

**DRAFT BIOLOGICAL RESOURCES HABITAT ASSESSMENT
CLAY STREET MA2145 MULTIPLE FAMILY DEVELOPMENT PROJECT**

**CITY OF JURUPA VALLEY
RIVERSIDE COUNTY, CALIFORNIA**



Submitted to:

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9 November 2021

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1.0 INTRODUCTION

At the request of REXCO Development, Wood Environment & Infrastructure Solutions, Inc. (Wood) conducted a biological resources habitat assessment for the Clay Street MA2145 Multiple Family Development Project (project). This document reports the results of that assessment.

2.0 PROJECT DESCRIPTION

The project will consist of a 104-unit multiple family development. It is located on 4.12 acres on the east side of Clay Street between Haven View Drive and Linares Avenue in the City of Jurupa Valley, Riverside County, CA (Figures 1 and 2).

The project is mapped on the U.S. Geological Survey (USGS) *Riverside West, Calif.* 7.5-minute topographic quadrangle (USGS 1980) in Section 25, Range 6 West, Township 2 South (Figure 3). The site is flat at an elevation of approximately 775 feet (236 meters).

3.0 REGULATORY FRAMEWORK

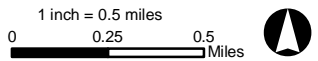
3.1 Federal

Endangered Species Act (ESA) – The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the ESA. ESA defines species as “endangered” or “threatened” and provides regulatory protection at the federal level.

- Section 9 of the ESA prohibits the “take” of listed (i.e., endangered or threatened) species. The ESA definition of take is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct.” Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a) (1) (A) permits (authorized take permits) are issued for scientific purposes. Section 10(a) (1) (B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Section 7 (a) (2) requires federal agencies to evaluate a proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat. Critical habitat is a term defined and used in the ESA. It is specific geographic areas that contain features essential to the conservation of



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 Project Location

FIGURE 1
Regional Vicinity
Clay Street MA2145 Multiple Family
Development Project
Jurupa Valley, CA

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PARKING SUMMARY

REQUIRED		
1BD	48 X 1.25	60
2BD	52 X 2.25	117
3BD	4 X 2.75	11
TOTAL REQUIRED		188 SP

PROVIDED		
GARAGE		60 SP
OPEN ASSIGNED		129 SP
OPEN GUEST		5 SP
OPEN EMPLOYEE		2 SP
TOTAL PROVIDED		196 SP

ACCESSIBLE PARKING		
ASSIGNED	189 X 2%	4 SP
UNASSIGNED	7 X 5%	1 SP
TOTAL REQUIRED		5 SP
TOTAL PROVIDED		5 SP

BICYCLE PARKING		
REQUIRED	188 SP / 33 =	6 SP
TOTAL PROVIDED		6 SP



BUILDING MIX

	SUBTOTAL BLDG AREA	UNIT/BLDG	BLDG QTY	TOTAL BLDG AREA	TOTAL UNITS	BLDG HT
BLDG A	21,309 SF	18	4	85,236 SF	72	40'
BLDG B	21,006 SF	16	2	42,012 SF	32	40'
LEASING	1,500 SF	-	1	1,500 SF	-	30'
REC	3,371 SF	-	1	3,371 SF	-	20'
TOTALS		8		132,119 SF	104	
FAR						132,119 SF / 179,467 SF = .74

UNIT MIX

24	PLAN 1	1BD/1BA	570 SF
24	PLAN 2	1BD/1BA	750 SF
20	PLAN 3	2BD/2BA	850 SF
32	PLAN 4	2BD/2BA	1000 SF
4	PLAN 5	3BD/2BA	1200 SF
104 TOTAL UNITS			

SITE SUMMARY

GROSS AREA	4.12 AC (179,467 SF)
DENSITY	104 DU/4.12 AC = 25.2 DU/AC
LOT COVERAGE	
BUILDINGS	50,783 SF 28%
PAVING	68,701 SF 38%
LANDSCAPE	59,983 SF 34%
TOTAL	179,467 SF 100%

PROJECT SUMMARY

ADDRESS/LOCATION	CLAY STREET
APN	163-400-029, 026, 028
EXISTING LAND USE	CN (COMMERCIAL NEIGHBORHOOD)
PROPOSED LAND USE	HHDR (HIGHEST DENSITY RESIDENTIAL)
EXISTING ZONING	I-P (INDUSTRIAL PARK)
PROPOSED ZONING	R-3 (GENERAL RESIDENTIAL)
TOTAL HOMES	104 UNITS
GROSS AREA	4.12 ACRES
DENSITY	25.2 DU/AC
PARKING	196 SP
FAR	.74
LOT COVERAGE	28%

JURUPA VALLEY, CA

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CLAY STREET

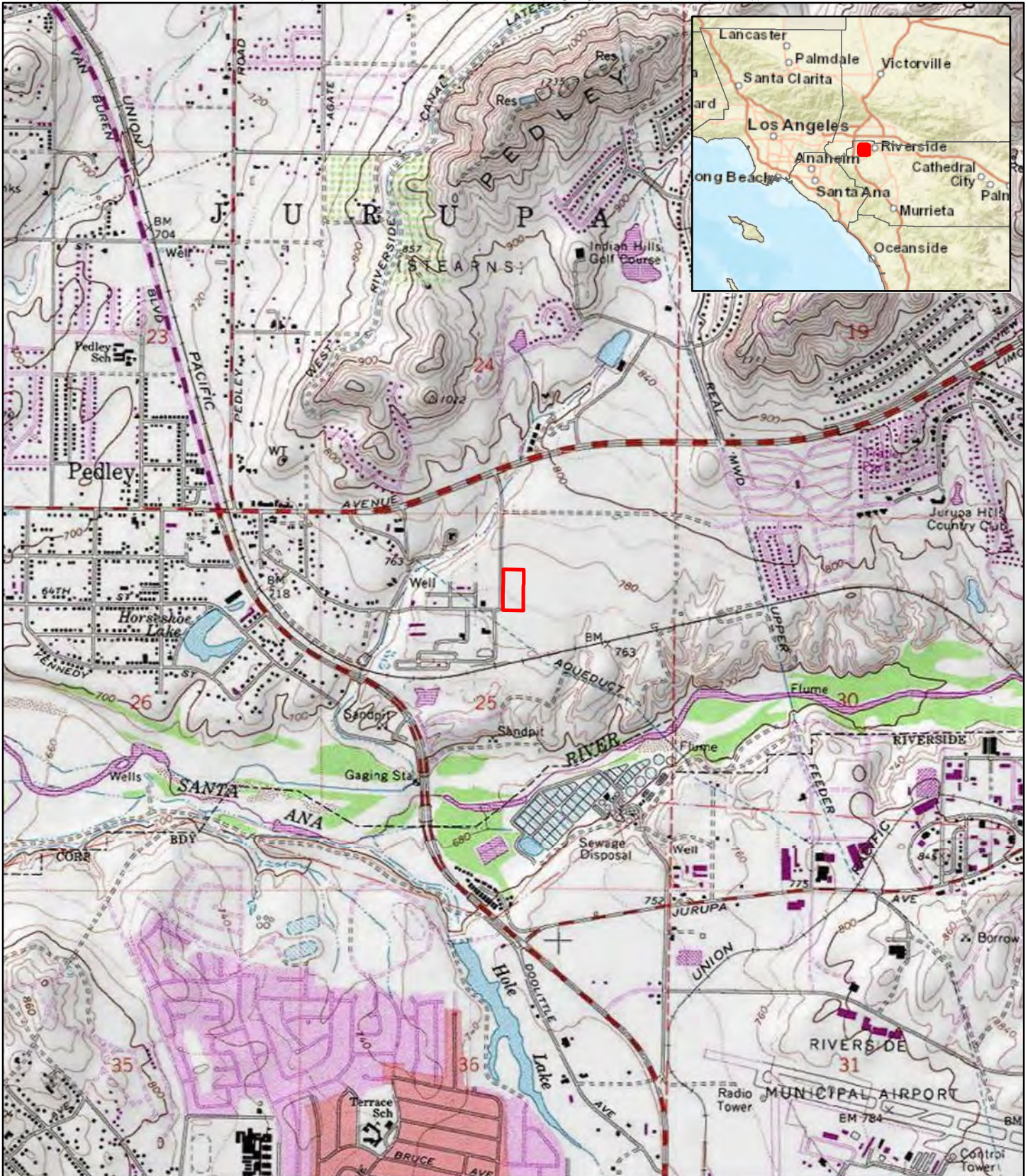
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CONCEPTUAL SITE PLAN

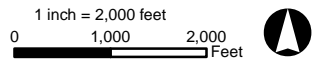


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 Project Location

FIGURE 3
USGS 7.5' Quad: Riverside West
Clay Street MA2145 Multiple Family
Development Project
Jurupa Valley, CA

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an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery (USFWS 2021a).

- Section 10(a)(1)(B) of the ESA provides for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. These Habitat Conservation Plans (HCPs) are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing. Conserving species before they are in danger of extinction or are likely to become so can also provide early benefits and prevent the need for listing (USFWS 2021b). The Western Riverside County Multiple Species Conservation Plan (see Riverside County section below) is an HCP.

As defined by the ESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.

Migratory Bird Treaty Act (MBTA) – Treaties signed by the U.S., Great Britain, Mexico, Japan, and the republics of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in this document. As with the ESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species. Impacts include direct disturbance to/destruction of nests, eggs, and birds as well as indirect effects such as loud construction noises (e.g., drilling, operation of heavy equipment, etc. in excess of 60 decibels (dB) over an hours at the nest site) and increased site activities (e.g., moving vehicles, use of guard dogs, presence of personnel) in close proximity to active nests (USFWS 2021c)

Section 404 of the Clean Water Act (CWA) – This section of the CWA, administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into Waters of the United States (WUS). The USACE has created a series of nationwide permits that authorize certain activities within WUS provided that the proposed activity does not exceed the impact threshold for each of the permits, takes steps to avoid impacts to wetlands where practicable, minimize potential impacts to wetlands, and provide compensation for any remaining, unavoidable impacts through activities to restore or create wetlands. For projects that exceed the threshold for nationwide permits, individual permits under Section 404 can be issued.

National Environmental Policy Act (NEPA) – If all or a portion of a proposed project fall under the jurisdiction of a federal agency (such as USACE). NEPA establishes certain criteria that must be adhered to for any project that is "financed, assisted, conducted or approved by a federal agency.

The federal lead agency is required to “determine whether the proposed action will significantly affect the quality of the human environment.”

3.2 State of California

California Endangered Species Act (CESA) – This legislation is similar to the federal ESA; however, it is administered by the California Department of Fish and Wildlife (CDFW). The CDFW is authorized to enter a “memoranda of understanding” with individuals, public agencies, and other institutions to import, export, take, or possess state-listed species for scientific, educational, or management purposes. The CESA prohibits the take of state-listed species except as otherwise provided in state law. Unlike the federal ESA, the CESA applies the take prohibitions to species currently petitioned for state-listing status (candidate species). State lead agencies are required to consult with the CDFW to ensure that actions are not likely to jeopardize the continued existence of any state-listed species or result in the destruction or degradation of occupied habitat.

Section 2081 of the State Fish and Game Code – Under Section 2081 of the California Fish and Game Code, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or “memoranda of understanding” if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information available and shall include consideration of the species’ capability to survive and reproduce (California Legislative Information 2021).

California Environmental Quality Act (CEQA) – The basic goal of the CEQA is to retain a high-quality environment now and in the future. The specific goals are for California’s public agencies to:

- Identify the significant environmental effects of their actions; and, either
- Avoid those significant environmental effects, where feasible; or
- Mitigate those significant environmental effects, where feasible.

CEQA applies to “projects” proposed to be undertaken or requiring approval by State and/or local governmental agencies. Projects are activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires

approvals from more than one public agency, the CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by the CEQA. The most basic steps of the environmental review process are:

- Determine if the activity is a "project" subject to the CEQA;
- Determine if the "project" is exempt from the CEQA;
- Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:
 - Negative Declaration if it finds no "significant" impacts;
 - Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts;
 - Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the State CEQA Guidelines provides criteria to lead agencies in determining whether a project may have significant effects.

The purpose of an EIR is to provide state and local agencies and the general public with detailed information on the potentially significant environmental effects which a proposed project is likely to have and to provide ways in which those effects may be minimized and indicate alternatives to the project.

Sections of the State Fish and Game Code pertaining to the protection of birds (FGC) – Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA (California Legislative Information 2021).

Natural Community Conservation Planning (NCCP) Program – The NCCP program, which is managed by the CDFW, is intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development and other factors that species listing are required under the CESA. Instead of conserving small, often isolated "islands" of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas

of land for conservation that would provide habitat for many species. Partners enroll in the programs and, by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value “reserve” areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation value. The Western Riverside County Multiple Species Conservation Plan (see Riverside County section below) is a NCCP.

Sections 1600-1603 of the State Fish and Game Code – The California Fish and Game Code, pursuant to Sections 1600 through 1603, regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Under state code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel with hydro geomorphology distinct top-of-embankment to top-of-embankment limits, that may or may not support fish or other aquatic biota. Included in this definition are watercourses with surface or subsurface flows that support, or have supported in the past, riparian vegetation. Specifically, Section 1601 governs public projects, while Section 1603 governs private discretionary actions. The CDFW requires that public and private interests apply for a “Streambed Alteration Agreement” for any project that may impact a streambed or wetland. The CDFW has maintained a “no net loss” policy regarding impacts to streams and waterways and requires replacement of lost habitats of at least a 1:1 ratio (California Legislative Information 2021).

Regional Water Quality Control Board – The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which are generally the same as WUS but may also include isolated waterbodies. The Porter Cologne Act defines WSC as “surface water or ground water, including saline waters, within the boundaries of the state”.

3.3 Riverside County

Western Riverside County Multiple Species Habitat Conservation Plan – The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional effort that includes western Riverside County, the cities within it, and seven public agencies. Rather than address sensitive species on an individual basis, the purpose of the MSHCP is to focus on the collective conservation of 146 species known to occur in the coverage area. Most importantly, the MSHCP allows participating entities to issue take permits for listed species

so that individual applicants need not seek their own permits on a case-by-case basis from the USFWS and/or the CDFW. The MSHCP consists of a reserve system of approximately 500,000 acres, the “conservation area” and includes a mechanism to fund and implement the reserve system (Western Riverside County Regional Conservation Authority 2021a). Approximately 347,000 acres of the reserve system are currently within public ownership (such as Public-Quasi Public Conserved Lands [PQP] and Western Riverside County Regional Conservation Authority [RCA] Conserved Lands) and 153,000 acres are currently in private ownership (mostly in Criteria Areas that have not yet been added to the conservation area). This 500,000-acre reserve system throughout the County is intended to compensate for impacts to these sensitive species from development projects throughout the plan area. The MSHCP is designed to contribute to the economic viability of the County by providing landowners and developers with a more efficient and cost-effective regulatory and permitting process. The MSHCP was adopted on June 17, 2003 by the Riverside County Board of Supervisors, and the Incidental Take Authorization issued by both the USFWS and California Department of Fish and Game (CDFG, since becoming the CDFW) on 22 June 2004, thereby approving the final MSHCP. In western Riverside County many federal and state listed or sensitive species and habitats are now considered “covered species” under the MSHCP. In most instances the MSHCP requires no further surveys for covered species; however, under certain circumstances or in certain areas additional surveys for 38 of these species are required. This plan satisfies requirements of the Natural Communities Conservation Plan (NCCP) legislation. The MSHCP does not address Section 404 of the CWA nor the Streambed Alteration Agreement provisions of the California Fish and Game Code, (Section 1600). Projects that currently require a Section 404 permit or Streambed Alteration Agreement will continue to do so notwithstanding the MSHCP. Additionally, the MSHCP does not provide a means of compliance with the MBTA. The MSHCP is permitted under the federal HCP program and the state NCCP program.

Tree Protection – Riverside County Oak Tree Management Guidelines (Riverside County Transportation & Land Management Agency 1999) and several other ordinances (University of California, Division of Agriculture and Natural Resources 2021) regulate the removal of certain trees.

4.0 METHODS

4.1 Literature Review

Prior to the field visit, a literature review was conducted of the environmental and regulatory setting for the project site. The literature review provides a baseline from which to evaluate the biological resources potentially occurring within the project site, and within the local and regional vicinity.

A literature review was conducted to identify biological resources known from the vicinity. This included review of literature and searches of the CDFW's California Natural Diversity Data Base (CNDDB) (CDFW 2021a), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2021), Soil Survey data (United States Department of Agriculture "USDA" 2019, based on Knecht 1971), the Critical Habitat portal (USFWS 2021d), pertinent documents from Wood's library and project files, and historical aerial photography was reviewed. Records known from the *Riverside West, Fontana, Corona North, and Guasti, CA* USGS (1980, 1981) quadrangles were checked, which includes all from within a minimum of five miles of the project. A complete list of literature and references is included below.

4.2 Biological Resources and Habitat Assessment

The field assessment of the project site was conducted on 2 November 2021 by Wood senior biologist John F. Green. Weather conditions were favorable during the 1140–1245 survey with temperatures from 68.3 to 70.7 degrees Fahrenheit, hazy skies, and winds from 0–2 miles per hour. Transects were walked over the entire site and surrounding areas were scanned by binocular. All flora and fauna detected (e.g., through direct observation, vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendix A. Representative photographs are included in Appendix B.

4.3 Jurisdictional Waters and Wetlands

The site was assessed for the presence of waters or wetlands that may be considered under the jurisdiction of either the USACE, RWQCB, CDFW, and/or MSHCP.

4.4 Wildlife Corridors

The ability of the project site to act as a wildlife corridor was assessed. Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Corridors mitigate the effects of habitat fragmentation by (1) allowing animals to move between remaining habitats. Wildlife movement usually fall into one of three categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

5.0 RESULTS

The literature review and field surveys revealed the following information about critical habitat, waters, wetlands, soils, vegetation, and special status species on the project site.

5.1 Critical Habitat

No federally designated critical habitat is present on the project site.

5.2 Wildlife Corridors

Existing active development is present to the north, east, and south of the project site with an abandoned facility across the street to the west. The site does not provide any corridors for wildlife.

5.3 Wetlands and Jurisdictional Drainages

No potential jurisdictional waters or wetlands, including MSHCP riverine/riparian areas, vernal pools, or fairy shrimp habitat were detected on the project site. Therefore, no additional surveys or assessments for waters are required.

5.4 Soils

The project site contains only one soil mapping unit (Figure 4):

- Madera fine sandy loam, shallow (MbC2), 2 to 8 percent slopes, eroded

This soil type is not known to be specifically associated with any special status species.

5.5 Vegetation Communities

The site contains no native vegetation communities, only non-native grassland resultant from decades of site disturbance (Figure 5). Non-native grassland areas are dominated by non-native, often weedy grass species and ruderal vegetation. Mapped areas of this vegetation type are often found in vacant lots amongst urbanized areas. These areas are often subject to discing or mowing for weed abatement and fire management.



5.6 MSHCP

The site is not within any MSHCP Criteria or Conservation Areas. It is within the MSHCP designated Burrowing Owl Survey Area and the Narrow Endemic Plant Species Survey Area (NEPSSA) (Figure 6).



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-  Project Boundary
-  MbC2: Madera fine sandy loam, shallow, 2 to 8 percent slopes, eroded

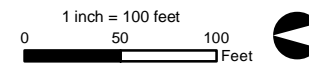


FIGURE 4



Soils
Clay Street MA2145 Multiple Family
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-  Project Boundary
-  Non-native Grassland

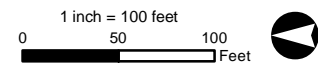


FIGURE 5




Vegetation
Clay Street MA2145 Multiple Family
Development Project
Jurupa Valley, CA

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-  Project Boundary
-  Burrowing Owl Survey Area
- Narrow Endemic Plants Survey Area**
-  San Diego ambrosia, Brand's phacelia, San Miguel savory

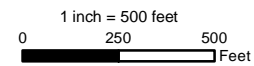


FIGURE 6
MSHCP Burrowing Owl and
Narrow Endemic Plants Survey Areas
Clay Street MA2145 Multiple Family
Development Project
Jurupa Valley, CA

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5.7 Plants and Wildlife

Species encountered during the field visit included primarily species common to developed areas of inland Southern California. A complete list of the flora and fauna observed during the field visits is included in Appendix A.

Plant species observed on the project site were primarily non-native weedy species. Most were dry at this season and were identified from dead remains. These included: Russian thistle (*Salsola tragus*), redstem filaree (*Erodium cicutarium*), ripgut grass (*Bromus diandrus*), red brome (*Bromus rubens*), and wild oat (*Avena* sp.). A few native species were also present, primarily those found in disturbed environments such as horseweed (*Erigeron canadensis*) and telegraph weed (*Heterotheca grandiflora*).

Representative vertebrate species observed in the project site included but were not limited to: side-blotched lizard (*Uta stansburiana*), red-tailed hawk (*Buteo jamaicensis*), house finch (*Haemorrhous mexicanus*), Botta's pocket gopher (*Thomomys bottae*), and California ground squirrel (*Otospermophilus beecheyi*).

5.8 Special Status Biological Resources

Plant or animal taxa may be designated as having "special status" by the various regulatory agencies (i.e., CDFW, USFWS) and/or conservation organizations (i.e., CNPS) due to declining populations, vulnerability to habitat change or loss, or because of restricted/limited distributions. Some species have been listed as "threatened" or "endangered" and/or are a candidate for listing by the USFWS and/or the CDFW and are thus protected by the federal and state ESAs respectively. In addition to plants and animals, some vegetation communities have also received special status designations by the CDFW due to incremental loss and fragmentation resulting from development. Impacts to any special status biological resources can be considered significant under CEQA.

The literature review and field visits identified a total of 67 special status biological resources that are known from the general vicinity of the project site. See Tables 1 through 3 for a complete list of these resources, their conservation status, habitat associations and occurrence potential. Species which do not occur at the project site's elevation (plants) or which only occur in aquatic habitats (fish, turtle) were not included.

Table 1. Special Status Plant Species Potential for Occurrence

Species	Status	Habitat	Occurrence Probability
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	F: None C: S2 CNPS: 1B.1 MSHCP: No	Sandy areas in chaparral, coastal scrub, and desert dunes. CNDDDB reports occurrences from -60 – 1,570 meters (m) (CNPS 75 - 1,600 m). Blooms (B): March – September, rarely January.	Absent No suitable habitat.
<i>Ambrosia pumila</i> San Diego ambrosia	F: Endangered C: S1 CNPS: 1B.1 MSHCP: Yes*	Chaparral, coastal scrub, valley and foothill grassland in sandy loam or clay soils, sometimes alkaline. In valleys it persists where disturbance has been superficial. Sometimes occurs on margins of or near vernal pools. CNDDDB reports occurrences from 3-580 m (CNPS 20-415 m). B: April - October.	Absent Site subjected to long-term disturbance.
<i>Calochortus catalinae</i> Catalina mariposa lily	F: None C: S3S4 CNPS: 4.2 MSHCP: No	Chaparral, cismontane woodland, coastal scrub, and valley & foothill grassland at 15 - 700 m. B: March – June, rarely February.	Absent No suitable habitat.
<i>Calochortus plummerae</i> Plummer's mariposa lily	F: None C: S4 CNPS: 4.2 MSHCP: Yes*	Cismontane woodlands, chaparral, coastal scrub, grasslands, lower montane coniferous forest on rocky and sandy soils. CNDDDB reports occurrences from 60-2,500 m (CNPS 100-1,700 m). B: May – July.	Absent No suitable habitat.
<i>Centromadia pungens</i> ssp. <i>laevis</i> smooth tarplant	F: None C: S2 CNPS: 1B.1 MSHCP: Yes*	Usually found in alkali areas within chenopod scrub, meadows, seeps, playas, riparian woodland, and valley and foothill grassland. CNDDDB reports occurrences from 5-1170 m (CNPS 0-640 m). B: April – September.	Absent No suitable habitat
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	F: None C: S2 CNPS: 1B.1 MSHCP: Yes*	On dry sandy soils of slopes and flats, sometimes at the interface between two vegetation communities. Chaparral, coastal scrub, cismontane woodland, valley and foothill grassland. CNDDDB reports occurrences from 90-1,220 m (CNPS 275-1,220 m). B: April – June.	Absent No suitable habitat

Species	Status	Habitat	Occurrence Probability
<i>Cladium californicum</i> California saw-grass	F: None C: S2 CNPS: 2B.2 MSHCP: No	Meadows and seeps, marshes, and swamps. Freshwater or alkaline moist habitats. CNDDDB reports occurrences from -40-2,150 m (CNPS 60-1,600 m). B: June – September.	Absent No suitable habitat
<i>Clinopodium chandleri</i> San Miguel savory	F: None C: S2 CNPS: 1B.2 MSHCP: Yes*	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland on rocky, gabbroic or metavolcanic substrates. 120-975 m. B: March – July.	Absent No suitable habitat, not known from project area. Included only because of MSHCP narrow endemic plants survey area.
<i>Deinandra paniculata</i> paniculate tarplant	F: None C: S4 CNPS: 4.2 MSHCP: No	Coastal scrub, valley and foothill grassland, vernal pools. 25 - 940 m. B: April – November (March).	Absent No suitable habitat
<i>Dudleya multicaulis</i> many-stemmed dudleya	F: None C: S2 CNPS: 1B.2 MSHCP: Yes*	Chaparral, coastal scrub, valley and foothill grassland. Usually in heavy, often clayey soils or grassy slopes. CNDDDB reports occurrences from 1-910 m (CNPS 15-790 m). B: April – July.	Absent No suitable habitat
<i>Eriastrum densifolium</i> <i>ssp. sanctorum</i> Santa Ana River woollystar	F: Endangered C: Endangered , S1 CNPS: 1B.1 MSHCP: Yes	Sandy soils of floodplains and terraced fluvial deposits. CNDDDB reports occurrences from 180-705 m (CNPS 91 - 610 m). B: April – September.	Absent No suitable habitat
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	F: None C: S1 CNPS: 1B.1 MSHCP: No	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub. CNDDDB reports occurrences from 15 -1,645 m (CNPS 70 - 810 m). B: February – July, rarely September.	Absent No suitable habitat
<i>Juglans californica</i> Southern California black walnut	F: None C: S4 CNPS: 4.2 MSHCP: Yes	Chaparral, cismontane woodland, coastal scrub, riparian woodland. 50 - 900 m. B: March – August.	Absent No suitable habitat, no walnut trees on site

Species	Status	Habitat	Occurrence Probability
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	F: None C: S2 CNPS: 1B.1 MSHCP: Yes*	Marshes and swamps, coastal salt marshes, playas, sinks, grasslands, vernal pools, usually on alkaline soils. CNDDDB reports occurrences from 1 -1,375 m (CNPS 1 – 1,220 m). B: February – June.	Absent No suitable habitat
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	F: None C: S3 CNPS: 4.3 MSHCP: No	Dry soils in coastal scrub, chaparral, shrublands. CNDDDB reports occurrences from 4 -1,435 m (CNPS 1 – 885 m). B: January – July.	Absent No suitable habitat
<i>Lycium parishii</i> Parish's desert-thorn	F: None C: S1 CNPS: 2B.3 MSHCP: No	Coastal scrub, Sonoran desert scrub at 135 – 1,000 m. B: March - April.	Absent No suitable habitat
<i>Muhlenbergia californica</i> California muhly	F: None C: S4 CNPS: 4.3 MSHCP: Yes*	Coastal scrub, chaparral, lower montane coniferous, forest, meadows. Usually found near streams or seeps. 100-2,000 m. B: June – September.	Absent No suitable habitat
<i>Muhlenbergia utilis</i> aparejo grass	F: None C: S2S3 CNPS: 2B.2 MSHCP: No	Chaparral, cismontane woodland, coastal scrub, marshes and swamps, meadows and seeps. Sometimes on alkaline or serpentinite substrates. 25 - 2325m. B: March – October.	Absent No suitable habitat
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	F: None C: S2 CNPS: 1B.2 MSHCP: Yes*	Coastal scrub, valley and foothill grassland, meadows, and seeps. Mesic sites on alkaline soils in grassland or in vernal pools. CNDDDB reports occurrences from 3 - 1,235 m (CNPS 3-1,210 m). B: April – July.	Absent No suitable habitat
<i>Phacelia stellaris</i> Brand's star phacelia	F: None C: S1 CNPS: 1B.1 MSHCP: Yes*	Open areas in coastal scrub, coastal dunes. CNDDDB reports occurrences from 3 - 370 m (CNPS 1-400 m). B: March – June.	Absent No suitable habitat

Species	Status	Habitat	Occurrence Probability
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	F: None C: S2 CNPS: 2B.2 MSHCP: No	Sandy, gravelly sites in chaparral, cismontane woodland, coastal scrub, riparian woodland. CNDDDB reports occurrences from 35 - 515 m (CNPS 0 - 2,100 m). B: August – November, rarely July and December.	Absent No suitable habitat
<i>Senecio aphanactis</i> chaparral ragwort	F: None C: S2 CNPS: 2B.2 MSHCP: No	Drying alkaline flats in cismontane woodland, coastal scrub, and chaparral. CNDDDB reports occurrences from 20 – 1,020 m (CNPS 15 - 800 m). B: January – April, rarely May.	Absent No suitable habitat
<i>Sphenopholis obtusata</i> prairie wedge grass	F: None C: S2 CNPS: 2B.2 MSHCP: No	Cismontane woodland, meadows and seeps. CNDDDB reports occurrences from 15 – 2,625 m (CNPS 300 – 2,000 m). B: April-July.	Absent No suitable habitat
<i>Symphyotrichum defoliatum</i> San Bernardino aster	F: None C: S2 CNPS: 1B.2 MSHCP: No	In vernal mesic grasslands or near ditches, streams and springs; also disturbed areas in meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. CNDDDB reports occurrences from 3 – 2,045 m (CNPS 2 – 2,040 m). B: July - November	Absent No suitable habitat

KEY TO TABLE 1

Definitions of occurrence probability:

Occurs: Observed on the site by Wood biologists, or recorded on-site by other qualified biologists.

High: Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on the site is rarely occupied by the species.

Absent: A focused study failed to detect the species, or, no suitable habitat is present.

Unknown: Distribution and habitat use has not been clearly determined.

Federal designation: = F

State designation: = C

State rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point (if any) represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = no current threats known

S2 = Imperiled. 6-20 EO's OR 1,000-3,000 individuals OR 2,000-10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = no current threats known

S3 = Vulnerable. 21-80 EO's OR 3,000-10,000 individuals OR 10,000-50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.

S5 = Secure. Common, widespread, and abundant in the state.

SH = All known California sites are historical, not extant

SX = Presumed extinct

California Native Plant Society (CNPS) designations:

Primary Categories

LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere

LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

LIST 3: Plants About Which More Information is Needed - A Review List

LIST 4: Plants of Limited Distribution - A Watch List

Subdivisions within Categories

0.1: Seriously threatened in California

0.2: Moderately threatened in California

0.3: Not very threatened in California

MSHCP:

Yes = Fully covered through participation in the MSHCP.

Yes* = Covered through participation in the MSHCP, but additional actions may be required.

No = Not a covered species under the MSHCP.

Table 2. Special Status Vegetation Communities Potential for Occurrence

Community	Status	Habitat	Occurrence Probability
Riversidian Alluvial Fan Sage Scrub	F: None C: S1.1 MSHCP: Yes	A shrubland that occurs in washes and gently sloping alluvial fans. Made up predominantly of drought-deciduous soft-leaved shrubs, but with significant cover of larger perennial species typically found in chaparral. Scalebroom (<i>Lepidospartum squamatum</i>) generally is regarded as an indicator of Riversidian alluvial scrub. In addition to scalebroom, alluvial scrub typically is composed of white sage (<i>Salvia apiana</i>), redberry (<i>Rhamnus crocea</i>), California buckwheat (<i>Eriogonum fasciculatum</i>), our lord's candle (<i>Yucca whipplei</i>), California croton (<i>Croton californicus</i>), cholla (<i>Cylindropuntia</i> spp.), tarragon (<i>Artemisia dracuncululus</i>), yerba santa (<i>Eriodictyon</i> spp.), mule fat (<i>Baccharis salicifolia</i> ssp <i>salicifolia</i>), and mountain-mahogany (<i>Cercocarpus betuloides</i>).	Absent
Southern Cottonwood Willow Riparian Forest	F: None C: S3.2 MSHCP: Yes	This vegetation community occurs along streams and rivers, occupying relatively broad drainages and floodplains. Dominated by mature winter deciduous trees, including Fremont cottonwood (<i>Populus fremontii</i> ssp <i>fremontii</i>) and several species of tree willows (<i>Salix</i> spp.), this community often has a dense understory of shrubby willows, mule fat, mugwort (<i>Artemisia douglasiana</i>), stinging nettle (<i>Urtica dioica</i> ssp <i>holosericea</i>), and wild cucumber (<i>Marah macrocarpus</i>).	Absent
Southern Sycamore Alder Riparian Woodland	F: None C: S4 MSHCP: Yes	This community is dominated by white alder (<i>Alnus rhombifolia</i>) and sycamore (<i>Platanus racemosa</i>). Cottonwoods and willows are often also present. In addition, various understory herbs may be present, such as blue elderberry (<i>Sambucus nigra</i> ssp <i>caerulea</i>), mugwort (<i>Artemisia douglasiana</i>), wild raspberry (<i>Rubus</i> spp.), and poison oak (<i>Toxicodendron diversilobum</i>). The distribution of white alder is restricted to permanent streams and consistent saturation of the root zone by well-aerated, cool water.	Absent
Southern Willow Scrub	F: None C: S2.1 MSHCP: Yes	Riparian community dominated by willows. May also may contain gooseberry (<i>Ribes</i> spp.) and blue elderberry.	Absent

KEY TO TABLE 2

Definitions of occurrence probability:

- Occurs:* Observed on the site by Wood biologists, or recorded on-site by other qualified biologists.
- High:* Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
- Moderate:* Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
- Low:* Site is within the known range of the species but habitat on the site is rarely occupied by the species.
- Absent:* A focused study failed to detect the species, or, no suitable habitat is present.
- Unknown:* Distribution and habitat use has not been clearly determined.

Federal designation: = F

State designation: = C

State rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point (if any) represents a threat designation attached to the rank:

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S2.2 = threatened

S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.

S5 = Secure. Common, widespread, and abundant in the state.

SH = All known California sites are historical, not extant

MSHCP:

Yes = Instances of this community will be conserved under the MSHCP.

No = Instances of this community are not specifically conserved under the MSHCP.

Table 3. Special Status Animals

Species	Protective Status	Habitat	Occurrence Probability
Insects			
<i>Bombus crotchii</i> Crotch bumble bee	F: None C: Candidate Endangered , S1S2 MSHCP: No	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Dendromecon</i> , <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Eschscholzia</i> , & <i>Eriogonum</i> .	Low Habitat marginal
<i>Ceratochrysis longimala</i> desert cuckoo wasp	F: None C: S1 MSHCP: No	Little is known of the habitat needs of this species. Endemic to the Upper Sonoran Zone of southern California. Collected over 100 years ago on <i>Encelia farinosa</i> in Riverside.	Absent / Unknown No known records in area for over 100 years, no <i>Encelia farinosa</i> on site.
<i>Cicindela tranquebarica viridissima</i> greenest tiger beetle	F: None C: S1 MSHCP: No	Usually found in open spots between trees in woodlands adjacent to the Santa Ana River basin.	Absent No suitable habitat

Species	Protective Status	Habitat	Occurrence Probability
<i>Eugnosta busckana</i> Busck's gallmoth	F: None C: SH MSHCP: No	Known only from California. Larvae reported to form galls on <i>Encelia californica</i> (Robinson, et al 2021).	Absent / Unknown No extant records known. No <i>Encelia californica</i> on site.
<i>Euphydryas editha quino</i> Quino checkerspot butterfly	F: Endangered C: S1S2 MSHCP: Yes	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego Counties on hills and mesas of the coastal slope. Need high densities of food plants <i>Plantago erecta</i> , <i>P. ovata</i> , and <i>Castilleja exserta</i> .	Absent No suitable habitat
<i>Neolarra alba</i> white cuckoo bee	F: None C: SH MSHCP: No	Known only from localities in southern California, it is cleptoparasitic in the nests of <i>Perdita</i> bees.	Absent / Unknown No extant records known. <i>Perdita</i> is a ground nesting bee. Unidentified ground nesting bees were present on site but were likely to large to be <i>Perdita</i> .
<i>Rhaphiomidas terminatus abdominalis</i> Delhi sands flower-loving fly	F: Endangered C: S1 MSHCP: Yes*	Found only in areas of the Delhi Sands formation in southwestern San Bernardino & northwestern Riverside Counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation.	Absent No suitable habitat
Reptiles and Amphibians			
<i>Anniella stebbinsi</i> Southern California legless lizard	F: None C: Species of Special Concern, S3 MSHCP: No	Occurs in sandy or loose loamy soils under sparse vegetation. Variety of habitats; generally in moist, loose soil.	Very Low: Unlikely to have persisted in this disturbed, isolated habitat.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	F: None C: Species of Special Concern, S3 MSHCP: Yes	Found in semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Soils firm, sandy, or rocky.	Very Low: Unlikely to have persisted in this disturbed, isolated habitat.

Species	Protective Status	Habitat	Occurrence Probability
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	F: None C: Watch List, S2S3 MSHCP: Yes	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks.	Absent No suitable habitat
<i>Arizona elegans occidentalis</i> California glossy snake	F: None C: Species of Special Concern, S2 MSHCP: No	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Very Low: Unlikely to have persisted in this disturbed, isolated habitat.
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	F: None C: Species of Special Concern, S1S2 MSHCP: Yes	Found in granite or rocky outcrops in coastal scrub and chaparral habitats of coastal and cismontane southern California.	Absent No suitable habitat
<i>Crotalus ruber</i> red-diamond rattlesnake	F: None C: Species of Special Concern, S3 MSHCP: Yes	Chaparral, woodland, grassland, & desert areas. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Absent No suitable habitat
<i>Phrynosoma blainvillii</i> coast (San Diego) horned lizard	F: None C: Species of Special Concern, S3S4 MSHCP: Yes	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Needs open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Very Low: Harvester ants present, but horned lizards unlikely to have persisted in this disturbed, isolated habitat.
<i>Spea hammondi</i> western spadefoot	F: None C: Species of Special Concern, S3 MSHCP: Yes	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Absent No vernal pools
Birds			
<i>Accipiter cooperii</i> Cooper's hawk	F: MBTA C: Watch List, S4, FGC MSHCP: Yes*	Woodland, chiefly of open, interrupted, or marginal type, including residential areas. Nests in trees.	Moderate Could forage over site, but no nesting habitat present.

Species	Protective Status	Habitat	Occurrence Probability
<i>Agelaius tricolor</i> tricolored blackbird	F: MBTA, Bird of Conservation Concern C: Threatened , Species of Special Concern, S1S2, FGC MSHCP: Yes*	Highly colonial species, requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Absent No suitable habitat
<i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow	F: MBTA C: Watch List, S3, FGC MSHCP: Yes*	Resident in coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Absent No suitable habitat
<i>Artemisiospiza belli belli</i> Bell's sage sparrow	F: MBTA, Bird of Conservation Concern C: Watch List, S3, FGC MSHCP: Yes*	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.	Absent No suitable habitat
<i>Athene cunicularia</i> burrowing owl	F: MBTA, Bird of Conservation Concern C: Species of Special Concern, S3, FGC MSHCP: Yes*	Occupies open, dry grasslands, scrub habitats, agricultural, railroad rights-of-way, and margins of highways, golf courses, and airports. Utilizes ground squirrel burrows and man-made structures, such as earthen berms, cement culverts, cement, asphalt, and debris piles for nesting and shelter.	High Numerous potential burrows present.
<i>Buteo swainsoni</i> Swainson's hawk	F: MBTA, Bird of Conservation Concern C: Threatened , S3, FGC MSHCP: Yes*	Grassland and agricultural areas; large trees for nesting. In California most nesting in Central Valley and Modoc Plateau.	Low Could occur in migration, no nesting habitat
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	F: Threatened , MBTA, Bird of Conservation Concern C: Endangered , S1, FGC MSHCP: Yes*	Riparian forest nester, along the broad, lower flood-bottoms of larger river nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Absent No suitable habitat
<i>Coturnicops noveboracensis</i> yellow rail	F: MBTA, Bird of Conservation Concern C: Species of Special Concern, S1S2, FGC MSHCP: No	Freshwater marshlands.	Absent No suitable habitat

Species	Protective Status	Habitat	Occurrence Probability
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	F: Endangered , MBTA C: Endangered , S1, FGC MSHCP: Yes*	Breeds in dense riparian areas.	Absent No suitable habitat
<i>Icteria virens</i> yellow-breasted chat	F: MBTA C: Species of Special Concern, S3, FGC MSHCP: Yes*	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses.	Absent No suitable habitat
<i>Laterallus jamaicensis coturniculus</i> California black rail	F: MBTA, Bird of Conservation Concern C: Threatened , S1, Fully Protected, FGC MSHCP: No	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about one inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Absent No suitable habitat
<i>Polioptila californica californica</i> coastal California gnatcatcher	F: Threatened , MBTA C: Species of Special Concern, S2, FGC MSHCP: Yes*	Inhabits sage scrub and sparse chaparral habitats in low-lying foothills and valleys.	Absent No suitable habitat
<i>Setophaga petechial</i> yellow warbler	F: MBTA, Bird of Conservation Concern C: Species of Special Concern, S3S4, FGC MSHCP: Yes*	Frequently found nesting and foraging in willows and other riparian plants in close proximity to water.	Absent No suitable habitat
<i>Spinus lawrencei</i> Lawrence's goldfinch	F: MBTA, Bird of Conservation Concern C: S4, FGC MSHCP: No	Nests in open oak or other arid woodland and chaparral, near water. Nearby herbaceous habitats used for feeding.	Low Suitable herbaceous foraging habitat present, but no nesting habitat.
<i>Vireo bellii pusillus</i> least Bell's vireo	F: Endangered , MBTA C: Endangered , S2, FGC MSHCP: Yes*	Inhabits riparian forests and willow thickets.	Absent No suitable habitat
Mammals			
<i>Chaetodipus fallax fallax</i> Northwestern San Diego pocket mouse	F: None C: Species of Special Concern, S3S4 MSHCP: Yes	Found in sandy herbaceous areas, usually associated with rocks or coarse gravel in coastal scrub, chaparral, grasslands, and sagebrush.	Low: Unlikely to have persisted in this disturbed, isolated habitat.

Species	Protective Status	Habitat	Occurrence Probability
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	F: Endangered C: Candidate Endangered , Species of Special Concern, S1 MSHCP: Yes*	Early to intermediate seral stages of alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Absent No suitable habitat
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	F: Endangered C: Threatened , S2 MSHCP: Yes*	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover.	Very Low: Unlikely to have persisted in this disturbed, isolated habitat. No kangaroo rat burrows seen.
<i>Eumops perotis californicus</i> western mastiff bat	F: None C: Species of Special Concern, S3S4 WBWG: H MSHCP: No	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels, and travels widely when foraging	Low Foraging only
<i>Lasiurus xanthinus</i> western yellow bat	F: None C: Species of Special Concern, S3 WBWG: H MSHCP: No	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Very Low: Marginally suitable roosting habitat (small palm).
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	F: None C: Species of Special Concern, S3S4 MSHCP: Yes	Coastal sage scrub habitats in southern California.	Low Foraging only
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	F: None C: Species of Special Concern, S3S4 MSHCP: Yes	Coastal scrub of southern California, moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Absent No suitable habitat
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	F: None C: Species of Special Concern, S3 WBWG: M MSHCP: No	Roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests.	Low Foraging only

Species	Protective Status	Habitat	Occurrence Probability
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	F: None C: Species of Special Concern, S1S2 MSHCP: Yes*	Lower elevation grasslands and coastal sage communities on open ground with sandy soils.	Very Low: Unlikely to have persisted in this disturbed, isolated habitat. Not in MSHCP survey area for the species.

KEY TO TABLE 3

Definitions of occurrence probability:

- Occurs:* Observed on the site by Wood biologists or recorded on-site by other qualified biologists.
- High:* Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
- Moderate:* Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
- Low:* Site is within the known range of the species but habitat on the site is rarely occupied by the species.
- Absent:* A focused study failed to detect the species, or, no suitable habitat is present.
- Unknown:* Distribution and habitat use has not been clearly determined.

Federal designation =F

State designation =C

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 EOs OR < 1,000 individuals OR < 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.

S5 = Secure. Common, widespread, and abundant in the state.

SH = All known California sites are historical, not extant

Western Bat Working Group (WBWG) designations:

H = High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

M: = Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

L: = Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.

P: = Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

MSHCP:

Yes = Fully covered through participation in the MSHCP.

Yes* = Covered through participation in the MSHCP, but additional actions may be required.

No = Not a covered species under the MSHCP.

5.8.1 Special Status Plant Species

Twenty-four special status plant species are known from the vicinity of the project site (Table 1). None were detected during the field visit and all are considered to be absent due to a lack of suitable habitat.

5.8.2 Special Status Vegetation Communities

Four special status vegetation communities are known from the area, but none are present on the project site (Table 2).

5.8.3 Special Status Wildlife

Thirty-nine species of special status wildlife have been recorded from the vicinity of the project site (Table 3). None were detected during the field visit, but nineteen have potential for occurrence. Those with occurrence potential are discussed below.

5.8.3.1 Insects

The Crotch bumble bee is a state candidate for listing as endangered. There is a low potential for the occurrence of this bee on the project site. Three other special status insects: desert cuckoo wasp, Busck's gallmoth, and white cuckoo bee have been recorded in the project area. There are no recent records, but because little is known of their habitat associations there is a very slight possibility of occurrence. None of these three are state or federally listed as threatened or endangered.

5.8.3.2 Reptiles

Four special status reptiles: Southern California legless lizard, California glossy snake, coastal whiptail, and coast horned lizard have a very low possibility of occurrence. None of these are state or federally listed as threatened or endangered.

5.8.3.3 Birds

Suitable burrowing owl roosting and nesting habitat, including dozens of potential burrows, is present on the project site. No burrowing owls were detected during the habitat assessment, but no focused survey was contracted or conducted.

Three additional special status bird species are of potential occurrence on the project site: Cooper's hawk, Swainson's hawk, and Lawrence's goldfinch. No nesting habitat is present, but these may occur as foragers and/or in migration.

None of these bird species are state or federally listed as threatened or endangered.

5.8.3.4 *Mammals*

Seven special status mammal species known from the project area have minimal potential for occurrence. Two bats, the pocketed freetail and western mastiff bat (moderate potential) might occur only as foragers. The western yellow bat roosts primarily in palms, and there is one small tree on site. None of these are state or federally listed as threatened or endangered.

The San Diego black-tailed jackrabbit and three nocturnal, burrowing rodents: northwestern San Diego pocket mouse, Los Angeles pocket mouse, and Stephens' kangaroo rat all have a low potential to occur in the project site. Stephens' kangaroo rat is federally listed as endangered, and state listed as threatened. The other three species are not state or federally listed as threatened or endangered. Although unlikely that any of these persist on site, there are numerous burrowing rodents of more common species present on site, so it cannot be ruled out.

6.0 DISCUSSION AND RECOMMENDATIONS

The primary species of concern is the burrowing owl. The project site is in the MSHCP designated burrowing owl survey area (Figure 6) and numerous potential burrows are present. Burrowing owls may roost and/or nest on site. Focused surveys and a pre-construction survey for burrowing owl will be required (County of Riverside Environmental Programs Department 2006a, 2006b). If burrowing owls occupy the site, agency consultation will be required.

The project site is also in the MSHCP designated narrow endemic plants survey area for Brand's phacelia, many-stemmed dudleya, and San Miguel savory (Figure 6). No habitat for these or any other special status plant of the area is present, however, so no plant surveys are required.

It is unlikely that any significant population of special status insect species will be encountered on the project site. If encountered, special status insect species should be avoided until they depart, if possible. Crotch bumble bee is treated as an endangered species, so if encountered and unavoidable, CDFW should be consulted.

It is unlikely that any significant population of special status reptile species will be encountered on the project site. Coastal whiptail and coast horned lizard are fully covered by the MSHCP. If encountered, special status reptile species should be avoided until they depart, if possible.

It is unlikely that any significant population of special status mammal species will be encountered on the project site. Foraging bats will not be impacted by the project. A preconstruction survey should be conducted of the one palm on site to ensure that roosting western yellow bats are not present. If present, CDFW should be consulted for relocation guidance prior to project impacts. and numerous potential burrows are present. Northwestern San Diego pocket mouse, Stephens' kangaroo rat, San Diego black-tailed jackrabbit, and Los Angeles pocket mouse are all fully covered by the MSHCP at the project site. No MSHCP mammal survey areas occur here.

Virtually all native bird species are protected by the MBTA and FGC. Impacts to nesting birds are not covered by the MSHCP. The project site provides mainly habitat for ground nesting birds, although a few trees or shrubs are present on or immediately adjacent to project boundaries. The burrowing owl is discussed above. Otherwise, direct and indirect impacts to nesting birds can be minimized or eliminated by conducting work outside of the primary breeding season. Although some nesting birds can occur year-round in Southern California, the primary avian breeding season is from approximately 1 February through 31 August. If possible, it is recommended to schedule work between September 1 and January 31 to avoid nesting activity. If work must be done during the nesting season, the site and immediately adjacent areas should be examined by a qualified biologist in the week prior to disturbance, especially where there could be any direct impacts. If active nests are found, the nests should be avoided, with a "no disturbance" buffer zone established and observed until young have fledged. While there is no established protocol for nest avoidance and buffer zones, when consulted, the CDFW generally recommends avoidance buffers of 500 feet for raptors and listed species and 100–300 feet for other unlisted birds. Nest avoidance and buffer zones are decided on a case-by-case basis by the biologist and can sometimes be reduced depending on a variety of factors including topography, vegetation structure, the species in question, and avian behavior. Construction activity may encroach into the buffer area at the discretion of the biologist. CDFW and/or USFWS concurrence may be required. The distance for avoidance buffers is related to the disturbance tolerance and status of each individual species. Endangered/threatened species and/or species such as raptors with a very low tolerance for disturbance will have a larger avoidance buffer. Species with a high disturbance tolerance will have a smaller avoidance buffer. The use of noise attenuation barriers when adjacent to nesting habitat or known nests may also allow such buffers to be reduced.

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APPENDIX A

PLANT AND VERTEBRATE SPECIES LISTS

SPECIES LIST

This list reports only species observed in the project site during Wood's site visit. Other species may have been overlooked or undetectable due to their growth or activity patterns. Nomenclature and taxonomy for flora observed on site follows the Jepson eFlora (2021). If no common name is listed in Jepson, the USDA PLANTS database (2021) is followed. For fauna observed on site California Bird Records Committee (2021) is followed for birds and CDFW (2016a) is followed for herpetofauna and mammals.

SYMBOLS AND ABBREVIATIONS:

* = Non-native species, sp. = identified only to genus

PLANTS OBSERVED	
Amaranthaceae	Amaranth Family
<i>Amaranthus albus</i> *	tumbleweed
Arecaceae	Palm family
<i>Washingtonia sp.</i> *	fan palm
Asteraceae	Sunflower family
<i>Baccharis salicifolia ssp salicifolia</i>	mule fat
<i>Erigeron canadensis</i>	horseweed
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Lactuca serriola</i> *	prickly lettuce
<i>Sonchus sp.</i> *	sow thistle
Boraginaceae	Borage Family
<i>Amsinckia sp.</i>	fiddleneck
Brassicaceae	Mustard family
<i>Brassica tournefortii</i> *	Sahara mustard
<i>Raphanus raphanistrum</i> *	jointed charlock
<i>Sisymbrium sp.</i> *	rocket
Chenopodiaceae	Saltbush family
<i>Salsola tragus</i> *	Russian thistle
Euphorbiaceae	Spurge Family
<i>Euphorbia maculata</i> *	spotted spurge
Geraniaceae	Geranium family
<i>Erodium cicutarium</i> *	redstem filaree
Malvaceae	Mallow family
<i>Malva parviflora</i> *	cheeseweed
Poaceae	Grass family
<i>Avena sp.</i> *	wild oat
<i>Bromus diandrus</i> *	ripgut grass
<i>Bromus rubens</i> *	red brome
<i>Cynodon dactylon</i> *	Bermuda grass

PLANTS OBSERVED	
<i>Hordeum murinum</i> *	wall barley
Solanaceae	Nightshade Family
<i>Solanum elaeagnifolium</i> *	white horse-nettle
Zygophyllaceae	Caltrop Family
<i>Tribulus terrestris</i> *	caltrop
WILDLIFE OBSERVED	
REPTILIA	REPTILES
Phrynosomatidae	Spiny Lizards
<i>Uta stansburiana</i>	common side-blotched lizard
<i>Sceloporus occidentalis</i>	western fence lizard
AVES	BIRDS
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird
Accipitridae	Hawks, Kites, Eagles, Allies
<i>Buteo jamaicensis</i>	red-tailed hawk
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
Passeridae	Old World Sparrows
<i>Passer domesticus</i> *	house sparrow
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	house finch
Parulidae	Wood-Warblers
<i>Setophaga coronata</i>	yellow-rumped warbler
MAMMALIA	MAMMALS
Sciuridae	Squirrels
<i>Otospermophilus beecheyi</i>	California ground squirrel
Geomyidae	Pocket Gophers
<i>Thomomys bottae</i>	Botta's pocket gopher

APPENDIX B

SITE PHOTOGRAPHS



Photo 1. Site overview looking northeast from southwest corner.



Photo 2. Several of many burrows on site suitable for occupation by burrowing owl.



Photo 3. California ground squirrel in one of many burrow clusters suitable for burrowing owls.



Photo 4. Some of the few shrubs and overhanging trees providing potential nest and roost sites.