factors contributing to the loss of the species include off-road vehicles, rodent control, and predation by feral and domestic cats (USFWS 1997).

Stephens' kangaroo rat has low-to-moderate potential to occur on site based on the presence of suitable habitat conditions (i.e., filaree and non-native grasses) and occurrences within three miles of the project site. On-site soils are friable and support burrows of other fossorial species, further indicating suitability. Additionally, the project site falls within the Stephens' kangaroo rat HCP area as designated by Code 8.60 of Moreno Valley City Ordinance 981 (2021).

Swainson's Hawk

Swainson's hawk is state-listed as threatened. Historically common, populations in southern California have diminished largely due to the destruction of nesting habitat. Current breeding occurs in the Central Valley, in sparsely foliated juniper-sage flats, riparian areas, and oak savannahs, and throughout the Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Infrequent breeding also occurs across Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. From August through September, Swainson's hawk migrates from North America, south to Argentina, returning to the northern hemisphere to nest March through August. Swainson's hawk migrates south through central and southern California in September and October, travelling towards northern California March through May (Zeiner et al. 1988 - 1990).

Nesting occurs in trees and shrubs or on top of utility poles in proximity to foraging sites. In urban areas across the Central Valley, Swainson's hawk preferentially nests in mature coniferous trees (England et al. 1995). In southern California, nesting is known to occur in cottonwoods and sycamores (*Platanus* sp.; Unitt 2004). Accessibility to foraging habitat is

positively correlated with nesting, particularly in urban areas (England et al. 1995). Grasslands, open desert, or agricultural fields with sparsely dispersed trees are essential for hunting prey, which include rodents, lagomorphs, ground squirrels, and arthropods. Roosting occurs in large trees, if available near foraging grounds, or within grasses (Zeiner et al. 1988 - 1990). Swainson's hawk is primarily threatened by loss of mature riparian breeding habitats, conversion of high-quality foraging habitat to incompatible land uses, and pesticide poisoning (Woodbridge 1998).

Two Swainson's hawks were observed flying over the project site during focused surveys for burrowing owl in 2024. The hawks were observed soaring over the southwestern portion of the project area and continued soaring to the north away from the project area. The hawks were not observed using the project site directly, however, the species is known to use open areas such as freshly mowed fields, such as those on site, as preferred foraging grounds. As such, Swainson's hawk has a moderate potential to occur on site.

Wildlife Species of Special Concern & Watch List Species

Three non-federally/state listed special-status wildlife species, California horned lark (*Eremophila alpestris actia*), Cooper's hawk (*Accipiter cooperii*), and Lawrence's goldfinch (*Spinus lawrencei*) were observed during biological surveys. Cooper's hawk and California horned lark are MSHCP-Covered Species. No other non-federally/state listed special-status wildlife species were observed during biological surveys.

Several non-federally/state listed special-status wildlife species have low-to-moderate, moderate, or high potential to occur on site, including American badger (*Taxidea taxus*), coyote (*Canis latrans*), Bell's sparrow (*Artemisiospiza belli belli*), loggerhead shrike (*Lanius ludovicianus*), merlin (*Falco columbarius*), northern harrier (*Circus hudsonius*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), prairie falcon (*Falco mexicanus*), and vermilion flycatcher (*Pyrocephalus rubinus*). Of these, coyote, loggerhead shrike, merlin, northern harrier, and northwestern San Diego pocket mouse are MSHCP-Covered Species. Please note that other special-status wildlife species with low potential to occur or not expected to occur are not addressed further in this report; because these species have low or no potential for occurrence, impacts to these species are not anticipated.

American Badger

American badger is a CDFW SSC and a MSHCP Covered Species. It is found in western North America from Mexico to central Canada. Although uncommon in California, this species is found throughout most of the state except the northwestern coast. It lives in a variety of habitats, especially in drier open stages of shrub, forest, and herbaceous habitats but can also be found in marshes or deserts. American badgers require friable soils to dig burrows. They are a highly specialized fossorial species that consumes small mammals, reptiles, insects, earthworms, eggs, birds, and carrion, shifting their diet seasonally and yearly in response to prey availability. Badgers are somewhat tolerant of human activities; however, predator control using indiscriminate trapping and persistent poisons have had deleterious effects on badger populations in California (Zeiner et al. 1988 - 1990).

Suitable open habitat, though disturbed, is present throughout the project site and in the surrounding areas. Additionally, friable soils and prey are present on site. However, due to the lack of suitable burrows, regular soil disturbances, and frequent vegetation removal, American badger has a low-to-moderate potential to occur on site.

Bell's Sparrow

Bell's sparrow is a CDFW WL species. Bell's sparrow was once considered a subspecies of sage sparrow, which was split into two species, Bell's sparrow and sagebrush sparrow (*Artemisiospiza nevadensis*), by the American Ornithological Society (AOS) in 2013. It is found in desert scrub, alkali desert scrub, chaparral, and coastal sage scrub across cis- and transmontane California. Bell's sparrow is frequently observed in low growing, dense shrubs, and often seeks refuge in *Adenostoma* spp., sagebrush (*Artemisia* spp.), bitterbush (*Purshia* spp.), or saltbush (*Atriplex* spp.), depending on the locality. This species primarily feeds on insects, spiders, and seeds which they glean from the ground and shrubs. Bell's sparrow is known to nest at the base of or within shrubs, with nests placed up to one meter above the ground. During the winter, Bell's sparrow occupy lower, drier elevations, generally with more open space. Primary threats include habitat loss and vegetation clearing for livestock grazing and other anthropogenic land uses (Holmes and Johnson 2005).

Bell's sparrow is known from within four miles of the project site, and though disturbed, open scrub habitat is present on site. Therefore, Bell's sparrow has a low-to-moderate potential to occur.

California Horned Lark

California horned lark is designated a CDFW WL species, which is found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline, and in coniferous or chaparral habitats. It is a common resident in a variety of open habitats, usually found in habitats where trees and large shrubs are absent. Within Southern California, California horned larks nest on the ground in open fields, grasslands, and rangelands. Horned larks forage in areas with low-growing vegetation and feed primarily on grains and other seeds, shifting to mostly insects in the summer months. California horned lark breeds from March through July, with a peak in activity in May. Pairs do not maintain territories outside of the breeding season and instead form large gregarious, somewhat nomadic flocks.

Threats to California horned lark include habitat destruction and fragmentation. Habitats preferred by California horned lark are easily converted to other landscapes and human uses such as farmland and development. Pesticides have also been shown to poison and kill horned larks (Beason 1995). As a ground nester, California horned lark is vulnerable to mowing in a variety of habitats and pesticide use in agricultural fields.

California horned lark was observed immediately outside the project site during focused burrowing owl surveys in 2022 and 2024 within the 500-foot survey buffer (Appendix D). This species has a high potential to occur on site due to the presence of suitable foraging and nesting habitat.

Cooper's Hawk

Cooper's hawk is a CDFW WL species. Cooper's hawk breeds throughout the United States and into Canada and Mexico. In California, Cooper's hawk nests in live oak, riparian, and other forest habitats from sea level to 9,000 feet amsl. The Cooper's hawk is tolerant of human disturbance and habitat fragmentation, and nests in suburban and urban settings (Murphy et al. 1988). Cooper's hawk hunt in open woodland and habitat edges, catching avian prey in the air, on the ground, and in vegetation. The Cooper's hawk hunts a variety of small birds and may also hunt small mammals, reptiles, and amphibians. Their nest is typically a platform of sticks and twigs lined with bark (Call 1978) and eggs are laid in February through June with the clutch size of 4 to 5 eggs (Brown and Amadon 1968).

Cooper's hawk population declines in Southern California can be largely attributed to habitat loss, especially in riparian areas. Other threats include direct or indirect human disturbance at nest sites, and eggshell thinning from pesticide use, although this threat is largely abated through the change in pesticide chemicals used after the 1970s (Terres 1980).

One Cooper's hawk was observed flying over the project site during focused surveys for burrowing owl in 2024 and has a moderate potential to occur on site. Suitable foraging habitat is present adjacent to the project site along the edges of the nearby riparian habitat, located approximately 440 feet outside of the eastern project boundary. Suitable nesting habitat is not present on site.

Coyote

Coyote, a MSHCP Covered Species, is found throughout North America and has expanded its geographic range by about 40% in the past 120 years. Coyotes are found in various habitats including forests, deserts, grasslands, agricultural land, and urban areas. Coyotes are generalist opportunistic feeders; although preferring a carnivorous diet, they will also consume vegetation and will scavenge carrion and sometimes waste from human sources. Young are born in a den dug by the female coyote or an enlarged burrow of another mammal. Coyotes have large home ranges and are highly mobile, travelling as much as 20 km per day. The biggest threats to coyote are direct actions from humans, such as hunting, trapping, and poisoning.

The site supports suitable habitat for coyote, and prey is abundant on site. Additionally, the species is known in the area and therefore has a high potential to occur on site.

Lawrence's Goldfinch

Lawrence's goldfinch is a USFWS BCC found in chaparral, open woodlands, riparian, disturbed lands, weedy fields, semi-urban, and agricultural land (Watt et al. 2016). The species breeds in central and southern California, west of the Sierra Nevada and south into Baja California (Cornell University 2019). Like many goldfinches, the Lawrence's goldfinch eats almost exclusively seeds, mostly from annual plants, and may rarely supplement their diet with insects, buds, or fruits (Watt et al. 2016). This species is gregarious and travels in flocks year-round. Lawrence's goldfinch lays a clutch of three to six eggs in a loose cup of leaves and grass stems placed in a forked branch a tree or shrub (Cornell University 2019).

A flock Lawrence's goldfinches was observed on June 16, 2024 foraging within the project site and surrounding area. Suitable habitat is present on site and this species is known from the project vicinity.

Loggerhead Shrike

Loggerhead shrike is a CDFW SSC. This species is a non-migratory, year-round resident in southern California. Loggerhead shrike prefers open habitats, typically with short vegetation and scattered shrubs. This species consumes a diet mainly consisting of insects and also feeds on reptiles, birds, and small mammals. Loggerhead shrike uses a feeding technique where the bird impales prey on spines or thorns of shrubs. Thus, loggerhead shrike suitable habitat requires vegetation with spines or thorns (Yosef 1996). Leading causes of decline for this species include urban development and ingestion of pesticide-laden prey. Loggerhead shrike numbers are still fairly large across North America; however, the species has dramatically declined over the past century (Yosef 1996).

Suitable open foraging habitat is present on site and barbed wire fence in the surrounding area could support the loggerhead shrike's hunting technique of impaling prey on thorns or barbed wire. Although nesting habitat is not present on site, suitable vegetation for nest placement exists in the project vicinity. Therefore, the loggerhead shrike has a low-to-moderate potential to occur on site.

Merlin

Merin is a CDFW WL species and uncommon winter migrant in the low elevations of California (i.e., less than 3,900 feet). Merlin prefer coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, edges, and herbaceous stage habitats. This species relies on a diet primarily comprised of small birds and occasionally preys on insects and small mammals. Shorelines act as particularly important hunting grounds during winter months. Merlin experienced stark population declines from pesticide use prior to environmental legislation in 1972. Since the ban on DDT, populations have increased slowly, though sightings in southern California are still considered rare (Zeiner et al. 1988 - 1990). Merlin is increasingly breeding in towns and cities, where they often take over crow nests in conifers planted in residential areas. During migration merlin stop in grasslands, open forests, and coastal areas.

Open habitat suitable for foraging is present on site, and deciduous trees suitable for perching and roosting are present in the surrounding area. Additionally, the species is known in the area in winter months. Therefore, merlin has a low-to-moderate potential to occur on site.

Northern Harrier

Northern harrier is a CDFW SSC and USFWS BCC. It breeds from sea level to 5,700 feet amsl in California's central valley. Typical habitats include meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands. They are found in flat, open areas with tall dense grasses, shrubs, and edges used for nesting, cover, and foraging. Their nests are placed on the ground, usually at a marsh edge (Brown and Amadon 1968). While they usually nest in emergent wetlands or along rivers or lakes, they can nest in grasslands,

grainfields, and sagebrush flats several miles from water; however, their home range usually includes fresh water (Zeiner et al. 1988 -1990).

Populations of northern harrier, including breeding populations in southern California, have been in decline since the mid-1900s (Grinnell and Miller 1944, Remsen 1978). Major threats include destruction of wetland habitat, native grassland, and moist meadows, and burning and plowing of nesting areas during the beginning for breeding season.

The project site supports open habitat suitable for foraging; however, suitable nesting habitat is not present due to the frequent ground disturbing and vegetation removal activities on site. Northern harrier is known to occur in the area and the project site is within the known elevational range of this species. Due to the presence of suitable habitat, northern harrier has a moderate potential to occur within on site.

Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse is a CDFW Species of Special Concern that is found in coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities and is associated with rocky and gravelly substrates. In San Diego County, the San Diego pocket mouse is associated with shrub cover greater than 50 percent (Bolger 1997). The northwestern San Diego pocket mouse is one of six subspecies of San Diego pocket mouse (Williams et al. 1993) and is primarily a granivore (seed-eater). Beyond specialization on seeds, little is known of the foraging behavior of the San Diego pocket mouse. However, other pocket mice (*Chaetodipus*, *Perognathus* spp.) tend to forage under shrub and tree canopies, or around rock crevices. San Diego pocket mice are nocturnal and spend their days in burrows.

The San Diego pocket mouse is threatened by development, habitat fragmentation, and degradation. A study by Bolger et al. (1997) suggests that isolated habitat patches must be at least 62 to 198 acres to sustain native rodent populations.

Northwestern San Diego pocket mouse has low-to-moderate potential to occur on site based on the presence of non-native grasses and sparse California buckwheat. Other fossorial species exist on site (i.e., California ground squirrel), indicative of soil friability and support of burrowing activity.

Prairie Falcon

Prairie falcon is a CDFW WL species. It ranges from the southeastern California desert to the Central Valley. Prairie falcon is a year-long resident through most of its range in California. Typical habitats include annual grasslands, savannahs, agricultural fields, and desert scrub. They primarily nest in natural crevices or ledges on steep bluffs and cliffs up to 11,000 feet. Prairie falcons eat mostly small mammals, particularly ground squirrels, in summer, but also eat birds and insects. Prairie falcons were impacted by DDT in the mid 20th century and are currently threatened by illegal hunting and degradation of their breeding habitat (Cornell University 2019).

Though disturbed, foraging habitat with suitable prey present on site, hence prairie falcon has a low-to-moderate potential to occur. Nesting habitat is not present on site or within adjacent land.

Vermillion Flycatcher

Vermillon flycatcher is a CDFW SCC found in deserts, scrub, agricultural fields, parks, golf courses, and riparian woodlands, often near a water source. In California, vermillion flycatchers are known to exist in cottonwood-willow woodlands, residential areas, and parks. They commonly nest in willows (*Salix* spp.), cottonwoods (*Populus* spp.), mesquites (*Prosopis* spp.), and western sycamores (*Platanus racemosa*), and occasionally in non-native trees, such as elms (*Ulmus* spp.), olives (*Olea europaea*), black locusts (*Robinia pseudoacacia*), tamarisks (*Tamarix* spp.), and eucalyptus (*Eucalyptus* spp.). Vermillion flycatchers prefer to nest along channels and are negatively impacted by development and anthropogenic water use. Depletion of desert ground water and habitat destruction are of concern in certain regions. Flying insects (e.g., members of Diptera, Coleoptera, Orthoptera, and Lepidoptera) make up the majority of the vermillion flycatcher's diet (Shuford and Gardali 2008).

Suitable open habitat is present on site and a riparian corridor suitable for nesting occurs approximately 440 feet to the east of the site. Therefore, vermillion flycatcher has a low-to-moderate potential to occur on site.

4.4 WILDLIFE MOVEMENT AND CORRIDORS

A wildlife corridor can be defined as a physical feature that links wildlife habitat, often consisting of native vegetation that joins two or more larger areas of similar wildlife habitat. Corridors enable migration, colonization, and genetic diversity through interbreeding and are therefore critical for the movement of wildlife and the continuation of viable populations. Corridors can consist of large, linear stretches of connected habitat (such as riparian vegetation) or as a sequence of stepping-stones across the landscape (discontinuous areas of habitat such as wetlands and ornamental vegetation), or corridors can be larger habitat areas with known or likely importance to local fauna.

Regional corridors are defined as those linking two or more large patches of habitat, and local corridors are defined as those allowing resident wildlife to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development. A viable wildlife migration corridor consists of more than an unobstructed path between habitat areas. Appropriate vegetation communities must be present to provide food and cover for both transient species and resident populations of less mobile wildlife. There must also be a sufficient lack of stressors and threats within and adjacent to the corridor for species to use it successfully.

The project site is situated in the center of the City of Moreno Valley immediately south of a developed residential area. Though minimal undeveloped land occurs directly adjacent to the east and south, these areas are highly disturbed; nearby surrounding areas are comprised of residences or vacant lots. No large areas of native vegetation are contiguous with the disturbed habitat on site, nor do such areas of native habitat occur in proximity to the project site. The site does not occur within an MSHCP designated Core, Extension of Existing Core, Non-contiguous Habitat Block, Constrained Linkage, or Linkage area.

Based on a review of the CDFW Biogeographic Information and Observation System data, no wildlife movement corridors are mapped within the project site (CDFW 2024c). The land within

and around the project site is designated as Rank 1, "Limited Connectivity Opportunity", which is the lowest rank within the Terrestrial Connectivity, Areas of Conservation Emphasis (ACE) dataset (CDFW 2024c). Cumulatively, the project site and other undeveloped isolated lots in the project vicinity are unlikely to be used by wildlife species as refuge between larger areas of naturally occurring habitat. Hence, the project site does not function as part of a local or regional wildlife corridor.

4.5 POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES

One vegetated, earthen-bottom detention basin, mapped by NHD as reservoir and NWI as freshwater pond, occurs approximately 125 feet south of the project site. It appears to have been historically supplied by irrigation from the surrounding, presently inactive agricultural fields; no standing water was observed within the basin during the surveys. Vegetation within the basin consists of disturbed, weedy habitat with primarily non-native species. However, no aquatic resources potentially jurisdictional by the Corps, RWQCB, or CDFW occur within the survey area.

4.6 MSHCP RIPARIAN/RIVERINE AREAS AND VERNAL POOLS

The project site does not support any drainages or riparian regions that meet the MSHCP definition of a riparian/riverine area. Additionally, the project site does not support any areas that meet the MSHCP definition of a vernal pool. Furthermore, there are no areas on the project site that would support Section 6.1.2 "purpose" species associated with riparian/riverine or vernal pool areas, nor any other depressions stock ponds, or road ruts. This includes, but is not limited to, listed fairy shrimp species and riparian birds.

4.7 LOCAL POLICIES AND ORDINANCES

The City of Moreno Valley has several ordinances pertaining to biological resources. City Code 9.17 (Tree and Heritage Tree Policy) is not applicable to this project as no trees of sufficient size are present on site. City Codes 8.10 and 8.21, pertaining to stormwater management, erosion, and sediment control, would be applicable to the project and should be considered by project engineers. The project is also subject to City Code 8.6, which is discussed below in section 4.8.

4.8 HABITAT CONSERVATION PLANS/NATURAL COMMUNITIES CONSERVATION PLANS

The project site is within the Western Riverside MSHCP area. The project's consistency with the MSHCP is discussed in Section 7 of this report. The project site also occurs within the Stephens' Kangaroo Rat HCP area per Moreno Valley City Ordinance 981 (Ord. 981 § 8.6, 2021).

5 IMPACTS

Direct impacts are caused by the project and occur at the same time and place as the project. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Direct impacts would include direct losses to native habitats, potential jurisdictional waters, wetlands, and special-status species; and diverting natural surface water flows. Direct impacts on wildlife could include injury, death, and/or harassment of listed and/or special-status species. Direct impacts could also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Direct impacts on plants can include crushing of adult plants, bulbs, or seeds.

Indirect impacts can result from project-related activities where biological resources are affected in a manner that is not direct. Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (domestic cats and dogs) and plants (weeds). As noted in Section 3, the survey area included a 100-foot buffer to identify nearby biological resources and to aid in assessment of potential indirect impacts on protected resources, if present.

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. Such impacts taken individually may be minor but are collectively significant in light of regional impacts.

CEQA Guidelines Form J thresholds of significance have been used to determine whether project implementation would result in a significant direct, indirect, and/or cumulative impact. These thresholds are based on Appendix G of the CEQA Guidelines (CCR Title 14, Division 6, Chapter 3, Sections 15000–15387). A significant biological resources impact would occur if the project would:

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

- Conflict with the provisions of an adopted HCP; Natural Community Conservation Plan (NCCP); or other approved local, regional, or state HCP.

CEQA Threshold 1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

5.1 SPECIAL-STATUS PLANTS AND WILDLIFE IMPACTS

5.1.1 THREATENED AND ENDANGERED PLANT SPECIES

No federally or state-listed as endangered or threatened plant species were documented on the project site, and none have moderate to high potential to occur based on a lack of suitable habitat. As such, no significant impacts on federally or state-listed endangered or threatened plant species are anticipated with project implementation.

5.1.2 OTHER SPECIAL-STATUS PLANT SPECIES

The proposed project is not located in an MSHCP designated Narrow Endemic Plant Species Survey Area nor a Criteria Area Species Survey Area for plants. Nevertheless, none of the plant species associated with a NEPSSA or CASSA are present or have a moderate to high potential to occur. Furthermore, there are no other non-listed special-status plant species present or that have moderate to high potential to occur within the project site.

5.1.3 THREATENED AND ENDANGERED WILDLIFE SPECIES

Crotch's bumblebee and burrowing owl have moderate potential to occur on the project site, Stephens' kangaroo rat has low-to-moderate to occur on site, and Swainson's hawk was observed soaring above the project site and has a moderate potential to occur on site; therefore, these listed species have potential to be impacted with project implementation, as discussed below.

The proposed project will not impact any additional federally and/or state listed wildlife species as no other species were recorded within/nearby the project site or have moderate to high potential to occur on site.

Burrowing Owl

The project has moderate potential to support burrowing owl, and the site occurs within the MSHCP designated Burrowing Owl Survey Area. Protocol surveys on the project site conducted in 2022 and 2024 were negative for burrowing owl; however, due to the presence of suitable burrows, burrowing owl may inhabit the site prior to initiation of project activities. To avoid potential direct impacts (i.e., if species habitation were to occur in the future), a pre-construction burrowing owl survey will be required prior to construction activities pursuant to the MSHCP. Through compliance with the MSHCP Objective 6 for burrowing owl and MM-1, impacts on burrowing owl would be less than significant.

Crotch's Bumble Bee

Crotch's bumblebee, a candidate for listing under CESA, may be impacted with project implementation as the project site occurs within species range and supports suitable habitat. Direct impacts to Crotch's bumblebee may occur in the form of death, injury, or harassment. Indirect impacts to this species may include destruction of viable nectar sources or suitable habitat. Focused surveys for Crotch's bumble bee were conducted in 2024 during the appropriate seasonal window and were negative. Pursuant to the CDFW *Survey Considerations for CESA Candidate Bumble Bee Species*, all project sites that support suitable habitat within the range of Crotch's bumble bee should conduct pre-construction surveys, regardless of species presence/absence during previous focused surveys. As such, pre-construction surveys will be conducted prior to ground disturbing activities (MM-2A). In the unlikely event that Crotch's bumble bee is detected during pre-construction surveys, site-specific avoidance and minimization measures and/or mitigation will be developed in consultation with CDFW (MM-2B). With adherence to the mitigation measures described in Section 6, impacts on Crotch's bumble bee will be reduced to less than significant.

Swainson's Hawk

Two Swainson's hawks, a species listed as Threatened under CESA, were observed soaring above the project site during focused burrowing owl surveys. The hawks were not observed using the project site directly; however, the species is known to use open areas, such as freshly mowed fields similar to those on site, as preferred foraging grounds. Nesting habitat is not present on site; therefore, project construction would not impact nesting Swainson's hawks. Project implementation would remove potentially suitable foraging habitat; however, preferred foraging habitat for this species is minimal. Furthermore, removal of approximately 17.56 acres of disturbed land is not anticipated to be a significant impact given the ample availability of higher quality foraging habitat in the region (i.e., Box Springs Mountain Reserve, Sycamore Canyon Wilderness Park, Norton Younglove Reserve, San Timoteo Canyon Park, and Lake Perris State Recreation Area). In addition, Swainson's hawk is a MSHCP Covered Species and is considered adequately covered, except when nesting, under the MSHCP. With payment of MSHCP Local Development Mitigation Fees, habitat-based impacts would be considered less than significant.

Stephens' Kangaroo Rat

Although not observed, Stephens' kangaroo rat, a federally endangered and has a low-to-moderate potential to occur within the project site due to the presence of potential foraging and burrowing habitat. The project site falls within the Stephens' kangaroo rat HCP area as designated by Code 8.60 of Moreno Valley City Ordinance 981 (2021), and any take of this species would be covered under the Stephens' Kangaroo Rat HCP. With payment of the Stephens' Kangaroo Rat HCP impact and mitigation fee, impacts to Stephens' kangaroo rat would be considered less than significant.

5.1.4 OTHER SPECIAL-STATUS WILDLIFE SPECIES

Three other special-status wildlife species were detected during biological surveys and an additional nine non-listed special-status wildlife species have high, moderate, or low-to-

moderate potential to occur on the project site. Potential impacts on other special-status species are discussed below. Beyond the 12 species discussed below, the proposed project does not have potential to impact any additional non-listed special-status wildlife species as no other species were observed within/nearby the project site or have moderate to high potential to occur on site.

Other Special-Status Avian Species

Two CDFW WL species, California horned lark and Cooper's hawk, as well as one USFWS BBC, Lawrence's goldfinch, were observed during biological surveys. In addition, Bell's sparrow, loggerhead shrike, merlin, northern harrier, prairie falcon, and vermilion flycatcher have moderate or low-to-moderate potential to occur on site.

California horned lark, Cooper's hawk, loggerhead shrike, merlin, and northern harrier are covered under the MSHCP. Although the proposed project could result in a loss of habitat for these species, they are considered adequately covered under the MSHCP, other than when nesting; habitat-based impacts on these species would be considered less than significant with payment of MSHCP Local Development Mitigation Fees. Bell's sparrow, Lawrence's goldfinch, prairie falcon, and vermilion flycatcher are not MSHCP Covered Species; however, these species have similar foraging habitat requirements as the MSHCP Covered Species listed above. The MSHCP preserves sufficient native habitats such that special-status species are adequately conserved. Although not specifically addressed in the planning process, species with similar habitat affinities benefit from the preservation of land for MSHCP Covered Species. As such, the loss of approximately 17.56 acres of potential foraging habitat as a result of the project would be less than significant for all special-status avian species.

With the exception of California horned lark, nesting habitat for special-status avian species not present either due to the lack of required nesting conditions or regular vegetation clearing and mowing on site. Pre-construction nesting bird surveys, described below and required per MM-4, will be conducted immediately prior to ground disturbing activities; therefore, direct impacts on nesting avian species, including California horned lark, would be avoided and impacts would be less than significant. In addition, adult avian species that may be present on the project site would likely flush during initial project activities, hence direct impacts on special-status avian species would be less than significant.

Other Special-Status Mammal Species

The project site has low-to-moderate potential to support American badger and northwestern San Diego pocket mouse, which are CDFW SSC. The proposed project may result in loss of foraging and burrowing/denning habitat for these species. Northwestern San Diego pocket mouse is an MSHCP Covered Species and is considered adequately covered under the MSHCP. The project site is not located in a designated survey area for small mammal species. As such, with payment of MSHCP Local Development Mitigation Fees, habitat-based impacts on this species would be considered less than significant. American badger is not a MSHCP Covered Species; however, American badger occurs in similar habitats as northwestern San Diego pocket mouse. The MSHCP preserves sufficient native habitats such that special-status species are adequately conserved. Although not specifically addressed in the planning process,

species with similar habitat affinities benefit from the preservation of land for MSHCP Covered Species. As such, the loss of approximately 17.56 acres of potentially suitable American badger habitat would be less than significant.

American badger was not documented on site during biological surveys and burrows suitable for badger were not documented. Although unlikely, badger may inhabit the site prior to initiation of project activities due to the presence of suitable habitat. If present, American badger would be observed during the pre-construction burrowing owl survey and would likely flush during initial project activities; therefore, potentially direct impacts on American badger are expected to be less than significant.

The project site also has high potential to support coyote, which is a MSHCP Covered Species. Coyote is considered adequately covered under the MSHCP and potential project-related impacts on this species would be less than significant with payment of MSHCP Local Development Mitigation Fees.

CEQA Threshold 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

5.2 NATIVE VEGETATION IMPACTS

The proposed project would occur on disturbed habitat (Figure 6; Table 6). Disturbed habitat is not considered a sensitive vegetation community; therefore, impacts on upland vegetation communities would be less than significant.

Table 6. Vegetation Communities/Land Cover Impacts on the Project Site

Vegetation Community/Land Cover	Project Site Impacts (acres)
Disturbed	17.56
Total	17.56

CEQA Threshold 3: 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?

5.3 POTENTIAL JURISDICTIONAL AQUATIC RESOURCES IMPACTS

No potentially jurisdictional aquatic features occur on site or within the survey area; therefore, impacts to aquatic resources are not anticipated. In addition, no MSHCP riparian/riverine or vernal pool areas occur on the project site; therefore, impacts to these resources are not anticipated.

CEQA Threshold 4: 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?

5.4 NESTING BIRD IMPACTS

The proposed project has the potential to impact active bird nests if vegetation is removed or if ground disturbing activities are initiated during the nesting season. The disturbed habitat within the project site has the potential to support ground nesting species, such as western meadowlark (*Sturnella neglecta*) and California horned lark. Impacts on nesting birds are prohibited by the MBTA and CFGC, and are not covered by the MSHCP. A project-specific measure (MM-3) that will ensure nesting bird impact avoidance is identified in Section 6 of this report. With the implementation of this measure, impacts on nesting birds would be less than significant.

5.5 WILDLIFE MOVEMENT AND CORRIDOR IMPACTS

The project site does not serve as part of a regional wildlife corridor. As such, the project would not result in impacts on wildlife movement and regional corridors.

CEQA Threshold 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance?

5.6 LOCAL POLICIES AND ORDINANCES IMPACTS

Outside of City ordinances pertaining to Stephens' kangaroo rat as discussed below, the project is not subject to any local policies or ordinances protecting biological resources, as outlined in Section 2.4. As such, the project would not result in impacts to local policies and ordinances.

CEQA Threshold 6: Conflict with the provisions of an adopted HCP; NCCP; or other approved local, regional, or state HCP?

5.7 HABITAT CONSERVATION PLAN; NATURAL COMMUNITY CONSERVATION PLAN; OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN IMPACTS

The project is located within the Western Riverside MSHCP. Determination of consistency with each applicable MSHCP requirement is discussed in Section 7. In addition, the project is required to comply with MSHCP Volume 1, Appendix C Standard Best Management Practices. This includes best practices required to be implemented by the project, as applicable, to ensure consistency with the MSHCP. At a minimum, these best practices require that a qualified project biologist will monitor construction activities for the duration of the project to ensure that practicable measures are implemented to avoid incidental disturbance of habitat and species of concern inside and outside of the project footprint. MM-4 requires that the best practices applicable to the project be implemented accordingly.

The project is required to contribute to the funding of the MSHCP through payment of a 'Local Development Mitigation Fee'. Additionally, the site is located within the Stephens' Kangaroo Rat HCP area per Moreno Valley City Ordinance 981 (Ord. 981 § 8.6, 2021). As such, the project is

required to pay a $500/acre impact and mitigation fee pursuant to County Ordinance 981 as outlined in Section 6 (MM-6; Ord. 981 § 8.6, 2021). With the implementation of MM-4 through MM-6, any conflicts with HCPs or NCCPs would be less than significant.

5.8 INDIRECT IMPACTS ON BIOLOGICAL RESOURCES

In the context of biological resources, indirect impacts are those effects associated with developing areas adjacent to native open space. Potential indirect effects associated with development include water quality impacts from site drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

Volume I, Section 6.1.4 of the MSHCP (Urban/Wildland Interface Guidelines) identifies guidelines that are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area (Figure 2B). To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The proposed project is not located in proximity to any MSHCP Conservation Areas. As such, the proposed project will not result in significant indirect effects on biological resources. Furthermore, the Urban/Wildland Interface Guidelines do not apply to the proposed project.

Undeveloped land adjacent to the project site may be subject to indirect impacts resulting from the proposed project; however, the project site and abutting lands have been heavily disturbed by human activities and project activities would not significantly change the conditions on adjacent lands. Additionally, although adjacent habitat may be suitable for nesting birds, pre-construction nesting bird surveys detailed in Section 6 (MM-3) of this report would cover habitat in buffer areas surrounding the impact footprint so that impacts on nesting birds would be avoided. Therefore, indirect impacts would be less than significant.

5.9 CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. ‘Related projects’ refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project. The project site is disturbed and does not support significant stands of native vegetation. Further, the project will be fully compliant with the regional MSHCP which protects biological resources regionally such that cumulative impacts within the Plan Area are avoided. As such, the proposed project will not result in significant cumulative effects.

6 MITIGATION AND AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures (MM) for actual or potential impacts on biological resources.

MM-1 Burrowing Owl. A qualified biologist shall conduct a pre-construction presence/absence survey for burrowing owls no less than 30 days prior to site disturbance. Additional pre-construction focused surveys for burrowing owls shall be conducted within 24 hours prior to site disturbance including vegetation clearing. If the pre-construction surveys confirm occupied burrowing owl habitat, or if burrowing owls are documented after the project has started, then construction activities shall be halted immediately. If burrowing owls are documented on site, CDFW and USFWS (i.e., Wildlife Agencies) shall be notified within 48-hours of observation and the take of active nests will be avoided. To avoid take of active nests, a qualified biologist will develop a Burrowing Owl Protection and Relocation Plan that describes avoidance, relocation, monitoring, minimization, and/or mitigation actions. The Plan shall include the number and location of occupied burrow sites and details on proposed buffers if avoiding the burrowing owls or information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Plan. The Plan shall be reviewed and approved by the Wildlife Agencies.

MM-2 Crotch's Bumblebee.

MM-2A – Within one year prior to any ground disturbance or vegetation clearing related to the project, a focused survey shall be conducted for Crotch's bumblebee. Survey methodology shall follow CDFW's 2023 Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. Surveys shall take place when detection of the focal species is greatest; highest detection rates for Crotch's bumblebee occur April through August. Crotch's bumblebee surveys shall be conducted for a minimum of one person-hour of searching (excluding time spent capturing, photographing, identifying, and releasing specimen) per three acres of suitable habitat (CDFW 2023). Surveillance shall be focused where nectar sources and nesting resources are present. Non-lethal photo vouchers of focal species shall be captured at various angles to confirm accurate identification (CDFW 2023).

MM-2B – If Crotch's bumblebee is documented on the project site, CDFW shall be notified within five working days of the observation. If necessary, site-specific avoidance and minimization measures shall be implemented to avoid take of Crotch's bumblebee. If avoidance is not feasible, an ITP shall be obtained from CDFW and appropriate mitigation shall be implemented.

MM-3 Nesting Birds. To ensure compliance with CFGC sections 3503, 3503.5, and 3513 and to avoid potential impacts to nesting birds, vegetation clearing and ground-disturbing activities shall be conducted outside of the bird nesting season (generally February 15 through August 31). Regardless of the time of year, a qualified biologist (i.e., ornithologist) will conduct a nesting

bird survey within three days prior to any disturbance of the site, including but not limited to vegetation clearing, disking, demolition activities, and grading. If active nests are identified, the qualified biologist shall establish exclusion buffers around the nests depending on the bird species, type of activity near the nest, equipment used, and noise generated compared to ambient noise The exclusion buffer shall remain in place until the nests are no longer occupied and the juvenile birds can survive independent from the nests, as determined by the qualified biologist. During construction activities, the qualified biologist shall continue biological monitoring activities at a frequency using their best professional judgment. Exclusion buffers may be adjusted and/or construction activities may be stopped or redirected by the qualified biologist using their best professional judgement to avoid take of nesting birds and active nests.

MM-4 MSHCP Standard Best Management Practices. Per MSHCP Volume I, Appendix C, the following applicable best practices shall be implemented by the project:

- A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the ESA and the MSHCP, the need to adhere to the provisions of the ESA and the MSHCP, the penalties associated with violating the provisions of the ESA, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- A qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being implemented to avoid incidental disturbance of habitat and species of concern inside and outside the project footprint.
- Removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen or other obvious exclusion materials. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
- The Permittee (i.e., City) shall have the right to access and inspect any sites of approved projects, including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

MM-5 MSHCP Local Development Fee. The project applicant shall be required to pay the MSHCP 'Local Development Mitigation Fee.' Based on the local development mitigation fee schedule for fiscal year 2025 (effective July 1, 2024 – June 30, 2025), fees for residential density less than 8.0 dwelling units per acre would be $4,358 per dwelling unit and fees for commercial and/or industrial development would be $19,615 per acre (Western Riverside County RCA 2024b). The 'Local Development Mitigation Fees' are subject to change following each fiscal year. As such, the applicant shall refer to the updated fee amounts once the schedule for project construction is finalized.

MM-6 Stephens' Kangaroo Rat HCP Fee. The project applicant shall pay a $500/acre impact and mitigation fee for all acreage subject to development including acreage disturbed for off-site improvement areas pursuant to Moreno Valley City Ordinance 981 (Ord. 981 § 8.6, 2021).

7 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed project's compliance with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed project's consistency with MSHCP Reserve assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

7.1 RELATIONSHIP OF THE PROJECT SITE TO THE MSHCP

The project site is not located within the MSHCP Criteria Area (Figure 2A). As such, the project site is not targeted for conservation by the MSHCP to meet Reserve Assembly goals and the project is not subject to the HANS or JPR processes. Additionally, the project site is not located within a NEPSSA. The project site is located within a MSHCP Burrowing Owl Survey Area but is not located within the Criteria Area Plant Species Survey Areas, mammal, invertebrate, or amphibian survey areas (Figure 2A).

Within the designated Survey Areas, the MSHCP requires habitat assessments and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP.

7.2 PROTECTION OF RIPARIAN/RIVERINE AREAS AND VERNAL POOLS AND ASSOCIATED SPECIES

Section 6.1.2 of the MSHCP defines riparian/riverine areas as those "lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to, or which depend upon soil moisture from a nearby fresh water source; or areas with freshwater flow during all or a portion of the year" (RCA 2003). Note that areas that were artificially created are not included in this definition unless they are wetlands "created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses" (RCA 2003).

Based on the constraints-level aquatic resources analysis and biological survey, no MSHCP riparian/riverine areas occur on site; therefore, the project will not impact riparian/riverine areas or associated species. The project site does not support vernal pools and therefore does not support vernal pool species.

7.3 PROTECTION OF NARROW ENDEMIC PLANTS

Volume I, Section 6.1.3 of the MSHCP requires that within identified NEPSSA, site-specific focused surveys for narrow endemic plant species will be required for all public and private projects where appropriate soils and habitat are present.

The project site is not located within a NEPSSA (Figure 2A). No narrow endemic plant species were documented within the project site and the project site does not contain suitable habitat for these species. As such, the project will not impact narrow endemic plants.

7.4 GUIDELINES PERTAINING TO THE URBAN/WILDLAND INTERFACE

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect impacts associated with locating development in proximity to the MSHCP Conservation Area. The proposed project is not located in proximity to the MSHCP Conservation Area (Figure 2B), and therefore the Urban/Wildland Guidelines do not apply to the project.

7.5 ADDITIONAL SURVEY NEEDS AND PROCEDURES

Volume I, Section 6.3.2 of the MSHCP requires habitat assessments and focused surveys for projects located within the CASSA, burrowing owl, mammal, amphibian, and invertebrate survey areas. The project site is located with the MSHCP Burrowing Owl Survey Area but not the CASSA, mammal, amphibian, or invertebrate survey areas. Focused burrowing owl surveys were conducted in 2022 and 2024 and were negative; however, suitable habitat for this species occurs on the project site. As noted above in Section 6.2 of this report, pre-construction burrowing owl surveys will be required to ensure compliance with MSHCP Objective 6 for burrowing owls.

7.6 CONCLUSION OF MSHCP CONSISTENCY

The proposed project is consistent with Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures) of the MSHCP, as well as MSHCP Reserve assembly requirements. With the implementation of the proposed mitigation and avoidance measures described in Section 6 of this report, the proposed project will be consistent with the biological requirements and the goals/objectives of the MSHCP.

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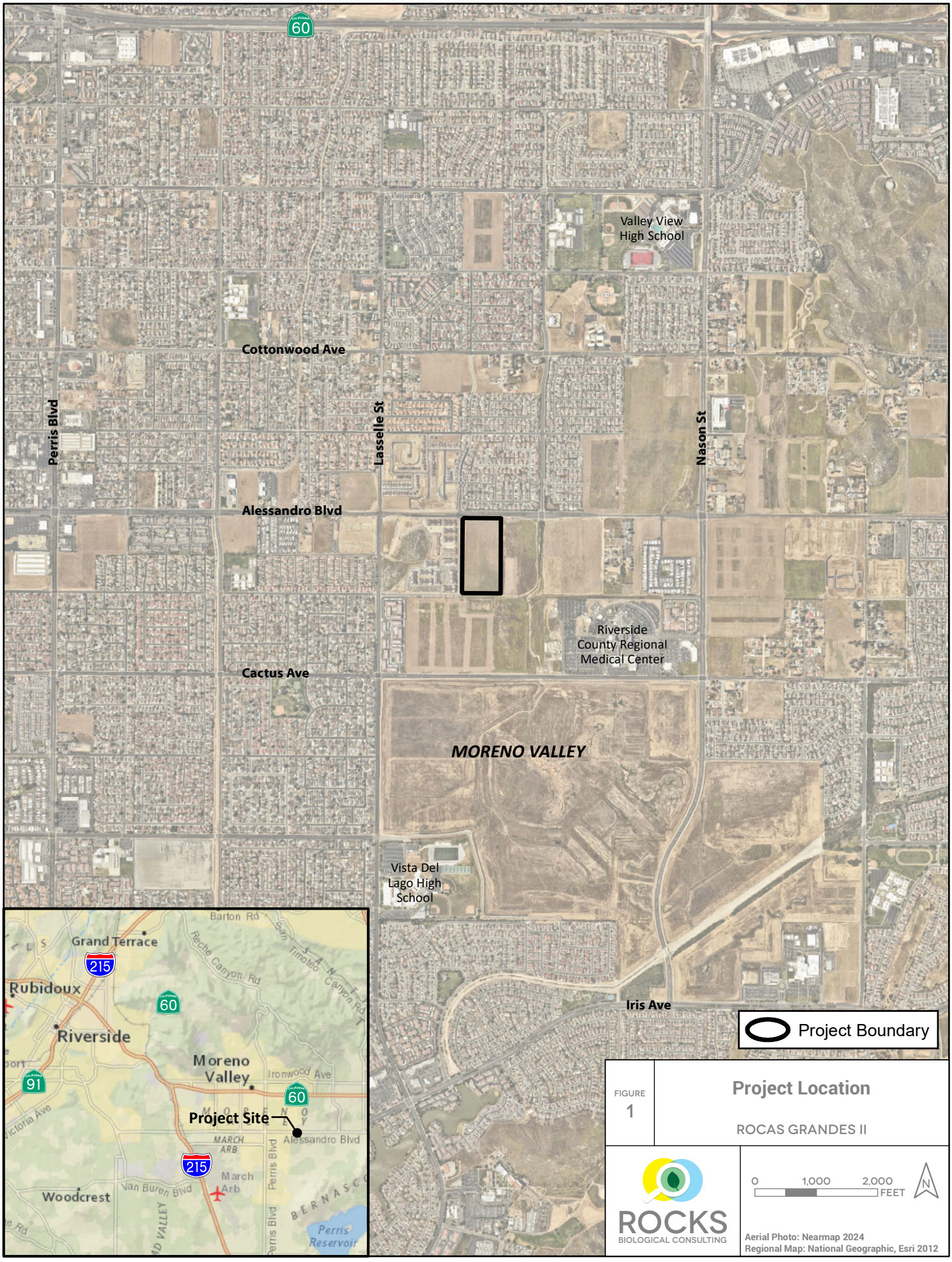


FIGURE 1

Project Location

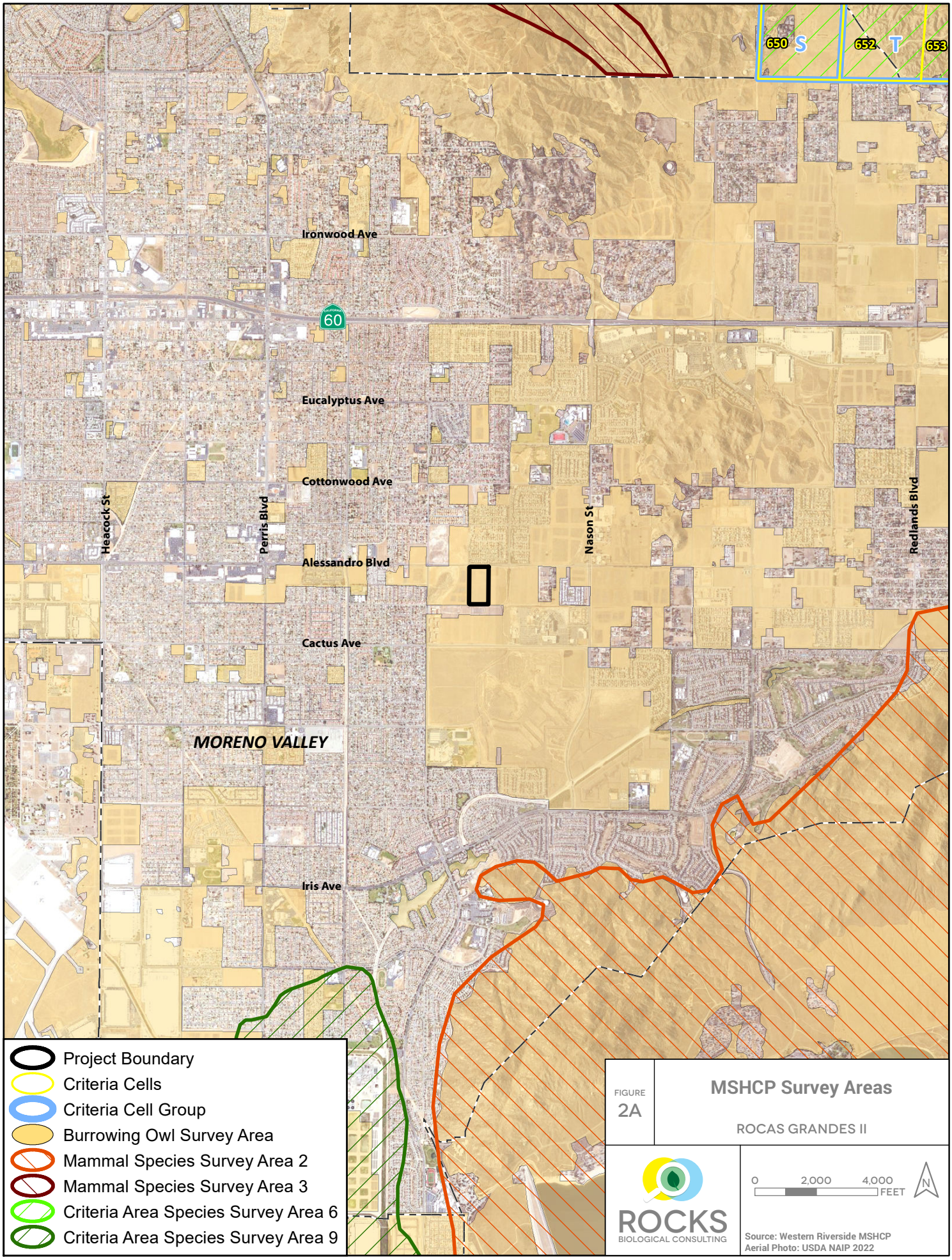
ROCAS GRANDES II

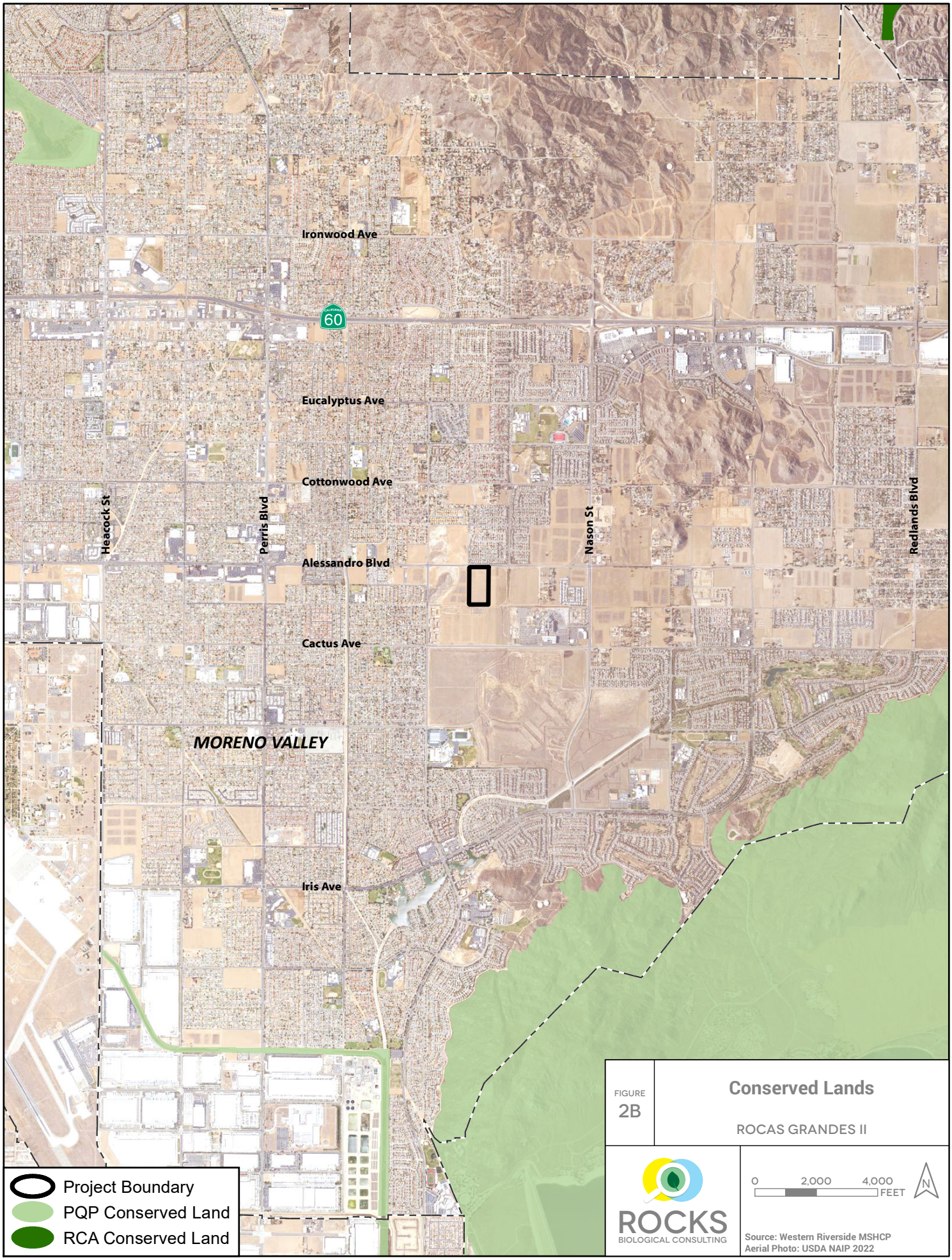
ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

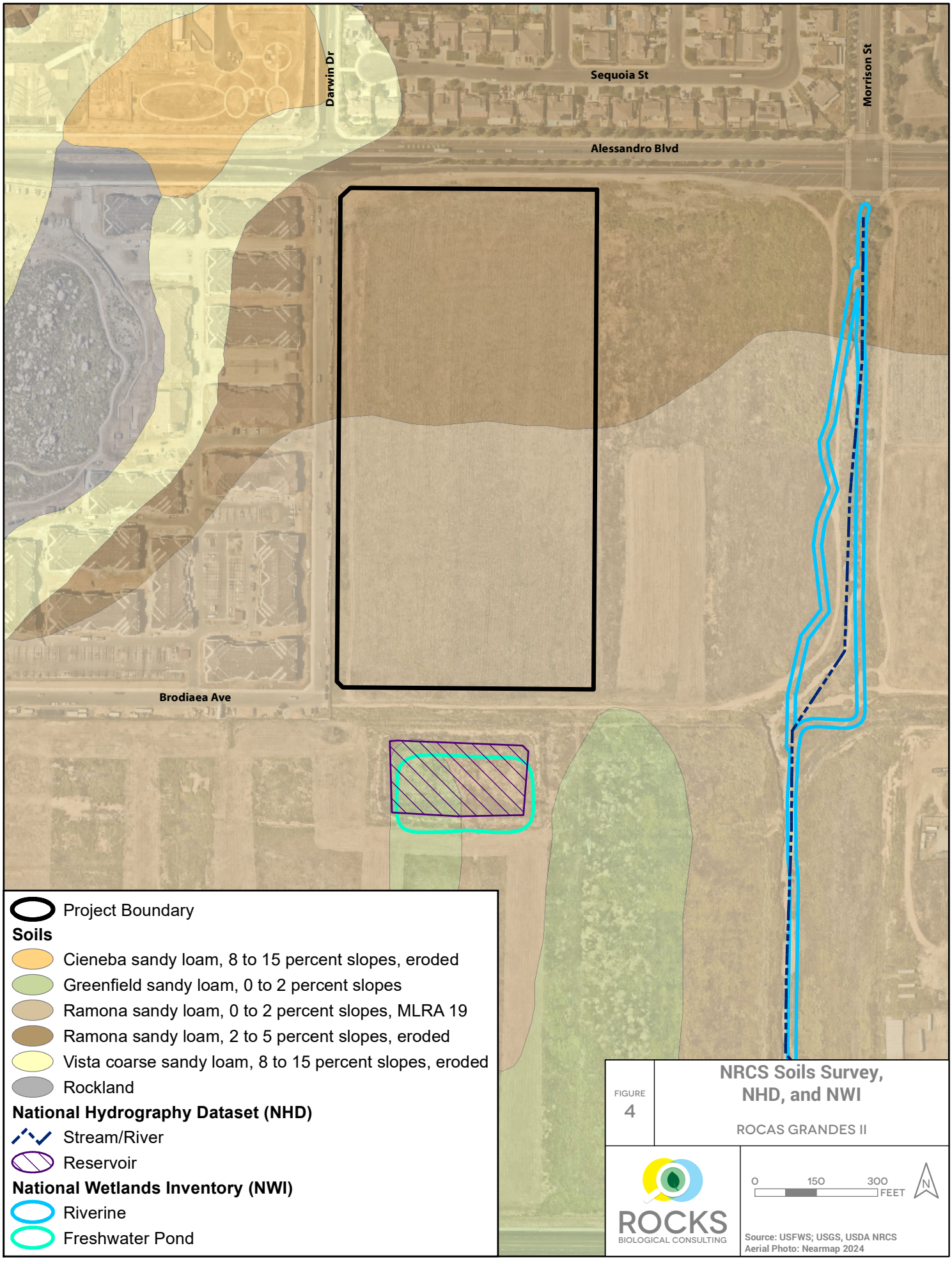
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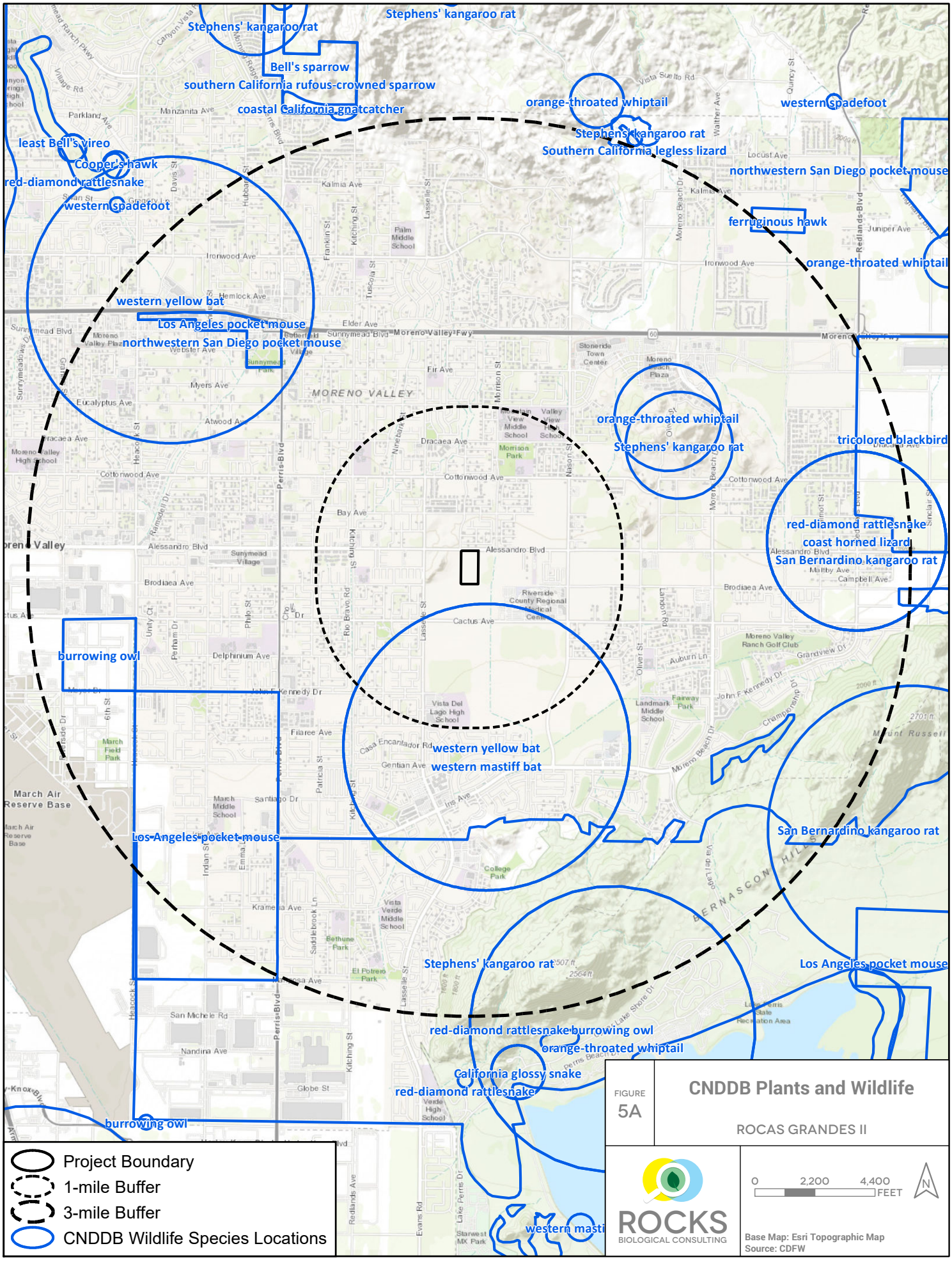
Aerial Photo: Nearmap 2024
Regional Map: National Geographic, Esri 2012

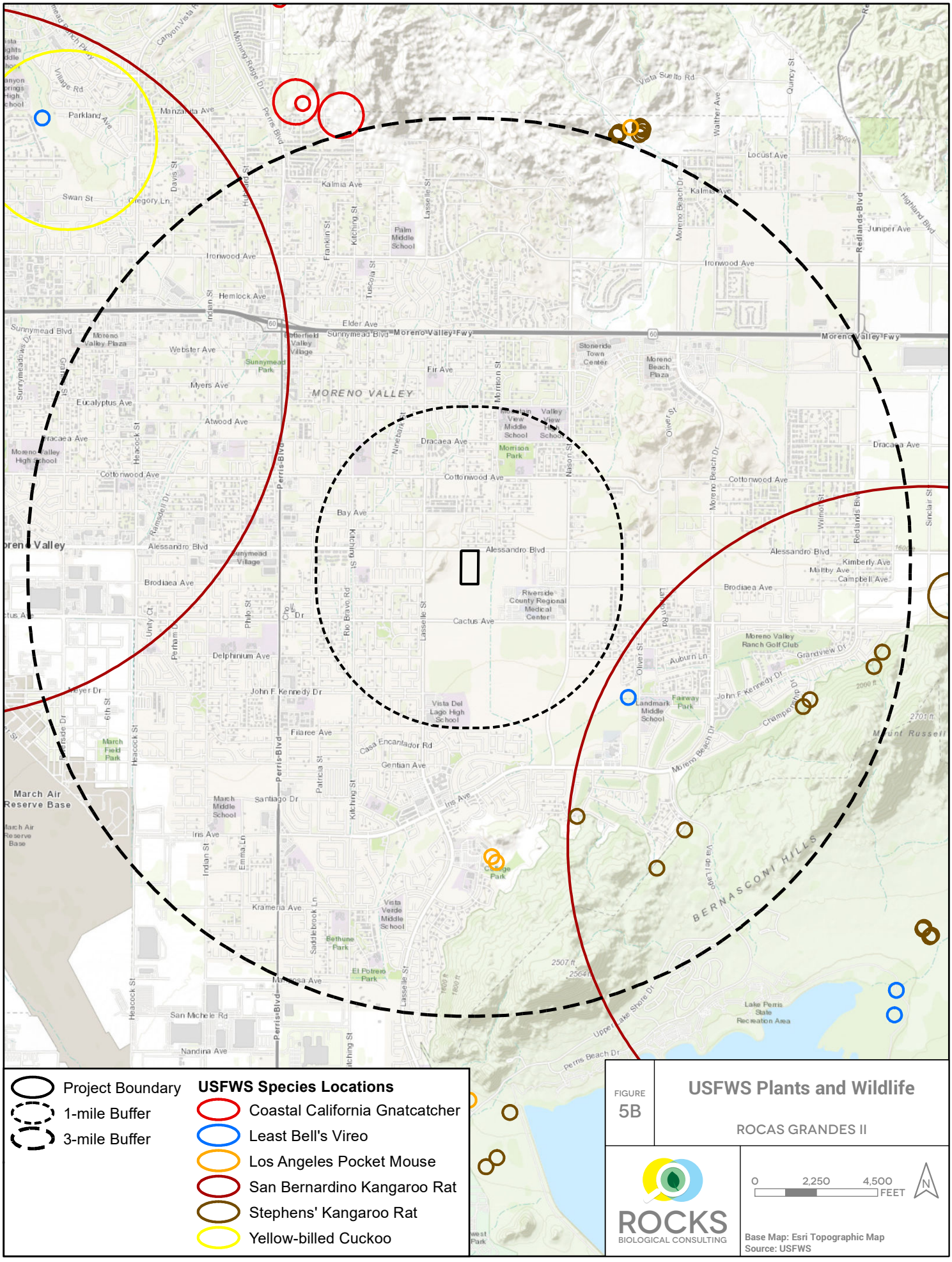

650
S
652
T
653
Ironwood Ave
60
Eucalyptus Ave
Cottonwood Ave
Heacock St
Perris Blvd
Nason St
Redlands Blvd
Alessandro Blvd
Cactus Ave
MORENO VALLEY
Iris Ave
Project Boundary
Criteria Cells
Criteria Cell Group
Burrowing Owl Survey Area
Mammal Species Survey Area 2
Mammal Species Survey Area 3
Criteria Area Species Survey Area 6
Criteria Area Species Survey Area 9
FIGURE
2A
MSHCP Survey Areas
ROCAS GRANDES II
ROCKS
BIOLOGICAL CONSULTING
0
2,000
4,000
FEET
N
Source: Western Riverside MSHCP
Aerial Photo: USDA NAIP 2022


Ironwood Ave
60
Eucalyptus Ave
Cottonwood Ave
Heacock St
Perris Blvd
Nason St
Redlands Blvd
Alessandro Blvd
Cactus Ave
MORENO VALLEY
Iris Ave
Project Boundary
PQP Conserved Land
RCA Conserved Land
FIGURE
2B
Conserved Lands
ROCAS GRANDES II
ROCKS
BIOLOGICAL CONSULTING
0
2,000
4,000
FEET
N
Source: Western Riverside MSHCP
Aerial Photo: USDA NAIP 2022


Darwin Dr
Alessandro Blvd
Brodiaea Ave
Project Boundary
Survey Area
Vegetation
Disturbed Habitat
Developed
Special-Status Species
California Horned Lark (Eremophila alpestris actia)
Cooper's Hawk (Accipiter cooperii)
Lawrence's Goldfinch (Spinus lawrencei)
Swainson's Hawk (Buteo swainsoni)
FIGURE 3
Biological Resources
ROCAS GRANDES II
ROCKS BIOLOGICAL CONSULTING
0 90 180 FEET
N
Aerial Photo: Nearmap 2024


Darwin Dr
Sequoia St
Morrison St
Alessandro Blvd
Brodiaea Ave
Project Boundary
Soils
Cieneba sandy loam, 8 to 15 percent slopes, eroded
Greenfield sandy loam, 0 to 2 percent slopes
Ramona sandy loam, 0 to 2 percent slopes, MLRA 19
Ramona sandy loam, 2 to 5 percent slopes, eroded
Vista coarse sandy loam, 8 to 15 percent slopes, eroded
Rockland
National Hydrography Dataset (NHD)
Stream/River
Reservoir
National Wetlands Inventory (NWI)
Riverine
Freshwater Pond
FIGURE 4
NRCS Soils Survey, NHD, and NWI
ROCAS GRANDES II
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Source: USFWS; USGS, USDA NRCS
Aerial Photo: Nearmap 2024


Stephens' kangaroo rat
Stephens' kangaroo rat
Bell's sparrow
southern California rufous-crowned sparrow
coastal California gnatcatcher
orange-throated whiptail
western spadefoot
Stephens' kangaroo rat
Southern California legless lizard
least Bell's vireo
Cooper's hawk
red-diamond rattlesnake
western spadefoot
northwestern San Diego pocket mouse
ferruginous hawk
orange-throated whiptail
western yellow bat
Los Angeles pocket mouse
northwestern San Diego pocket mouse
MORENO VALLEY
orange-throated whiptail
Stephens' kangaroo rat
tricolored blackbird
red-diamond rattlesnake
coast horned lizard
San Bernardino kangaroo rat
burrowing owl
western yellow bat
western mastiff bat
Los Angeles pocket mouse
San Bernardino kangaroo rat
Stephens' kangaroo rat
Los Angeles pocket mouse
red-diamond rattlesnake burrowing owl
orange-throated whiptail
California glossy snake
red-diamond rattlesnake
burrowing owl
western masti
March Air Reserve Base
BERNASCONI HILLS
Project Boundary
1-mile Buffer
3-mile Buffer
CNDDB Wildlife Species Locations
FIGURE 5A
CNDDB Plants and Wildlife
ROCAS GRANDES II
ROCKS BIOLOGICAL CONSULTING
0 2,200 4,400 FEET
N
Base Map: Esri Topographic Map
Source: CDFW


Project Boundary
1-mile Buffer
3-mile Buffer
USFWS Species Locations
Coastal California Gnatcatcher
Least Bell's Vireo
Los Angeles Pocket Mouse
San Bernardino Kangaroo Rat
Stephens' Kangaroo Rat
Yellow-billed Cuckoo
FIGURE
5B
USFWS Plants and Wildlife
ROCAS GRANDES II
ROCKS
BIOLOGICAL CONSULTING
0
2,250
4,500
FEET
N
Base Map: Esri Topographic Map
Source: USFWS
MORENO VALLEY
BERNASCONI HILLS
March Air Reserve Base
Moreno Valley
Alessandro Blvd
Cottonwood Ave
Dracaea Ave
Ironwood Ave
Kalmia Ave
Elder Ave
Sunnymead Blvd
Moreno Valley Fwy
Perris Blvd
Redlands Blvd
Moreno Beach Dr
Cactus Ave
Bay Ave
Brodiaea Ave
Delphinium Ave
John F Kennedy Dr
Iris Ave
Gentian Ave
Casa Encantador Rd
Filaree Ave
Santiago Dr
Krameria Ave
Nandina Ave
San Michele Rd
Perris Beach Dr
Lake Perris State Recreation Area
Riverside County Regional Medical Center
Moreno Valley Ranch Golf Club
Landmark Middle School
Vista Del Lago High School
Vista Verde Middle School
Palm Middle School
March Middle School
Mountain View Middle School
Valley View High School
Moreno Valley High School
Moreno Valley Plaza
Stoneridge Town Center
Moreno Beach Plaza
Sunnymead Park
Morrison Park
March Field Park
College Park
Bethune Park
El Potrero Park
Fairway Park
Lake Perris State Recreation Area
Parkland Ave
Manzanita Ave
Swan St
Gregory Ln
Hemlock Ave
Webster Ave
Myers Ave
Eucalyptus Ave
Atwood Ave
Fir Ave
Juniper Ave
Locust Ave
Vista Suelto Rd
Auburn Ln
Grandview Dr
Champions Dr
Mount Russell
2701 ft
2507 ft
2564 ft
1600 ft
1800 ft
2000 ft
1760 ft


Darwin Dr
Alessandro Blvd
Brodiaea Ave
Project Boundary
Project Impacts
Survey Area
Vegetation
Disturbed Habitat
Developed
Special-Status Species
California Horned Lark (Eremophila alpestris actia)
Cooper's Hawk (Accipiter cooperii)
Lawrence's Goldfinch (Spinus lawrencei)
Swainson's Hawk (Buteo swainsoni)
FIGURE 6
Impacts
ROCAS GRANDES II
ROCKS BIOLOGICAL CONSULTING
0 90 180 FEET
N
Aerial Photo: Nearmap 2024

APPENDIX A

SITE PHOTOGRAPHS

Appendix A

Site Photographs



Photo 1. Overview of the eastern portion of the project site, facing west. Photo shows disturbed habitat on site. June 17, 2022.



Photo 2. Overview of the southwestern portion of the project site, facing south. Photo shows disturbed habitat on site. June 17, 2022.



Photo 3. Overview of the southeastern portion of the project buffer, facing east. Photo shows the southern berm of the detention basin and development surrounding the project site. June 17, 2022.



Photo 4. View of the southwestern portion of the project buffer, facing west. Photo shows the southern berm of the detention basin and development surrounding the project site. June 17, 2022.



Photo 5. View of west extent of the project buffer, facing west. Photo shows disturbed brittlebush scrub surrounding rock outcrops. June 17, 2022.



Photo 6. Overview of southwestern portion of site, facing south. Photo shows disturbed habitat on site. June 17, 2022.



Photo 7. Photo shows an exemplary suitable, unoccupied burrow complex in the western portion of the project site, facing north. June 17, 2022.



Photo 8. Photo shows disturbed habitat within the detention basin in southern project buffer, facing west. June 17, 2022.



Photo 9. Overview of the of the project site, facing south. Photo shows disturbed habitat on site. April 2, 2024.



Photo 10. View of the eastern buffer of the project site (left) and eastern portion of the project site (right), facing south. Photo shows disturbed habitat on site. April 2, 2024.



Photo 11. View of disturbed habitat throughout the project site from the center, facing north. Photo shows recent disking within the project site. April 2, 2024.



Photo 12. View of the western portion of the project site (foreground) and the western project buffer (background), facing west. Photo shows the disturbed habitat within the project site and active construction in survey buffer. April 2, 2024.



Photo 13. View of the northwestern project buffer, facing northwest. Photo shows active construction. April 2, 2024.



Photo 14. Representative photo of an exemplary suitable, unoccupied burrow in the southern portion of the project site, facing northwest. May 22, 2024.



Photo 15. View of the disturbed habitat throughout the project site from the southern boundary, facing north. June 18, 2024.



Photo 16. View of the disturbed habitat in the eastern buffer of the project site. Photo shows recently disked land, facing south. June 18, 2024.



Photo 17. View of the disturbed habitat in the southern buffer of the project site. Photo shows recently disked land (left) and a detention basin (right), facing north. June 18, 2024.



Photo 18. View of the disturbed habitat in the southern buffer of the project site. Photo shows overgrown vegetation surrounding the detention basin, facing west. June 18, 2024.

APPENDIX B

PLANT SPECIES OBSERVED

Appendix B

Plant Species Observed

Family	Scientific Name	Common Name
Amaranthaceae	*Amaranthus albus**	Prostrate pigweed
Asteraceae	*Baccharis salicifolia*	Mule fat
Asteraceae	*Centaurea melitensis**	Maltese star-thistle
Asteraceae	*Corethrogyne filaginifolia*	California aster
Asteraceae	*Encelia farinosa*	Brittlebush
Asteraceae	*Erigeron bonariensis**	Flax-leaf fleabane
Asteraceae	*Isocoma menziesii*	Menzies' goldenbush
Asteraceae	*Lactuca serriola**	Prickly lettuce
Asteraceae	*Oncosiphon pilulifer**	Stinknet
Asteraceae	*Sonchus oleraceus**	Common sow-thistle
Asteraceae	*Stephanomeria sp.*	Wirelettuce
Bignoniaceae	*Chilopsis linearis*	Desert willow
Boraginaceae	*Amsinckia menziesii*	Rigid fiddleneck
Boraginaceae	*Phacelia ramosissima*	Branching phacelia
Brassicaceae	*Brassica nigra**	Black mustard
Brassicaceae	*Hirschfeldia incana**	Short-pod mustard
Brassicaceae	*Raphanus raphanistrum **	Wild radish
Brassicaceae	*Rapistrum rugosum**	Annual bastardcabbage
Brassicaceae	*Sisymbrium irio**	London rocket
Chenopodiaceae	*Salsola* sp.*	Russian thistle
Chenopodiaceae	*Salsola tragus**	Tumbleweed
Convolvulaceae	*Calystegia macrostegia*	Coast morning glory
Convolvulaceae	*Convolvulus arvensis**	Field bindweed
Euphorbiaceae	*Croton setiger*	Doveweed
Euphorbiaceae	*Euphorbia albomarginata*	Rattlesnake weed
Fabaceae	*Melilotus indicus**	Indian sweetclover
Fabaceae	*Parkinsonia aculeata**	Mexican palo verde
Geraniaceae	*Erodium cicutarium**	Red-stem filaree
Lythraceae	*Lagerstroemia indica**	Crape myrtle
Malvaceae	*Malva parviflora**	Cheeseweed
Pinaceae	*Pinus* sp.	Pine tree
Poaceae	*Avena barbata**	Slender wild oat
Poaceae	*Bromus diandrus**	Ripgut brome
Poaceae	*Bromus rubens**	Red brome
Poaceae	*Bromus tectorum**	Cheatgrass
Poaceae	*Hordeum vulgare**	Barley
Poaceae	*Lamarckia aurea**	Goldentop grass
Poaceae	*Schismus* sp.*	Mediterranean grass
Polemoniaceae	*Eriastrum sapphirinum*	Sapphire woollystar
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat
Solanaceae	*Datura wrightii*	Western jimson weed
Tamaricaceae	*Tamarix* sp.*	Salt cedar
Zygophyllaceae	*Tribulus terrestris**	Puncture vine
*: Non-native species		

APPENDIX C

WILDLIFE SPECIES OBSERVED

Appendix C

Wildlife Species Observed

Family	Scientific Name	Common Name
REPTILES		
Phrynosomatidae	*Uta stansburiana*	Common side-blotched lizard
BIRDS		
Accipitridae	*Accipiter cooperii* (WL)	Cooper's hawk
Accipitridae	*Buteo jamaicensis*	Red-tailed hawk
Accipitridae	*Buteo swainsoni* (ST)	Swainson's hawk
Alaudidae	*Eremophila alpestris actia* (WL)	California horned lark
Ardeidae	*Ardea alba*	Great egret
Cardinalidae	*Passerina caerulea*	Blue grosbeak
Cathartidae	*Cathartes aura*	Turkey vulture
Charadriidae	*Charadrius vociferus*	Killdeer
Columbidae	*Zenaida macroura*	Mourning dove
Columbidae	*Columba livia*	Rock pigeon
Corvidae	*Corvus corax*	Common raven
Falconidae	*Falco sparverius*	American kestrel
Fringillidae	*Haemorhous mexicanus*	House finch
Fringillidae	*Spinus lawrencei* (BCC)	Lawrence's goldfinch
Fringillidae	*Spinus psaltria*	Lesser goldfinch
Hirundinidae	*Petrochelidon pyrrhonota*	Cliff swallow
Hirundinidae	*Stelgidopteryx serripennis*	Northern rough-winged swallow
Icteridae	*Agelaius phoeniceus*	Red-winged blackbird
Icteridae	*Sturnella neglecta*	Western meadowlark
Motacillidae	*Anthus rubescens*	American pipit
Parulidae	*Setophaga coronata*	Yellow-rumped warbler
Passeridae	*Passer domesticus*	House sparrow
Passerellidae	*Zonotrichia leucophrys*	White-crowned sparrow
Picidae	*Colaptes auratus*	Northern flicker
Trochilidae	*Calypte anna*	Anna's hummingbird
Tyrannidae	*Sayornis nigricans*	Black phoebe
Tyrannidae	*Tyrannus vociferans*	Cassin's kingbird
Tyrannidae	*Sayornis saya*	Say's phoebe
Tyrannidae	*Tyrannus verticalis*	Western kingbird
MAMMALS		
Leporidae	*Lepus californicus*	Black-tailed jackrabbit
Leporidae	*Sylvilagus audubonii*	Desert cottontail
Sciuridae	*Otospermophilus beecheyi*	California ground squirrel
INVERTEBRATES		
Acrididae	*Trimerotropis pallidipennis*	Pallid-winged grasshopper
Agelenidae	*Agelenopsis* sp.	Grass spider
Apidae	*Apis mellifera*	European honeybee
Apidae	*Diadasia* sp.	Digger bee
Apidae	*Melissodes* sp.	Long-horned bee

Family	Scientific Name	Common Name
Apidae	*Nomada* sp.	Cuckoo bee
Apidae	*Xylocopa californica*	California carpenter bee
Bombyliidae	*Exoprosopa* sp.	Bee fly
Carabidae	*Harpalus* sp.	Ground beetle
Chrysomelidae	*Diabrotica undecimpunctata*	Cucumber beetle
Coccinellidae	*Coccinella septempunctata*	Seven spotted lady beetle
Coccinellidae	*Hippodamia convergens*	Convergent lady beetle
Coenagrionidae	*Enallagma* sp.	Bluet damselfly
Forficulidae	*Forficula auricularia*	European earwig
Formicidae	*Pogonomyrmex* sp.	Red harvester ant
Gryllidae	*Gryllus* sp.	Field cricket
Halictidae	*Agapostemon texanus*	Green sweat bee
Hesperiidae	*Heliopetes ericetorum*	Northern white skipper
Hesperiidae	*Pyrgus albescens*	White checkered skipper
Libellulidae	*Epiprocta* sp.	Dragonfly
Lycaenidae	*Strymon melinus*	Gray hairstreak
Melyridae	*Collops* sp.	Soft winged flower beetle
Myrmicinae	*Pogonomyrmex occidentalis*	Red harvester ant
Nymphalidae	*Junonia coenia*	Common buckeye
Nymphalidae	*Vanessa annabella*	West coast lady
Nymphalidae	*Vanessa cardui*	Painted lady
Pentatomidae	*Chlorochroa sayi*	Say's stinkbug
Pieridae	*Colias eurytheme*	Orange sulphur
Pieridae	*Pieris rapae*	Cabbage white
Pieridae	*Pontia protodice*	Checkered white
Pompilidae	*Auplopus* sp.	Spider wasp
Pyrrhocoridae	*Scantius aegyptius*	Mediterranean red bug
Sphecidae	*Ammophila* sp.	Thread-waisted wasp
Syrphidae	*Eristalis tenax*	Syrphid flower fly
Tachinidae	*Gymnosoma* sp.	Tachinid fly
Tenebrionidae	*Eleodes* sp.	Darkling beetle
BCC = U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern ST = Listed as State Threatened under California Endangered Species Act (CESA) WL = California Department of Fish and Wildlife (CDFW) Watch List		

APPENDIX D

FOCUSED CROTCH'S BUMBLEBEE SURVEY REPORT

ROCKS
BIOLOGICAL CONSULTING





ROCAS GRANDES II PROJECT – FOCUSED CROTCH'S BUMBLEBEE SURVEY REPORT

Moreno Valley, California

August 5, 2024

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Appendix B – Potential Nectar Sources Observed
Appendix C – Wildlife Species Observed
Appendix D – Surveyor Field Notes

1 SUMMARY

This report is a summary of the results of protocol surveys for Crotch's bumble bee (*Bombus crotchii*, CBB) that Rocks Biological Consulting (RBC) conducted for the Rocas Grandes II Project (project) in Moreno Valley, Riverside County, California. No CBB, or any other *Bombus* species were documented within the survey area during protocol surveys.

2 INTRODUCTION

2.1 PROJECT LOCATION & PROPOSED ACTIVITY

The approximately 18-acre project site is in the City of Moreno Valley, Riverside County, California (Figure 1). The project site is located north of the future extension of Brodiaea Avenue, south of Alessandro Boulevard, east of the future extension of Darwin Drive, and west of vacant land and the future Morrison Street. The project proposes the development of a 460-unit multi-family residential development. The area surrounding the project site is mix of developed and agricultural lands, with residential uses to the north and west, and vacant land formerly used for agriculture to the east and south. The project site occurs within Township 03S, Range 03W, Section 16 on the U.S. Geological Survey (USGS) 7.5-minute Sunnymead quadrangle map (Figure 1).

2.2 CROTCH'S BUMBLE BEE STATUS & NATURAL HISTORY

CBB has experienced sharp population declines over the past decade and is currently a candidate for listing under the California Endangered Species Act (CESA) based on a 2018 petition submitted by the Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety (CDFW 2022). Historically, CBB occurred from northern California south to Baja Mexico and from the coast to the central valley and southwestern desert, with some records as far as Nevada. However, since the early 2000s a change in extent has been observed, with current range size estimated to be approximately of 75% of historic range and the northern populations now extinct. In addition, the species persistence within its extant range is estimated be approximately 20% of historic occupancy (Hatfield 2015). Though CBB is relatively tolerant of fragmented and/or semi-urban environments, habitat loss, climate change, and pesticide use are considered imminent threats to populations (Williams et al. 2014; CDFW 2022).

Suitable habitat for this species includes a variety of open shrub and grassland vegetation communities that support significant stands of nectar sources, mostly in the form of flowering annuals. CBB's primary nectar sources include *Medicago*, *Lupinus*, *Chaenactis*, *Asclepias*, *Phacelia*, and *Salvia*, which have an easily accessible nectar that accommodates CBB's relatively short tongue (Williams et al. 2014).

CBB has been recorded within five miles of the project site near the Box Springs Mountain Reserve (i.e., north of the intersection of Cattail Lane and Blue Lupine Lane), and just over five miles to the east near the Moreno Knolls development (i.e., along McGehee Dr north of Gilman Springs Rd, and south of the Alessandro Rd and Gilman Springs Rd intersection; CDFW 2024). The project site and surrounding area support scrub habitat and nectar sources appropriate for CBB; therefore, the potential for this species to occur is moderate.

3 METHODS

3.1 SURVEY METHODS

Based on the presence of suitable habitat within the survey area (e.g., the project site), RBC biologists Alec Goodman, David Faulkner, Hannah Swarthout, and Kelsey Woldt conducted focused protocol surveys in accordance with the California Department of Fish and Wildlife's (CDFW) *Survey Considerations for CESA Candidate Bumble Bee Species* (CDFW 2023). Surveys were performed at least two to four weeks apart between April and August when detection of CBB is greatest. Surveys were conducted by walking transects through the survey area focusing on areas where ample nectar sources were present, with a minimum of one person-hour of searching per three acres of suitable habitat. All observed insects and potential nectar sources were identified and recorded during the survey. Surveyors were prepared to record the location of any observed CBB, along with population size and nesting status, and to collect non-lethal photo vouchers captured at various angles to confirm accurate identification.

3.2 SURVEYOR QUALIFICATIONS

Mr. Faulkner is a senior entomologist with over 50 years of experience. He holds a Master of Science degree in systematic entomology and a Bachelor of Arts degree in invertebrate zoology. Mr. Goodman is a wildlife biologist with over seven years of professional experience and a Bachelor of Science degree in environmental science. Ms. Swarthout is a wildlife biologist with over four years of professional experience and a Bachelor of Arts degree in environmental studies. Ms. Woldt is a wildlife biologist with five years of professional experience and holds a Master of Science degree in biology and a Bachelor of Science degree in ecology, animal behavior, and evolutionary biology. All surveyors are experienced at conducting CBB surveys and are familiar with the identifying characteristics, behavior, and nectar sources for CBB. Additionally, the biologists have taken, and in Mr. Faulkner's case taught, courses that include bumblebee identification.

4 RESULTS

4.1 EXISTING CONDITIONS & HABITAT ASSESSMENT

The survey area is composed entirely of disturbed habitat, which was formerly used for agriculture and is still occasionally tilled, likely as a form of weed abatement. During the surveys the site was dominated by common barley (*Hordeum vulgare*), common fiddleneck (*Amsinckia menziesii*), red brome (*Bromus rubens*), short-pod mustard (*Hirschfeldia incana*), and slender wild oat (*Avena barbata*). Developed land occurs immediately adjacent to the site and consists of Alessandro Boulevard, Darwin Drive, and a single-family residential development. At the time of the surveys, there was active construction north and south of Alessandro Boulevard in the western buffer of the survey area. Representative site photographs are presented in Appendix A.

Many of the weedy herbaceous plants present on site are potential nectar sources for CBB. Though the survey area is dominated by non-native grasses and shortpod mustard, a variety of other potential nectar sources also occur such as brittlebush (*Encelia farinosa*), cheeseweed (*Malva*

parviflora), red stemmed filaree (*Erodium cicutarium*), and common fiddleneck. A complete list of observed potential nectar sources is presented in Appendix B.

4.2 FOCUSED CROTCH'S BUMBLE BEE SURVEY RESULTS

RBC conducted three focused CBB surveys during the breeding season between April 30 and June 5, 2024. Survey dates, conditions, and personnel are presented in Table 1, below.

No CBB or other Bombus species were observed within the survey area. However, many other invertebrates were observed during the surveys. A complete list of invertebrates observed is presented as Appendix C, and complete field notes are provided in Appendix D.

Table 1. Crotch's Bumble Bee Survey Dates/Conditions

Survey Round	Date	Surveyor(s)	Time (Start-End)	Temperature (F) (Start-End)	Cloud Cover (%) (Start-End)	Wind Speed (mph) (Start; End)
1	4/30/24	DF, HS. KW	0800–1000	63-77	0-0	0–2; 0–1
2	5/22/24	AG, DF, HS	0800–1030	64-69	100-0	0–2; 0–2
3	6/5/24	AG, DF, HS	0800-1015	67-78	0-0	2–4; 5–8
Surveyors: AG=Alec Goodman; DF=David Faulkner; HS=Hannah Swarthout; KW=Kelsey Woldt						

5 CROTCH'S BUMBLE BEE AVOIDANCE & MINIMIZATION

Pursuant to the CDFW *Survey Considerations for CESA Candidate Bumble Bee Species*, all project sites that support suitable habitat within the range of CBB should conduct pre-construction surveys, regardless of CBB presence/absence during previous focused surveys. The pre-construction surveys will be conducted in accordance with CDFW recommendations. As such, the following avoidance and minimization measure is required to avoid potential direct impacts on CBB:

> Within one year of any ground disturbance or vegetation clearing, a focused species survey for CBB shall be conducted by a qualified biologist. Survey methodology shall follow CDFW's 2023 *Survey Considerations for CESA Candidate Bumble Bee Species*. Surveys shall take place when detection of the focal species is greatest (April through August), when feasible. CBB surveys shall be conducted for a minimum of one person-hour of searching (excluding time spent capturing, photographing, identifying, and releasing specimen) per three acres of suitable habitat. Surveillance shall be focused where ample nectar sources are present, and non-lethal photo vouchers of focal species shall be captured at various angles to confirm accurate identification (CDFW 2023).
>
> If CBB is documented on the project site, the project proponent shall notify CDFW within five working days of the observation. If necessary, site-specific avoidance and minimization measures shall be implemented to avoid take of CBB. If take avoidance is not feasible, an ITP shall be obtained from CDFW.

6 CONCLUSIONS

No CBB were documented within the survey area for the Rocas Grandes II project during protocol surveys conducted between April 30 and June 5, 2024. The focused survey results reported herein are valid for one year. Due to habitat suitability and site location, CBB pre-construction surveys are required within one year of construction activity initiation in order to confirm species absence and ensure impact avoidance.

7 REFERENCES

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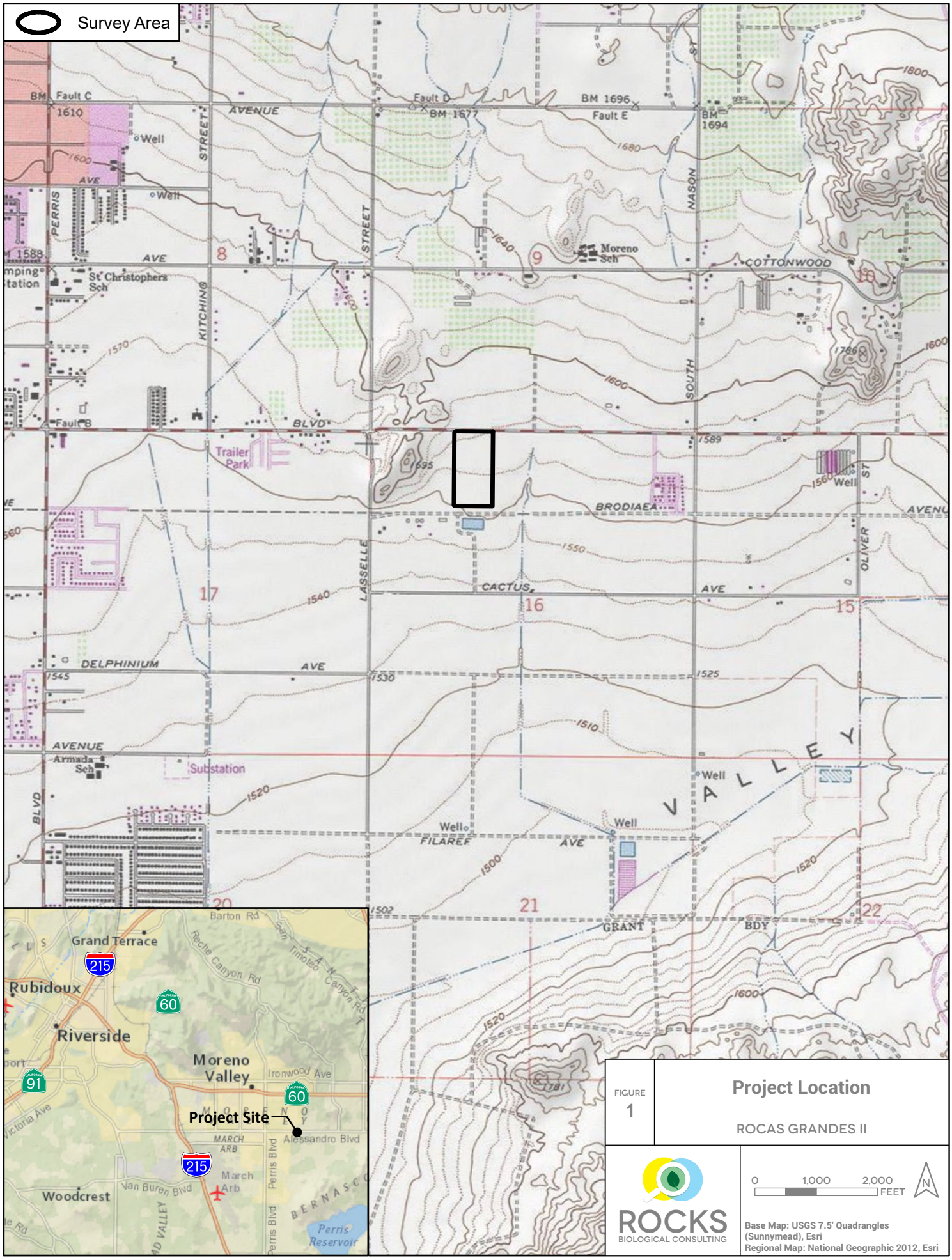


FIGURE 1

Project Location

ROCAS GRANDES II

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Base Map: USGS 7.5' Quadrangles (Sunnymead), Esri
Regional Map: National Geographic 2012, Esri


Sequoia St
Alessandro Blvd
Darwin Dr
Brodiaea Ave
Survey Area
Vegetation
Disturbed Habitat
FIGURE
2
Survey Area
ROCAS GRANDES II
ROCKS
BIOLOGICAL CONSULTING
0
100
200
FEET
N
Aerial Photo: Nearmap 2024

APPENDIX A

SITE PHOTOGRAPHS

Appendix A

Site Photographs



Photo 1. View of survey area from the northwest corner facing southeast. Representative view of disturbed habitat with herbaceous regrowth after recent tilling. May 22, 2024.



Photo 2. View of the survey area from the northern site boundary, facing south. View of dense patch of shortpod mustard (*Hirschfeldia incana*), a potential nectar source. May 22, 2024.



Photo 3. View of the northern portion of the survey area facing east. View of disturbed habitat dominated by non-native grasses and shortpod mustard. June 5, 2024.



Photo 4. View of the central portion of the survey area facing south. View shows lack of vegetation due to recent tilling. June 5, 2024.

APPENDIX B

POTENTIAL NECTAR SOURCES OBSERVED

Appendix B

Potential Nectar Sources Observed

Family	Scientific Name	Common Name
Asteraceae	*Encelia farinosa*	Brittlebush
Asteraceae	*Oncosiphon pilulifer*	Stinknet
Asteraceae	*Sonchus oleraceus*	Common sow thistle
Boraginaceae	*Amsinckia menziesii*	Small flowered fiddleneck
Brassicaceae	*Hirschfeldia incana*	Shortpod mustard
Brassicaceae	*Raphanus sativus*	Wild radish
Brassicaceae	*Sisymbrium irio*	London rocket
Convolvulaceae	*Calystegia* sp.	Morning glory species
Convolvulaceae	*Convolvulus arvensis*	Field bindweed
Euphorbiaceae	*Euphorbia albomarginata*	Rattlesnake sandmat
Geraniaceae	*Erodium cicutarium*	Red stemmed filaree
Malvaceae	*Malva parviflora*	Cheeseweed

APPENDIX C

INVERTEBRATES OBSERVED

Appendix C

Invertebrates Observed

Family	Scientific Name	Common Name
Acrididae	*Trimerotropis pallidipennis*	Pallid-winged grasshopper
Agelenidae	*Agelenopsis* sp.	Grass spider
Apidae	*Apis mellifera*	European honeybee
Apidae	*Diadasia* sp.	Digger bee
Apidae	*Melissodes* sp.	Long-horned bee
Apidae	*Nomada* sp.	Cuckoo bee
Apidae	*Xylocopa californica*	California carpenter bee
Bombyliidae	*Exoprosopa* sp.	Bee fly
Carabidae	*Harpalus* sp.	Ground beetle
Chrysomelidae	*Diabrotica* undecimpunctata	Cucumber beetle
Coccinellidae	*Coccinella septempunctata*	Seven spotted lady beetle
Coccinellidae	*Hippodamia convergens*	Convergent lady beetle
Coenagrionidae	*Enallagma* sp.	Bluet damselfly
Forficulidae	*Forficula auricularia*	European earwig
Formicidae	*Pogonomyrmex sp.*	Red harvester ant
Gryllidae	*Gryllus* sp.	Field cricket
Halictidae	*Agapostemon texanus*	Green sweat bee
Hesperiidae	*Heliopetes ericetorum*	Northern white skipper
Hesperiidae	*Pyrgus albescens*	White checkered skipper
Libellulidae	*Epiprocta* sp.	Dragonfly
Lycaenidae	*Strymon melinus*	Gray hairstreak
Melyridae	*Collops* sp.	Soft winged Flower beetle
Myrmicinae	*Pogonomyrmex occidentalis*	Red harvester ant
Nymphalidae	*Junonia coenia*	Common buckeye
Nymphalidae	*Vanessa annabella*	West coast lady
Nymphalidae	*Vanessa cardui*	Painted lady
Pentatomidae	*Chlorochroa sayi*	Say's stinkbug
Pieridae	*Colias eurytheme*	Orange Sulphur
Pieridae	*Pieris rapae*	Cabbage white
Pieridae	*Pontia protodice*	Checkered white
Pompilidae	*Auplopus* sp.	Spider wasp
Pyrrhocoridae	*Scantius aegyptius*	Mediterranean red bug
Sphecidae	*Ammophila* sp.	Thread-waisted wasp
Syrphidae	*Eristalis tenax*	Syrphid flower fly
Tachinidae	*Gymnosoma* sp.	Tachinid fly
Tenebrionidae	*Eleodes* sp.	Darkling beetle

APPENDIX D

SURVEYOR FIELD NOTES

CROTCH IS SURVEY W/ DAVID

	TIME	TEMP	WIND	CC
START	8:00AM	63	0-2	0%
END	10:00AM	77	0-1	0%

FLOWERING PLANTS:

HIBINC, AMSMEN, ERO C, C, CNCDIL, PHACELIA, ~~STSCRE~~, RANBUC, CONARV,

NOTES:

POTENTIAL FOR NESTING IS VERY LOW. NOW WE WILL LIKELY SEE QUEEN LOOKING FOR NESTING SITE, NOT LOOKING FOR NECTAR IF YOU SEE A BEE ON A FLOWER, LIKELY ♂ SITTING

NOT GOING TO BE IN AN ACTIVE BURROW

SPECIES:

DARKLING GROUND BEETLE,
CABBAGE WHITE, WHITE CHECKERED SKIPPER
NOMADA SP. (PARASITIC TRUE BEE)

NOTES (CONTINUED)

BOMBUS CALIFORNICUS MORE COASTAL
*TWO COHA OBSERVED SOARING OVER BUFFER
LMS SUBATTY SMALLER THAN WHITE CHECKERED SKIPPER AND DARKER ORICE FIRST EMERGE

SPECIES (CONTINUED)

CARRABID BEETLE, VANAUN
HONEYBEE & TARANTULA HAWK (HUNTING) FOR SPIDERS)
MALE CHECKERED WHITE W/ ONE SQUARE CHECKER ON FOREWING

AREAS RECENTLY BURNED - DEC / JAN

PIN-IT

4/30 ROCAS GRANDE CROTCH

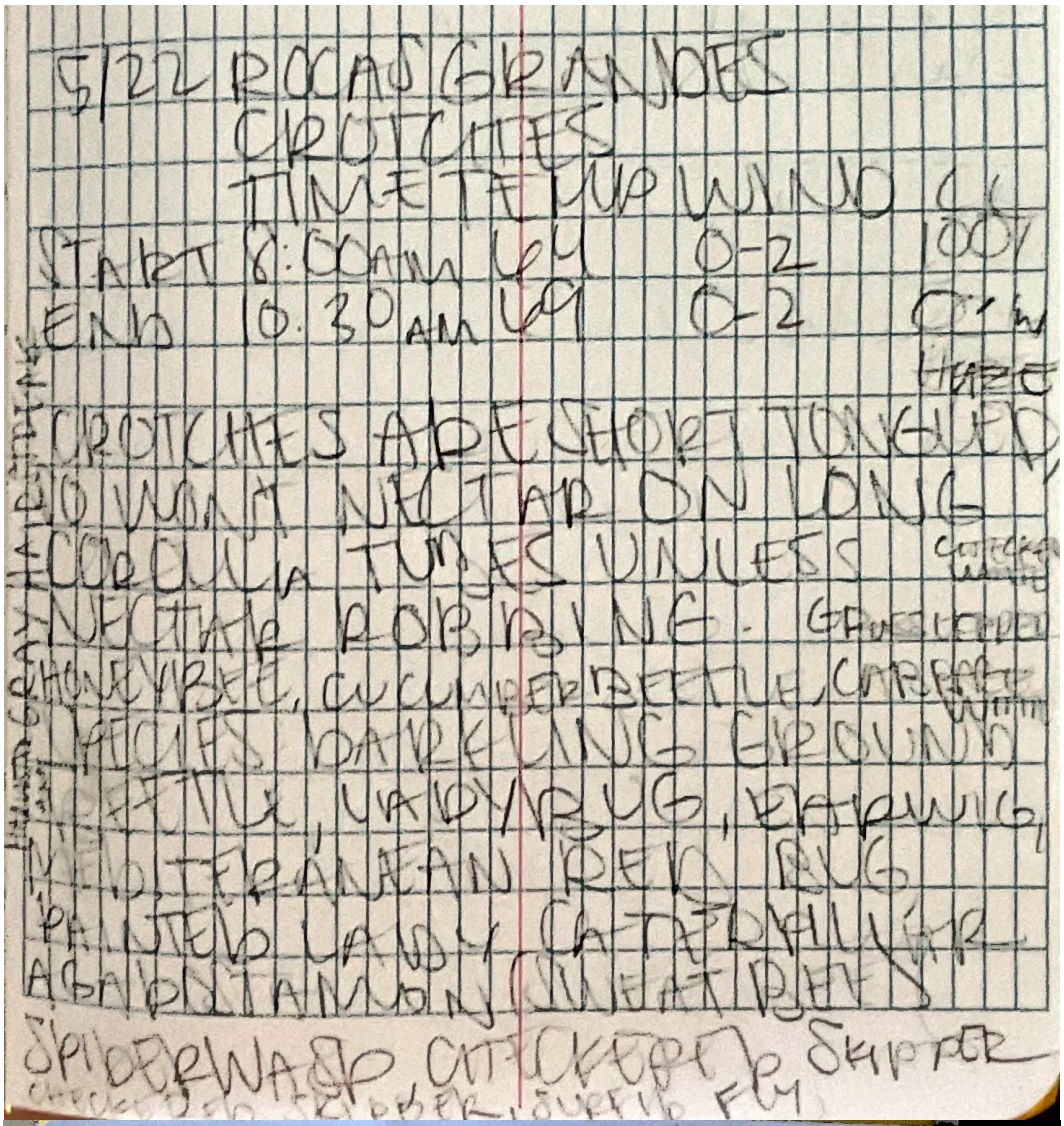
0800	63°	0-2	0
1000	77°	0-2	0

Barney bees
Tarantula hawk
Darkling beetles
Cabbage white
Checkered skipper
Harvester ants
Nomada bee (parasitic)
Corabid beetle (predaceous ground beetle)
Grasshoppers (3 species)
Damselflies
Western painted lady
Dragonflies

Ladybugs
Tunnel spider
Checkered whites

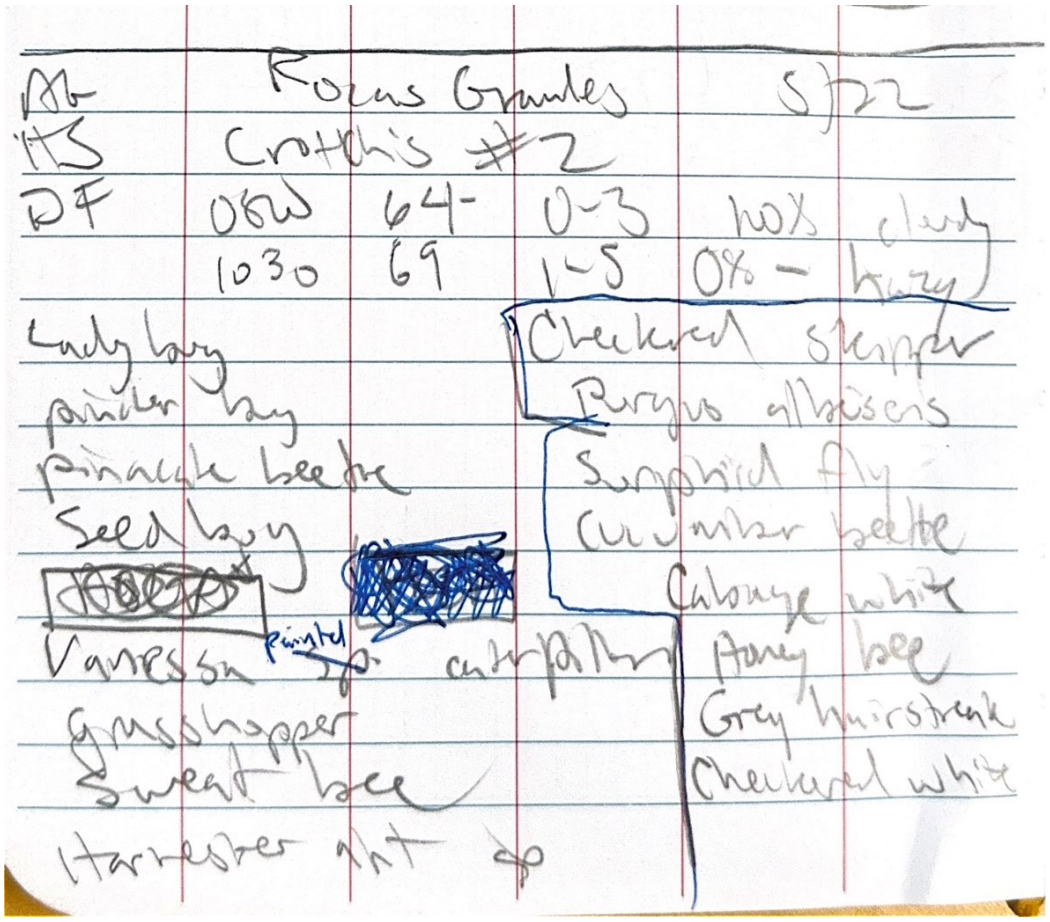
NECTAR SOURCES: HIRNC
AMSMEN ONCPIL EROCIC
MALPAR SISIRI CONARV
SONOLE

* Entomological supplies → Pin-it



5/22 ROCKS GRANITES
CROTCHETS
TIME TO WAKE UP
START 6:00 AM 40-2 100%
END 10:30 AM 40-2 CLOUDY
CROTCHETS ARE SHORT TONGUED
DO WANT NECTAR ON LONG
COCCULUS TONGUES UNLESS
NECTAR ROBBING. GRASSHOPPER
GRANIVORE, CUCUMBER BEETLE, CARPENTER
FECHES DARKLING GROUND
BEETLE, WAXWORM, EARWIG,
WEEVIL, MEALWORM, RED RUG
PANTRY LADY CENTRAL VAC
ASSAULT ANIMAL (WEATHERS
SPIDERWASP CRICKET SKIPPER
CRICKET SUFFIX FLY

FLOWER
AMSMEN, HIBING, ENGFAR
RAPRUG, EUPHORBIA SP.,
EPOCIC, JONOLE, SISIRI,
CALESTIGIA,


Rocks Granules
Crotch's #2
OBW 64- 0-3 10% dark
1030 69 1-5 0% - heavy
Lady bug
Checkered skipper
pirate beetle
Syrphid fly
Seed bug
Cabbage white
Honey bee
Grey hairstreak
Checkered white
Harvester ant

Richtung
Hirschfeldia incana
Steinkraut
Aussichten sp.
Silene flos-cuculi
Lychnis nigrescens (radicula)
Euphorbia sp.
Garten Ackerwinde
Sonchus oleraceus
Taraxacum sect.
Ackerkratzdistel sp.
Sw

*2 Species of each bee
*Spider wasp

4 HRS 15 MINS

6/5 ROCAS GRANDES CROTCH #3

6:00AM - 5:00PM

	TIME	TEMP	WIND	CC
START	8:00AM	67	2-4	0%
END	10:15AM	78	5-8	0%

WILDLIFE:

CLOROCHTERA SAYI (GREEN SHIELD STINK BUG),
CABBAGE WHITE, DARKLING GROUND BEETLE (UNK SPECIES MATTE BLACK, SMALLER)
ELIODES (BIG, COMMON DARKLING BEETLE), HONEY BEE,
CHECKERED SKIPPER, LADY BUG,
GRASSHOPPER, GREY HAIRSTREAK,
BUCKEYE, XYLOCOPA (CARPENTER BEE) (NO YELLOW), SWEAT BEE (METALLIC ON CONAPU)
SCAPHIDA SCANTIUS AEGYPTIUS (MEDITERRANEAN RED BUG)
HARVESTER ANTS, MELISSODES (LONG HORNED BEETLE)? ← ORANGE
PAINTED LADY (WEST COAST) TWO
DARKWING (PINCHER BUG)
BEE FLY (2 WINGS),
BUMBLE BEE FAMILY)

CONVERGENT LADY BIRD BEETLE
(NATIVE LADY BUG) (SMALLER THAN 2-SPOT)

FLOWERS:
AMSMEN, HIKING, RABBIT
SONCHUS ASPER, SISYR1,
ONOPIL, CONARV, EUPALB

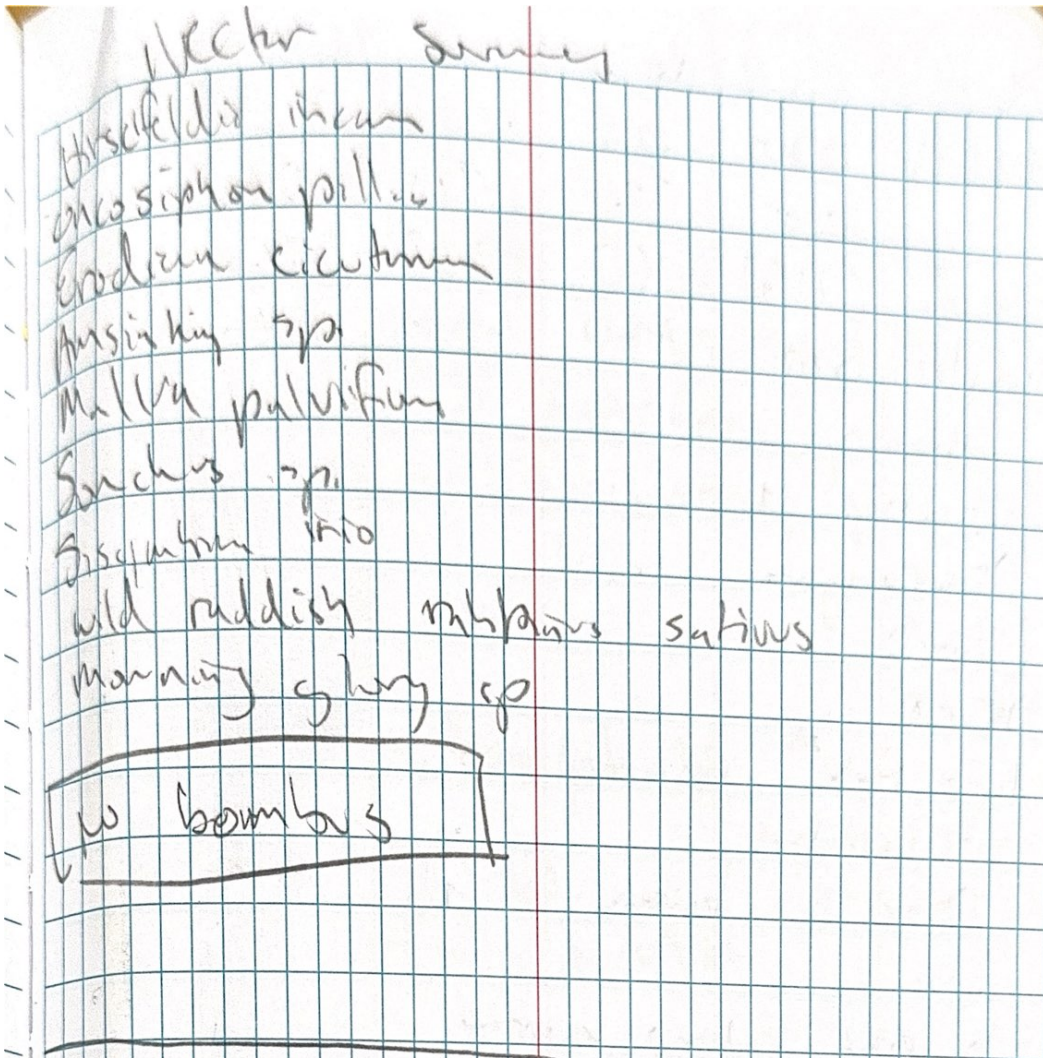
NOTES: JAPANESE WASP EATING FUCK WINGS
CURVED BILL MALES HAVE LONGER ANTENNAE & FEMALES HAVE PARA

EASTERN RUFFED MOUSE
SINCE LAST VISIT

MIDGES
SAND FLY
PSORANDROGOMYIA
NOSEEUMS

WILDLIFE CONT
FEMALE CHECKERED WHITE
(HEAVILY MARKED. MALES
HAVE ONE CHECKER ON FOREWING)
HELIOPTES (GREAT NORTHERN
SKIPPER. LARGER THAN
CHECKERED, MOSTLY WHITE
UNDERNEATH, 7 SPOTTED LADY
BUG (INTRODUCED) (MORE
OVAL (ROUNDED)
PAINTED LADY (NO ORANGE TIP)
WHITE TIP
COLLOPES (PREDATORY SOFT WING
BEETLE. LOOKS LIKE PIGTAIL
ANTENNAE), DAINTY YELLOW
DRAGON FLY, SULPHUR
SOUTHWESTERN CLOUDLESS SULPHUR

At HS Rocus Granley 6/5
OP Crotches Sing
0800 70 2-4 0%
1015 78 1-5 0% LEGO
Chlorocuum sm y/i - greenish striken
Cabbage white
grand darkling beetle
Darkling beetle
Ladybug Colops beetle
Honey bee Thread waist wasp
Checked skipper spider wasp
grass hopper tachinid fly
Grey hairstreak Hoverfly - dragonfly
Bumbeys
Xylocopa (carpenter bee) Semi silver
Sweat bee
cricket
earwig
Mediterranean red boy
H. ants
Melissoides - long horn bee
Pain West coast Indy
Beefly
Damselfly
Northern white skipper (Heliopetes
Painted lady
Mallow bee


Hedge Survey
Arisaema ihera
Arisaema pill...
Erodium cicutarium
Anisantha sp
Malva pulvifera
Sonchus sp.
Brassicaceae indet
wild radish Raphanus sativus
morning glory sp
Bombus

APPENDIX E

FOCUSED BURROWING OWL SURVEY REPORT

ROCKS
BIOLOGICAL CONSULTING





ROCAS GRANDES II PROJECT – FOCUSED BURROWING OWL SURVEY REPORT

Moreno Valley, California

July 10, 2024

Prepared for:
SEC ALESSANDRO DARWIN, LLC
320 S. Cedros Avenue, Suite 400
Solana Beach, CA 92075

Prepared by:
Rocks Biological Consulting
4312 Rialto Street
San Diego, CA 92107
(619) 701-6798

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2.2 Burrowing Owl Natural History 1
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4.2 Focused Burrowing Owl Survey Results 2
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Figure 1. Survey Results

APPENDICES

Appendix A – Site Photographs
Appendix B – Bird Species Observed
Appendix C – California Natural Diversity Database Online Field Survey Form Reports
Appendix D – Surveyor Field Notes

1 SUMMARY

This report is a summary of the results of focused burrowing owl (*Athene cunicularia*; BUOW) surveys conducted by Rocks Biological Consulting (RBC) for the Rocas Grandes II Project (project) in the City of Moreno Valley, Riverside County, California. The project is within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Burrowing Owl Survey Area (RCA 2022).

Based on the presence of suitable habitat, RBC conducted breeding season (March 1 – August 31) BUOW surveys between April 2 and June 18, 2024, in accordance with the *Western Riverside MSHCP Burrowing Owl Survey Instructions* (BUOW Survey Instructions; RCA 2006) and the California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). No BUOW, active burrows, or BUOW sign were documented within the project site or 500-foot buffer.

2 INTRODUCTION

2.1 PROJECT LOCATION & PROPOSED ACTIVITY

The approximately 18-acre project site is in the City of Moreno Valley, Riverside County, California (Figure 1). The project site is located north of the future extension of Brodiaea Avenue, south of Alessandro Boulevard, east of the future extension of Darwin Drive, and west of vacant land and the future Morrison Street. The project proposes the development of a 460-unit multi-family residential development.

2.2 BURROWING OWL NATURAL HISTORY

Within California, BUOW is listed by the CDFW as a Species of Special Concern (SSC). Suitable habitat for BUOW is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils, such as naturally occurring grassland, shrub steppe, and desert habitats (Haug et al. 1993). Additionally, BUOW may occur in agricultural areas, ruderal grassy fields, vacant lots, and pastures containing suitable vegetation structure and useable burrows and foraging habitat in proximity (Gervais et al. 2008). Typically, BUOW use burrows that have been dug by other species. In California, BUOW frequently use burrows dug by California ground squirrel (*Otospermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) and dens or holes dug by other fossorial species, including American badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox (e.g., San Joaquin kit fox [*Vulpes macrotis mutica*]) (Ronan 2002). In addition, BUOW also frequently use natural rock cavities, debris piles, culverts, and pipes for nesting and roosting (Rosenberg et al. 1998) and have been documented using artificial burrows for nesting and cover (Belthoff and Smith 2003). Occupancy of BUOW habitat is confirmed at a site when at least one BUOW, or its sign at or near a burrow entrance, is observed within the last three years (Rich 1984).

3 METHODS

3.1 SURVEY METHODS

Based on the presence of suitable habitat within the survey area (project site and 500-foot buffer), RBC biologists Alec Goodman, Garrett Moss, Hannah Swarthout, and Kelsey Woldt conducted four focused breeding season BUOW surveys between April 12 and June 18, 2024, in accordance with Step II of the BUOW Survey Instructions (RCA 2006).

RBC biologists walked transects spaced 10-20 meters (20-60 feet) apart through suitable BUOW habitat within the survey area. RBC used binoculars (10x42 magnification) to scan the survey area at least every 100 meters for BUOW, active burrows, and/or sign of BUOW and to aid in the identification of avian species. Care was taken to minimize disturbance near suitable burrows to avoid flushing any potential BUOW. RBC examined all burrows for BUOW sign, including feathers, pellets, whitewash, and/or prey remains. Burrows were considered active if a BUOW was observed at or near the entrance or if recent sign was present. Any BUOW, active burrows, and BUOW sign were mapped in the geographic information system (GIS) program ArcGIS Collector.

3.2 SURVEYOR QUALIFICATIONS

Mr. Goodman is a wildlife biologist with over seven years of professional experience and a Bachelor of Science degree in Environmental Science. Mr. Moss is a wildlife biologist with nine years of professional experience and a Bachelor of Science degree in Biology, Ecology, and Biodiversity Emphasis. Ms. Swarthout is a wildlife biologist with over four years of professional experience and a Bachelor of Arts degree in Environmental Studies and a minor in Geography. Ms. Woldt is a wildlife biologist with five years of professional experience and holds a Master of Science degree in Biology and a Bachelor of Science degree in Ecology, Animal Behavior, and Evolutionary Biology. The biologists are experienced at conducting BUOW surveys and are familiar with the calls, scolds, and alarm calls of BUOW as well as the plumage characteristics of adult and juvenile BUOW and appearance of BUOW sign.

4 RESULTS

4.1 EXISTING CONDITIONS & HABITAT ASSESSMENT

The survey area is composed primarily of disturbed habitat and developed land. The disturbed habitat is dominated by common barley (*Hordeum vulgare*), common fiddleneck (*Amsinckia menziesii*), red brome (*Bromus rubens*), short-pod mustard (*Hirschfeldia incana*), and slender wild oat (*Avena barbata*). The developed land consists of Alessandro Boulevard, Darwin Drive, and a single-family residential development. At the time of the surveys, there was active construction north and south of Alessandro Boulevard in the western buffer of the survey area. Suitable BUOW habitat within the survey area includes disturbed habitat (Figure 1).

4.2 FOCUSED BURROWING OWL SURVEY RESULTS

RBC conducted four focused BUOW surveys during the breeding season between April 2 and June 18, 2024. No BUOW, active burrows, or BUOW sign were observed within the survey area.

However, several small mammal burrows suitable for BUOW were observed (Figure 1). Survey dates, times, personnel, and weather conditions are presented in Table 1, below. Climatic and temporal conditions did not affect survey results.

Table 1. Focused Breeding Season Burrowing Owl Survey Dates and Conditions

Survey	Date	Personnel	Time (Start-End)	Temperature (F)	Cloud Cover (%)	Wind Speed (mph)	Precipitation	Visibility (Low, Med, High)
1	4/2/24	AG, HS	0700-0830	45-51	0-0	0-3; 0-3	None	High
2	4/30/24	HS, KW	0630-0800	54-58	0-0	0-2; 0-2	None	High
3	5/22/24	AG, HS	0630-0800	53-64	100-100	0-2; 0-2	None	High
4	6/18/24	GM, HS	0630-0745	58-61	15-15	1-3; 3-5	None	High
Personnel: AG = Alec Goodman, GM = Garrett Moss, HS = Hannah Swarthout, KW = Kelsey Woldt								

Representative site photographs are presented in Appendix A, and compiled list of the 27 bird species observed during focused surveys is presented in Appendix B.

5 BURROWING OWL AVOIDANCE & MINIMIZATION

Pursuant to the MSHCP, all project sites containing burrows or suitable habitat require pre-construction surveys, regardless of BUOW presence/absence during previous surveys (RCA 2006). The pre-construction surveys will be conducted in accordance with MSHCP Objective 6 for BUOW and the BUOW Survey Instructions. As such, the following avoidance and minimization measure is required to avoid potential direct impacts on BUOW:

> A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are documented on site, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, as specified in the MSHCP.

6 CONCLUSIONS

No BUOW, active burrows, or BUOW sign were documented within the survey area during the focused BUOW surveys conducted between April 12, 2024, and June 18, 2024. However, BUOW have the potential to colonize the project site due to the presence of suitable habitat and suitable burrows; therefore, in conformance with the MSHCP, pre-construction surveys are required to avoid potential direct impacts on BUOW.

7 REFERENCES

Belthoff, J.R. and B.W. Smith. 2003. Patterns of artificial burrow occupancy and reuse by burrowing owls in Idaho. Wildlife Society Bulletin, pp.138-144.

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Gervais, J.A., D.K. Rosenberg, and L.A. Comrack. 2008. Burrowing owl (*Athene cunicularia*) in W.D. Shuford and T. Gardali, editors. California Bird Species of Special Concern: A ranked assessment of species, subspecies and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento, California, USA.

Haug, E.A., B.A. Millsap, and M.S. Martell. 1993. Burrowing owl (*Speotyto cunicularia*), in A. Poole and F. Gill, editors, The Birds of North America, The Academy of Natural Sciences, Philadelphia, Pennsylvania, and The American Ornithologists' Union, Washington, D.C., USA.

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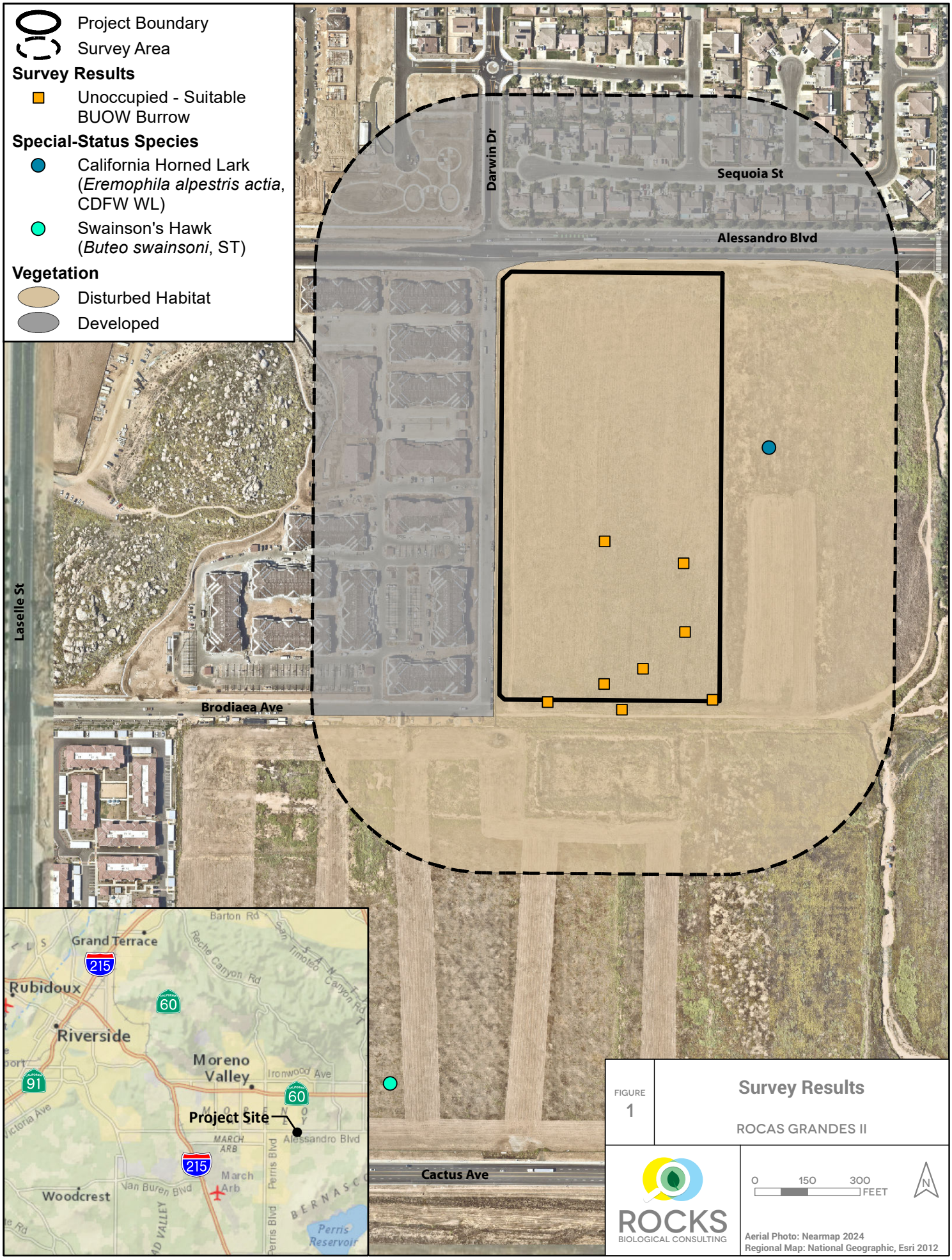
Ronan, N.A. 2002. Habitat selection, reproductive success, and site fidelity of burrowing owls in a grassland ecosystem. Thesis, Oregon State University, Corvallis, Oregon, USA.

Rosenberg, D.K., J.A. Gervais, H. Ober, and D.F. DeSante. 1998. An adaptive management plan for the burrowing owl population at Naval Air Station Lemoore, California, USA. Publication 95, Institute for Bird Populations, P.O. Box 1346, Pt. Reyes Station, CA 94956.

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2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Retrieved from http://www. ctlma.org/mshcp/volume1/index.html

2024. WRC Information Tool Map. Accessed April 2024. Retrieved from https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd


Project Boundary
Survey Area
Survey Results
Unoccupied - Suitable BUOW Burrow
Special-Status Species
California Horned Lark (*Eremophila alpestris actia*, CDFW WL)
Swainson's Hawk (*Buteo swainsoni*, ST)
Vegetation
Disturbed Habitat
Developed
Darwin Dr
Sequoia St
Alessandro Blvd
Laselle St
Brodiaea Ave
Cactus Ave
Barton Rd
Grand Terrace
Rubidoux
Riverside
Moreno Valley
Ironwood Ave
Project Site
Alessandro Blvd
March Arb
Woodcrest
Van Buren Blvd
Perris Blvd
Perris Reservoir
215
60
91
FIGURE 1
Survey Results
ROCAS GRANDES II
ROCKS BIOLOGICAL CONSULTING
0 150 300 FEET
N
Aerial Photo: Nearmap 2024
Regional Map: National Geographic, Esri 2012

APPENDIX A

SITE PHOTOGRAPHS

Appendix A

Site Photographs



Photo 1. Overview of the disturbed land throughout the project site, facing south. April 2, 2024.



Photo 2. View of the eastern buffer of the project site (left) and the project site (right). April 2, 2024.



Photo 3. View of the disturbed land throughout the project site, facing northeast. April 2, 2024.



Photo 4. View of development (foreground) and active construction (background) in the northern buffer of the project site, facing northwest. April 2, 2024.



Photo 5. View of the project site from the northern boundary, facing south. May 22, 2024.



Photo 6. View of the project site from the southern boundary, facing north. June 18, 2024.



Photo 7. View of the project site (foreground) and active construction (background) in the western buffer, facing southwest. June 18, 2024.



Photo 8. View of the southern buffer of the project site, facing northeast. June 18, 2024.

APPENDIX B

BIRD SPECIES OBSERVED

Appendix B

Bird Species Observed

Family	Common Name	Scientific Name
Accipitridae	Cooper's hawk	*Accipiter cooperii* (WL; WRMSHCP)
Accipitridae	red-tailed hawk	*Buteo jamaicensis*
Accipitridae	Swainson's hawk	*Buteo swainsoni* (ST; WRMSHCP)
Alaudidae	California horned lark	*Eremophila alpestris actia* (WL; WRMSHCP)
Ardeidae	great egret	*Ardea alba*
Cardinalidae	blue grosbeak	*Passerina caerulea*
Charadriidae	killdeer	*Charadrius vociferus*
Columbidae	mourning dove	*Zenaida macroura*
Columbidae	rock pigeon*	*Columba livia*
Corvidae	common raven	*Corvus corax*
Falconidae	American kestrel	*Falco sparverius*
Fringillidae	house finch	*Haemorhous mexicanus*
Fringillidae	Lawrence's goldfinch	*Spinus lawrencei* (BCC)
Fringillidae	lesser goldfinch	*Spinus psaltria*
Hirundinidae	cliff swallow	*Petrochelidon pyrrhonota*
Icteridae	red-winged blackbird	*Agelaius phoeniceus*
Icteridae	western meadowlark	*Sturnella neglecta*
Motacillidae	American pipit	*Anthus rubescens*
Parulidae	yellow-rumped warbler	*Setophaga coronata*
Passeridae	house sparrow*	*Passer domesticus*
Passerellidae	white-crowned sparrow	*Zonotrichia leucophrys*
Picidae	northern flicker	*Colaptes auratus*
Trochilidae	Anna's hummingbird	*Calypte anna*
Tyrannidae	black phoebe	*Sayornis nigricans*
Tyrannidae	Cassin's kingbird	*Tyrannus vociferans*
Tyrannidae	Say's phoebe	*Sayornis saya*
Tyrannidae	western kingbird	*Tyrannus verticalis*

*Introduced species
BCC = U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern
ST = Listed as State Threatened under California Endangered Species Act (CESA)
WL = California Department of Fish and Wildlife (CDFW) Watch List
WRMSHCP = Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Covered Species

APPENDIX C

CALIFORNIA NATURAL DIVERSITY DATABASE ONLINE FIELD SURVEY FORM REPORTS

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code SWA24F0005
Quad code 3311782
Occ. no. _____
EO index no. _____
Map index no. _____

Scientific name: *Accipiter cooperii*

Common name: Cooper's hawk

Date of field work (mm-dd-yyyy): 04-30-2024

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Hannah Swarthout

Affiliation:

Address: 4312 Rialto St. , San Diego, CA 92107

Email: hannah@rocksbio.com

Phone: (760) 712-6663

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in: iBird Pro application

By another person: Alec Goodman

Other: Mentally compared with other known sightings

Identification explanation:

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: Protocol burrowing owl survey

Total number of individuals: 1

Collection? No **Collection number:**

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

adults	juveniles	larvae	egg mass	unknown
1				

Age class comment:

Bird site use:

☐ Nesting ☐ Rookery ☐ Nesting colony ☐ Burrow site ☐ Lek

☐ Non-breeding (over-wintering) ☐ Communal roost ☑ Other

Site use description: Individual was observed soaring

What was the observed behavior? Flying

Describe any evidence of reproduction:

SITE INFORMATION

Habitat description:

Slope: Land owner/manager:

Aspect:

Site condition + population viability:

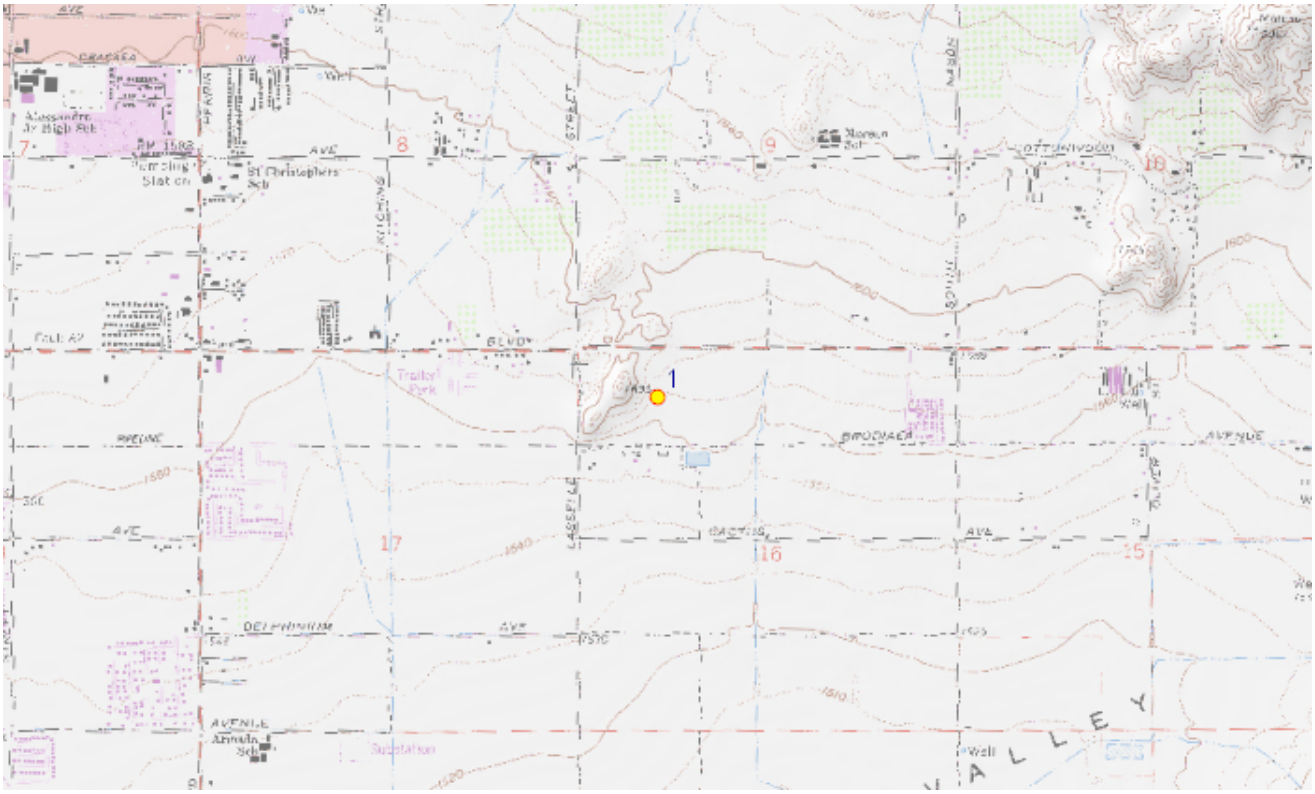
Immediate & surrounding land use:

Visible disturbances:

Threats:

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Riverside	Sunnymead	1572	33.91548	-117.20535	481017	3752804	11
1	**Public Land Survey**	**Feature Comment**						
	S T03S R03W 16							

The mapped feature is accurate within: 10 m

Source of mapped feature: FieldMaps (ArcGIS Online application)

Mapping notes:

Location/directions comments:

Attachment(s):

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code SWA24F0003
Quad code 3311782
Occ. no. _____
EO index no. _____
Map index no. _____

Scientific name: *Buteo swainsoni*

Common name: Swainson's hawk

Date of field work (mm-dd-yyyy): 04-03-2024

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Hannah Swarthout

Affiliation:

Address: 4312 Rialto St. , San Diego, CA 92107

Email: hannah@rocksbio.com

Phone: (760) 712-6663

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in:

By another person: Alec Goodman

Other: iBird Pro, Merlin Bird ID

Identification explanation:

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: Burrowing owl protocol survey

Total number of individuals: 2

Collection? **Collection number:**

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

adults	juveniles	larvae	egg mass	unknown
2				

Age class comment: Due to time of year, likely adults

Bird site use:

☐ Nesting ☐ Rookery ☐ Nesting colony ☐ Burrow site ☐ Lek

☐ Non-breeding (over-wintering) ☐ Communal roost ☑ Other

Site use description: Observed soaring, then took off north

What was the observed behavior? Flying

Describe any evidence of reproduction:

SITE INFORMATION

Habitat description:

Slope: Land owner/manager:

Aspect:

Site condition + population viability:

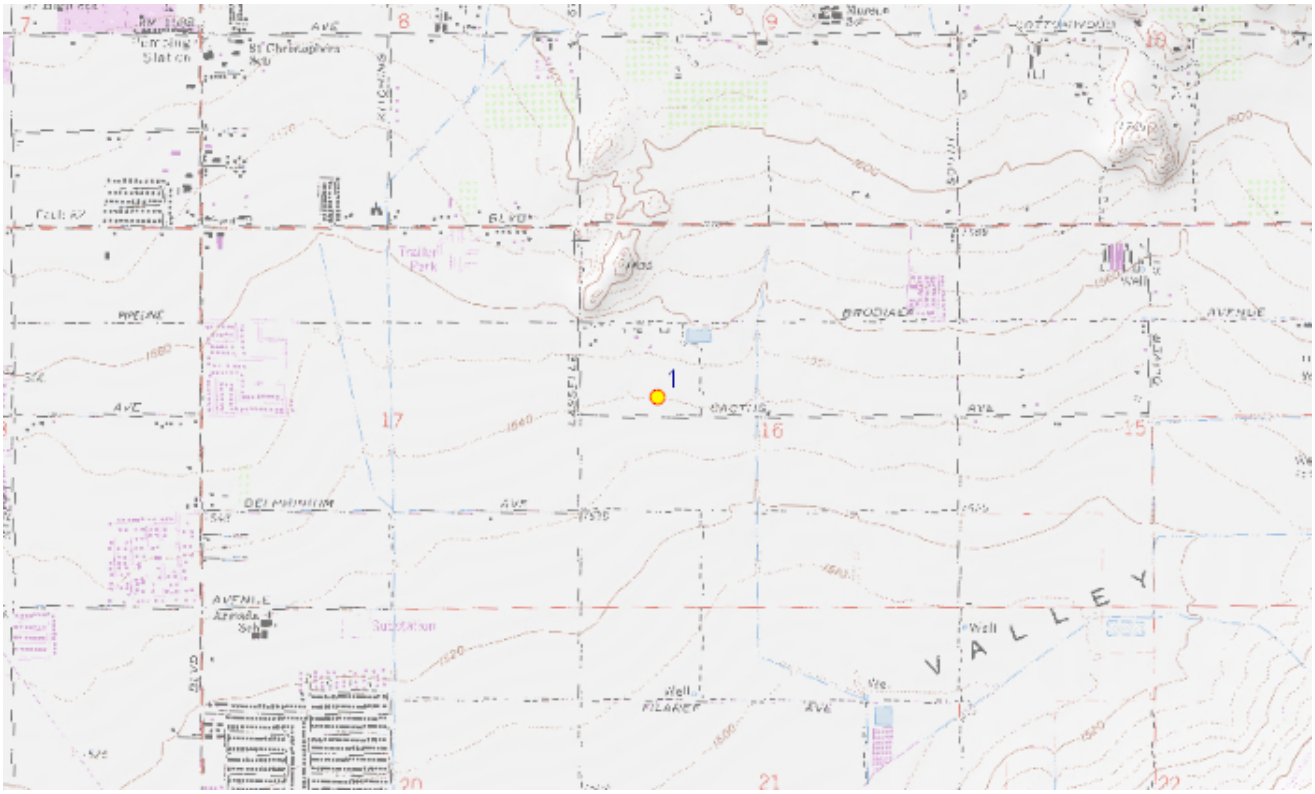
Immediate & surrounding land use:

Visible disturbances:

Threats:

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Riverside	Sunnymead	1543	33.91078	-117.20541	481011	3752283	11
1	**Public Land Survey**	**Feature Comment**						
	S T03S R03W 16							

The mapped feature is accurate within: 10 m

Source of mapped feature: FieldMaps (ArcGIS application)

Mapping notes:

Location/directions comments:

Attachment(s):

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code SWA24F0006
Quad code 3311782
Occ. no.
EO index no.
Map index no.

Scientific name: *Eremophila alpestris actia*

Common name: California horned lark

Date of field work (mm-dd-yyyy): 06-18-2024

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Hannah Swarthout

Affiliation:

Address: 4312 Rialto St. , San Diego, CA 92107

Email: hannah@rocksbio.com

Phone: (760) 712-6663

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in: iBird Pro application

By another person: Garrett Moss

Other:

Identification explanation:

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: Protocol level burrowing owl survey

Total number of individuals: 4

Collection? **Collection number:**

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Heard singing then seen

Number detected in each age class:

adults	juveniles	larvae	egg mass	unknown
				4

Age class comment: Unsure of age class. Flock was moving about foraging on site

Bird site use:

☐ Nesting ☐ Rookery ☐ Nesting colony ☐ Burrow site ☐ Lek

☐ Non-breeding (over-wintering) ☐ Communal roost ☑ Other

Site use description: Foraging

What was the observed behavior? Foraging

Describe any evidence of reproduction:

SITE INFORMATION

Habitat description:

Slope: Land owner/manager:

Aspect:

Site condition + population viability:

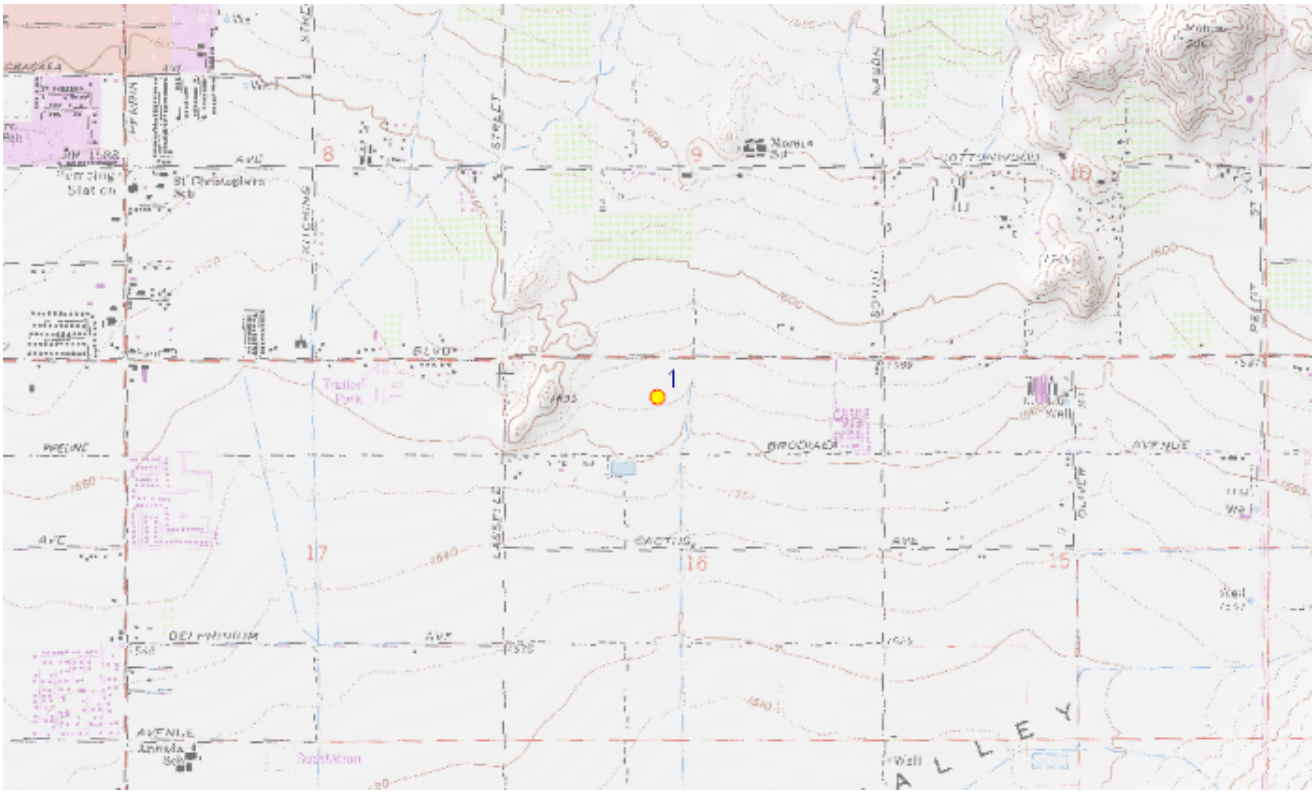
Immediate & surrounding land use:

Visible disturbances:

Threats:

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Riverside	Sunnymead	1573	33.91584	-117.20194	481332	3752843	11
1	**Public Land Survey**	**Feature Comment**						
	S T03S R03W 16							

The mapped feature is accurate within: 10 m

Source of mapped feature: FieldMaps (AGOL application)

Mapping notes:

Location/directions comments:

Attachment(s):

APPENDIX D

SURVEYOR FIELD NOTES

4/2/24 ROCAS GRANDE BUOW
5:30AM-11:15AM

	TIME	TEMP	WIND	CC
START	7:00AM	45	0-3	0%
END	8:30AM	51	0-3	0%

WILDLIFE: ANHA, SWHA*
~~HOLA~~, GREG, ROPI, CORA, AMPI, WFME, RUBL, WCSP, CAGS, MOBO, HOFI, NRWA, CAKI, SAPH, KILL, RTHA,
PLANTS: BROTEC, HORMUR?, BRODIA, SISIRI, HIRINC?, LAMAUR, BRORUB, MALPAR, EROCIC, RAPRUG, SALTRA, ONCPIL, AMSMEN. BRANIG, MELIND, BAESAC, TAMPAM
NOTES:
WESTERN BUFFER ACTIVE CONSTRUCTION
PROJECT SITE RECENTLY TILLED
*TWO ADULTS SOARING, THEN TOOK OFF NORTHWEST
PREVIOUS CAGS BURROWS OVERGROWN
NO CAGS OR BURROWS ON SITE.
CAGS HEARD SE BUFFER
NO BUOW OR SIGN

Rocas Grandes II Buzo #1 4/2

Ab	0760	45	0-3	OX
Eb	0830	51	0-3	OX

GREEC WEME RUBZ CORA AMPI
RUBZ WCSP CARS42 MSDO HUFI
YEWT CAKS SAPA KELL RTHM
AMPO SWHA*

* RWBZ on small building/rocks in system bottom

* western : NW buffer active construction project, recently dived
HORUUL, SISIRO, HIR INK, BRODIE
LAMIAR, EKO CIC, MARBAR, BROWN
wild rollers, SALSOUSO, ONC FL
Anglicher SP, BRAMBLE, MELRND
BALSAL, TAMARISK, BROTEC

* SWHA-2, Soaring SW of project. HUT in buffer

1 CATGS obs in SE buffer.
No suitable launch site!

4/30 ROCAS GRANDES BUOW #2

5:00AM - 11:00PM 30 KNOTS BARB

	TIME	TEMP	WIND	CC
START	6:30AM	54°	0-2	0%
END	8:00AM	58°	0-2	0%

WILDLIFE

LEGO, HOSP, HOFI, SAPH, WEME, MOOD, RWBL, KILL, CAGS, COHA*, ...

4/30/24 ROCAS GRANDE BUOW
0630 54 0-2 0♂0♀
0800 58 0-2 0♂0♀

AOFI LEGO HOSP CORA
SAPH WEME RWBB MODO
KILL COHA* AMCR

*SURVEY NEGATIVE FOR
BUOW & SIGN

CAGS
Audubon cottontail
Side-blotched lizard

COHA: n=2, flyover

5/22 ROCAS GRANDES BLOW

5:00AM - 3:00PM

	TIME	TEMP	WIND	CC
START	6:30AM	53°	0-2	100%
END	8:00AM	64	0-2	100%

WILDLIFE:

CORA, HOFI, HOSP, SAPH, HOLA, MOLO, RWBL, CAGS, AMDI, LECO

Ab	Rocks Gravels				5/22
CTS	Burn #3				
	0630	54	0-3	100%	cloudy
	0800	55	1-5	100%	clear
HOFS	Cold	Hosp	Strpt	LEGO	MODO
RWBL					

Desert cottontail

⊠ East: South buffer surveyed by birds due to Encampment activity.

North & western buffer developed.

New CATON Burns

Burn or Sign

6/18 ROCKS GRANDES BUOY #4

5:00AM - 11:00AM

	TIME	TEMP	WIND	CC
START	6:30AM	58	1-3	15%
END	7:45AM	61	3-5	15%

WILDLIFE:
HOFI, LEGO, HOSP, WEME, COTTONTAIL, BUGE, KILL, COEA, GLSW, LAGO, NOFL, WEKI, MOBO, HOLA* AMKI, BTJE, SAPH, CAGS, ANHU, BUOY, AMKE,

NOTES: - SOUTHERN ~~BUFFER~~ PLATFORM TILLED ~~BERM OVERTOP~~
EASTERN BUFFER TILLED / DISKED
~~AND~~ IS LOOSE DIRT
- WESTERN & NW BUFFER ACTIVE CONSTRUCTION
- NORTHERN BUFFER LEVELLED
* ~ 4 HOLA FORAGING IN EASTERN BUFFER
- TRANSIENT MAN BLOWING UP & THROWING STUFF IN DE BUFFER

Rocas Grandes BUOW #4

Date: 6/18/2024
Biologists: HS, GM

Start: 630, 58F, 1-3 mph wind, 15% CC
End: 745, 61F, 3-5 mph wind, 15% CC

Species Observed:
Birds: HOFI HOSP LEGO ANHU WEME KILL BLGR CORA CLSW NOFL LAGO WEKI MODO HOLA AMPI SAPH BLPH AMKE
Mammals: desert cottontail, CAGS, black-tailed jackrabbit

Survey Notes:

- No BUOW or their sign were observed.
- Site and survey buffer contained areas of tall and densely vegetated non-native vegetation dominated by HIRINC, which is unsuitable for BUOW occupation. Other vegetated areas consisted of dense and low-growing vegetation dominated by Russian thistle, stinknet, fiddlenecks, and non-native grasses; some CAGS burrows were present and were suitable for BUOW occupation. Barren areas were also present where recent tilling activities occurred.
- Flocks of LAGO and HOLA observed foraging within project site and survey buffer.