Blackhawk Environmental, Inc.
1720 Midvale Drive
San Diego, CA 92105
Phone: 619.972.7932
Phone: 619.972.8714
www.blackhawkenv.com

PACIFICA COTTONWOOD PROJECT

WESTERN RIVERSIDE MSHCP HABITAT ASSESSMENT REPORT

CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

EPD Solutions, Inc.
2 Park Plaza, Suite 1120
Irvine, CA 92614
Contact: Rafik Albert
Project Manager
Telephone: 949.794.1182
E-mail: rafik@epdsolutions.com

Prepared by:
Blackhawk Environmental, Inc.
1720 Midvale Drive
San Diego, CA 92105
Contact: Kris Alberts
Principal Biologist
Telephone: 619.972.8714
E-mail: kris@blackhawkenv.com

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EXECUTIVE SUMMARY

Blackhawk Environmental (Blackhawk) conducted a literature review, field reconnaissance survey, and biological assessment of the proposed Pacifica Cottonwood Project site (Project) to assess existing site conditions, as well as assess the potential for special-status species or habitats to occur within the Project site and surrounding area. This report is intended to fulfill requirements for determining Project consistency with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP; Plan).

The proposed Project calls for the development of 21.484 acres of undeveloped lands in the City of Moreno Valley, Riverside County, California. The Project site is located on Assessor's Parcel Numbers (APN) 478-250-001 (Figure 1), approximately 1 mile south of Interstate 60 and 0.4 miles west of Redlands Boulevard (Figure 1).

The Project site is not located within any Criteria Cell and is located outside of Plan Conservation Areas. The Project area is not located within areas requiring assessment for special-status mammals, amphibians, invertebrates, narrow endemic plants, or other criteria area species. The Project site requires an assessment and/or surveys for burrowing owl (*Athene cunicularia*), if suitable habitat is identified during a habitat assessment; the habitat assessment determined that suitable habitat for this species exists on the Project site and surrounding Survey Area and therefore, focused burrowing owl surveys were conducted. Findings of the focused burrowing owl survey can be found in the *Pacifica Cottonwood Project – Focused Burrowing Owl Survey Report* (Blackhawk 2021).

The Project site predominantly contains two MSHCP vegetation communities and/or land cover types (Residential/Urban/Exotic – Disturbed Lands and MSHCP Riverine Habitat) composed of non-native grasses and non-native ruderal plant species commonly associated with anthropogenically-altered landscapes, while areas surrounding the Project site contain sparse ornamental shrubs and trees amongst development. Vegetation communities within these land cover types include Disturbed Habitat (20.019 acres), Developed Habitat (0.291 acre), California Buckwheat Scrub (0.460 acre), California Walnut Scrub (0.007 acre), Disturbed Mulefat Scrub (0.145 acre), Mulefat Scrub (0.113 acre), Southern Willow Scrub (0.021 acre), Tamarisk Scrub (0.047 acre) and Unvegetated Channel (0.381 acre). MSHCP Riverine Habitat includes a subset of the acreage of each of the vegetation communities that totals 1.099 acres. The MSHCP Riverine Habitat includes 1.099 acres of California Department of Fish and Wildlife (CDFW) jurisdiction and 0.501 acre of United States Army Corps of Engineers/Regional Water Quality Control Board (USACE/RWQCB) jurisdiction that would be impacted by Project activities.

A literature review conducted for the Project site identified documented occurrences from within three miles of the Project site for a total of 13 special-status wildlife species, two special-status plant species, and zero special-status natural communities. A field reconnaissance survey and habitat assessment were conducted on June 22, 2021. During the survey, each of these "target species" were evaluated for their potentials for occurrence (PFO) within and/or adjacent to the Project site. To evaluate habitat that may be suitable for burrowing owl, and to evaluate the potential for both direct and indirect impacts to burrowing owl, the assessment included all proposed Project features as well as an additional 150-meter (492 feet) survey buffer surrounding the proposed Project (Survey Area). During the field reconnaissance survey and assessment, no additional special-status species were observed or detected within or adjacent to the Project site.

Of the 13 special-status wildlife species documented to occur within the Project vicinity, three were found to have a moderate potential for occurrence, and two were found to have a low potential for occurrence, based on proximity of historic records and/or quality of habitat on site. The remaining eight special-status wildlife species were determined to have no potential for occurrence due to lack of suitable habitat on the Project site. Species identified in the literature review and evaluated included: ferruginous hawk (*Buteo regalis*; moderate PFO [wintering only]), western mastiff bat (*Eumops perotis californicus*; moderate PFO [foraging only]), western yellow bat (*Lasiurus xanthinus*; moderate PFO [foraging only], burrowing owl (low PFO), silvery legless lizard (*Anniella stebbinsi*; low PFO), tricolored blackbird (*Agelaius tricolor*; no PFO), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*; no PFO), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*; no PFO), San Bernardino kangaroo rat (*Dipodomys merriami parvus*; no PFO), Stephens' kangaroo rat (*Dipodomys stephensi*; no PFO), red-diamond rattlesnake (*Crotalus ruber*; no PFO), western spadefoot (*Spea hammondii*; no PFO), and coast horned lizard (*Phrynosoma blainvillii*; no PFO). **Of the five species with potential to occur, two are covered under the MSHCP (burrowing owl and ferruginous hawk) and three are not functionally covered under the Plan (silvery legless lizard, western yellow bat and western mastiff bat)**.

The Survey Area does support suitable habitat for burrowing owl and therefore, additional surveys are required pursuant to the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP. Focused burrowing owl surveys were conducted between June 22 and July 15, 2021 and confirmed that suitable burrowing owl burrows exist within the Project site and Survey Area; however, burrowing owl were not found to occupy the site (Blackhawk 2021).

The Project does not occur within a narrow endemic plant survey area. The literature review resulted in two special-status plant species occurrences within three miles of the Project site: smooth tarplant (*Centromadia pungens ssp. laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). Both plant species are considered to have no potential to occur based on the lack of appropriate habitat, lack of suitable soils, and/or regular disking activities. Furthermore, the field survey did not identify any special-status plant species with a California Rare Plant Rank (CRPR) rank of at least 2 on the Project site. **Therefore, special-status plant species with a CRPR rank of at least 2 have no potential for occurrence on the Project site.**

The Project site and surrounding areas support limited suitable nesting substrates for various general migratory bird and raptor species common to the region. Take authorization for migratory bird and raptor species is not provided by the Plan. The Plan functionally covers the remaining special-status species identified with potentials to occur, as well as impacts to their habitats. No other special-status resources are present or are expected to occur. **Mitigation for potential Project-related impacts to the species identified to occur or with the potentials to occur during the literature review and assessment can be achieved through payment of a mitigation fee to the appropriate MSHCP authority. No significant adverse impacts to special-status biological resources of the region are anticipated with implementation of Project mitigation contained herein.**

The habitat assessment identified one drainage feature that runs parallel to the western boundary of the Project site that contains MSHCP Riparian/Riverine Habitat under the likely jurisdiction of the USACE, RWQCB and the CDFW. Based on these findings, and following two Project design changes, jurisdictional delineation surveys were performed on August 18, 2021 and April 1, 2022. The delineation survey identified 1.099 acres of MSHCP Riparian/Riverine Habitat within the Project boundary. It was determined that this feature will be impacted by Project activities, including 0.190 acre of temporary impacts and 0.909 acre of permanent impacts. Additional permitting from the USACE, RWQCB, and

CDFW will be required for Project authorization before impacting the drainage feature. In addition, a MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) report will be required per the County of Riverside that will detail the offsite and/or onsite compensatory mitigation strategy.

1.0 INTRODUCTION

Blackhawk was contracted under EPD Solutions, Inc. to conduct environmental surveys and provide a Habitat Assessment Report (HAR) for the Pacifica Cottonwood Project (Project) site, located on approximately 21.484 acres of previously undeveloped lands in the City of Moreno Valley, Riverside County, California. The Project site is within the MSHCP area; however, the Project is not located within a MSHCP Cell Group or MSHCP Criteria Cell(s).

The purpose of this survey effort and consistency analysis is to identify and document sensitive biological resources potentially occurring within the Project site and surrounding areas. The Project site is not located within a MSHCP Cell Group or MSHCP Criteria Cell(s), Amphibian Survey Area, Criteria Area Species Survey Area, Mammal Survey Area, or Narrow Endemic Plant Survey Area (RCA MSHCP Map, 2021). The survey effort focused on documentation of existing site conditions, such as soils, topography, vegetation communities, riverine/riparian habitats, vernal pools, and potentially jurisdictional aquatic resources as required for review under the MSHCP. Specifically, the assessment was conducted to determine if habitat was present for species identified by the County of Riverside's MSHCP Information Application (RCA 2021), including burrowing owl. Findings of the jurisdictional delineation survey are summarized herein and can be found in the *Pacifica Cottonwood Project – Jurisdictional Delineation Survey Report* (Blackhawk 2022).

1.1 Project Description

The Project proposes the complete buildout of 20.708 acres as permanent impacts, plus 0.776 acre of temporary impacts, in the overall 21.484-acre area, in the City of Moreno Valley. Proposed development engineering plans involve the construction of residential homes, paved streets and sidewalks, landscaped areas and all associated infrastructure and would convert the currently vacant land to residential development. The proposed Project also includes a new bridge from Bay Avenue at the southwest end of the Project site, as well as channel improvements to the existing drainage feature. The Project site is within Assessor's Parcel Number (APN) 478-250-001.

Except for the drainage feature at the west end, the proposed Project is located within previously graded/disked, regularly mowed, vacant land dominated by low-growing non-native and ruderal vegetation. The Project site is surrounded by urban development in addition to several scattered vacant lots. The site is bounded to the west by a concrete-lined and earthen drainage channel running parallel to Quincy Street, to the east by private residential homes, to the north by Cottonwood Avenue and to the south by Bay Avenue and additional vacant lands (Figure 2). The Project site shows signs of recent anthropogenic impacts such as mowing, trash dumping, disking, and off-road vehicle use. The Project site consists of a mostly flat lot; elevations within the Project site range from 1,639 feet above mean sea level (AMSL) in the southeast corner at its lowest point, and up to 1,664 feet AMSL at the northwestern corner at its highest point.

2.0 REGULATORY SETTING

The proposed Project is subject to a host of state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources, including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species that are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

2.1 State and/or Federally Listed Plant and Wildlife Species

2.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

2.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot,

wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the United States Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

2.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state- listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

2.2 California Environmental Quality Act

Shortly after the United States federal government passed the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA) was passed in 1970 to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts. CEQA makes environmental protection a mandatory part of every California state and local agency's decision-making process.

2.2.1 CEQA Thresholds of Significance

Environmental impacts relative to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self- perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Attachment G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to: substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

2.2.2 Criteria for Determining Significance Pursuant to CEQA

Attachment G of the 1998 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
>
> *b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
>
> *c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through*

direct removal, filling, hydrological interruption, or other means.

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

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

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

2.2.3 CEQA Guidelines Section 15380

The CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW assigns California Rare Plant Ranks (CRPR) to species categorized as List 1A, 1B, or 2 of the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 or 4.

2.3 Special-Status Species Designations

2.3.1 Federally Designated Special-Status Species

Some years ago, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS. Additionally, the USFWS *Birds of Conservation Concern 2008* report was published to identify the migratory and non-migratory bird species (beyond those already federally listed) that represent the highest conservation priorities for USFWS.

For this report, the following acronyms are used for federal special-status species:

- **FE**: Federally listed as Endangered
- **FT**: Federally listed as Threatened
- **FPE**: Federally proposed for listing as Endangered
- **FPT**: Federally proposed for listing as Threatened
- **FC**: Federal Candidate species (Former Category 1 candidates)
- **BCC**: USFWS Birds of Conservation Concern

2.3.2 State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (FP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern (SSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Database (CNDDB) project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites. For this report the following acronyms are used for State special-status species:

- **SE**: State-listed as Endangered
- **ST**: State-listed as Threatened
- **SCE**: State candidate for listing as Endangered
- **SCT**: State candidate for listing as Threatened
- **FP**: State Fully Protected
- **SSC**: Species of Special Concern

2.3.3 California Rare Plant Rank

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five categories. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (Tibor 2001). The list serves as the candidate list for listing as threatened and endangered by CDFW.

- **CRPR 1A**: Plants presumed extirpated in California and either rare or extinct elsewhere
- **CRPR 1B**: Plants rare, threatened, or endangered in California and elsewhere
- **CRPR 2A**: Plants presumed extirpated in California but common elsewhere
- **CRPR 2B**: Plants rare, threatened, or endangered in California but more common elsewhere
- **CRPR 3**: Plants about which more information is needed
- **CRPR 4**: Plants of limited distribution

2.4 Additional Applicable State and Federal Regulations

Each of the following regulations bears some applicability toward assessing the natural resources of the Project Site and any effects that construction and long-term operations and maintenance activities may have upon such resources. These are included for informational and referential purposes only.

2.4.1 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (PL 95-616; 16 USC §§ 668 et seq.) provides for protection for the bald and golden eagles by prohibiting taking, possession, and commerce in the birds.

2.4.2 Clean Water Act

The Clean Water Act (CWA) regulates the discharge of pollutants to waters of the United States in order to protect water quality and the beneficial uses of these waters. Through a permit application process, CWA Section 404 regulates dredge and fill discharges to waters of the United States.

2.4.3 Fish and Wildlife Conservation Act of 1980

The Fish and Wildlife Conservation Act of 1980 (PL 96-366; 16 USC §§2901 et seq.) provides for conservation, protection, restoration and propagation of certain species, including migratory birds threatened with extinction.

2.4.4 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (PL 65-186, as amended; 16 USC §§ 703 et seq.) protects most birds, whether or not they migrate. Birds, their nests, eggs, parts, or products may not be killed or possessed. Game birds are listed and protected except where specific seasons, bag limits, and other features govern their hunting. Exceptions are made for some agricultural pests, which require a USFWS permit (yellow-headed, red-winged, bi-colored red-winged, tri-colored red-winged, Rusty and Brewer's blackbirds, cowbirds, all grackles, crows and magpies). Some other birds that injure crops in California may be taken under the authority of the County Agricultural Commissioner (meadowlarks, horned larks, golden-crowned sparrows, white- and other crowned sparrows, goldfinches, house finches, acorn woodpeckers, Lewis' woodpeckers and flickers). Permits may be granted for various non-commercial activities involving migratory birds and some commercial activities involving captive-bred migratory birds.

2.4.5 California Fish & Game Codes 3500 Series

California Fish & Game Codes 3500, 3503, 3503.5, 3505, 3511 and 3513 are State regulations that cover resident and non-resident game birds, protected bird nests, protected raptor nests, egrets, ospreys, Fully Protected bird species, and take considerations for Migratory Bird Treaty Act birds.

- **Code 3500:** "(a) Resident game birds are as follows:
  (1) Doves of the genus Streptopelia, including, but not limited to, spotted doves, ringed turtledoves, and Eurasian collared-doves.
  (2) California quail and varieties thereof.
  (3) Gambel's or desert quail.
  (4) Mountain quail and varieties thereof.
  (5) Sooty or blue grouse and varieties thereof.
  (6) Ruffed grouse.
  (7) Sage hens or sage grouse.
  (8) Hungarian partridges.
  (9) Red-legged partridges including the chukar and other varieties.

(10) Ring-necked pheasants and varieties thereof.
(11) Wild turkeys of the order Galliformes.
(b) Migratory game birds are as follows:
(1) Ducks and geese.
(2) Coots and gallinules.
(3) Jacksnipe.
(4) Western mourning doves.
(5) White-winged doves.
(6) Band-tailed pigeons.
(c) References in this code to "game birds" means both resident game birds and migratory game birds."

- **Code 3503:** "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

- **Code 3503.5:** "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

- **Code 3505:** "It is unlawful to take, sell, or purchase any aigrette or egret, osprey, bird of paradise, goura, numidi, or any part of such a bird."

- **Code 3511:** "(a) (1) Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected bird, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and relocation of those species pursuant to a permit for the protection of livestock. Prior to authorizing the take of any of those species, the department shall make an effort to notify all affected and interested parties to solicit information and comments on the proposed authorization. The notification shall be published in the California Regulatory Notice Register and be made available to each person who has notified the department, in writing, of his or her interest in fully protected species and who has provided an e-mail address, if available, or postal address to the department. Affected and interested parties shall have 30 days after notification is published in the California Regulatory Notice Register to provide any relevant information and comments on the proposed authorization.
(2) As used in this subdivision, "scientific research" does not include any actions taken as part of specified mitigation for a project, as defined in Section 21065 of the Public Resources Code.
(3) Legally imported fully protected birds or parts thereof may be possessed under a permit issued by the department.
(b) The following are fully protected birds:
(1) American peregrine falcon (Falco peregrinus anatum).
(2) Brown pelican.
(3) California black rail (Laterallus jamaicensis coturniculus).
(4) California clapper rail (Rallus longirostris obsoletus).

(5) California condor (Gymnogyps californianus).
(6) California least tern (Sterna albifrons browni).
(7) Golden eagle.
(8) Greater sandhill crane (Grus canadensis tabida).
(9) Light-footed clapper rail (Rallus longirostris levipes).
(10) Southern bald eagle (Haliaeetus leucocephalus leucocephalus).
(11) Trumpeter swan (Cygnus buccinator).
(12) White-tailed kite (Elanus leucurus).
(13) Yuma clapper rail (Rallus longirostris yumanensis)."

- **Code 3513:** "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

2.4.6 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the California Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and/or with proper notification to the CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.4.7 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code §§13000 et seq.) is the State's primary water law. It gives the State Water Resources Control Board (SWRCB) and the nine regional water quality control boards authority to regulate water use of surface and sub-surface waters.

2.5 Local Regulations

2.5.1 Western Riverside Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County.

The MSHCP will serve as an HCP pursuant to Section 10(a)(1)(B) of the FESA, as well as a NCCP under the NCCP Act of 2001. The MSHCP will be used to allow the participating jurisdictions to authorize "take" of plant and wildlife species identified within the MSHCP area. USFWS and CDFW (Wildlife Agencies) have authority to regulate the take of threatened, endangered, and rare species. Under the MSHCP, the Wildlife Agencies will grant "take authorization" for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP Conservation Area, in exchange for the assembly and management of a coordinated MSHCP Area. The MSHCP is designed to provide mitigation compliance under the FESA, CESA, CEQA, and National Environmental Protection Act (NEPA) with payment of a development mitigation fee to the appropriate local jurisdiction and completion of requisite habitat assessments/focused surveys for projects within those jurisdictions.

3.0 METHODS

Methods described below focused on determination of potential for occurrence of special-status plant and wildlife species. Specific consideration was given for species not covered or functionally covered under the MSHCP. Species are considered to be special-status, and are therefore subject to analysis in this section, if they meet one or more of the following criteria:

- Plant and animal species listed as endangered (FE), threatened (FT), or candidates (FPE or FPT) for listing under the Federal Endangered Species Act (FESA);
- Plant and animal species listed as endangered (SE), threatened (ST), or candidates (SCE or SCT) for listing under the California Endangered Species Act (CESA);
- Animals designated as Fully Protected Species (FP), as defined in California Fish and Game Code Sections 3511, 4700, 5050, and 5515;
- Animal species designated as Species of Special Concern (SSC) by the CDFW;
- Bat species designated as High Priority (H) by the Western Bat Working Group;
- Plants that are state-listed as Rare[1]; or
- Plant species ranked by the California Native Plant Society (CNPS) as having a California Rare Plant Rank (CRPR) of 1 or 2.[2]

Sensitive natural communities are communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain sensitive species or their habitats. For purposes of this assessment, sensitive natural communities are considered to be any of the following:

- Vegetation communities listed in the California Natural Diversity Database (CNDDB);
- Communities listed in the Natural Communities List with a rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable).

3.1 Literature Review

As a foundation for MSHCP requirements, the Riverside County Parcel Report was considered for information regarding sensitive habitat types and potential survey requirements applicable to portions of the Project occurring within private land. The Riverside County MSHCP Information Application was further used to review Plan Survey Areas and Criteria Species areas which may overlay portions of the Project occurring within County ROW. Additional sources of information included the National Wetlands Inventory database (NWI), National Hydrography Dataset (NHD), the US Department of Agriculture (USDA) Web Soil Mapper, Calflora database (Calflora 2021), US Geological Service (USGS) topographic maps, and Google Earth aerial imagery.

Blackhawk conducted an additional database records search (May 2021) centered on the US Geological Service (USGS) 7.5-minute quadrangle for Sunnymead, APN 478-250-001 including a three-mile radius surrounding the Project. The database records search included the CDFW California Natural Diversity Database (CNDDB) (CDFW 2021), the US Fish & Wildlife Service (USFWS) Species Occurrence

[1] Plants that were previously state listed as "Rare" have been re-designated as state threatened.

[2] Under the CEQA review process, only CRPR 1 and 2 species are considered, as these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to List 3 and 4 species do not meet CEQA's definition of "rare" or "endangered."

Database (USFWS 2021), and the California Native Plant Society's (CNPS) Electronic Inventory (EI) of Rare and Endangered Vascular Plants of California (CNPS 2021). The CNDDB contains records of reported occurrences of federal- and state-listed species, candidate endangered or threatened species, Federal Birds of Conservation Concern (BCC), California Species of Special Concern (SSC) and otherwise special-status species or communities that may occur within and/or in the vicinity of a Project (Figure 3). The USFWS Species Occurrence Database records federal-listed and candidate species. The CNPS Electronic inventory was filtered for CRPR 2.B and higher species. For the purposes of the habitat assessment, all historic records identified using the methods above, as well as MSHCP species with additional survey needs and procedures, were considered "target species".

The USDA Web Soil Survey was used to review soil types documented to occur within the Project site, as soil types often relate to the PFOs for a number of special-status species and habitat types. Also, a synoptic review was conducted of the NWI and NHD databases, Google Earth imagery and USGS topographic maps for documented or potential water features on and adjacent to the Project site. These databases and literature reviews were used to provide details on special-status species that have potentials to occur within the proposed Project site and/or its surrounding area prior to conducting habitat assessment or focused survey efforts.

Utilizing the background data described above, Blackhawk Environmental biologist Kris Alberts conducted a field assessment and biological data collection exercise of the Project site on May 5, 2021, to assess the Project site for existing conditions and the capacity to potentially harbor sensitive biological resources identified in the literature review (target species). Representative photos of the Project site, habitats, and existing site conditions are included in Attachment B.

Following the habitat assessment, potentials for special-status species to occur were evaluated based on proximity, connectivity, recency and abundance of known occurrences, availability of suitable habitats, historic distributions of the species, and existing site conditions. Potentials for occurrence were generally evaluated based on the following criteria:

- **Present** – The species was observed within the Project area during the survey effort.
- **High** – Historic records indicate that the species has been known to occur within the vicinity of the Project (1 mile), and suitable habitat occurs onsite.
- **Moderate** – Historic records indicate that the species has been known to occur within the vicinity of the Project, but low-quality suitable habitat occurs onsite, or; no historic records occur within the Project, but the Project occurs within the historic range of the species, and moderate to high quality habitat occurs.
- **Low** – Historic records indicate that the species has not been known to occupy the immediate vicinity of the Project, and low-quality habitat for the species exists onsite.
- **No Potential** – The species is restricted to habitats not occurring within the Project or is considered extirpated from the Project area.

3.2 Habitat Assessment

Blackhawk Environmental biologist Kris Alberts conducted the initial habitat assessment on May 5, 2021. To evaluate the potential for both direct and indirect impacts, the assessment included all proposed Project features as well as an additional 150-meter (492 feet) survey buffer surrounding the proposed

Parcel (Survey Area). Fully developed areas were excluded from the Survey Area due to lack of potential habitat for special-status species. The biologist performed a pedestrian survey of the entire originally designed 17.98-acre Project area and surrounding Survey Area. The survey was conducted between 2:50 P.M. and 3:50 P.M. Survey conditions are included in Table 1 below.

Table 1. Habitat Assessment Conditions

Biologist(s)	Date	Time	Air Temperature (°F)	Wind Speed (mph)	Cloud Cover (%)	Precipitation
Kris Alberts	5/5/2021	1450-1550	90-91	4-10	80-70	None

Methods used during the habitat assessment included slowly walking the entire Project site while documenting flora and fauna species and using Global Positioning System (GPS) technology to map dominant vegetation communities and potential hydrologic features. Where appropriate, the biologist paused at select vantage points to provide full visual coverage of the Project site and Survey Area. During the field survey, all plant and wildlife species observed or detected were recorded in a field notebook. Binoculars were used as needed to identify wildlife species. Plant species observed were identified to species or subspecies level when feasible according to the nomenclature in The Jepson Manual: Vascular Plants of California Edition 2 (Baldwin et al. 2012). Vegetation communities were described according to dominant plant species and annotated on a high-resolution aerial photograph of the Project site for GIS interpolation of Figure 2 provided in this report (Attachment A). With the exception of a burrowing owl habitat assessment, the habitat assessment did not include focused or protocol level surveys for any special-status plant or wildlife species, as allowed by the Plan.

3.3 Jurisdictional Water Bodies and Riverine/Riparian Habitats

Aerial imagery, the NWI and NHD databases, and USGS topographic maps of the Project site were reviewed to identify any known or potential drainage features, riparian/riverine habitat types, water bodies and/or other features that may fall under USACE, RWQCB, and/or CDFW jurisdictions and that may require investigation during the field survey. Per the MSHCP, riparian/riverine habitats are lands containing 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. The presence of any potentially jurisdictional features, including associated vegetation/communities, presence of ordinary high watermarks (OHWMs) or streambeds, substrates, hydrological indicators and potential connectivity, were documented during the field survey. Based on findings during the literature review and habitat assessment, a jurisdictional delineation was performed on August 18, 2021 by Blackhawk wetland specialists Ian Maunsell and Ryan Quilley. Following a design change after the first delineation survey, a second delineation survey was conducted on April 1, 2021 by Blackhawk wetland specialists Kris Alberts and Seth Reimers. The delineation efforts followed guidelines set forth by USACE (1987, 2008) and were performed to gather field data at potentially jurisdictional Waters of the U.S. and Waters of the State that may be subject to USACE, RWQCB, and/or CDFW jurisdictions within or adjacent to the Project as well as an assessment of riverine/riparian habitats as defined by the Plan.

3.3.1 Vernal Pools and Listed Fairy Shrimp Habitat

The habitat assessment included a review of the proposed Project and Survey Area for stock ponds, ephemeral pools, road ruts, and other seasonally ponded areas which may support listed fairy shrimp

species. The survey was performed during the 2021 summer season. The biologist noted any areas which may support standing water more than two centimeters. If and where presence of standing water was not noted, the biologist was to record any indicators of non-riverine seasonally ponded areas such as water marks, soil cracks, algal mats, or other indicators which may indicate intermittent ponding. As part of the notation of floral species, the biologist recorded any observed vernal pool indicator species per USACE guidance (USACE 1997). Methods included the review of historic aerial imagery to determine if inundation was readily visible.

3.4 MSHCP Additional Survey Needs and Procedures

The proposed Project falls within an MSHCP Survey Areas for burrowing owl. Assessment of habitat suitability for burrowing owl was performed per accepted protocols. These methods are discussed below. The proposed Project does not occur within areas requiring additional assessment and surveys for mammals, amphibians, invertebrates, narrow endemic plants, or Criteria Areas.

3.4.1 Burrowing Owl

A habitat assessment for burrowing owl was performed throughout the Survey Area, as the entirety of the Project falls within areas designated as MSHCP survey areas for the species. Blackhawk performed a habitat assessment for burrowing owl concurrently with the habitat assessment on May 5, 2021. The assessment was performed per the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area – Step 1 Habitat Assessment* (2006), by walking meandering transects through the entire Survey Area (excluding urban development). Pedestrian survey transects were spaced in a manner which allowed 100% visual coverage of the ground surface and transect centerlines were no more than 30 meters (approximately 100 ft.) apart. Transect spacing was adjusted as necessary to account for differences in terrain, vegetation density and ground surface visibility. Suitable habitat, as defined by the MSHCP, consists of a variety of natural and modified habitats for nesting and foraging that is typically characterized by low growing vegetation. Burrowing owl habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf-courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial (adapted for burrowing or digging) mammals, such as California ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea taxus*). They often utilize manmade structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or near man-made structures. To assess potential burrowing owl habitat, the biologist focused on the identification of suitable burrows within and adjacent to the Project site. Per the MSHCP, if burrowing owl habitat is not present on-site (e.g., if the site is completely covered by chaparral, woodlands, cement or asphalt), Step II of the survey is not necessary, and no pre-construction surveys are necessary.

4.0 ENVIRONMENTAL SETTING AND RESULTS

4.1 Literature Review Results

The literature review resulted in a total of **13** special-status wildlife species, **two** special-status plant species, and **zero** special-status natural communities known to occur within three miles of the Project site. Two of these wildlife species are Federally Endangered [San Bernardino kangaroo rat (*Dipodomys merriami parvus*) and Stephen's kangaroo rat (*Dipodimys stephensi*)]. No plant species are listed as Threatened or Endangered under the CESA or FESA. In addition to the above-mentioned FESA and CESA designations, the remaining 11 wildlife species had a CDFW listing status of at least Species of Special Concern (SSC) and/or are MSHCP-covered. A CNDDB map of all sensitive wildlife and plant species known to occur within three miles of the Project site can be found in Attachment A, Figure 3. The resulting lists of species are included in Tables 3 and 4 and discussed in Section 4.2.5 and 4.2.6 below.

4.1.1 MSHCP Requirements (criteria cells, fee areas, narrow endemic plants, jurisdictional areas)

The Project site is located on APN 478-250-001 within the City of Moreno Valley. The Riverside County MSHCP Information Application indicates that the Project is not located within a Plan Cell Group or Plan Criteria Cell; however, the Project is located within a City of Moreno Valley Development Impact Fee (DIF) area and is subject to payment of said fees as compliance. The MSHCP requires a burrowing owl habitat assessment and surveys (if suitable habitat is present) be conducted on the Project site, but it does not require additional surveys for criteria areas species, amphibian species, mammal species, invertebrate species, narrow endemic plant species, and/or special linkage areas.

4.2 Habitat Assessment Results

The proposed Project includes 21.484 acres of previously graded/disked, regularly mowed, undeveloped land and a man-altered drainage channel in the incorporated City of Moreno Valley. The site is bounded to the west by the western portion of the man-altered drainage channel and Quincy Street, to the east by private residential homes, to the north by Cottonwood Avenue and to the south by Bay Avenue and a vacant lot (Figure 2). The site shows signs of historic and recent anthropogenic impacts such as mowing, trash dumping, disking, and vehicle use. Few native vegetation communities exist on the upland portion of the Project site, and very few native plants were documented during the surveys, mostly consisting of species capable of tolerating high levels disturbance.

The Project site consists of a mostly flat lot. Elevations within the Project site range from 1,639 feet above mean sea level (AMSL) in the southeast corner at its lowest point, and up to 1,664 feet AMSL at the northwestern corner at its highest point.

4.2.1 Soils

Mapped soil units within the Project Survey Area include San Emigdio loams with slopes ranging between zero to eight percent. Three distinct soil series are present within the Project area. These soil units are included in Table 2.

Table 2. Soils Occurring Within the Initial Project Site

Map Unit Symbol	Map Unit Name	Acres (Percent) of Project Site
SeA	San Emigdio fine sandy loam, 0 to 2 percent slopes, occasional frost	4.34 (24.1%)
SeC2	San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded	1.42 (7.9%)
SgA	San Emigdio loam, 0 to 2 percent slopes	12.22 (68.0%)

4.2.2 Existing Land Use and Site Conditions

The Project site consists of a mostly flat, vacant, rectangular area characterized by previously disturbed lands, including areas subject to various types and levels of anthropogenic modification, generally lacking native vegetation. The greatest concentrations of native vegetation were associated with the western drainage feature. Overall, the site shows evidence of recent and previous soil disturbances through both intentional earth-moving activities, trash/debris dumping, and mowing. Review of historic aerials of the Project site indicate that the site has undergone periodic vegetation maintenance in the form of mowing and disking or farming since at least as far back as 1985 (Google Earth 2021). Commercial, residential and agricultural development over time adjacent to the Project site has rendered the area relatively isolated from native habitats.

Absolute vegetative cover averaged over 80 percent, and non-native plant species were dominant in all portions of the Project site. Shrubs and trees were absent from the uppermost portion of the Project site where annual, non-native plant species accounted for an average vegetation height of one foot. The only observed trees within the Project site occurred within the drainage feature, and included only scattered small Goodding's willow (*Salix gooddingii*), mulefat (*Baccharis salicifolia*), salt cedar (*Tamarix ramosissima*) and California walnut (*Juglans californica*) trees in concentrations not substantial enough to warrant a designation of riparian habitat. Other trees in the Survey Area consisted of scattered ornamental species such as Mexican fan palm (*Washingtonia robusta*) associated with roads and residential developments to the north, east, and south of the parcel. The Project site provides marginally suitable habitat for common plant and wildlife species known to occur in the region and is restricted to species associated with disturbed areas.

Hydrology within the Project is characteristic of previously graded areas proposed for urban development with flat topography, isolated from surface run-off by municipal storm drain systems surrounding the site or that utilize the drainage feature at the west end of the Project site. The site generally slopes from northwest to southeast; however, signs of surface water runoff (erosional features, rills, etc.) were not observed on the uppermost elevations of the Project site, indicating that run-on to the site is absent and precipitation penetrates the course porous soils before running off. Soils throughout the Project are broadly described as "well drained", comprised of sandy loams. Except for the man-altered drainage feature at the west end of the Project site, natural hydrologic features were not observed within the Project boundary.

4.2.3 Vegetation Communities and Land Use Types

The Project is broadly composed of two MSHCP vegetation communities and/or land use types: Residential/Urban/Exotic – Disturbed Lands and MSHCP Riverine Habitat. Several vegetation communities were mapped within these boundaries. Land use types are described according to *Volume II, Section C Habitat Accounts – Vegetation Associations of the Plan* and further described based on dominant plant species present and land uses in order to further distinguish existing vegetation communities. A total of 20.019 acres of Residential/Urban/Exotic – Disturbed Areas, 0.291 acre of Urban/Developed Areas, 0.460 acre of California Buckwheat Scrub, 0.007 acre of California Walnut Scrub, 0.145 acre of Disturbed Mulefat Scrub, 0.113 acre of Mulefat Scrub, 0.021 acre of Southern Willow Scrub, 0.047 acre of Tamarisk Scrub, and 0.381 acre of Unvegetated Channel occurs on the Project site. Of this, 1.099 acres of MSHCP Riverine Habitat were mapped within the Project site, synonymous with CDFW Streambed and Riparian jurisdiction and which includes 0.501 acre of USACE/RWQCB jurisdiction. Vegetation mapping showing the distribution of the vegetation communities identified within the Project site is shown in Figure 2. MSHCP Riverine Habitat is shown in Figure 3. The vegetation community/land cover uses present on the Project site and their acreages include:

<u>Project Site Vegetation Community Acreages:</u>

- 20.019 acres of Residential/Urban/Exotic – Disturbed Lands
- 0.291 acre of Urban/Developed Areas
- 0.460 acre of California Buckwheat Scrub
- 0.007 acre of California Walnut Scrub
- 0.145 acre of Disturbed Mulefat Scrub
- 0.113 acre of Mulefat Scrub
- 0.021 acre of Southern Willow Scrub
- 0.047 acre of Tamarisk Scrub
- 0.381 acre of Unvegetated Channel
- Subset of above includes 1.099 acres of MSHCP Riverine Habitat

Residential/Urban/Exotic – Disturbed Areas (Holland code 11300)

According to the Plan descriptions of Residential/Urban/Exotic areas, weed communities occur commonly in roadside areas and abandoned lots, such as the upper elevations of the proposed Project site. Within the Survey Area, these areas are further characterized according to the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) as "Disturbed Lands", which may result from anthropogenic or natural causes and can take on many forms in context of the surrounding vegetation communities, available seed banks, and disturbance factors. These areas can result from previous grading, vehicular traffic, or temporary land uses such as previous adjacent project staging. If disturbance variables are removed, and Disturbed Land is left to natural processes, these areas have the capacity to revegetate in the short term, but do not function as native vegetation communities. This contrasts with Urban/Developed Areas described herein, that do not have the capacity to revegetate in the short term or consist of maintained landscaping.

The majority of the parcel (20.019 acres) can be characterized by Residential/Urban/Exotic - Disturbed Lands in the form of non-native grasses, ruderal vegetation, and recently disturbed soils with very low absolute vegetative cover of native species. Dominant and sub-dominant vegetation in this habitat

included foxtail barley (*Hordeum murinum*), red stemmed filaree (*Erodium cicutarium*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), and short-pod mustard (*Hirschfeldia incana*). Generally low numbers of native plant species were observed in Residential/Urban/Exotic areas and included common fiddleneck (*Amsinkia menziesii)*. A full list of plant species observed within the Project is presented in Attachment D.

Herbaceous ground cover in these areas was observed to provide groundcover in excess of 80 percent. Average height of vegetation was low, ranging from one half to two feet above ground.

Visible signs of recent mechanical disking and consistent anthropogenic disturbance were observed within this habitat type, precluding the potential for most special-status species of plants and wildlife (Attachment B, Photograph 1). The regional value of disturbed Residential/Urban/Exotic – Disturbed Lands on site is low; having potential as foraging habitat for raptors, some passerine bird species and use by rodents capable of withstanding frequent anthropogenic disturbance.

Urban/Developed Areas (Holland code 12000)

Urban/Developed Areas include those areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered Urban/Developed (e.g., car recycling plant, quarry) (Oberbauer 2008).

The Project site includes 0.291 acre of Urban/Developed Areas associated with unvegetated rip rap, pavement and concrete along the western drainage feature. Wildlife usage of developed areas may be limited to California ground squirrels and other rodents utilizing the rip rap for burrows and shelter.

California Buckwheat Scrub (Holland code 32800)

California Buckwheat Scrub is a near monoculture community usually resulting from disturbance and transitioning to coastal sage scrub or chaparral. Species characteristic of these communities appear over time. The dominant species is California buckwheat (*Eriogonum fasciculatum*) (Oberbauer 2008).

The Project site includes 0.460 acre of California Buckwheat Scrub associated with several patches along the upper terraces of the western drainage feature. Annual herbaceous ground cover in these areas was observed to provide minimal groundcover while California buckwheat provided over 50 percent cover. Average height of vegetation was moderate, ranging from two to four feet above ground.

Owing to small patch sizes on the Project site, the regional value of California Buckwheat Scrub stands on site is low, offering limited potential as foraging habitat for commonly occurring wildlife species and limited nesting potential for commonly occurring avian species.

California Walnut Scrub (Holland code 71200)

California Walnut Scrub is similar to and intergrades with Interior Live Oak Woodland or Coast Live Oak Woodland, but with a more open tree canopy locally dominated by California walnut. The open tree

canopy allows development of a grassy understory. In most sites, this understory is comprised of introduced winter-active annuals that complete most of their growth cycle before the deciduous *Juglans* leafs out in spring. It tends to occur on relatively moist, fine-textured soils of valley slopes and bottoms, as well as encircling rocky outcrops. These drier, rocky sites often support Venturan or Riversidian Sage Scrub (Oberbauer 2008).

The Project site includes 0.007 acre of California Walnut Scrub associated with one individual along the western drainage feature. Annual herbaceous ground cover in this area was observed to provide minimal groundcover while California walnut provided over 85 percent cover. Average height of vegetation was moderate, at about twelve feet above ground.

Owing to the small patch size on the Project site, the regional value of California Walnut Scrub on site is low, offering limited potential as foraging habitat for commonly occurring wildlife species and limited nesting potential for commonly occurring avian species.

Mulefat Scrub (Holland code 63310)

Within the Survey Area, Mulefat Scrub is characterized according to the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) as a "depauperate, tall, herbaceous riparian scrub strongly dominated by *Baccharis salicifolia* (Holland 1986)". This vegetation community is associated with areas of frequent flooding and generally occurs along intermittent streams or beside rivers. Mulefat Scrub requires channels with fairly coarse substrate and moderate depth to the water table (Holland1986).

The banks of the drainage feature located along the western boundary of the Project Site includes several stands of Mulefat Scrub (0.113 acre) and Disturbed Mulefat Scrub (0.145 acre). Dominant and sub-dominant vegetation in this habitat included mulefat and short-pod mustard, and disturbed portions also contained tree tobacco (*Nicotiana glauca*). A full list of plant species observed within the Project is presented in Attachment D.

Herbaceous ground cover in these areas was observed to provide groundcover in excess of fifty percent. Average height of vegetation was moderate, ranging from five to eight feet above ground.

Owing to small patch sizes on the Project site, the regional value of Mulefat Scrub stands on site is low, offering limited potential as foraging habitat for commonly occurring wildlife species and limited nesting potential for commonly occurring avian species.

Southern Willow Scrub (Holland code 63310)

Southern Willow Scrub includes dense, broadleafed, winter-deciduous riparian thickets dominated by several willow (*Salix*) species, with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*). Most stands are too dense to allow much understory development. It tends to occur on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. This early seral type requires repeated flooding to prevent succession to Southern Cottonwood-Sycamore Riparian Forest (Oberbauer 2008).

The western bank of the drainage feature located along the western boundary of the Project Site includes one 0.021-acre stand of Southern Willow Scrub. The dominant species is Goodding's black

willow. Underlying annual herbaceous coverage included primarily non-native brome grasses at over 100% ground cover. Average height of vegetation was moderate, at about 12 to 15 feet above ground.

Owing to the small patch size on the Project site, the regional value of Southern Willow Scrub on site is low, offering limited potential as foraging habitat for commonly occurring wildlife species and limited nesting potential for commonly occurring avian species.

Tamarisk Scrub (Holland code 63810)

Tamarisk scrub is a weedy, virtual monoculture of any of several *Tamarix* species, usually supplanting native vegetation following major disturbance. It tends to occur on sandy or gravelly braided washes or intermittent streams, often in areas where high evaporation increases the stream's saltiness. Tamarisk is a strong phreatophyte and a prolific seeder, attributes which predispose the species to be aggressive competitors in disturbed riparian corridors (Oberbauer 2008).

The western bank of the drainage feature located along the western boundary of the Project Site includes three small stands of Tamarisk Scrub that totals 0.047 acre. The dominant species is salt cedar. Underlying annual herbaceous coverage included primarily non-native brome grasses at less than 20% ground cover. Average height of vegetation was moderate, at about eight to 15 feet above ground.

Owing to the small patch sizes on the Project site and its invasive, non-native status, the regional value of Tamarisk Scrub on site is low, offering limited potential as foraging habitat for commonly occurring wildlife species and limited nesting potential for commonly occurring avian species.

Unvegetated Channel (Holland code 64200)

Unvegetated Channel includes the sandy, gravelly, or rocky fringes of waterways or flood channels that remain unvegetated on a relatively permanent basis. Variable water lines inhibit the growth of vegetation, although some weedy species of grasses may grow along the outer edges of the wash. Vegetation may exist, but it is usually less than 10% total cover. This classification is not appropriate when sand or alluvium is an artifact of a very recent or uncommon flood event in the upper parts of watersheds (Oberbauer 2008).

Unvegetated channel within the Project site includes 0.381 acre of the stream channel that courses through the length of the lowest portions of the man-altered drainage feature at the western end of the Project site. Vegetative cover is negligible to nonexistent, with a sandy meandering channel defining this land cover type at this location.

The regional value of Unvegetated Channel on site is low, offering limited potential as foraging or sheltering habitat for commonly occurring wildlife species.

MSHCP Riverine Habitat

Per Section 6.1.2 of the MSHCP, Riparian/Riverine Habitats are lands containing 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. The western edge of the parcel (1.099 acres) can be characterized as MSHCP

Riverine Habitat in the form of the unvegetated channel and its adjacent small stands of riparian shrubs and ruderal vegetation with low to moderate absolute vegetative cover of native species in certain areas. The riparian canopy is not subjectively substantial enough to support riparian-associated wildlife species; therefore, the classification of Riverine Habitat is more appropriate in this instance. Where vegetation does occur, dominant and sub-dominant vegetation in the Riverine Habitat included California buckwheat, mulefat, tree tobacco, tamarisk and short-pod mustard. Generally low numbers of native plant species were observed throughout the MSHCP Riverine Habitat and included California buckwheat, Goodding's black willow, southern black walnut and mulefat. The extent of the MSHCP Riverine Habitat is equivalent to the limits of CDFW jurisdiction. A full list of plant species observed within the Project is presented in Attachment D.

Herbaceous ground cover in these areas was observed to provide groundcover in excess of 50 percent in some areas. Average height of vegetation ranged from two to 15 feet above ground.

This habitat contained visible signs of consistent natural disturbance in the form of scouring following rain events, precluding the potential for most special-status species of plants and wildlife (Attachment B, Photograph 4). The regional value of MSHCP Riverine Habitat on site is low; having limited potential as foraging and nesting habitat for passerines and raptors and use by wildlife capable of withstanding occasional flow events.

4.2.4 Jurisdictional Waters and Riverine/Riparian Habitats

USACE, RWQCB and CDFW regulate discharge into and impacts to wetland and non-wetland water bodies meeting certain criteria. The MSHCP regulates impacts to riverine/riparian communities and vernal pools, as well as species associated with these habitat types, as outlined in section 6.1.2 of the MSHCP. The MSHCP specifically describes riverine/riparian habitats as "lands which 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".

The habitat assessment and follow-up jurisdictional delineation surveys identified one man-altered jurisdictional drainage feature that meets the MSHCP criteria for Riverine Habitat along the western boundary of the Project site that is also regulated by USACE, RWQCB and the CDFW. Because a portion of the jurisdictional feature lies within the Project footprint and is proposed for both temporary and permanent impacts through Project activities, a formal jurisdictional delineation and accompanying report was completed (Blackhawk 2022).

4.2.5 Sensitive and Observed Wildlife Species

The literature review resulted in a list of 13 special-status wildlife species with the potential to occur within three miles of the Project site. These species and their potentials for occurrence are further described in Table 3. A complete list of wildlife species observed on the Project site and/or in the Project vicinity is presented in Attachment C.

Table 3. Special-Status Wildlife Species Potentially Occurring Within the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
BIRDS			
Burrowing owl *Athene cunicularia*	Federal: **BCC** State: **SSC** Local: **MSHCP-covered**	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and pipes.	**Low.** Focused surveys for this species were conducted between June 22 and July 15, 2021, and confirmed the site is not currently occupied by this species. This species has been historically documented to occur within 3 miles of the Project vicinity and low-quality habitat occurs on the Project site, due to frequent anthropogenic disturbances to soil.
Tricolored blackbird *Agelaius tricolor* (nesting colony)	Federal: **BCC** State: **ST, SSC** Local: **MSHCP-covered**	Nests in colonies and prefers freshwater marshes dominated by cattails or bulrushes and occasionally in willows, blackberries, thistles and nettles. Breeding habitat now includes diverse upland and agricultural areas. Small breeding colonies in southern California occur at lakes, reservoirs, and parks surrounded by urban development. Adults from such colonies may forage in nearby undeveloped uplands.	**No Potential.** Historical occurrences are recorded within 3 miles of the Project site; however, suitable habitat for this species is absent from the Project site. Sufficient marsh habitat does not exist on site or within surrounding areas to support this species.
Ferruginous hawk *Buteo regalis* (wintering)	Federal: **BCC** State: None Local: **MSHCP-covered**	Winters in open grasslands, fields, open desert scrub and savannah habitats. Forages on a variety of mammals.	**Moderate.** This species has been recorded within 3 miles of the Project site, and the site contains low-quality habitat for winter foraging by this species.

MAMMALS			
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: **SSC** Local: **MSHCP-covered**	Prefers loose, sandy, and gravelly soils, or mixed rocks, on moderate to steep rocky slopes with nearby shrubs. Habitats include coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper and annual grassland. Known range extends north to the San Bernardino and San Gabriel mountains, east to the San Jacinto Mountains, and south into Baja California.	**No Potential.** This species has been recorded within 3 miles of the Project site; however, decades of anthropogenic disturbances have rendered the site unsuitable. Furthermore, pocket mouse burrows were not observed.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: **SSC** Local: **MSHCP-covered**	This species is associated with sparsely vegetated lower elevation grasslands, alluvial sage scrub and coastal sage scrub, where it tends to occur in patches with fine sandy soils, such as dry washes and aeolian deposits.	**No Potential.** This species has been recorded within 3 miles of the Project site; however, decades of anthropogenic disturbances have rendered the site unsuitable. Furthermore, pocket mouse burrows were not observed.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: **FE** State: **SCE**, **SSC** Local: **MSHCP-covered**	Found in alluvial scrub/coastal sage scrub habitats on gravelly and sandy soils adjoining river and stream terraces and on alluvial fans. Rarely occurs in dense vegetation or rocky washes.	**No Potential.** Historical occurrences are recorded within 3 miles of the Project site; however, the Project site lacks suitable habitat to support this species and lacks connectivity to higher quality habitat. Additionally, no kangaroo rat burrows were observed, and there is a lack of reasonable connectivity to known populations.

Stephen's kangaroo rat *Dipodomys stephensi*	Federal: **FE** State: **ST** Local: **MSHCP-covered**	Occurs primarily in low-growing annual and perennial grassland habitats but may occur in coastal scrub or sagebrush with sparse canopy cover and low herbaceous growth, or in disturbed areas. Preferred perennials are buckwheat and chamise; preferred annuals are brome grass and filarees.	**No Potential.** Historical occurrences are recorded within 3 miles of the Project site; however, the Project site lacks suitable habitat to support this. Additionally, no kangaroo rat burrows were observed, and there is a lack of reasonable connectivity to known populations.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: **SSC** Local: None	Roosts are commonly in palm trees, and occasionally in cottonwood trees or yuccas, often near surface water in open grassy areas or scrub habitat. Forages over water and among trees in coastal, foothill, and desert riparian areas, and in suburban neighborhoods.	**No Potential (Roosting), Moderate (Foraging).** This species has been documented within 3 miles of the Project site; however, no suitable roosting sites occur within the Project site, but the species may use the Project site for foraging.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: **SSC** Local: None	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting. When roosting in rock crevices, it needs vertical faces to drop off to take flight. Reproduction: Nursery roosts described as tight rock crevices at least 35 inches deep and two inches wide, or crevices in buildings. Suitable habitat consists of extensive open areas with abundant roost locations provided by crevices in rock outcrops and buildings. Is known to forage over 25 miles away from its roost site (Zeiner et al 1988).	**No Potential (Roosting), Moderate (Foraging).** This species has been documented within 3 miles of the Project site; however, no suitable roosting sites occur within the Project site, but the species may use the Project site for foraging.

REPTILES			
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: **SSC** Local: **MSHCP-covered**	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas. On the desert slopes of the mountains, it ranges into rocky desert flats.	**No Potential.** This species has been documented within 3 miles of the Project site; however, suitable habitat is absent from the Project site. Furthermore, due to island effects and a lack of shrub cover further precludes occupation by this species.
Silvery legless lizard *Anniella stebbinsi* (formerly *Anniella pulchra pulchra)*	Federal: None State: **SSC** Local: None	Occurs in moist, loose soils with some plant cover in coastal sand dunes, suburban gardens, chaparral, pine-oak woodlands, stream terraces with sycamores, cottonwoods, or oaks, oak woodlands, Joshua/juniper woodland, mixed conifer forest, desert scrub, sandy washes, and alluvial fans.	**Low.** This species has been documented within 3 miles of the Project site; however, suitable habitat is present only in the drainage feature. Furthermore, due to island effects and a lack of shrub cover, further precludes occupation by this species away from the channel.
Western spadefoot *Spea hammondii*	Federal: None State: **SSC** Local: **MSHCP-covered**	Prefer areas of open vegetation and short grasses with sandy or gravelly soil. Found in valley and foothill grasslands, open chaparral, and pine-oak woodlands. Upland habitat is required for feeding and burrow construction near permanent and temporary wetlands that include rivers, creeks, and pools in intermittent streams.	**No Potential.** This species has been documented within 3 miles of the Project site; however, suitable habitat is absent from the Project site. Sufficient wetlands do not exist on site or surrounding areas to support the reproductive cycle of this species.
Coast horned lizard *Phrynosoma blainvillii* (formerly *Phrynosoma coronatum blainvillei*)	Federal: None State: **SSC** Local: **MSHCP-covered**	Occurs widely in sage scrub, woodlands, grasslands and chaparral communities within microhabitats of loose granitic soils and open areas for sunning and foraging. This species is commonly associated with the presence of native harvester ants.	**No Potential.** This species has been documented within 3 miles of the Project site; however, suitable habitat is absent from the Project site. Furthermore, island effects and a lack of shrub cover further precludes occupation by this species.

Of the 13 special-status wildlife species documented to occur within the Project vicinity, three (ferruginous hawk, western yellow bat, and western mastiff bat) were considered to have a moderate potential to occur (foraging and/or wintering only) based on proximity of historic records and marginal quality habitat on site. Two additional species (burrowing owl and silvery legless lizard) were found to have a low potential for occurrence based on proximity of historic records and marginal quality habitat on site. There are numerous burrowing owl-suitable burrows on and within 150 meters of the Project site, however, findings of the focused burrowing owl surveys conducted between June 22 and July 15, 2021 indicate that the site is not currently occupied by this species (Blackhawk 2021). However, given the abundance of suitable burrows, it is possible that the site could become occupied by burrowing owl.

Tricolored blackbird, northwestern San Diego pocket mouse, Los Angeles pocket mouse, San Bernardino kangaroo rat, Stephen's kangaroo rat, red-diamond rattlesnake, western spadefoot and coast horned lizard are considered to have no potential to occur based on the lack of appropriate habitat, lack of suitable soils, regular disking activities, and/or presumed extirpation from the Project area due to island effects.

4.2.6 Special Status and Observed Plant Species

The literature review resulted in two special-status plant species with the potential to occur within the Project site. These species and their potentials for occurrence are further described in Table 4. The complete list of plant species can be found in Attachment D.

Table 4. Sensitive Plant Species Potentially Occurring Within the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
PLANTS			
Smooth tarplant *Centromadia pungens ssp. laevis*	Federal: None State: **CRPR-1B.1** Local: **MSHCP-covered**	Annual herb that occurs in alkali soils within chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. Blooms: Apr-Sep Elevation: 0-640 m	**No Potential.** This species has been recorded within 3 miles of the Project site; however, most soil within the site is regularly tilled and disturbed precluding occupation by this species. Additionally, the site does not have alkali soils and is surrounded by development, further precluding occupation by this species.

Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: **CRPR- 1B.1** Local: **MSHCP-covered**	Small, annual yellow-flowering herb typically occurs in alkali scrub, alkali playas, vernal pools and alkali grasslands. Most Riverside County populations are associated with the Willows soil series. Blooms: Feb-Jun Elevation: 1-1,220 m	**No Potential.** This species has been documented within 3 miles of the Project site; however, suitable habitat and soil types do not exist on the Project site. Additionally, the HAR was conducted during the blooming period of this species, and this species was not found on site.

Smooth tarplant (*Centromadia pungens ssp. laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) are considered to have no potential to occur based on the lack of appropriate habitat, lack of suitable soils and/or regular disking activities.

4.2.7 Special-Status Natural Communities

The literature review did not result in any special-status natural community occurrences documented within three miles of the Project site. The field survey confirmed that the Project site does not contain any sensitive natural communities.

4.3 Migratory Birds

Except for small stands in the western drainage feature, the Project site is devoid of woody vegetation and dominated by low growing, frequently maintained non-native plants. The surrounding areas contain limited pockets of ornamental shrubs and trees, as well as grasses and other ground cover that provide suitable nesting and foraging habitat for common avian species. Nearly all native nesting birds are protected by the Migratory Bird Treaty Act (MBTA) and CDFW Codes 3500 through 3516.

Common native avian species observed during the habitat assessment and field surveys with the potential to nest within the Project area include mourning dove (*Zenaida macroura*), horned lark (*Eremophila alpestris*) and house finch (*Haemorhous mexicanus*). The large open nature of the Project site may also provide suitable habitat for ground nesting birds such as western meadowlark (*Sturnella neglecta*) and killdeer (*Charadrius vociferans*), among others. Ornamental trees and shrubs within the immediate vicinity of the Project site provide suitable nest sites for various other MBTA-covered species such as hooded oriole (*Icterus cucullatus*), common raven (*Corvus corax*), and northern mockingbird (*Mimus polyglottos*), among others.

4.4 Reserve Interface and Wildlife Movement Corridors

Tracks, sign, burrows and/or direct visual observation of various small mammal species, such as California ground squirrel, Botta's pocket gopher (*Thomomys bottae*) and desert cottontail (*Sylvillagus audubonii*), were observed throughout the Project site. No concentrations of wildlife tracks or sign were observed, and no established corridors or connectivity to larger conservation areas of the region were observed. The Project site does not contain large natural areas and/or habitat fragments, and it is isolated by surrounding development, precluding wildlife corridors and connectivity to large conservation areas. The Project does not occur within Plan Conservation Areas or Public/Quasi Public Lands (PQP).

5.0 WESTERN RIVERSIDE MSHCP CONSISTENCY ANALYSIS

The Project is not located within a MSHCP Criteria Cell or Cell Group. The MSHCP establishes habitat assessments for certain plant and wildlife species. The Project is located within an area of the MSHCP requiring habitat assessments for burrowing owl and burrowing owl surveys, if suitable habitat is present; a focused burrowing owl habitat assessment and burrowing owl surveys were conducted between June 22 and July 15, 2021. Findings of these surveys concluded that burrowing owl does not currently occupy the site, though suitable burrowing owl burrows exist within the Project site and Survey Area (Blackhawk 2021). The Project supports MSHCP riparian/riverine habitat in the western drainage channel. The Project does not exist adjacent to Public/Quasi Public Lands. The Project is not located within an area requiring surveys for mammals, amphibians, invertebrates, narrow endemic plant species, or criteria area species.

5.1 Reserve Assembly Analysis

The proposed Project is not located within a Plan Criteria Cell or Cell Group, and therefore will not directly impact Conservation Areas or long-term reserve assembly. The proposed Project does not occur immediately adjacent to Plan Conservation Areas and therefore will avoid direct impacts to these areas. Potential indirect impacts associated with the proposed Project adjacent to these areas is discussed in Section 5.2 below.

5.2 Urban Wildlands Interface

According to the Plan, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to Plan Conservation Areas. The Project site is not adjacent to a Plan Conservancy Area and thus does not pose a risk of causing indirect effects to any Plan Conservancy Areas. Therefore, no further analysis is required under section 6.1.4 of the MSHCP.

5.3 Additional Survey Needs and Procedures

Additional surveys are not anticipated in conjunction with Plan implementation to achieve coverage for species discussed in 6.3.2 of the Plan, since these species either were determined to have no potential to occur on the Project site, or potential impacts to species with a PFO will be limited to a level that is below levels considered significant under CEQA/NEPA guidelines and the MSHCP.

The Project falls within the MSHCP Survey Area for burrowing owl. The habitat assessment included consideration of this species, discussed below.

5.3.1 Burrowing Owl

The Project site is located within a MSHCP burrowing owl survey area, if suitable habitat is identified during the burrowing owl habitat assessment. A habitat assessment during a site visit conducted on May 5, 2021, identified Disturbed Areas which may be considered suitable for burrowing owl. Based on the potential for suitable habitat, a habitat assessment was performed as described in section 3.4.1 above. The habitat assessment identified suitable foraging and nesting habitat for burrowing owl within the Project site and the Survey Area. Due to the presence of suitable habitat, focused surveys were conducted and are presented in the *Pacifica Cottonwood Project – Focused Burrowing Owl Survey Report* (Blackhawk 2021). This report finds that the site is not currently occupied by burrowing owl, but

suitable burrows exist on the Project. Therefore, a pre-construction survey for burrowing owl will be required within 30 days of initiating construction per section 6.3.2 of the MSHCP. No additional species requiring focused survey efforts or non-covered sensitive wildlife species with the potential to occur on site were identified during the literature review and site assessment.

5.4 Special-Status and Narrow Endemic Plant Species

The Project site is not located within a Narrow Endemic Plants Survey Area under section 6.1.3 of the Plan. The Project site is not located within a Criteria Area Species Survey for special-status plant species under section 6.3.2 of the Plan. A formal narrow endemic plant survey was not conducted, nor a rare plant inventory; however, all observed plant species were documented from within the Project site. No additional non-covered special-status or narrow endemic plant species with the potential to occur on site were identified during the literature review, site assessment and/or field surveys.

5.5 Jurisdictional Waters

One potentially jurisdictional feature was observed running parallel to the western boundary of the Project site in the form of a partially vegetated, man-altered, concrete and earthen-bermed drainage. During the initial assessment, the biologist mapped the preliminary top of bank extent to determine whether the drainage could be impacted by Project activities. The habitat assessment did not include a formal jurisdictional delineation effort, as potentially jurisdictional water bodies that may be subject to USACE, RWQCB, and/or CDFW jurisdictions were not documented to occur within the Project at the time of the initial assessment. However, Project design changes following the initial assessment clearly showed that the Project would both temporarily and permanently impact the drainage feature. The drainage observed at the western edge of the Project site has a small portion of riparian/riverine habitat that falls within the Project boundaries. Therefore, a formal aquatic resources delineation survey was required to determine if specific areas of the Project site meet either 1) criteria to be considered a relatively permanent water or tributary of a TNW providing meeting significant nexus standards that fall under the jurisdiction of the USACE, RWQCB and/or CDFW as a non-wetland water and streambed, or 2) meet the three-parameter criteria of a wetland and fall under the jurisdiction of the USACE, RWQCB and/or CDFW as wetland areas.

5.5.1 Riverine/Riparian Habitats

Per Section 6.1.2 of the MSHCP, riverine/riparian habitats are lands containing 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. The habitat assessment included a review of areas which may meet criteria as riverine/riparian habitats per the Plan. One drainage feature containing riverine/riparian habitat was documented running north to south along the western boundary of the Project site. During the initial habitat assessment, it was determined that the drainage feature would not be impacted by Project activities. However, Project design changes following the initial assessment clearly showed that the Project would both temporarily and permanently impact the drainage feature. Therefore, the Project will impact MSHCP riverine/riparian habitats.

5.5.2 Riverine/Riparian Species

One drainage feature containing riverine/riparian habitat was documented running north to south along the western boundary of the Project site. No MSHCP-covered or riverine/riparian-associated species were directly observed during the May 5, 2021 field survey or any subsequent survey, nor are any anticipated.

5.6 Vernal Pool and Fairy Shrimp

No vernal pools or habitat that could potentially support fairy shrimp species were observed on the Project site. No vernal pools were observed, and there are no known recent historical records within three miles of the Project site. The Project is surrounded by urban development and lacks any connectivity to known populations of listed fairy shrimp, further precluding the potential for occurrence. In addition to the absence of historical records of occurrence, native soil types mapped for the Project include well drained fine sandy loams, not expected to support natural formation of vernal pools or fairy shrimp habitat. As a result, these areas are not expected to support vernal pool species.

6.0 IMPACTS AND MITIGATION

This section of the report includes a discussion of the potential direct and indirect impacts to onsite plant and wildlife resources that may result upon the construction and implementation of the Project. Direct impacts include those involving the loss, alteration, and/or disturbance of plant communities, and consequently, the flora and fauna of the affected area. Direct impacts also include the destruction of individual plants and/or wildlife. Direct impacts may adversely affect regional populations of certain species, or result in isolated populations, reducing genetic diversity and range-wide population stability; conversely, direct impacts may also have intended or unintended positive effects in some cases.

Indirect impacts include a variety of effects related to areas or habitats that are not directly removed by project development, such as loss of foraging habitat, increased ambient noise, artificial light, introduced predators (e.g., domestic cats, dogs and other non-native animals), competition with exotic plants and animals, increased human presence and associated disturbances (e.g., trash, green waste, physical intrusion). Indirect impacts may include long and/or short-term daily activities associated with project build-out, such as increased traffic, permanent barriers or fences, buildings, exotic seed-bearing ornamental plantings, irrigated landscapes and human presence, among others. These types of impacts are known as edge effects and over time, may result in some encroachment on native plants by exotic plants, altered behavioral wildlife patterns, reduced wildlife diversity, and decreased wildlife abundance in habitats adjacent to a given project site. However, as is the case with direct impacts, indirect impacts may also have intended or unintended positive effects for certain species.

The potential for significant adverse effects, either directly or indirectly through habitat modification or conversion, on any special-status vegetation community, plant species or wildlife species, or that could occur as a result of the development of this Project is discussed within this section.

6.1 Project Impacts

This section provides definitions and discussion of the various Project-related impacts that are anticipated to occur.

6.1.1 Habitat Impacts

Construction of the proposed Project would include the permanent loss of 20.708 acres of primarily Residential/Urban/Exotic – Disturbed Areas, and an additional 0.776 acre of temporary impacts of primarily Residential/Urban/Exotic – Disturbed Areas. This total includes 0.909 acre of permanent impacts to MSHCP Riverine Habitat and 0.190 acre of temporary impacts to MSHCP Riverine Habitat. Habitat impacts are associated with the complete clearing, grading and/or transformation of the overall 21.484-acre Project Site. The majority of the currently undeveloped site is comprised of a Residential/Urban/Exotic – Disturbed Lands vegetation community. A small portion of MSHCP Riverine Habitat would be completely and permanently converted to suit residential development, with additional temporary impacts associated with build out. This area is shown in Attachment A – Figure 2.

The estimated acreages of proposed impacts resulting from implementation as described above are summarized in Tables 5 and 6.

Table 5. Summary of Proposed Project Impacts to Vegetation Communities/Land Use Types

Vegetation Community/ Land Use Type	Impact	
	Temporary (Acres)	Permanent (Acres)
Residential/Urban/Exotic – Disturbed Lands	*0.628*	*19.391*
Developed	*0.023*	*0.268*
Tamarisk Scrub	*0.021*	*0.026*
Subtotals: Non-Native Vegetation Communities	**0.672**	**19.685**
California Buckwheat Scrub	*0.006*	*0.454*
California Walnut Scrub	*0.007*	*0*
Disturbed Mulefat Scrub	*0*	*0.145*
Mulefat Scrub	*0.001*	*0.113*
Southern Willow Scrub	*0*	*0.021*
Unvegetated Channel	*0.091*	*0.289*
Subtotals: Native Vegetation Communities	**0.105**	**1.022**
TOTAL	**0.777**	**20.707**

Table 6. Summary of Proposed Project Impacts to MSHCP Riverine Habitat

Vegetation Community/ Land Use Type	Impact	
	Temporary (Acres)	Permanent (Acres)
Residential/Urban/Exotic – Disturbed Lands	*0.060*	*0.137*
Developed	*0.005*	*0.017*
Tamarisk Scrub	*0.021*	*0.026*
Subtotals: Non-Native Vegetation Communities	**0.086**	**0.180**
California Buckwheat Scrub	*0.005*	*0.161*
California Walnut Scrub	*0.007*	*0*
Disturbed Mulefat Scrub	*0*	*0.145*
Mulefat Scrub	*0.001*	*0.113*
Southern Willow Scrub	*0*	*0.021*
Unvegetated Channel	*0.091*	*0.289*
Subtotals: Native Vegetation Communities	**0.104**	**0.729**
TOTAL	**0.190**	**0.909**

6.1.2 Construction-Related Impacts

Short-term (Temporary) Construction-Related Direct Impacts

Potential direct impacts to special-status biological resources, absent mitigation measures, which may occur as a result of construction of the proposed Project, include wildlife entrapment, killed or injured wildlife, and unauthorized grading or vegetation removal. These activities have the potential to occur for any number of reasons, including lack or absence of Project design staking, inadequate or unmaintained demarcation of proposed impact areas, misinterpretation of Project designs, and human error in operating equipment. Dependent on construction methodology and sequencing, impacts resulting from wildlife entrapment may occur at any Project site where excavations remain open and un-sealed for extended periods. Wildlife injuries and mortalities have the potential to occur because of the previously discussed reasons but are also an inherent risk when working in proximity to undeveloped areas during activities such as initial vegetation clearing and ground disturbance.

Short-term (Temporary) Construction-Related Indirect Impacts

Potential temporary indirect impacts as a result of construction of the proposed Project include non-storm-water discharges resulting from spills or leaks, attracting predators, fugitive dust generation, and storm-water discharges from sediment-laden runoff into adjacent municipal storm drain systems.

6.1.3 Operations and Maintenance-Related Impacts

The proposed Project would include the near complete development of the proposed parcel. As the Project site is surrounded mostly by previously developed lands, there are no anticipated operations and maintenance-related impacts from the Project, once development is complete.

Long-term (Permanent) Operations and Maintenance-Related Direct Impacts

Direct impacts associated with the completion of the Project would be restricted to the permanent loss of 20.708 acres of mapped vegetation communities (19.31 acres of which includes Disturbed Habitat). Included within this overall impact analysis are 0.909 acres of permanent impacts and 0.190 acre of temporary impacts to MSHCP Riverine Habitat. Additional impacts to special-status biological resources are not anticipated to result from operations and maintenance activities.

Long-term (Permanent) Operations and Maintenance-Related Indirect Impacts

Indirect impacts associated with the long-term operation of the Project may include similar impacts to those resulting from construction, such as noise generated by new development, dust generated from maintenance activities, site lighting, and increased anthropogenic activities within the new residential development.

6.1.4 MSHCP Urban Wildlands Interface Impacts

As discussed in Section 5.2 above, the proposed Project is not adjacent to any Plan Conservancy Area or PQP lands and thus does not pose a risk of causing indirect effects to any Plan Conservancy Areas. Therefore, no further analysis is required under section 6.1.4 of the MSHCP.

6.2 Special-Status Species

6.2.1 MSHCP-Covered Special Status Species

Of the 13 special-status target wildlife species evaluated, five have the potential to occur. Of these five wildlife species, two are functionally covered under the Plan:

- burrowing owl (low PFO; SSC)
- ferruginous hawk (moderate PFO [wintering/foraging only]; BCC)

Of the two special-status target plant species, neither were found present.

Absent mitigation, Project-related impacts to these species are potentially significant. The following mitigation measures are recommended to reduce potential impacts to below significant levels for Plan-covered special-status species:

- **MM-BIO 1: Payment of MSHCP Mitigation Fees.** Prior to issuance of a grading or building permit, the Project applicant will be required to pay relevant MSHCP mitigation fees. These fees will be determined in consultation with the Riverside Conservation Authority based on final Project classification and impacts. As of January 2022, the applicable MSHCP fee this Project is $3,635 per unit, for proposed residential development projects with less than eight dwelling units per acre.

6.2.2 Special-Status Species Not Functionally Covered Under the MSHCP

Of the special-status species expected to have the potential to occur, the following three species are not functionally covered under the Plan:

- western yellow bat (Moderate PFO [foraging only]; SSC)
- western mastiff bat (Moderate PFO [foraging only]; SSC)
- silvery legless lizard (Low PFO; SSC)

Focused surveys for these special-status species were not performed, and potential for impacts is assumed based on extent and availability of habitat. These species may be subject to both temporary and permanent, direct and indirect impacts, as a result of the proposed Project. Absent mitigation, Project-related impacts to these species is potentially significant. However, due to moderate or low potentials for occurrence of these species, with the implementation of MM BIO-1 above, which will contribute to the ongoing reserve assembly of the region, impacts are likely to be less than significant.

6.3 Species Requiring Additional Surveys and/or Habitat Assessments

6.3.1 Burrowing Owl

The habitat assessment identified suitable foraging and nesting habitat for burrowing owl within the Project site and the Survey Area. Focused surveys were conducted and are presented in the *Pacifica Cottonwood Project – Focused Burrowing Owl Survey Report* (Blackhawk, 2021). This report finds that the site is not currently occupied by burrowing owl, but suitable burrows exist on the Project. Permanent impacts to suitable burrowing owl habitat as a result of the Project may include habitat loss, nesting habitat removal, roosting site loss and/or loss of individuals. Indirect impacts may include fugitive dust,

excess noise, increased artificial lighting, and the attraction of predators to the Project site. The following mitigation measure is recommended to reduce potential impacts to burrowing owl below significant levels:

- **MM-BIO 2: Perform Pre-Construction Burrowing Owl Surveys -** Conduct a pre-construction take avoidance survey for burrowing owl within 30 days of initiating construction per section 6.3.2 of the MSHCP.

6.4 Migratory Birds

The assessment identified suitable habitat and substrate for migratory birds protected under the MBTA and CDFW Codes 3503 and 3503.5. Permanent impacts to migratory birds as a result of the Project may include habitat loss, nesting habitat removal, roosting site loss and/or loss of individuals. Indirect impacts may include fugitive dust, excess noise, increased artificial lighting, and the attraction of predators to the Project site. The following mitigation measure is recommended to reduce potential impacts to migratory bird species below significant levels:

- **MM-BIO 3: Perform Pre-Construction Nesting Bird Surveys.** To the extent feasible, conduct vegetation removal outside of the nesting bird season (generally between February 15 and August 31). If vegetation removal is required during the nesting bird season, conduct take avoidance surveys for nesting birds within 100-feet of areas proposed for vegetation removal. Surveys should be conducted by a qualified biologist(s) within three days of vegetation removal. If active nests are observed, a qualified biologist will determine appropriate minimum disturbance buffers or other adaptive mitigation techniques (e.g., biological monitoring of active nests during construction-related activities, staggered schedules, etc.) to ensure that impacts to nesting birds are avoided until the nest is no longer active.

6.5 Riparian/Riverine Habitat and/or Potentially Jurisdictional Areas

The habitat assessment identified one potentially jurisdictional drainage feature containing MSHCP Riverine habitat that is likely subject to regulation by USACE, RWQCB, and CDFW within the Project site. The feature was documented on the western boundary of the Project site with 1.099 acres falling within the Project boundaries. Therefore, a formal jurisdictional delineation survey was performed, and additional coordination with the appropriate regulatory agencies will be required to determine presence/absence of potentially jurisdictional aquatic features within the Project or to determine if features within the Project may qualify as "exempt". Findings of the jurisdictional delineation survey can be found in the *Pacifica Cottonwood Project – Jurisdictional Delineation Survey Report* (Blackhawk 2022).

7.0 CONCLUSION

The Project site is located within the boundaries of the Western Riverside County MSHCP but not within any Criteria Cell and is located outside of Plan Conservation Areas. The Project site is not located within areas requiring assessment for special-status mammals, amphibians, invertebrates, narrow endemic plants, or other criteria area species. The Project site requires assessment and surveys for burrowing owl, which were completed between June 22, 2021 and July 15, 2021 (Blackhawk 2021).

The Project site does not provide suitable habitat for riverine/riparian associated species. The Project site does not contain vernal pools or potential listed fairy shrimp habitat. The Project site does not harbor any special-status plant species of CRPR 2 or higher, and none are reasonably expected to occur on site.

The Project site contains one likely USACE/RWQCB/CDFW jurisdictional drainage containing MSHCP Riverine Habitat documented on the west side of the Project site. Project development will result in significant impacts to this feature and will require coordination and permitting through the USACE, RWQCB, CDFW and the Western Riverside County Regional Conservation Authority before any Project activities can occur within MSHCP Riverine Habitat.

The Project site provides suitable habitat for burrowing owl (not present during focused surveys, June-July 2021). The Project site also provides suitable nesting habitat for numerous protected ground-nesting avian species.

Impacts to special-status species and nesting birds are anticipated to be less than significant with mitigation proposed herein to offset any direct and/or indirect impacts.

By adhering to the recommendations provided in this Report (and resulting additional actions, if required), payment of the MSHCP mitigation fees and fulfillment of the stipulations set forth by the County of Riverside, this Project is fully consistent with the Plan and would fulfill requirements for biological resources pursuant to CEQA, FESA and CESA.

8.0 SURVEYOR CERTIFICATION

All data, statements, analyses, findings and attachments within this report are accurate and truthful in terms of describing the existing conditions and the Project as proposed to Blackhawk Environmental. By adhering to the mitigation measures proposed within this habitat assessment report and payment of appropriate fees to the Western Riverside County Regional Conservation Authority, compensatory mitigation related to the complete the Project will be met to CEQA significance thresholds.

Kris Alberts
Principal Biologist

REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors.
2012 The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley, CA.

Blackhawk Environmental, Inc.
2021 *Pacifica Cottonwood Focused Burrowing Owl Survey Report.* Prepared for EPD Solutions, July 2021.

Blackhawk Environmental, Inc.
2021 *Pacifica Cottonwood Aquatic Resources Delineation Survey Report.* Prepared for EPD Solutions, June 2022.

Calflora
2021 Information on California plants for education, research and conservation. [web application]. Berkeley, California: The Calflora Database [a non-profit organization]. Available: http://www.calflora.org/. Accessed May 2021.

California Department of Fish and Wildlife (CDFW)
2021 California Natural Diversity Database (CNDDB). RareFind Version 3.1.0. Database Query for the Moreno Valley, California USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch.

California Native Plant Society (CNPS)
2021 Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society. Sacramento, CA. Accessed May 2021 from: http://www.cnps.org/inventory.

Google
2021 Google Earth. US Department of State Geographer. Data SIO, U.S. Navy, NGA, GEBCO. Available: *earth.google.com/*.

Holland, R.F.
1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, The Resources Agency, Department of Fish and Game, Natural Heritage Division, Sacramento, California.

Oberbauer, T., Kelly, M., and Buegge, J.
2008 *Draft Vegetation Communities of San Diego County*. Based on "*Preliminary Descriptions of the Terrestrial Natural Communities of California*". Robert F. Holland, Ph.D., October 1986.

Regional Conservation Authority - Western Riverside County (RCA)
2021 Western Riverside County MSHCP Information Application https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd May 2021

Transportation and Land Management Agency (TLMA)
2004 Western Riverside Multiple Species Habitat Conservation Plan.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
2021 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available: http://soils.usda.gov/technical/classification/osd/index.html. May 2021.

United States Fish and Wildlife Services (USFWS)
2021 National Wetlands Inventory (NWI). Available: http://www.fws.gov/wetlands/Data/Mapper.html. Accessed May 2021.

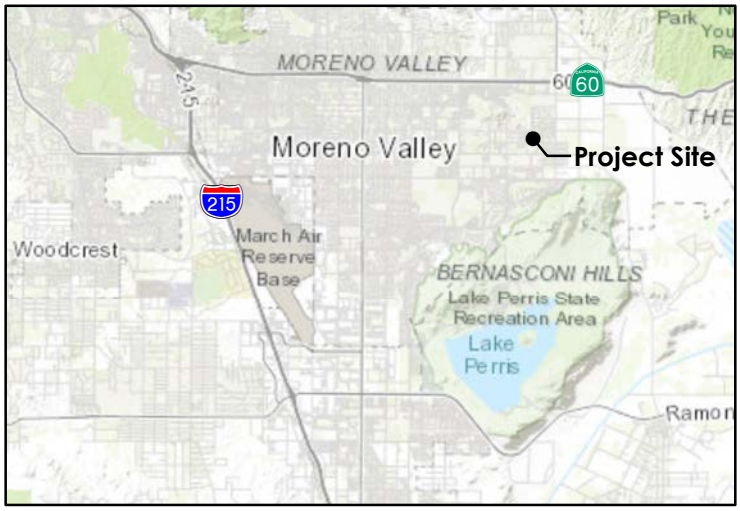
United States Geological Survey (USGS)
1967 7.5-minute topographic quadrangle map for Sunnymead, California.

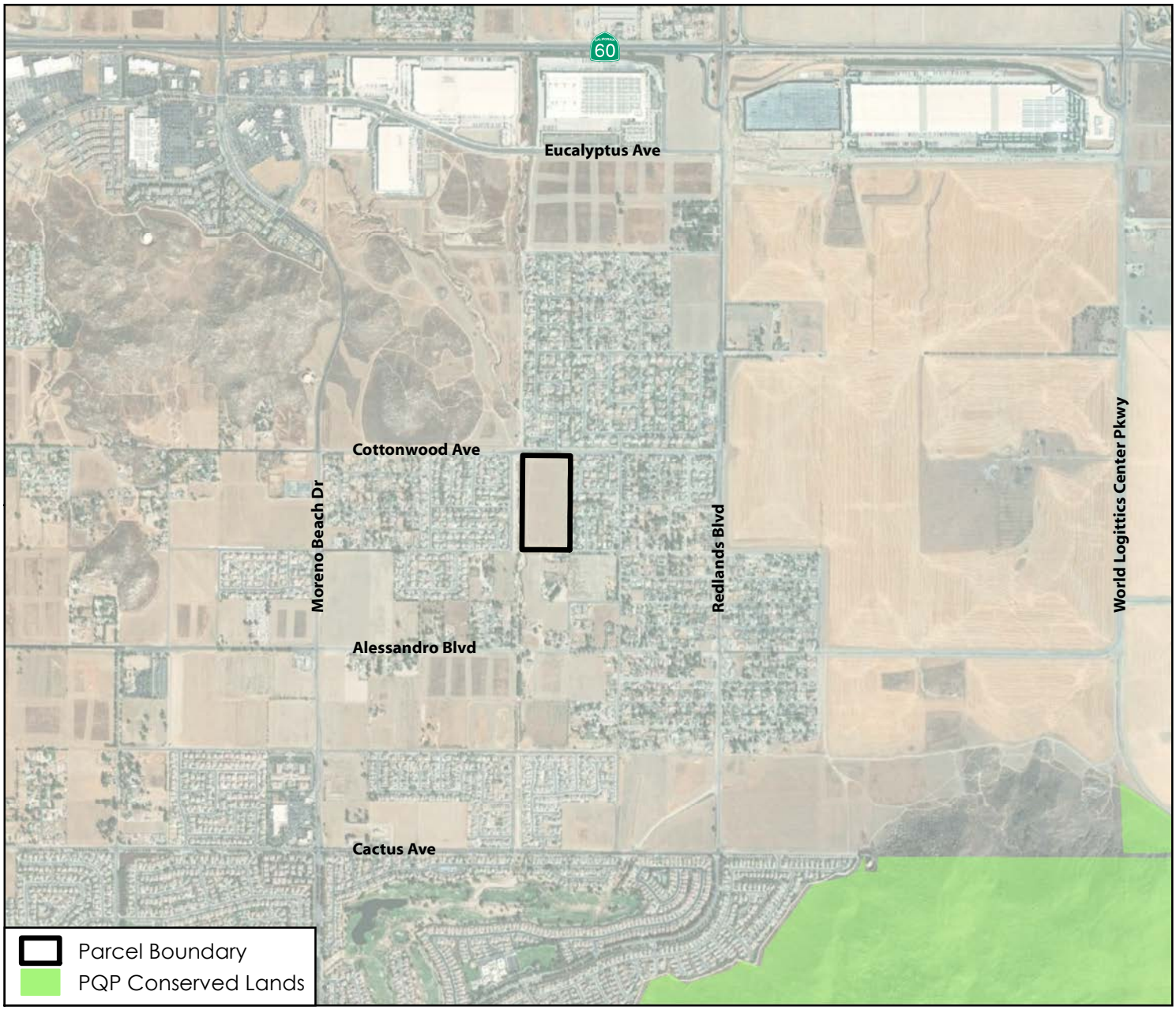
Western Riverside County Regional Conservation Authority
2006 Burrowing Owl Survey Instructions for Western Riverside Multiple Species Habitat Conservation Plan Area.

ATTACHMENT A

Figures and Site Plan

Blackhawk Environmental





Source: Maxar, Esri 2020

Figure 1

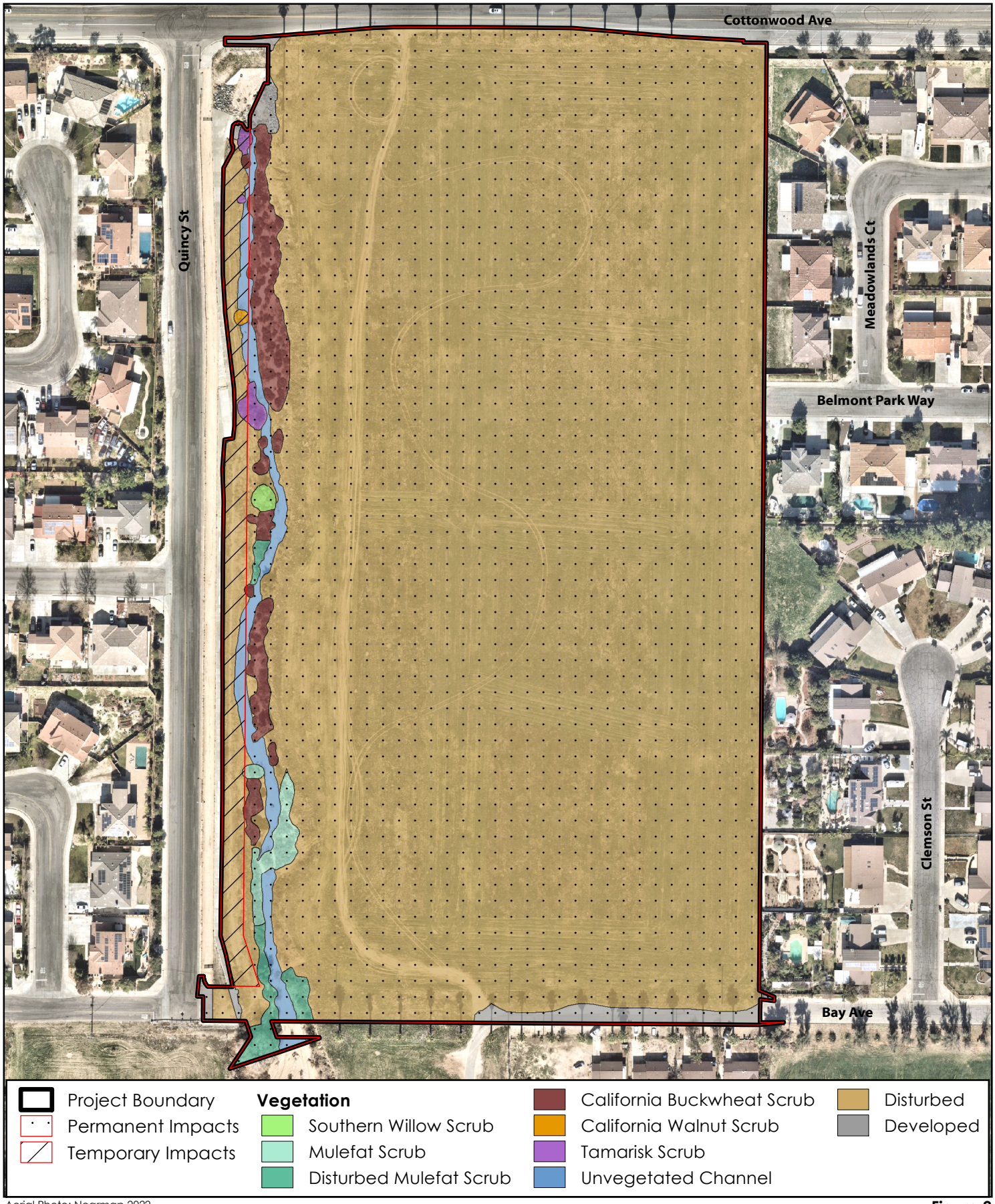
Project Vicinity and Location

Pacifica Cottonwood Project

BLACKHAWK Environmental

N

0 2,000 Feet



Aerial Photo: Nearmap 2022

Figure 2

Vegetation Map

Pacifica Cottonwood Project

BLACKHAWK Environmental

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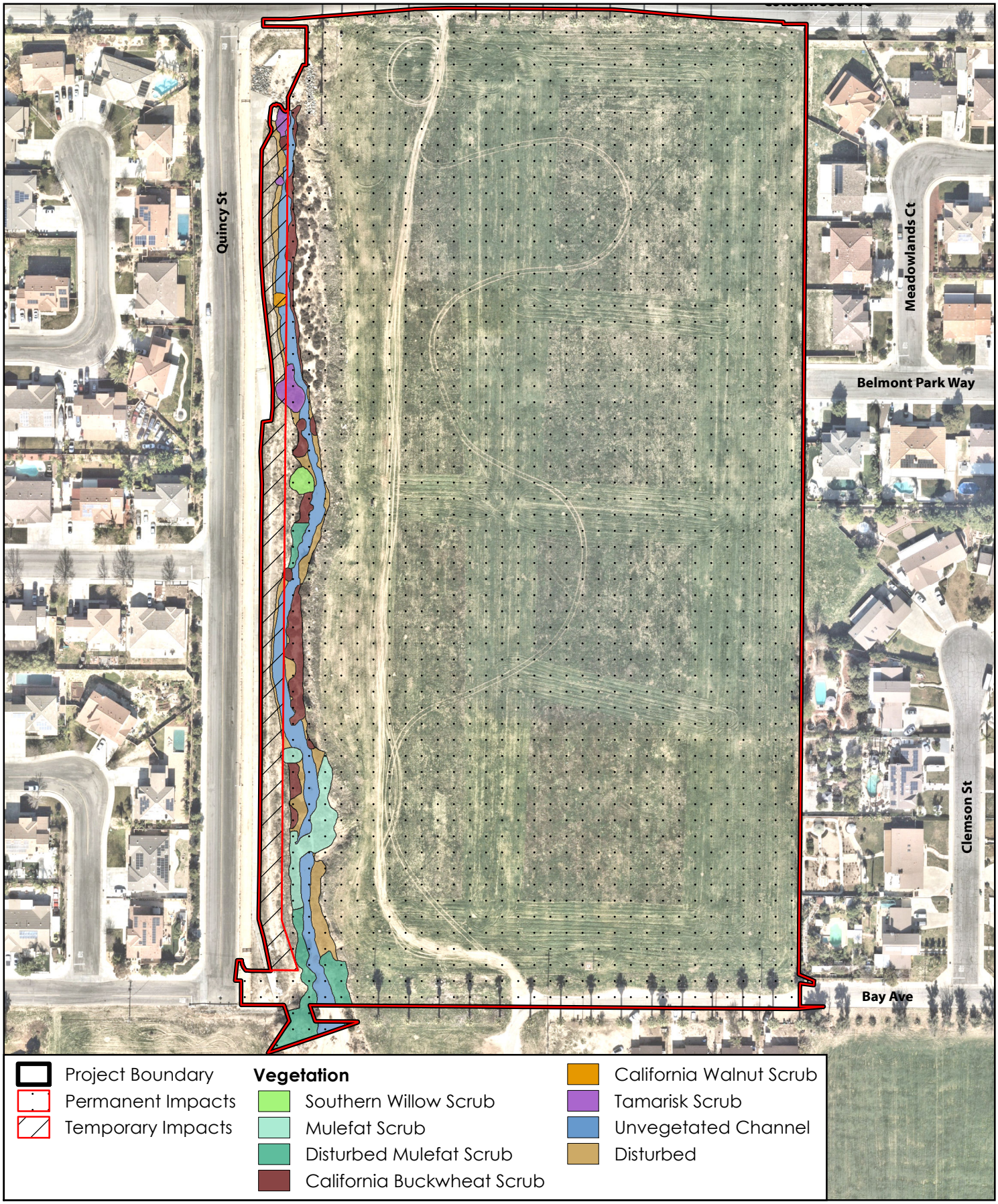


Aerial Photo: Nearmap 2022

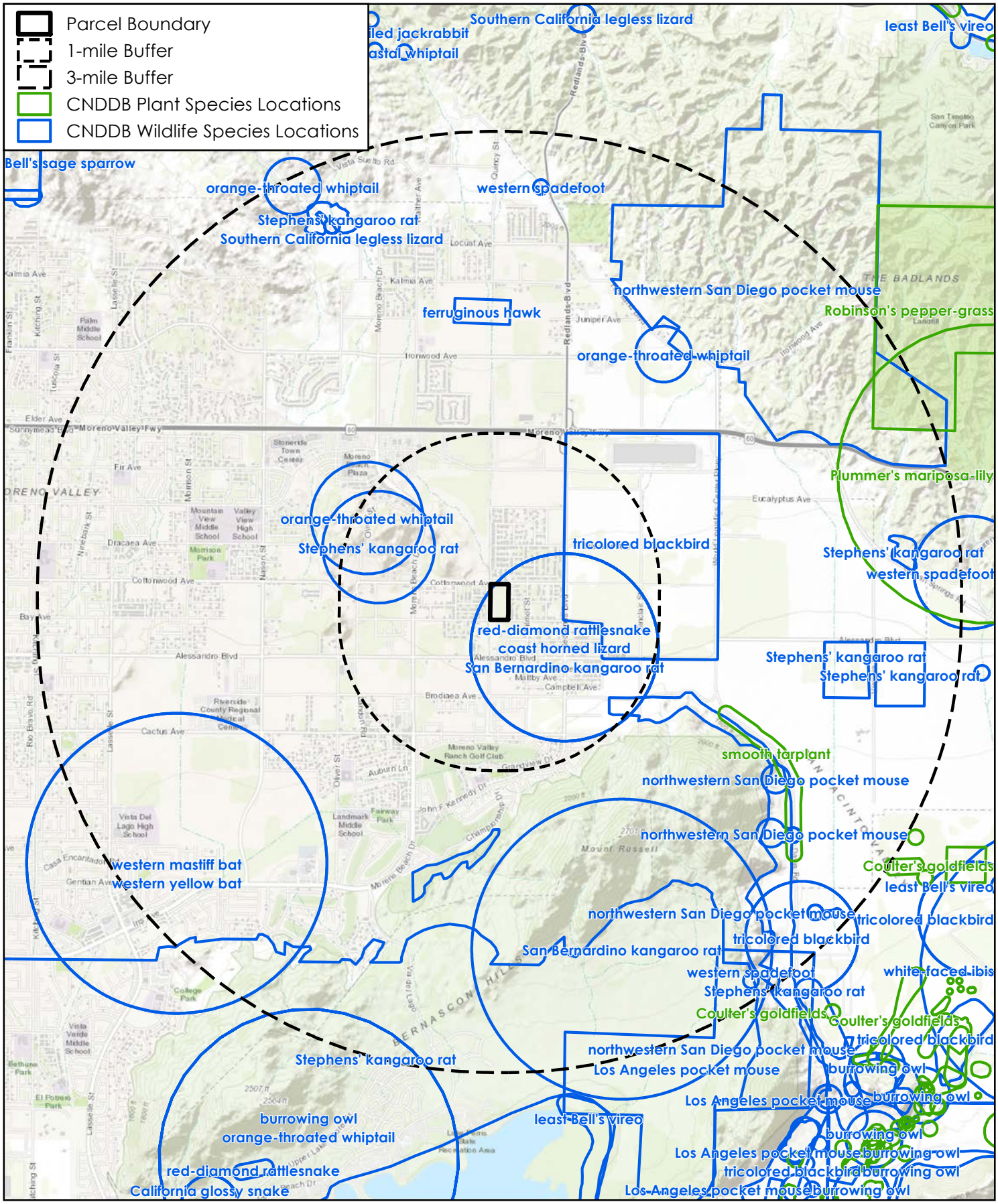
Blackhawk Environmental

N

0 160 Feet

MSHCP Riverine Habitat

Pacifica Cottonwood Project



Source: CDFW; Basemap: Esri Topographic Map

Figure 3

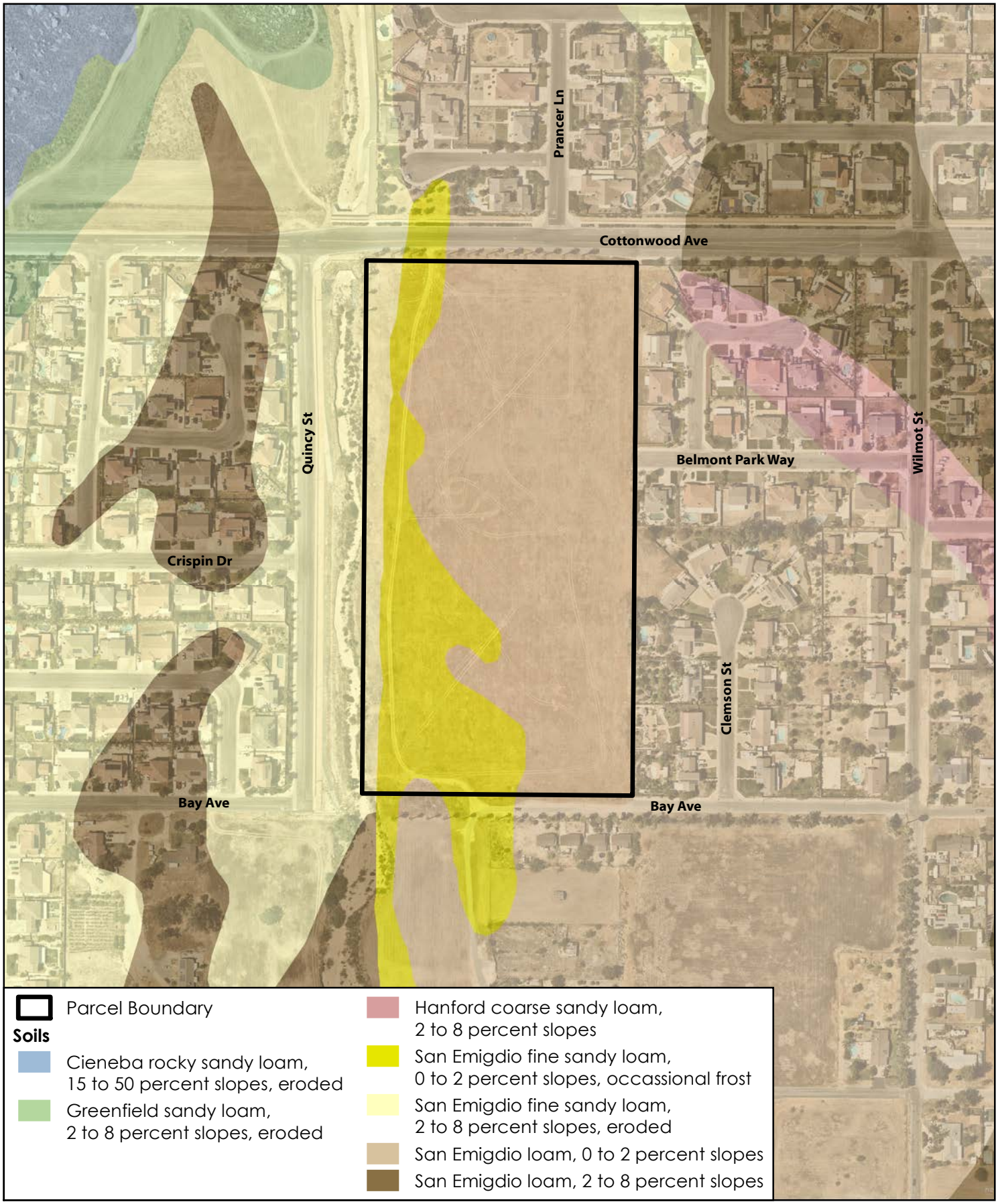
CNDDB Results Map

Pacifica Cottonwood Project

BLACKHAWK Environmental

N

0 4,500 Feet



Source: Nearmap 2021

Figure 4

Soils Map

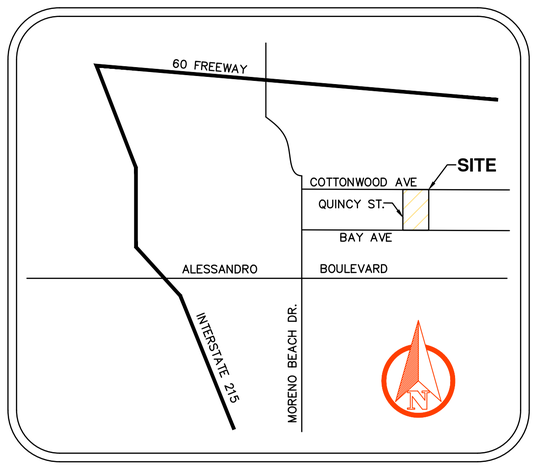
Blackhawk Environmental

N

0 300 Feet

Pacifica Cottonwood Project

TTM 38264
City of Moreno Valley



VICINITY MAP
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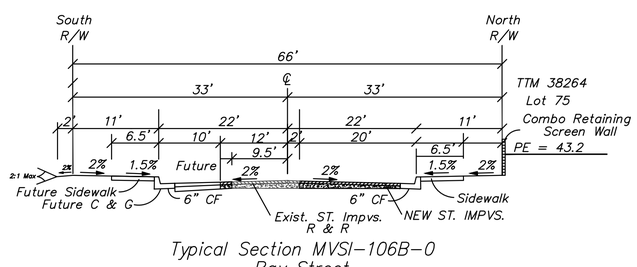

Typical Section MVSI-106B-0
Bay Street
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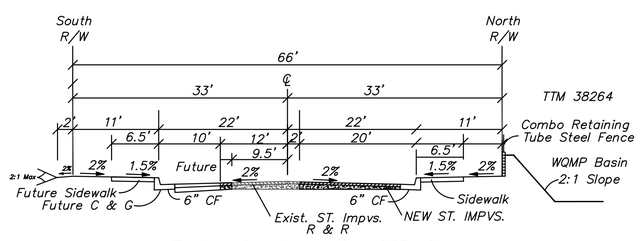
Section E-E
n.t.s.



Typical Section MVSI-106B-0
Bay Street
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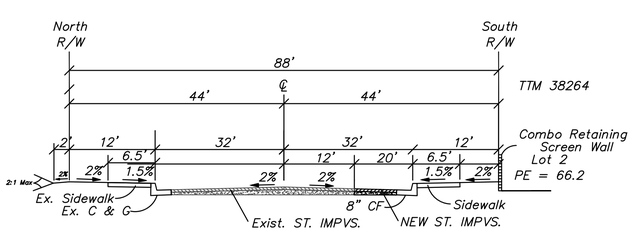
Section F-F
n.t.s.



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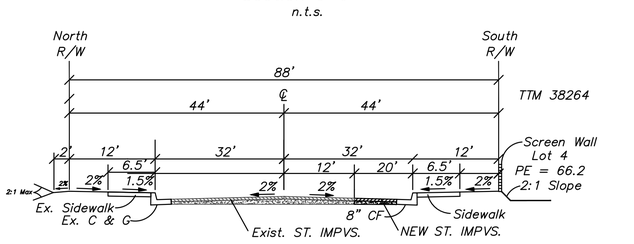
Section J-J
n.t.s.



Typical Section MVSI-105A-0
Cottonwood Avenue
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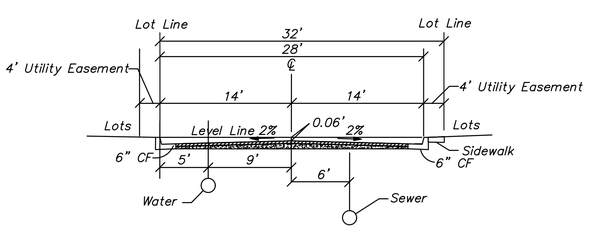
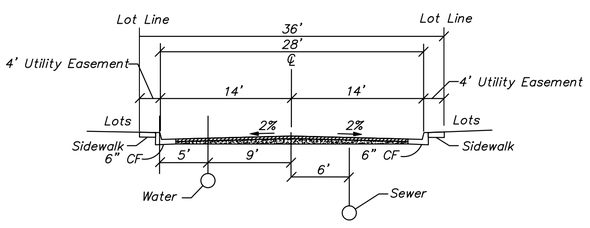
Section K-K
n.t.s.



TYPICAL SECTION – PRIVATE STREETS
3" AC over 6" AB
N.T.S.



TYPICAL SECTION – PRIVATE STREETS
3" AC over 6" AB
N.T.S.

Area of Disturbance

40 0 20 40 80 160

ROBERT BEERS
8175 Limonite Avenue, Suite E
Jurupa Valley, CA 92509
Ph. (951) 317-2041 Fax (909) 360-2070

Date Robert M. Beers R.C.E. 39405

PREPARED FOR:
Passco Pacifica LLC
333 City Boulevard West
17th Floor
Orange, CA 92866
PHONE: (714) 609-7257

TTM 38264
Preliminary Grading Plan
Cottonwood Collection
City of Moreno Valley
California

DATE Jan. 10, 2022
JOB NO.
DRAWN BY R.A.H.
CHECKED BY R.M.B.
SHEET C-3

ATTACHMENT B

Photo Pages

Blackhawk Environmental

Photograph 1: South-facing photo of the Project Site consisting of disturbed habitat of non-native grasses, part of which was recently disked.

Photograph 2: Southeast-facing photo of the Project Site and adjacent residential developments.

Photograph 3: South-facing photo of disturbed habitat within the Project Site.

Photograph 4: South-facing photo of the riverine habitat in the flood channel located along the western boundary of the Project Site.

Photograph 5: North-facing photo of riverine habitat along the western boundary of the Project Site.

Photograph 6: Representative photo of a BUOW-suitable burrow located within the Project Site.

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ATTACHMENT C

Observed Wildlife Species List

Blackhawk Environmental

AVES	BIRDS
ACCIPITRIDAE	**Kites, Hawks, Eagles, and Allies**
Buteo jamaicensis	red-tailed hawk
Falco sparverius	American kestrel
AEGITHALIDAE	**Bushtits**
Psaltriparus minimus	bushtit
COLUMBIDAE	**Pigeons & Doves**
*Streptopelia decaocto**	Eurasian-collared dove
CORVIDAE	**Crows & Jays**
Corvus corax	common raven
FRINGILLIDAE	**Finches and Allies**
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
MIMIDAE	**Mockingbirds & Thrashers**
Mimus polyglottos	northern mockingbird
PASSERIDAE	**Old World Sparrows**
*Passer domesticus**	house sparrow
STURNIDAE	**Starlings and Mynas**
*Sturnus vulgaris**	European starling
TROCHILIDAE	**Hummingbirds**
Calypte anna	Anna's hummingbird
TYRANNIDAE	**Tyrant Flycatchers**
Tyrannus vociferans	Cassin's kingbird

MAMMALIA	MAMMALS
GEOMYIDAE	**Gophers**
Thomomys bottae	Botta's pocket gopher
LEPORIDAE	**Rabbits and Hares**
Sylvillagus audubonii	desert cottontail
SCIURIDAE3	**Squirrels**
Otospermophilus beecheyi	California ground squirrel

**Non-native*

ATTACHMENT D

Observed Plant Species List

Blackhawk Environmental

MONOCOTS	
ARECACEAE	**Palm Family**
*Washingtonia robusta**	Mexican fan palm
POACEAE	**Grass Family**
*Avena fatua**	wild oat
*Bromus diandrus**	ripgut brome
*Bromus madritensis**	red brome
*Hordeum murinum**	smooth barley
*Schismus barbatus**	Mediterranean grass

DICOTS	
ASTERACEAE	**Aster Family**
Artemisia dracunculus	wild tarragon
Baccharis salicifolia	mulefat
Encelia farinosa	brittlebush
Heterotheca grandiflora	telegraph weed
*Oncosiphon piluliferum**	stinknet
BORAGINACEAE	**Borage Family**
Amsinckia intermedia	common fiddleneck
Cryptantha sp.	popcorn flower
Phacelia ramosissima	branching phacelia
BRASSICACEAE	**Mustard Family**
*Hirschfeldia incana**	short-pod mustard
*Sisymbrium irio**	London rocket
CHENOPODIACEAE	**Goosefoot Family**
*Salsola tragus**	Russian thistle
GERANIACEAE	**Geranium Family**
*Erodium cicutarium**	redstem filaree
JUGLANDACEAE	**Walnut Family**
Juglans californica[1]	southern black walnut
MALVACEAE	**Mallow Family**
*Malva parviflora**	cheeseweed
OLEACEAE	**Olive Family**
*Olea europaea**	olive
POLYGONACEAE	**Buckwheat Family**
Eriogonum fasciculatum	California buckwheat
SALICACEAE	**Willow Family**
Salix gooddingii	Goodding's black willow
SOLANACEAE	**Nightshade Family**
Datura wrightii	jimsonweed

*Nicotiana glauca**	tree tobacco
TAMARICACEAE	**Tamarisk Family**
*Tamarix ramosissima**	tamarisk

**Non-native*

[1] *CRPR 4.2*