Steele Peak Inaugural Trail

Initial Study - Mitigated Negative Declaration (IS-MND)

Appendix B – Biological Resources Technical Report

Biological Resources Technical Report

Steele Peak Inaugural Trail Project

Unincorporated Riverside County, California

FINAL REPORT

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GLOSSARY

AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
CAPSA	Criteria Area Plant Survey Areas
CDFG	California Department of Fish and Game (CDFW effective Jan 1st 2013)
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranking
CWA	Clean Water Act
DBESP	Determination of Biological Equivalent or Superior Preservation
FESA	federal Endangered Species Act
GIS	Geographic Information System
HANS	Habitat Acquisition and Negotiation Strategy
HRMP	Habitat Restoration Monitoring Plan
JPR	Joint Project Review
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NCCP	Natural Communities Conservation Plan
NEPS	Narrow Endemic Plant Species
NEPSA	Narrow Endemic Plant Survey Areas
NPPA	Native Plant Protection Act
OHWM	Ordinary High-Water Mark
RCA	Western Riverside County Regional Conservation Authority
RCDWR	Riverside County Department of Waste Resources
RCHCA	Riverside County Habitat Conservation Agency
RCIP	Riverside County Integrated Project
RWQCB	Regional Water Quality Control Board
SSC	California Species of Special Concern
RWQCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

INTRODUCTION

The following biological technical report describes a detailed assessment of potential sensitive natural resources located within and immediately adjacent to the Steele Peak Inaugural Trail Project. Specifically, the report has been prepared to support the California Environmental Quality Act (CEQA) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) documentation, compliance, and review process conducted by the Riverside County Habitat Conservation Agency and Riverside County Department of Waste Resources. As discussed below, the assessment includes a thorough literature review, site reconnaissance characterizing baseline conditions (including floral, faunal and dominate vegetation communities), impact analysis, and proposed conservation measures.

STUDY AREA

The 81.38-acre study area "Study Area", is located within the Mead Valley region of unincorporated Riverside County, United States Geological Survey (USGS) 7.5' Series Steele Peak Quadrangle, Riverside County as shown in Figure 1, *Regional Location Map*. The northern 10.94-acres of the Study Area is owned and managed by the Riverside County Department of Waste Resources (RCDWR) as the closed Mead Valley Sanitary landfill and the southern 70.44-acres is owned and managed by the Riverside County Habitat Conservation Agency (RCHCA) as the Steele Peak Core Reserve, as shown in Figure 2, *Study Area Map*.

The RCDWR portion of the Study Area is located partially within Assessor's Parcel Numbers (APNs) 323-040-006 and 323-040-005, extending north of Forrest Road. The RCDWR portion of the Study Area is located within the Western Riverside County MSHCP Mead Valley Area Plan, and is not located within a criteria area cell or cell group as shown in Figure 3, *MSHCP Relationship Map* (Western Riverside County Regional Conservation Authority (RCA) Geographic Information System (GIS) Data Downloads 2021). Therefore, no Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required. The RCDWR is a permittee to the MSHCP and the northern region of the Study Area is covered under the MSHCP.

The RCHCA portion of the Study Area is located completely within APNs 323-060-014 and 323-050-004. The RCHCA is not a permittee to the MSHCP and the southern region of the Study Area is not covered under the MSHCP.

PROJECT DESCRIPTION

Background

The RCHCA is a Joint Powers Authority (JPA) comprised of the County of Riverside and the cities of Corona, Hemet, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Perris, Riverside, Temecula and Wildomar. The RCHCA's original purpose was to develop, plan and execute the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP). The SKR HCP called for conserving 15,000-acres of occupied Stephens' Kangaroo Rat (SKR) habitat. In order to acquire the requisite acreage, RCHCA

assembled a 40,000-acre reserve system in western Riverside County comprised of local, State, and Federal land contributions. Once the reserve system was assembled, RCHCA established endowments for many of the larger reserves.

In October of 1988 SKR was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS). Under the federal Endangered Species Act (FESA), both the SKR and its habitat are protected from any type of disturbance resulting in harming the species. Although it is small, typically at only 2.4 ounces, it plays an important role in its environment because it is a 'keystone species' that has a great effect on their ecosystem and surrounding environment. Without keystone species, the ecosystem would be dramatically different or cease to exist all together.

Keystone species have '*low functional redundancy*', which means that if the species were to disappear from the ecosystem, no other species would be able to fill its ecological niche. The SKR has played an important role as a keystone species due to their ability to promote the growth of native plants and reduce the spread of invasive ones. They do this through their diet of seeds and burrowing. The SKR build complex burrows which increase soil fertility and water infiltration. These rodents also tend to store seeds in their burrow. Not all of these seeds would be eaten, leading to more native plant growth.

The RCHCA has jurisdiction and oversight over numerous conservation areas within western Riverside County, which is intended to provide habitat for SKR. Typically, public access to these conservation areas is limited or prohibited. Staff work to deter unfettered access and the impacts of illegal trespassing and dumping activity on the lands. The proposed Study Area is located within two (2) parcels that are part of RCHCA-owned lands, which comprise 70.44-acres of 1,723 acres of conserved lands for the SKR in the Steele Peak Reserve, as shown on Figure 2, *Study Area Map*. The rest of the Steele Peak Reserve land is owned by the Bureau of Land Management. Adjacencies include low-density single-family homes abutting the property, with horses on several larger properties.

The proposed RCHCA portion of the Study Area has been historically closed to the public and has been fenced and gated to prevent unauthorized access. Consequently, fencing has been illegally removed in many locations, allowing unauthorized access to the site. The proposed Study Area and surrounding area has retained numerous, sporadic trails that are evident in aerial images as early as 1994, which was prior to RCHCA's creation. The presence of these numerous trails today suggests continued public use of the Reserve, where illegal public use of the Reserve has increased over the previous years.

The RCHCA continues to face frequent difficulties from illegal use of the Reserve, such as trash dumping, trail use and off-highway vehicle (OHV) use. These problems have resulted in areas of the Reserve not able to successfully provide habitat for SKR, which is the purpose of the Reserve. The RCHCA understands there is benign community interest in use of the Reserve, however, the larger trails have branches to many smaller 'trails-to-be' that have increased areas of disturbance to the Reserve. RCHCA recognizes that community access can help inform the public on the importance of

conservation for SKR and provide a mechanism to proactively address the difficulties the Reserve faces.

Although the Reserve has historically been closed to public access with the intent of preserving SKR habitat, governing agencies are now investigating ways to combine the preservation effort with recreational benefits, which includes directives for multi-use trails and multi-use open space. The RCHCA Board of Directors, staff and other stakeholders identified the 250-acre Reserve within the southwest corner of the Mead Valley planning area as the best suited for public access because the land is solely owned by RCHCA, and staff spends numerous hours and resources repairing and replacing fencing for unapproved access at the Reserve. Therefore, a new approach is warranted to increase positive awareness and appreciation for these lands by allowing for proper public access. As stated by the RCHCA:

> "*Steele Peak is a reserve comprised of lands owned by the Bureau of Land Management and the Riverside County Habitat Conservation Agency. The lands are independently managed by each entity. Currently, there is no public access. However, the RCHCA recognizes the importance of allowing for public access and is working on a public access plan for this Reserve. If done appropriately, it will help the public achieve a greater understanding of the need for conservation of these lands and a better appreciation of all endangered and threatened species and the beautiful open space areas in Western Riverside County*." (RCHCA 2021)

Proposed Development

The RCHCA has devoted a great deal of effort on a comprehensive solution to the difficulties facing the Reserve that responds to the needs of the community while maintaining relatively undisturbed conditions of the proposed Study Area. The RCHCA proposes to create a 1.2-mile sustainable trail loop with associated fencing and signage for the public to enjoy while preserving and restoring disturbed areas outside the proposed trail. The proposed Steele Peak Inaugural Trail project would provide the first public access to natural open space with recreational opportunities within 7-miles for the community of Good Hope, a disadvantaged community. Good Hope is a census-designated place comprising 11.2 square miles west of the City of Perris in unincorporated Riverside County, with a population of 9,192 in 2010 (U.S Census). The RCHCA is excited to propose the first recreational park opportunity where there are zero park acres and zero parks per thousand people in the area by using a small portion of the Reserve land. The proposed project would be located on the eastern area of the Reserve and would be Americans with Disabilities Act (ADA) accessible. The eastern area of the Reserve provides the flattest area of the site and would be most accessible for a range of trail users.

The proposed project intends to utilize existing trails that are between 10 and 12 feet wide. Using this disturbed trail within the Reserve is most ideal for the proposed trail because damage to the Reserve has already been done there. Further, the proposed Project would narrow these disturbed existing trails to approximately 6 feet using vegetation, rocks, and fencing to prevent unauthorized OHV access on the trail. Narrowing of the trails would result in approximately 0.48 to 0.73 acres of area that can

revegetate to become viable SKR habitat. The fencing would keep trail users on the designated paths and prevent damage to the surrounding SKR habitat and vegetation. The proposed trail would only be open to hikers and amenities would be minimal.

Fencing would be placed on both sides of the 6-foot-wide trail. Fencing on the trails would consist of a composite rail with splitting (Trex composite). Perimeter fencing would also be added or replaced along Forrest Road and end at the intersection of San Jacinto Avenue and Forrest Road to help prevent unauthorized entry and illegal offloading in the Reserve. The Trex composite rail with splitting style also provides a better aesthetic by keeping to the rural character of the Reserve rather than the existing chain-link fence. Signage such as direction signs, gateway/monument signs, trailhead kiosks, confirmation posts, mile markers, and interpretive signs would be added as part of the wayfinding program. The proposed suite of wayfinding signage was designed in accordance with the Riverside County Parks and Open Space District's Comprehensive Trails Plan guidelines.

Parking for up to 10 cars would be established off site just north of the entrance to the trail system at the end of Forrest Road, on a portion of the Mead Valley Sanitary Landfill owned by the RCDWR. The RCHCA would lease a portion of a decommissioned landfill from the RCDWR to allow parking, a gate and new fencing meant to control access and allow RCHCA to enforce operational hours to the site. The parking area would be lined with decomposed granite. Other amenities would include basic wayfinding, interpretive signage, seating boulders, and multiple trash receptacles to help minimize waste along the trail. Access to the Reserve from the parking lot would occur via an existing Southern California Edison (SCE) easement that runs directly west from the parking area. RCHCA's land lease from RCDWR would ensure existing facility access is maintained for Waste Resources and SCE, while trail access is provided without disturbing their operations and maintenance activities.

An important aspect of this proposed project is to restore areas of the Reserve that have been previously damaged by illegal activities, primarily the trails created by illegal OHV use. Restoration of unauthorized trails would occur to assist in closing and reducing ongoing impacts to the Steele Peak Reserve by illegal uses, such as OHV activity. Two (2) areas within the proposed Study Area of the Reserve have been identified for restoration purposes. One area for restoration is a forked trail located west of Forrest Road. Restoration would occur to close this disturbed trail and prevent further use. The second area is a bare patch located adjacent to the northern portion of the proposed trail. Restoration of the area would enhance the aesthetics of the proposed seating area and restore damaged habitat.

Construction

Construction of the proposed project is expected to last approximately two months. Equipment that is expected to be used consists of motorized hand augers, hammering for fence posts (not pile driving), power drills and saws, skid-steer/bobcat, plate compactor, and flatbed trucks. It is anticipated that motorized augers and hammering would be used for approximately two weeks for installation of the fencing posts. The skid-steer/bobcat would be used periodically for the two months of construction as-needed. Flatbed trucks would only be on site four times over the construction period for

material deliveries. Hand tools such as saws and drills would be used throughout construction.

Construction of the trail would consider suggestions made within the SKR HCP. The development of the trail in the Reserve would be consistent with the Reserve's Multiple Species Habitat Conservation Plan (MSHCP), Cooperative Management Agreement, and management plan within the SKR HCP for lands specifically managed for SKR. Although the Western Riverside County MSHCP has no management authority in the Reserve, it has been evaluated and includes provisions for public access that would be considered in developing the trail in the Reserve.

Operation

The proposed trail would be open from sunrise to sunset. Operations of the Reserve area that are not part of the proposed trail would continue to follow existing operations. Maintenance of the proposed trails would occur on an as-needed basis and would most likely include activities such as: repair of broken fencing, trash pickup, response to vandalism, and signage repair. Maintenance of the trail and associated amenities would fall within the overall RCHCA general funds.

Day-to-day operations would be handled by a full-time patrol that would be present during the hours of operation. The patrol would help to encourage appropriate use of the site and discourage vandalism and off-roading. The gate to the parking area would be locked outside of hours of operation. Funding of the patrol would be through a non-wasting endowment that would be established prior to the development of the trail. The east-west connection between the proposed parking area and the proposed trails follows a right-of-way of SCE utility poles. It is anticipated that trail access may be limited or closed due to maintenance activities for the SCE utility poles. These maintenance activities are anticipated to be infrequent and less than once per year.

Drainage

Design of the proposed trail included major considerations to avoid existing ephemeral drainages and having trails go through valley bottoms and swales as these areas can be difficult to drain. The proposed project would maintain natural drainage patterns through utilization of intentional cross-sloping, outfalls, and periodic drain dips.

Lighting

No additional lighting would be added to the proposed trail system primarily due to the potential adverse impacts to SKR. The proposed trail would only be open from sunrise to sunset when natural sunlight present.

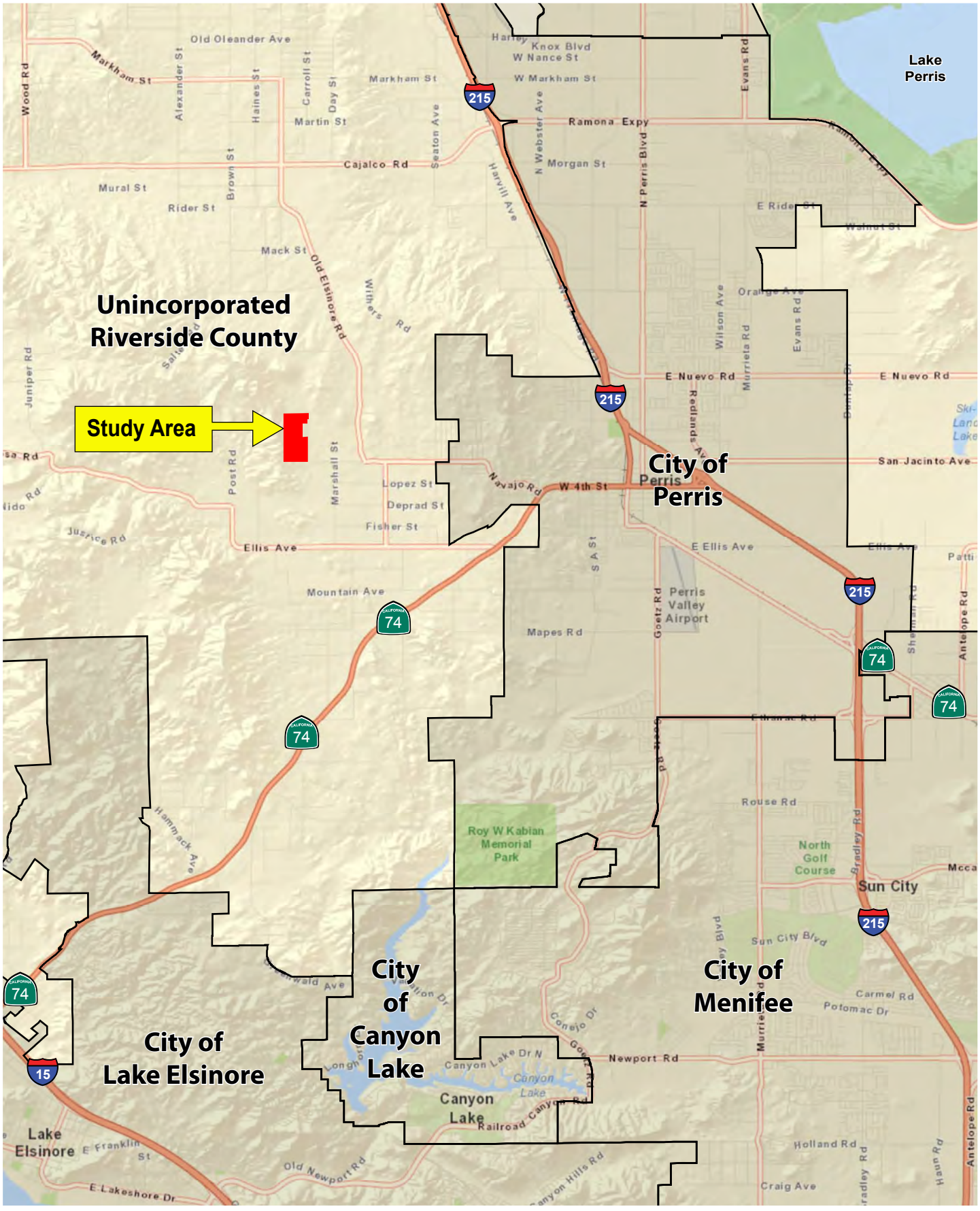

Figure 1 - Regional Location Map

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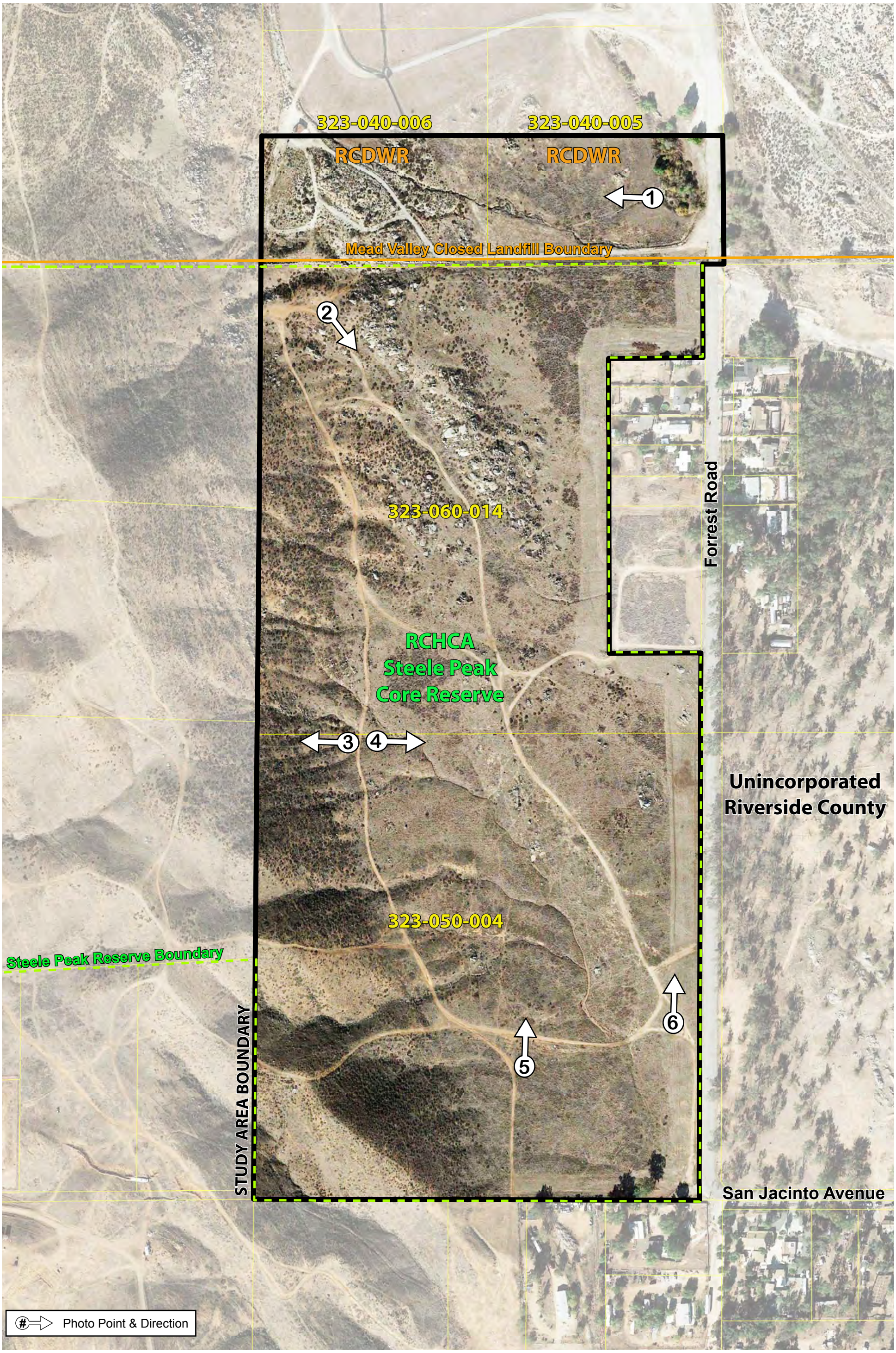
not to scale



Riverside County Habitat Conservation Agency (RCHCA), Riverside County Department of Waste Resources (RCDWR)

Figure 2 - Study Area Map

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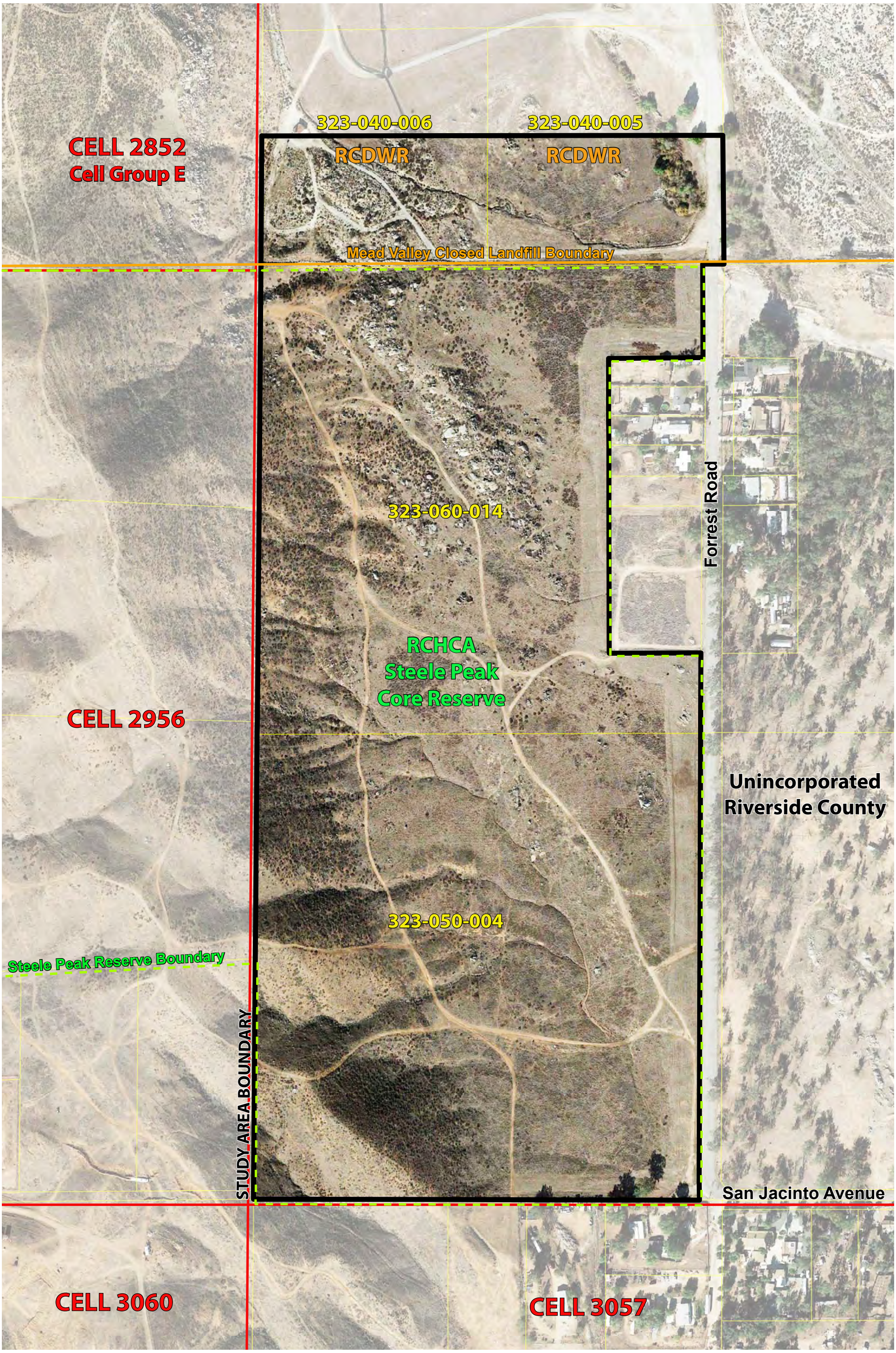
1 inch = 250 feet



Riverside County Habitat Conservation Agency (RCHCA), Riverside County Department of Waste Resources (RCDWR)

Figure 3 - MSHCP Relationship Map

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1 inch = 250 feet

LITERATURE REVIEW

Existing biological resource conditions within and adjacent to the Study Area were initially investigated through review of pertinent scientific literature. Federal register listings, protocols, and species data provided by the USFWS were reviewed in conjunction with anticipated federally listed species potentially occurring within the Study Area. The California Natural Diversity Database (CNDDB 2021a), a California Department of Fish and Wildlife (CDFW) Natural Heritage Division species account database, was also reviewed for all pertinent information regarding the locations of known occurrences of sensitive species in the vicinity of the property. In addition, numerous regional floral and faunal field guides were utilized in the identification of species and suitable habitats. Combined, the sources reviewed provided an excellent baseline from which to inventory the biological resources potentially occurring in the area. Other sources of information included the review of unpublished biological resource letter reports and assessments. Other CDFW reports and publications consulted include the following:

- Special Animals (CDFW 2021b);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2021c);
- Endangered, Threatened, and Rare Plants of California (CDFW 2021d); and
- Special Vascular Plants and Bryophytes List (CDFW 2021e).

FIELD SURVEYS

Reconnaissance surveys of the Study Area were conducted by Ruben Ramirez, Cadre Environmental on December 14th, 2020 and April 26th, 2021 in order to characterize and identify potential wildlife habitats, and to establish the accuracy of the data identified in the literature search and previous surveys. Aerial photograph, topographic maps, and vegetation and rare plant maps prepared by previous studies in the region were used to determine community types and other physical features that may support sensitive plants/wildlife, uncommon taxa, or rare communities that occur within the Study Area.

The MSHCP has determined that all of the sensitive species potentially occurring within the northern region of the Study Area (RCDWR property) have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for narrow endemic plant, criteria area, and specific wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined “Survey Area” (MSHCP 2004). Based on the initial MSHCP review of predetermined Survey Areas, a habitat assessment was conducted for the following MSHCP Species.

<u>Section 6.1.2 Riparian, Riverine, Vernal Pool Species</u>

- Riverside fairy shrimp *(Streptocephalus woottoni*) [Federally Endangered, FE];
- vernal pool fairy shrimp (*Branchinecta lynchi*) [Federally Threatened, FT];
- least Bell's vireo (*Vireo bellii pusillus*) [FE/State Endangered, SE;]

- southwestern willow flycatcher (*Empidonax traillii extimus)* [FE/SE];
- western yellow-billed cuckoo *(Coccyzus americanus occidentalis*) [SE].

Wildlife Species

- burrowing owl (*Athene cunicularia*) [California Species of Special Concern (State Species of Special concern, SSC)].

Vegetation Communities/Habitat Classification Mapping

Natural community names and hierarchical structure follows the CDFW "List of California Terrestrial Natural Communities" and/or Holland (1986) classification systems, which have been refined and augmented where appropriate to better characterize the habitat types observed onsite when not addressed by the MSHCP classification system.

Floristic Plant Inventory

A general plant survey was conducted throughout the Study Area during the initial reconnaissance in a collective effort to identify all species occurring onsite.

All plants observed during the survey efforts were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman (1993). Scientific nomenclature and common names used in this report generally follow Roberts et al. (2004) or Baldwin et al. (2012) for updated taxonomy. Scientific names are included only at the first mention of a species; thereafter, common names alone are used.

Wildlife Resources Inventory

All animals identified during the reconnaissance survey by sight, call, tracks, scat, or other characteristic sign were recorded onto a 1:200 scale orthorectified color aerial photograph or documented using a global positioning system (GPS). In addition to species actually detected, expected use of the site by other wildlife was derived from the analysis of habitats on the site, combined with known habitat preferences of regionally occurring wildlife species.

Vertebrate taxonomy followed in this report is according to the Center for North American Herpetology (2021 for amphibians and reptiles), the American Ornithologists' Union (1988 and supplemental) for birds, and Baker et al. (2003) for mammals. Both common and scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Regional Connectivity/Wildlife Movement Corridors

The analysis of wildlife movement corridors associated with the Study Area and immediate vicinity is based on information compiled from literature, analysis of the aerial photograph and direct observations made in the field during the reconnaissance site visit.

A literature review was conducted that includes documents on island biogeography (studies of fragmented and isolated habitat "islands"), reports on wildlife home range sizes and migration patterns, and studies on wildlife dispersal. Wildlife movement studies conducted in southern California were also reviewed. Use of field-verified digital data, in conjunction with the GIS database, allowed proper identification of regional vegetation communities and drainage features. This information was crucial to assessing the relationship of the Study Area to large open space areas in the immediate vicinity and was also evaluated in terms of connectivity and habitat linkages. Relative to corridor issues, the discussions in this report are intended to focus on wildlife movement associated within the Study Area and the immediate vicinity.

MSHCP Focused Burrowing Owl Surveys

In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. Step II is comprised of two parts, Part A: Focused Burrow Surveys and Part B: Focused Burrowing Owl Surveys.

Each step is briefly outlined below, followed by the methodology and results of each survey conducted within the Study Area. All initial habitat assessment and burrow surveys were conducted by Ruben Ramirez.

Surveys were conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys were not conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. None of the surveys were conducted within five (5) days of measurable precipitation.

In addition to the MSHCP guidelines, field notes were taken daily. These notes recorded the date, location, animal species observed, and general habitat characteristics of each area and habitat examined that day.

Step I – Habitat Assessment

Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. Cadre Environmental conducted the habitat assessment on December 14th, 2020. Upon arrival at the Study Area, and prior to initiating the assessment survey, Cadre Environmental used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence.

All suitable areas of the Study Area were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are 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 mammals, such as ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea*

taxus), but they often utilize man-made 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 in close proximity to man-made structures. According to the MSHCP guidelines, if suitable habitat is present the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Study Area boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars.

Jurisdictional Delineation

A jurisdictional resources assessment was conducted by Cadre Environmental on December 14th, 2020. The assessment determined the presence or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq*. of the California Fish and Game Code (CDFG Code); and Riparian/Riverine Areas and Vernal Pools defined in Section 6.1.2 of the Western Riverside County MSHCP.

Prior to beginning the field assessment, a color aerial photograph, a topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of USACE/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army USACE of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[2].

EXISTING ENVIRONMENTAL SETTING

SURROUNDING LAND USES/TOPOGRAPHY/SOILS

The majority of the Study Area slopes east from Riversidean sage scrub dominated hilltops (1,870 feet above mean sea level (AMSL)) to a lowland area characterized as non-native grassland with scattered Riversidean sage scrub/rock outcrops (1,700 feet AMSL), and an existing matrix of unvegetated dirt trails, as illustrated in Figure 4, *Vegetation Communities Map* and Figures 5 to 7, *Study Area Photographs*.

[1] Environmental Laboratory. 1987. USACE of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[2] U.S. Army USACE of Engineers. 2008. Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the Study Area as shown on Figure 8, *Soils Association Map*:

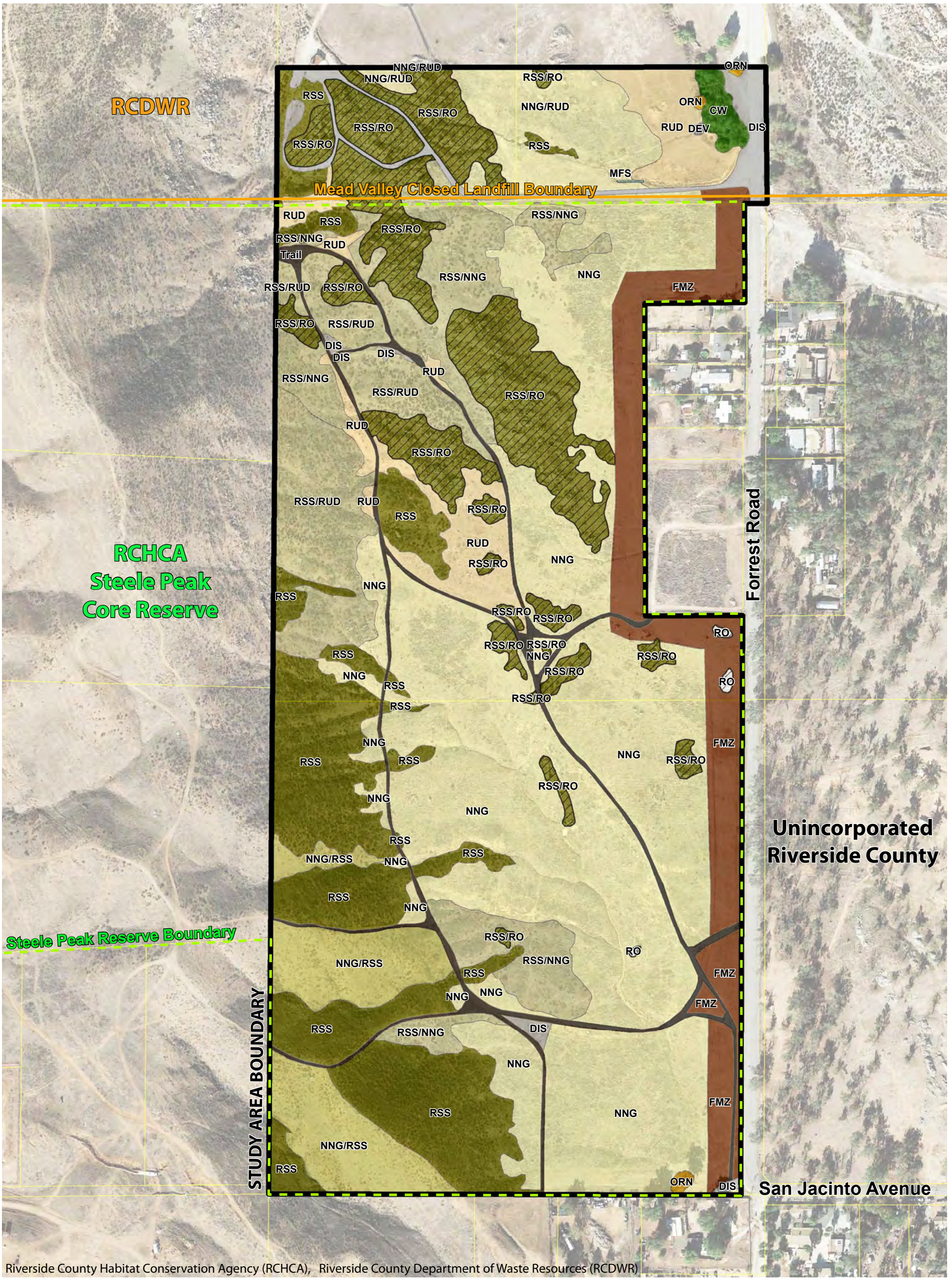
- ChC - Cieneba sandy loam, 5 to 8 percent slopes
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, eroded
- FaD2 - Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- HcH - Hanford coarse sandy loam, 2 to 8 percent slopes
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- VsC - Vista coarse sandy loam, 2 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded

VEGETATION COMMUNITIES

Natural community names follow the CDFW "List of California Terrestrial Natural Communities" and/or Holland (1986) classification system, which have been refined and where appropriate to better characterize the habitat types onsite when not addressed by the MSHCP classification system. Acreage totals for vegetation communities documented onsite and offsite are listed in Table 1. *Vegetation Communities Acreages*.

Table 1.
Vegetation Communities Acreages

*Vegetation Type	Acres (RCHCA Lands)	Acres (RCDWR Lands)	Acres (Total)
GRASSLAND Habitats			
Non-native Grassland	27.80	0.34	28.14
Non-native Grassland/Ruderal	0.02	3.28	3.30
Non-native Grassland/Riversidean Sage Scrub	4.42	--	4.42
Scrub Habitats			
Riversidean Sage Scrub	11.03	0.63	11.67
Riversidean Sage Scrub/Non-native Grassland	5.31	0.28	5.59
Riversidean Sage Scrub/Ruderal	5.06	--	5.06
Riversidean Sage Scrub/Rock Outcrops	6.27	2.90	9.17
Rock Outcrops	0.07	--	0.07
Riparian Habitats			
Mule Fat Scrub	--	0.01	0.01
Cottonwood Willow Riparian	--	0.42	0.42
Developed & Disturbed Habitats			
Ornamental	0.06	0.04	0.10
Disturbed	0.23	1.31	1.53
Disturbed (Fuel Modification Zone (FMZ))	5.94	0.12	6.06
Disturbed (Trail)	2.25	--	2.25
Developed	--	0.02	0.02
Ruderal	1.98	1.59	3.57
TOTAL	**70.44**	**10.94**	**81.38**



Vegetation Communities

NNG	Non Native Grassland	RUD	Ruderal	Trail	Trail (existing)
NNG/RUD	Non Native Grassland/Ruderal	RSS/RO	Riversidean Sage Scrub/Rock Outcrop	FMZ	Fuel Modification Zone
NNG/RSS	Non Native Grassland/Riversidean Sage Scrub	RSS	Riversidean Sage Scrub	ORN	Ornamental
CW	Cottonwood Willow Riparian	RSS/NNG	Riversidean Sage Scrub/Non Native Grassland	DIS	Disturbed
MFS	Mule Fat Scrub	RSS/RUD	Riversidean Sage Scrub/Ruderal	DEV	Developed
				RO	Rock Outcrop

Source: Cadre Environmental 2020

Figure 4 - Vegetation Communities Map

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N

1 inch = 250 feet

PHOTOGRAPH 1

PHOTOGRAPH 2

Refer to Figure 2 - Study Area Map

Figure 5 - Study Area Photographs

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PHOTOGRAPH 3

PHOTOGRAPH 4

Refer to Figure 2 - Study Area Map

Figure 6 - Study Area Photographs
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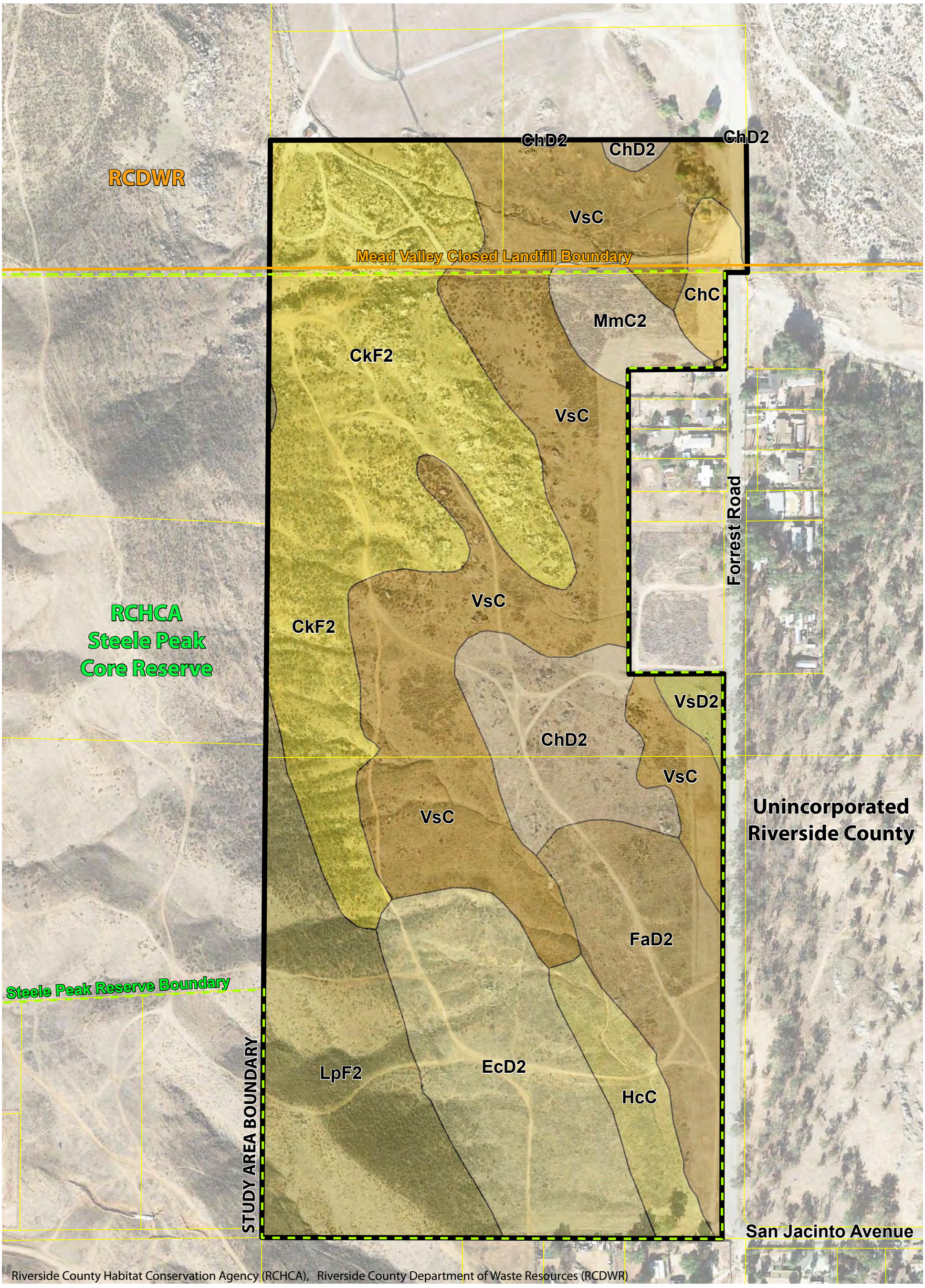
PHOTOGRAPH 5

PHOTOGRAPH 6

Refer to Figure 2 - Study Area Map

Figure 7 - Study Area Photographs
Biological Resources Technical Report
Steele Peak Inaugural Trail Project

CADRE Environmental



ChC	Cieneba sandy loam, 5 to 8 percent slopes	**HcC**	Hanford coarse sandy loam, 2 to 8 percent slopes
ChD2	Cieneba sandy loam, 8 to 15 percent slopes, eroded	**LpF2**	Lodo rocky loam, 25 to 50 percent slopes, eroded
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	**MmC2**	Monserate sandy loam, 5 to 8 percent slopes, eroded
EcD2	Escondido fine sandy loam, 8 to 15 percent slopes, eroded	**VsC**	Vista coarse sandy loam, 2 to 8 percent slopes
FaD2	Fallbrook sandy loam, 8 to 15 percent slopes, eroded	**VsD2**	Vista coarse sandy loam, 8 to 15 percent slopes, eroded

Source: NRCS 2020

Figure 8 - Soils Association Map

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N

1 inch = 250 feet

Grassland Habitats

Grassland habitats are primarily located in the eastern lowland region of the Study Area. Several patches of non-native grassland in association with less dominant ruderal and Riversidean sage scrub species, as described below, are also located within this region of the Study Area. Common Species documented in the grassland habitats include wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*), common fiddleneck (*Amsinckia intermedia*), and doveweed (*Croton setigerus*).

Scrub Habitats

Riversidean sage scrub habitats are primarily located on the slopes along the western Study Area boundary. Where this vegetation community occurs within the eastern lowlands, they are associated with rock outcrops. Several patches are also characterized as having an equal density of scrub and non-native grassland or ruderal species. Common species documented within this habitat type include brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), pinebush (*Ericameria pinifolia*), California matchweed (*Gutierrezia californica*), and California buckwheat (*Eriogonum fasciculatum*). Species documented in the region of the outcrops include sweetbush (*Bebbia juncea*), cotton-thorn (*Tetradymia comosa*), chaparral beard tongue (*Keckiella antirrhinoides*), and California brickellbush (*Brickellia californica*).

Riparian Habitats

A small patch of cottonwood willow riparian and mule fat scrub are located within the northeast region of the Study Area within the RCDWR property. Species documented within these vegetation communities include Fremont's cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), salt cedar (*Tamarix ramosissima*), Goodding's black willow (*Salix gooddingii*), annual sunflower (*Helianthus annus*), and mule fat (*Baccharis salicifolia*).

Developed & Disturbed Habitats

The developed region of the Study Area includes the paved portion of the RCDWR land extending north of Forrest Road. Disturbed areas of the Study Area include those areas generally devoid of vegetation including the existing matrix of dirt trails. Species documented within the disturbed habitats include common sand aster (*Corethrogyne filaginifolia*), deerweed, telegraph weed (*Heterotheca grandiflora*), clustered tarweed (*Deinandra fasciculata*), and prickly sow thistle (*Sonchus asper*). Ruderal regions of the Study Area are dominated by stinknet (*Oncosiphon piluliferum*), black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), and red-stemmed filaree. A few ornamental trees were documented within the Study Area including Eucalyptus (*Eucalyptus globulus*) and Peruvian pepper tree (*Schinus molle*).

GENERAL WILDLIFE SPECIES

General wildlife species documented on site include but are not limited to red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), cliff swallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), wrentit (*Chamaea fasciata*), greater roadrunner (*Geococcyx californianus*), California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), white crowned sparrow (Zonotrichia leucophrys), western meadowlark (*Sturnella neglecta*), desert cottontail rabbit (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*).

JURISDICTIONAL RESOURCES

An initial jurisdictional habitat assessment was conducted throughout the Study Area to determine the presence of absence of potential resources regulated by the USACE, CDFW and/or RWQCB. The northern region of the Study Area (RCDWR) was also assessed to determine the presence or absence of MSHCP Section 6.1.2 riparian, riverine or vernal pool resources.

The southern region of the Study Area (RCHCA property) possesses several ephemeral drainages and swales extending southwest from the slopes located along the western property boundary to the southwest region of the Study Area. These ephemeral drainages and swales do not possess wetland, riparian scrub, forest or woodland habitats, as shown in Figure 9, *Potential Jurisdictional Resources Map*. Regardless, these features are expected to be regulated by both CDFW and the RWQCB.

The northern region of the Study Area (RCDWR property) possesses several ephemeral drainages which extend in a southwestern direction offsite through a culvert. The onsite drainages merge in the eastern region of the property and support a small patch of mule fat scrub and cottonwood willow riparian habitat. These features are expected to be regulated by CDFW, the RWQCB, and Section 6.1.2 of the MSHCP (riparian and riverine resources).

No evidence of vernal pools, seasonal depressions, seasonally inundated road ruts or other wetland features were recorded on the Study Area. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

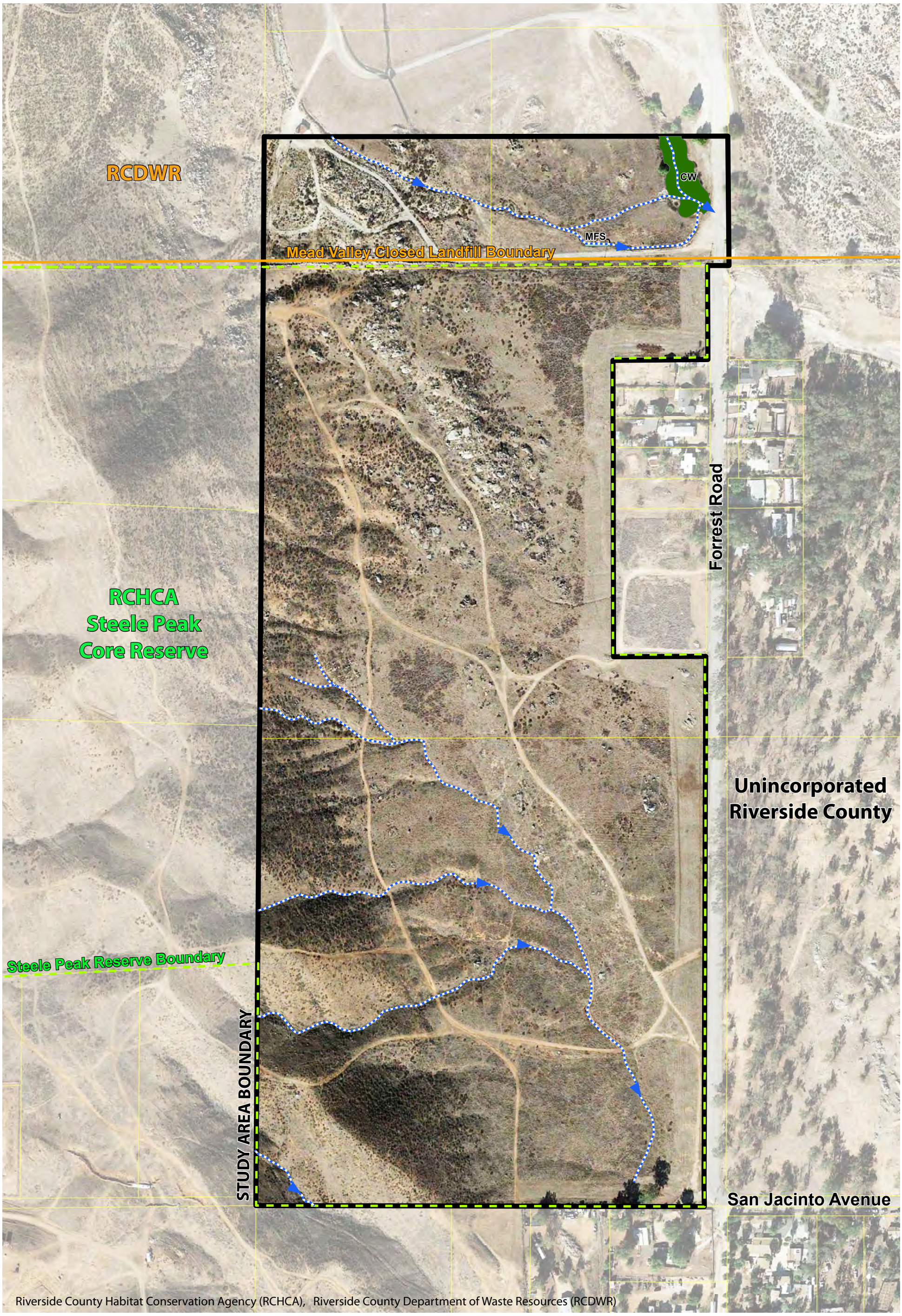

Figure 9 - Potential Jurisdictional Resources Map

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Consistent with conditions documented onsite and as previously stated, the Study Area is characterized as Cieneba sandy loam, Cieneba rocky sandy loam, Escondido fine sandy loam, Fallbrook sandy loam, Hanford coarse sandy loam, Lodo rocky loam, Monserate sandy loam, and Vista coarse sandy loam, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Study Area.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Study Area during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, hydric soils, historic inundation, etc.) were observed or documented within the Study Area. No features are present that would support fairy shrimp. No standing water or other sign of areas that pond water was recorded.

SENSITIVE BIOLOGICAL RESOURCES

The following discussion describes the plant and wildlife species present, or potentially present within the property boundaries, that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations, principally due to the species' declining or limited population sizes, usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected sensitive species are classified by state and/or federal resource management agencies, or both, as threatened or endangered, under provisions of the state and federal endangered species act. Vulnerable or "at-risk" species that are proposed for listing as threatened or endangered (and thereby for protected status) are categorized administratively as "candidates" by the USFWS. CDFW uses various terminology and classifications to describe vulnerable species. There are additional sensitive species classifications applicable in California. These are described below.

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. The CDFW, USFWS, and special groups like the California Native Plant Society maintain watch lists of such resources. For the purpose of this assessment sources used to determine the sensitive status of biological resources are:

Plants: USFWS (2020), CNDDB (CDFW 2021a), CDFW (2021d, 2021e), CNPS (2021), and Skinner and Pavlik (1994),

Wildlife: California Wildlife Habitat Relationships (2008), USFWS (2021), CNDDB (CDFW 2021a), and CDFW (2021b, 2021c).

Habitats: CNDDB (CDFW 2021a, 2021f).

FEDERAL PROTECTION AND CLASSIFICATIONS

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range..." Threatened species are defined as "any species which 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 as follows in Section 3(18) of the FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of a "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. Recently, the USFWS instituted changes in the listing status of former candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing at this time) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field offices have issued memoranda stating that former C2 species are henceforth to be considered Federal Species of Concern. This term is employed in this document but carries no official protections. 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.

For purposes of this assessment, the following acronyms are used for federal status species:

FE	Federal Endangered
FT	Federal Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
FC	Federal Candidate for Listing

The designation of critical habitat can also have a significant impact on the development of land designated as "*critical habitat*." The FESA prohibits federal agencies from taking any action that will "*adversely modify or destroy*" critical habitat (16 U.S.C. § 1536(a)(2)). This provision of the FESA applies to the issuance of permits by federal agencies. Before approving an action affecting critical habitat, the federal agency is required to consult with the USFWS who then issues a biological opinion evaluating whether the action will "*adversely modify"* critical habitat. Thus, the designation of

critical habitat effectively gives the USFWS extensive regulatory control over the development of land designated as critical habitat.

The MBTA makes it unlawful to "*take*" any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the United States and Great Britain, the Republic of Mexico, Japan, and the Union of Soviet States. For purposes of the MBTA, "*take*" is defined as to pursue, hunt, capture, kill, or possess or attempt to do the same.

The Bald Eagle and Golden Eagle Protection Act explicitly protects the bald eagle and golden eagle and imposes its own prohibition on any taking of these species. As defined in this act, take means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or disturb. Current USFWS policy is not to refer the incidental take of bald eagles for prosecution under the Bald Eagle and Golden Eagle Protection Act (16 U.S.C. 668-668d).

STATE PROTECTION AND CLASSIFICATIONS

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 FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of CESA addresses the taking of threatened or endangered 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 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 memorandums of understanding..." and can be authorized for "...endangered species, threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. SSC ("special" animals and plants) listings include special status species, including all state and federal protected and candidate taxa, Bureau of Land Management and US Forest Service sensitive species, species considered to be declining or rare by the CNPS or National Audubon Society, and a selection of species which are considered to be under population stress but are not formally proposed for listing. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected per se 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 the purposes of this assessment, the following acronyms are used for State status species:

SE	State Endangered
ST	State Threatened
SCE	State Candidate Endangered
SCT	State Candidate Threatened
SFP	State Fully Protected
SP	State Protected
SR	State Rare
SSC	California Species of Special Concern
CWL	California Watch List

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "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." In addition, under California Fish and Game Code Section 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". Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in the State. This organization 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. The CNPS has developed five categories of rarity (CRPR):

CRPR 1A	Presumed extinct in California.
CRPR 1B	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 we need more information – a review list.
CRPR 4	Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

As stated by the CNPS:

> "*Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension." (CNPS 2021)*

0.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

SENSITIVE HABITATS

As stated by CDFW:

> "*One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3, all associations within them are also considered to be highly imperiled*" (CDFW 2012)

No sensitive habitats were documented or occur within the Study Area.

SENSITIVE PLANTS

A habitat assessment was conducted to determine the potential for sensitive plants to occur within the Study Area based on existing soils, vegetation, and/or documented occurrences in the region as outlined in Table 2, *Sensitive Plant Species with Potential to Occur Onsite*.

Table 2.
Sensitive Plant Species with Potential to Occur Onsite.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
California Orcutt grass (*Orcuttia californica*) FE/SE CRPR 1B.1 MSHCP Covered	Vernal pools.	Not expected to occur on site due to the lack of suitable vernal pool habitat
Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) CRPR 1B.1 MSHCP Covered	Playas, vernal pools, marshes and swamps (coastal salt).	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction hydric habitats.
Coulter's matilija poppy (*Romneya coulteri*) CRPR 4.2 MSHCP Covered	Perennial rhizomatous herb generally blooming from March to August in chaparral and coastal scrub habitats (CNPS 2021).	Not detected onsite.
Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) CRPR 1B.2 MSHCP Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub and alkali sink scrub.	Not expected to occur on site due to a lack of suitable alkaline substrates.
Hammitt's clay-cress (*Sibaropsis hammittii*) CRPR 1B.2 MSHCP Covered	Occurs within chaparral and grassland habitats in association with clay substrates.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Little mousetail (*Myosurus minimus* ssp. *apus*) CRPR 3.1 MSHCP Covered	Little mousetail is widespread in California. It occurs in alkaline vernal pools, and vernal alkali plains and grasslands, and blooms March to June.	Not expected to occur on site due to a lack of suitable alkaline substrates.
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*) CRPR 1B MSHCP Covered	Annual herb generally blooming from April to July within chaparral, coastal scrub, meadows and seeps, grassland and vernal pools in association with clay substrates (CNPS 2021).	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Many-stemmed dudleya (*Dudleya multicaulis*) CRPR 1B.2 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils, and dry, stony outcrops.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Munz's onion (*Allium munzii*) FE/ST CRPR 1B.1 MSHCP Covered	Restricted to mesic clay soils in western Riverside County, California within southern needlegrass grassland annual grassland, open coastal sage scrub, or occasionally, in cismontane juniper woodlands.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Palmer's grapplinghook (*Harpagonella palmeri*) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to May in open grassy areas within chaparral, coastal scrub, grassland habitats in association with lay substrates (CNPS 2021).	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Parish's brittlescale (*Atriplex parishii*) CRPR 1B.1 MSHCP Covered	Occurs on alkali or saline flats, alkali meadows, and in or along the margins of vernal pools or playa depressions.	Not expected to occur on site due to a lack of suitable alkaline substrates.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CRPR 3.2 MSHCP Covered	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Suitable habitat is present onsite for Parry's spineflower within the Riversidean sage scrub associations documented within the Study Area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) CRPR 1B.1	Occurs in chaparral and coastal scrub.	Suitable habitat is present onsite for Robinson's pepper-grass within the Riversidean sage scrub associations documented within the Study Area.
Round-leaved filaree (*Erodium macrophyllum*) CRPR 1B.2 MSHCP Covered	Open areas in cismontane woodland and valley and foothill grasslands, which are often associated with heavy clay soils below 3,600 feet elevation.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) FE CRPR List 1B.1 CA Endemic	The San Jacinto Valley crownscale occurs primarily in floodplains that support alkali scrub, alkali playas, vernal pools, and occasionally alkali grasslands (Bramlet 1993).	Not expected to occur on site due to a lack of suitable habitat, including suitable alkaline substrates.
Slender-horned spineflower (*Dodecahema leptoceras*) FT CRPR 1B.1 MSHCP Covered	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Not expected to occur due to lack of suitable alluvial scrub habitat.
Small-flowered microseris (*Microseris douglasii* var. *platycarpha*) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to May within cismontane woodland, coastal scrub, grassland and vernal pools in association with clay substrates (CNPS 2021).	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Small-flowered morning-glory (*Convolvulus simulans*) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to July in chaparral, coastal scrub and grassland habitats in association with clay substrates and serpentinite seeps.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Smooth tarplant (*Centromadia pungens* ssp. *laevis*) CRPR 1B.1 MSHCP Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, and disturbed habitats.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates.
Spreading navarretia (*Navarretia fossalis*) FT CRPR 1B.1 MSHCP Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected to occur on site due to the lack of suitable vernal pool habitat
Thread-leaved brodiaea (*Brodiaea filifolia*) FT/SE CRPR 1B.1 MSHCP Covered	Typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline flats of riparian areas, vernal pools, mesic southern needlegrass grassland, mixed native-annual grassland, and alkali grassland plant communities in association with clay, clay loam, or alkaline silty-clay soils.	Not expected to occur on site due to a lack of suitable clay or alkaline substrates.
Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) CRPR 2.1 MSHCP Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected to occur on site due to the lack of suitable soils and vernal pool or seasonal marsh habitat.

California Native Plant Society (CNPS): California Rare Plant Rank (CRPR)
CRPR 1A – plants presumed extinct in California
CRPR 1B – plants rare, threatened, or endangered in California, but more common 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 we need more information, a review list
CRPR 4 – plants of limited distribution, a watch list
.1 – Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Federal (USFWS) Protection and Classification
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate for Listing

State (CDFW) Protection and Classification
SE – State Endangered
ST – State Threatened

Suitable habitat for two (2) sensitive plant species was documented onsite within the Riversidean sage scrub associations including:

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CRPR 3.2, and
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) CRPR 1B.1.

SENSITIVE WILDLIFE

A habitat assessment was conducted to determine the potential for sensitive wildlife species to occur within the Study Area based on existing vegetation and/or documented occurrences in the region as outlined in Table 3, *Sensitive Wildlife Species with Potential to Occur Onsite*.

Table 3.
Sensitive Wildlife Species with Potential to Occur Onsite.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
INVERTEBRATES		
Quino checkerspot butterfly (*Euphydryas editha quino*) FE MSHCP Covered Species	Quino checkerspot butterfly (QCB) is restricted to low elevation meadow habitats or clearings usually characterized by clay or cryptogamic deposits, inhabited by host plants including *Plantago erecta*, *Plantago patagonica*, *Castilleja exserta,* and *Cordylanthus rigidus*. Adult QCB often occur on open or sparsely vegetated rounded hilltops, ridgelines, and occasionally rocky outcrops. (MSHCP 2004)	The Study Area is located within the USFWS Quino Survey Area. Open hilltops and sparsely vegetated rock outcrops located with the Study Area represent suitable habitat.
Riverside fairy shrimp (*Streptocephalus woottoni*) FE MSHCP Covered Species	*S. woottoni* is restricted to deep seasonal vernal pools/ephemeral ponds, and stock ponds and other human modified depressions (Eng, Belk, and Eriksen 1990, USFWS 1993, USFWS 2001). Riverside fairy shrimp prefer warm-water pools that have low to moderate dissolved solids, are less	No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. The species is not expected to occur

Species Name (*Scientific Name*) Status	Habitat Description	Comments
	predictable, and remained filled for extended periods of time (Eriksen and Belk 1999, MSHCP 2004).	
Vernal pool fairy shrimp (*Branchinecta lynchi*) FT MSHCP Covered Species	Vernal pool fairy shrimp is restricted to seasonal vernal pools (Eng, Belk, and Eriksen 1990; USFWS 1994). The vernal pool fairy shrimp prefers cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived (Eriksen and Belk 1999, MSHCP 2004).	No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. The species is not expected to occur onsite.
AMPHIBIANS		
Western spadefoot (*Spea hammondii*) SSC MSHCP Covered Species	The western spadefoot population is patchily but widely distributed throughout the Riverside Lowlands and San Jacinto Foothills Bioregions. Primary habitat for this species includes suitable breeding habitat below 1500 meters (i.e., vernal pools or other standing water that is free of exotic species) with secondary habitats including adjacent chaparral, sage scrub, grassland, and alluvial scrub habitats. (MSHCP 2004)	The species is not expected to occur onsite based on a lack of suitable breeding habitat.
REPTILES		
Coast horned lizard (*Phrynosoma blainvillii*) SSC MSHCP Covered Species	The horned lizard occurs primarily in scrub, chaparral, and grassland habitats. The species is common in most areas of the Plan Area except where adjacent to urban situations (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC MSHCP Covered Species	The coast patch-nosed snake prefers brushy coastal sage scrub/ chaparral habitats.	Potential to occur onsite within and adjacent to the Riversidean sage scrub and outcrop habitat types.
Coastal western whiptail (*Aspidoscelis tigris stejnegeri*) SSC MSHCP Covered Species	The coastal western whiptail occurs in a wide variety of habitats including coastal sage scrub, desert scrub, Riversidean alluvial fan scrub, woodlands, grasslands, playas, and respective ecotones between these habitats (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub and outcrop habitat types.
Orange-throated whiptail (*Aspidoscelis hyperythra*) CWL MSHCP Covered Species	The orange-throated whiptail occurs primarily in a wide variety of habitats but is more closely tied to coastal sage scrub and chaparral habitats with less than 90 percent vegetative cover.	Potential to occur onsite within and adjacent to the Riversidean sage scrub and outcrop habitat types.
Red-diamond rattlesnake (*Crotalus ruber*) SSC MSHCP Covered Species	The red-diamond rattlesnake is often found in areas with dense vegetation especially chaparral and sage scrub up to 1,520 meters in elevation (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub and outcrop habitat types.
Western pond turtle (*Emys marmorata*) SSC MSHCP Covered Species	The western pond turtle inhabits slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons (Rathbun *et al*., 1992; Holland, 1994). Pools are the preferred habitat within streams (Bury, 1972, MSHCP 2004).	No potential to occur onsite based on a lack of open water.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
BIRDS		
American peregrine falcon (*Falco peregrinus anatum*) SFP MSHCP Covered Species	Throughout the species' range, peregrine falcons are found in a large variety of open habitats, including tundra, marshes, seacoasts, savannahs and high mountains (AOU 1998, MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Bell's sage sparrow (*Artemisiospiza belli belli*) CWL MSHCP Covered Species	Bell's sage sparrow is an uncommon to fairly common but localized resident breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.
Burrowing owl (*Athene cunicularia*) SSC MSHCP Covered Species	The burrowing owl uses predominantly open land, including grassland, agriculture (e.g., dry-land farming and grazing areas), playa, and sparse coastal sage scrub and desert scrub habitats (Garrett and Dunn 1981). Some breeding burrowing owls are year-round residents and additional individuals from the north may winter throughout the MSHCP Area Plan (MSHCP 2004).	Suitable foraging habitat and burrows present within the eastern lowland region of the Study Area where open habitats and rock outcrops are located.
California horned lark (*Eremophila alpestris actia*) SWL	Habitat for the California horned lark includes agriculture (field croplands), grassland, cismontane alkali marsh, playa and vernal pool habitat, Riversidean alluvial fan sage scrub, and coastal sage scrub (Garrett and Dunn 1988). It has been recorded in chaparral and riparian	May occasionally forage onsite within the open habitats in the eastern lowland region of the Study Area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
	habitat; however, these are not typical habitats used by the species.	
Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC MSHCP Covered Species	The coastal California gnatcatcher is a non-migratory bird species that primarily occurs within sage scrub habitats in coastal southern California dominated by California sagebrush (*Artemisia californica*), and California buckwheat (*Eriogonum fasciculatum*).	Present – detected onsite within the Riversidean sage scrub, as shown in Figure 10, *Sensitive Species Observations.*
Cooper's hawk (*Accipiter cooperii*) SSC MSHCP Covered Species	Cooper's hawk is most commonly found within or adjacent to riparian/oak forest and woodland habitats. This uncommon resident of California increases in numbers during winter migration.	Potential to forage and nest within the cottonwood willow riparian and adjacent (offsite) riparian and mature Eucalyptus woodlands.
Double-crested cormorant (*Phalacrocorax auritus*) CWL MSHCP Covered Species	The double-crested cormorant is a common inhabitant of seacoasts and inland waters, rarely observed out of sight of land (MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Downy woodpecker (*Picoides pubescens*)	Potential habitat for the downy woodpecker includes riparian scrub, woodland, and forest, and oak woodland and forest habitat in all Bioregions within the Plan Area (MSHCP 2004).	Potential habitat is present within and adjacent to the Study Area in the northeast region within the small patch of cottonwood willow riparian habitat.
Golden eagle (*Aquila chrysaetos*) CWL, SFP MSHCP Covered Species	Within southern California, the species prefers grasslands, brushlands (coastal sage scrub and chaparral), deserts, oak savannas, open coniferous forests, and montane valleys (Garrett and Dunn 1981, MSHCP 2004)	Not expected to breed onsite.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Least Bell's vireo (*Vireo bellii pusillus*) FE/SE MSHCP Covered Species	Least Bell's vireo resides in riparian habitats with a well-defined understory including southern willow scrub, mule fat, and riparian forest/woodland habitats.	Potential habitat is present within and adjacent to the Study Area in the northeast region within the small patch of cottonwood willow riparian habitat.
Loggerhead shrike (*Lanius ludovicianus*) SSC MSHCP Covered *Species*	Loggerhead shrike prefer open ground for foraging and thick trees and shrubs including sage scrub, chaparral, and desert scrub habitats for nesting.	Present – detected onsite within the open grassland and Riversidean sage scrub habitats, as shown in Figure 10, *Sensitive Species Observations.*
Merlin (*Falco columbarius*) CWL MSHCP Covered Species	The merlin has a sparse and widespread distribution throughout the MSHCP Plan Area within almost every habitat that occurs within the Plan Area. It occurs within the Plan Area as a transient in the spring and fall and may occasionally winter within the area. It does not require specific conditions or locations for nesting because it does not nest in the region. (MSHCP 2004)	Not expected to breed onsite. This species may infrequently forage and roost onsite during migration.
Northern harrier (*Circus cyaneus*) CSC MSHCP Covered Species	The northern harrier frequents open wetlands, wet and lightly grazed pastures, old fields, dry uplands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and is seldom found in wooded areas (Bent 1937; MacWhirter and Bildstein 1996 (MSHCP 2004)	Present – detected foraging onsite in the eastern lowland region of the Study Area, as shown in Figure 10, *Sensitive Species Observations.*

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Osprey (*Pandion haliaetus*) CWL MSHCP Covered *Species*	The osprey is restricted to large water bodies supporting fish with surrounding or nearby forest Habitats, often ponderosa pine or mixed conifer (MSHCP 2004).	No potential to occur onsite based on a lack of open water within or adjacent to the Study Area.
Prairie falcon (*Falco mexicanus*) CWL MSHCP Covered Species	Habitat use of the prairie falcon includes annual grasslands to alpine meadows. The prairie falcon is associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields during the winter season, and desert scrub areas, all typically dry environments of western North American where there are cliffs or bluffs for nest sites (MSHCP 2004)	Not expected to breed onsite. This species may infrequently forage and roost within the Study Area.
Sharp-shinned hawk (*Accipiter striatus*) CWL MSHCP Covered Species	For the purpose of the conservation analysis, potential habitat for the sharp-shinned hawk includes montane coniferous forest for potential breeding areas (none have been documented) and riparian scrub, woodland, and forest habitat, oak woodland and forest, chaparral, coastal sage scrub, desert scrub, and Riversidean alluvial fan sage scrub for foraging. (MSHCP 2004)	Not expected to breed onsite. This species may infrequently forage and roost onsite during migration.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) CWL MSHCP Covered Species	Southern California rufous-crowned sparrow is a non-migratory bird species that primarily occurs within sage scrub and grassland habitats and to a lesser extent chaparral sub-associations (Unitt 2004). This species generally breeds on the ground within grassland and scrub communities in the western and central regions of California.	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.
Southwestern willow flycatcher (*Empidonax traillii extimus*) FE/SE MSHCP Covered Species	The southwestern willow flycatcher is narrowly distributed at few locations within the Plan Area. Although the preferred habitat, riparian woodland and select other forests, is well distributed within all bioregions and spread over the entire Plan Area, few current locations for the willow flycatcher have been documented (MSHCP 2004).	No potential to occur onsite based on a lack of suitable expansive riparian habitat.
Tree swallow (*Tachycineta bicolor*) MSHCP Covered Species	Suitable habitat is provided for the tree swallow by the riparian forest and woodland up through the lodgepole pine belt for breeding habitats. It frequents valley foothill and montane riparian habitats below 2,700 meters (9,000 feet) for breeding within its range (MSHCP 2004).	No potential to occur onsite based on a lack of large riparian scrub, forest or woodland habitats within the Study Area.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) FT/SE MSHCP Covered Species	Although the preferred habitat, riparian scrub and forest, is well distributed at scattered locations within the Plan Area in the Riverside Lowland Bioregions, the western	No potential to occur onsite based on a lack of suitable expansive riparian habitat.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
	yellow-billed cuckoo apparently no longer inhabits much of this habitat (MSHCP 2004).	
White-faced ibis (*Plegadis chihi*) CWL MSHCP Covered Species	The white-faced ibis is sparsely distributed throughout the Riverside Lowlands Bioregions of the MSHCP Plan Area within its suitable habitat. It occurs at some of the areas of freshwater marsh habitat but is only documented for breeding at two locations: Prado Basin and Mystic Lake/San Jacinto Wildlife Area (MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
White-tailed kite (*Elanus leucurus*) SFP MSHCP Covered Species	The white-tailed kite is found in riparian, oak woodlands adjacent to large open spaces including grasslands, wetlands, savannahs and agricultural fields. This non-migratory bird species occurs throughout the lower elevations of California and commonly nests in coast live oaks (Unitt 2004).	May occasionally forage onsite within the open grassland habitats.
Yellow-breasted chat (*Icteria virens*) SSC MSHCP Covered Species	The yellow-breasted chat is associated with riparian woodland and riparian scrub habitats. (MSHCP 2004)	Potential habitat is present within and adjacent to the Study Area in the northeast region within the small patch of cottonwood willow riparian habitat.
Yellow warbler (*Setophaga petechia*) SSC MSHCP Covered Species	Habitat characteristics of the yellow warbler are well known to include riparian scrub and forest and woodland. (MSHCP 2004)	Potential habitat is present within and adjacent to the Study Area in the northeast region within the small patch of cottonwood willow riparian habitat.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MAMMALS		
American badger (*Taxidea taxus*) SSC	The American badger prefers friable soils in open grassland and scrub habitat in southern California.	Potential to occur within the Riversidean sage scrub and grassland habitats in the eastern lowland regions of the Study Area.
Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) SSC MSHCP Covered Species	The Los Angeles pocket mouse appears to be limited to sparsely vegetated habitat areas in patches of fine sandy soils associated with washes or of aeolian (windblown) origin, such as dunes. (MSHCP 2004)	Potential to occur onsite within the sparsely vegetated regions of Riversidean sage scrub where suitable soils have also been recorded.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax)* SSC MSHCP Covered Species	The northwestern San Diego pocket mouse occurs throughout the Plan Area in coastal sage scrub (including Diegan and Riversidean upland sage scrubs and alluvial fan sage scrub), sage scrub/grassland ecotones, chaparral at all elevations up to 6,000 feet (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC	The San Diego black-tailed jackrabbit in open habitats, primarily including grasslands, sage scrub, alluvial fan sage scrub, and Great Basin sage scrub.	Potential to occur within the Riversidean sage scrub and grassland habitats in the eastern lowland regions of the Study Area.
San Diego desert woodrat (*Neotoma lepida intermedia*) SSC MSHCP Covered Species	The San Diego desert woodrat is found throughout the Plan Area in sage scrub and chaparral wherever there are rock outcrops, boulders, cactus patches and dense undergrowth. (MSHCP 2004)	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Southern grasshopper house (*Onychomys torridus ramona*) SSC	Common in arid desert habitats of the Mojave Desert and southern Central Valley of California. Alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert habitats, including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Uncommon in valley foothill and montane riparian, and in a variety of other habitats. (CDFW 1999)	Potential to occur onsite within and adjacent to the Riversidean sage scrub habitats.
Stephens' kangaroo rat (*Dipodomys stephensi*) FE/ST MSHCP Covered Species	The Stephens' kangaroo rat is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer (MSHCP 2004).	Suitable habitat and potential burrows were documented within and adjacent to open grassland and scrub habitats in the eastern lowland region of the Study Area.
Western mastiff bat (*Eumops perotis californicus*) SSC	Western mastiff bats are found in a variety of biotic environments from low desert scrub to chaparral, oak woodland and ponderosa pine.	Not expected to occur onsite based on a lack of suitable habitat.
Yellow bat (*Lasiurus xanthinus*) SSC	Although formerly associated only with the desert palm oasis in California (Bond, 1970), yellow bats appear to be expanding their range to the coast and northward, possibly as a result of the planting of ornamental palms.	Not expected to occur onsite based on a lack of suitable habitat.

Species Name (*Scientific Name*) Status	Habitat Description	Comments
Federal (USFWS) Protection and Classification FE – Federally Endangered FT – Federally Threatened FC – Federal Candidate for Listing **State (CDFW) Protection and Classification** SE – State Endangered ST – State Threatened SSC – State Species of Special Concern CWL – California Watch List SPF – State Fully Protected		

Sources: Cadre Environmental 2021.

Critical habitat designations by the USFWS were researched to determine if any of the Study Area is located within USFWS critical habitat. The Study Area does not occur within a designated critical habitat for federally endangered or threatened species.

Three (3) sensitive wildlife species were documented onsite during the site assessment as shown in Figure 10, *Sensitive Species Occurrences,* and include:

- Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC
- Loggerhead shrike (*Lanius ludovicianus*) SSC
- Northern harrier (*Circus cyaneus*) SSC

Suitable habitat for twenty-four (24) sensitive wildlife species was documented within the Study Area including:

- Quino checkerspot butterfly (*Euphydryas editha quino*) FE
- Coast horned lizard (*Phrynosoma blainvillii*) SSC
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC
- Coastal western whiptail (*Aspidoscelis tigris stejnegeri*) SSC
- Orange-throated whiptail (*Aspidoscelis hyperythra*) CWL
- Red-diamond rattlesnake (*Crotalus ruber*) SSC
- Bell's sage sparrow (*Artemisiospiza belli belli*) CWL
- Burrowing owl (*Athene cunicularia*) SSC
- California horned lark (*Eremophila alpestris actia*) CWL
- Cooper's hawk (*Accipiter cooperii*) SSC
- Least Bell's vireo (*Vireo bellii pusillus*) FE/SE
- Prairie falcon (*Falco mexicanus*) CWL
- Sharp-shinned hawk (*Accipiter striatus*) CWL
- Southern Ca. rufous-crowned sparrow (*Aimophila ruficeps canescens*) CWL
- White-tailed kite (*Elanus leucurus*) SFP
- Yellow-breasted chat (*Icteria virens*) SSC
- Yellow warbler (*Setophaga petechia*) SSC
- American badger (*Taxidea taxus*) SSC
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax)* SSC

- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), SSC
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) SSC
- Southern grasshopper house (*Onychomys torridus ramona*) SSC
- Stephens' kangaroo rat (*Dipodomys stephensi*) FE/ST

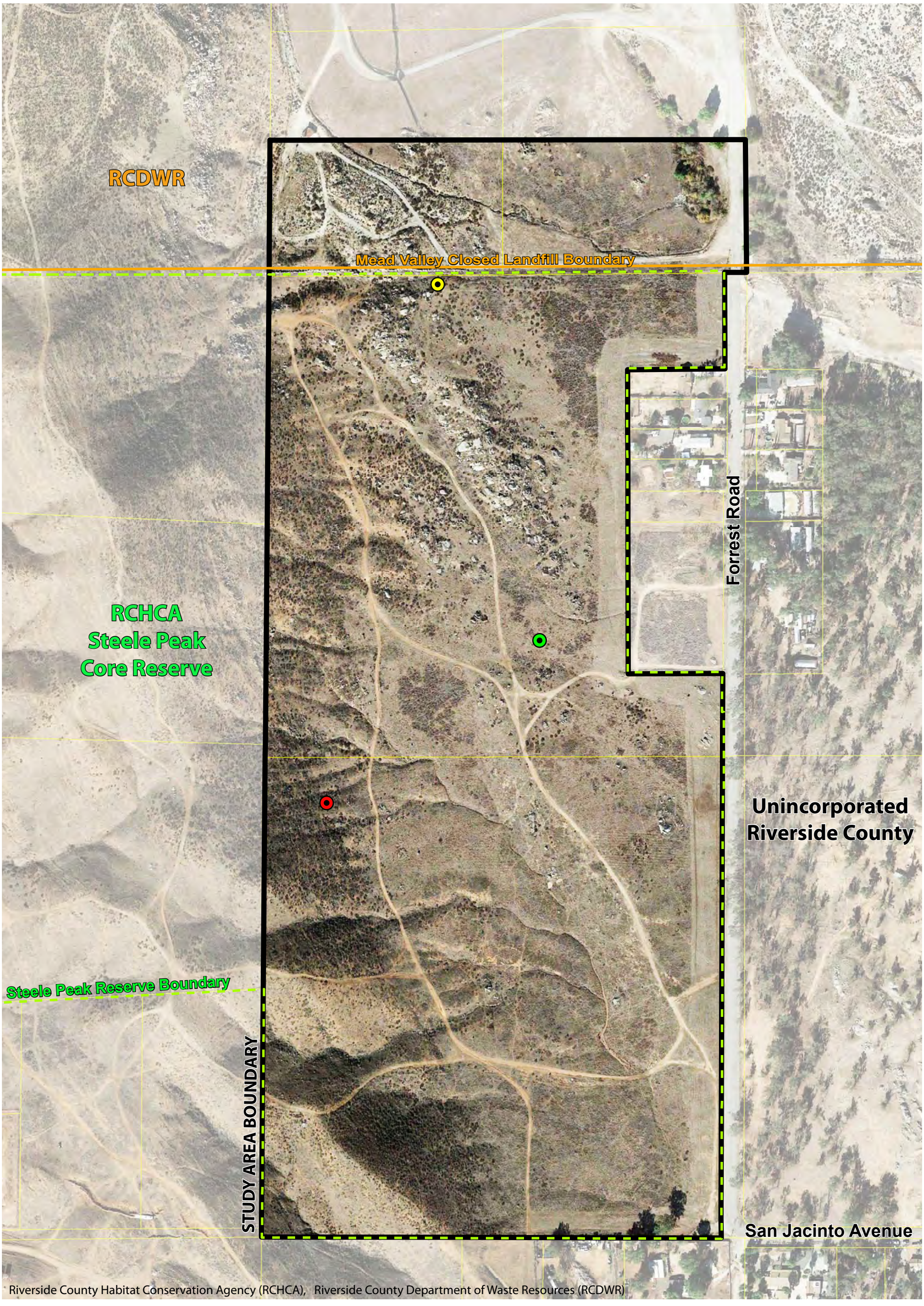
REGIONAL CONNECTIVITY/WILDLIFE MOVEMENT CORRIDORS

Overview

Wildlife corridors link areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallager 1989; Bennett 1990). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "metapopulation." The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health. Corridors mitigate the effects of habitat fragmentation by:

(1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
(2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and
(3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Fahrig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement 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). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor", "travel route", "habitat linkage", and "wildlife crossing" to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:



Sensitive Species Observations

- Loggerhead Shrike (*Lanius ludovicianus*) State Species of Special Concern (SSC)
- Northern Harrier (*Circus hudsonius*) State SSC
- Coastal California Gnatcatcher (*Polioptila californica californica*) Federally Threatened/State SSC

Figure 10 - Sensitive Species Observations

Biological Resources Technical Report
Steele Peak Inaugural Trail Project

CADRE Environmental

N

1 inch = 250 feet

Travel Route: A landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

Wildlife Corridor: A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

Wildlife Movement within Study Area

The Study Area is not located within an MSHCP proposed linkage, existing core/linkage or proposed core/habitat block (MSHCP 2004). Also, the eastern boundary of the Study Area is delineated by a chain-linked fence topped with barbed wire. Although the Study Area does not represent a wildlife movement corridor and is bound to the east by fencing, it does provide high quality open space, natural vegetation, and resources for local movement northwest between the Gavilan Hills.

REGIONAL AND REGULATORY SETTING

LOCAL

Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis

The northern region of the Study Area (RCDWR property) is located completely within the MSHCP, which is a comprehensive multi-jurisdictional effort that includes western Riverside County and eighteen (18) cities including the County of Riverside. Rather than addressing sensitive species on an individual basis, the MSHCP focuses on conservation of 146 species, including those listed at the federal and state levels and those that could become listed in the future. The MSHCP proposed a reserve system of approximate 500,000 acres, of which 347,000 acres are currently within public ownership and 153,000 acres will need to be assembled from lands currently in private ownership. The MHSCP allows the County and other permittees to issue take permits

for listed species so that applicants do not need to receive endangered species incidental take authorization from the USFWS and CDFW.

On June 7th, 2003, the County Board of Supervisors adopted the MSHCP, certified the Environmental Impact Report/Environmental Impact Statement, and authorized the Chairman to sign the Implementing Agreement with the respective wildlife agencies. The Incidental Take Permit was issued by the wildlife agencies on June 22nd, 2004. The County of Riverside is a Permittee under the MSHCP.

MSHCP Reserve Design & Criteria Area Objectives

Regions of the MHSCP have been organized into Area Plans that generally coincide with logical political boundaries, including city limits or long-standing unincorporated communities.

The RCDWR portion of the Study Area is located within the Western Riverside County MSHCP Mead Valley Area Plan, and is not located within a criteria area cell or cell group as shown in Figure 3, *MSHCP Relationship Map* (Western Riverside County RCA GIS Data Downloads 2021).

MSHCP Sensitive Species Surveys

The northern region of the Study Area (RCDWR property) does not occur within a predetermined Survey Area narrow endemic or criteria area plant species. Focused sensitive plant surveys in this region of the Study Area are not required. The project is consistent with MSHCP Section 6.1.3

The northern region of the Study Area (RCDWR property) is not located within an MSHCP Amphibian or Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2021). The project is consistent with MSHCP Section 6.3.2.

The northern region of the Study Area (RCDWR property) occurs within a predetermined Survey Area for the burrowing owl. Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented adjacent to the property including foraging habitat documented throughout the eastern lowlands of the Study Area. The proposed action will not directly impact suitable burrowing owl burrows. However, to ensure that no indirect impacts occur to the species as a result of project initiation and/or operations, at a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP. If burrowing owls are detected onsite during the 30-day preconstruction survey, a burrowing owl avoidance plan will be developed as directed by the wildlife agencies. The project is consistent with MSHCP Section 6.3.2.

MSHCP Riparian, Riverine, Vernal Pool Resources (Section 6.1.2)

Regulated activities within inland streams, wetlands and riparian areas in Western Riverside County California fall under the jurisdiction of the MSHCP. The MSHCP

requires, among other things, assessments for riparian/riverine and vernal pool resources. As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas, and vernal pools are required, as currently mandated by CEQA, using available information augmented by project-specific mapping provided to and reviewed by the permittee's biologist(s). Riparian/riverine areas and vernal pools are defined for this section as follows in accordance with Section 6.1.2, Vol. I, of the Final MSHCP Plan:

> "*Riparian/Riverine Areas are 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 fresh water flow during all or a portion of the year*." (MSHCP 2004)

It is assumed the first part of the definition defines riparian habitat, and the second part defines riverine areas. Vernal pools are defined as:

> "…*seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season*". (MSHCP 2004)

The northern region of the Study Area (RCDWR property) possesses several ephemeral drainages which extend in a southwestern direction offsite through a culvert. The onsite drainages merge in the eastern region of the property and support a small patch of mule fat scrub and cottonwood willow riparian habitat. These features are expected to be regulated by CDFW, the RWQCB, and Section 6.1.2 of the MSHCP (riparian and riverine resources).

The cottonwood willow riparian vegetation represents suitable habitat for the least Bell's vireo. The cottonwood willow riparian habitat will not be directly impacted as a result of the proposed action. No suitable expansive riparian woodland or forest vegetation representing suitable habitat for the southwestern willow flycatcher or western yellow-billed cuckoo was detected within or adjacent to the Study Area. The project is consistent with MSHCP Section 6.1.2.

No evidence of vernal pools, seasonal depressions, seasonally inundated road ruts or other wetland features were recorded on the Study Area. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will

develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

Consistent with conditions documented onsite and as previously stated, the Study Area is characterized as Cieneba sandy loam, Cieneba rocky sandy loam, Escondido fine sandy loam, Fallbrook sandy loam, Hanford coarse sandy loam, Lodo rocky loam, Monserate sandy loam, and Vista coarse sandy loam, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Study Area.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Study Area during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, hydric soils, historic inundation, etc.) were observed on documented within the Study Area. No features are present that would support fairy shrimp. No standing water or other sign of areas that pond water was recorded.

No MSHCP Section 6.1.2 riverine or riparian habitat will be directly impacted as a result of project construction or operation. An MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) will not be required for the northern region of the Study Area (RCDWR property).

MSHCP Urban/Wildlands Interface Guidelines

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area. As outlined in the following report all potential indirect impacts resulting from trail use will be addressed by implementing Urban/Wildlands Interface Guidelines and Best Management Practices (BMP). The project is consistent with MSHCP Section 6.1.4.

MSHCP Fuels Management Guidelines

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. No fuels management zones are proposed within the northern Study Area (RCDWR property). The project is consistent with MSHCP Section 6.4.

County of Riverside Protected Trees

The following regulations apply to tree removal within Riverside County.

- Riverside County Ordinance No. 499.

- Riverside County Ordinance No. 559.

- The Riverside County Oak Tree Management Guidelines address the treatment of oak woodlands and their preservation.

No protected trees will be removed as a result of project initiation or operation.

FEDERAL

Federal Endangered Species Act

The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of the FESA of 1973, allowing participating jurisdictions to authorize "*take*" of plant and wildlife species. The MSHCP has been issued under this Section and provides incidental take for all covered species within the northern Study Area (RCDWR property).

Clean Water Act

Army Corps of Engineers - Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a), pursuant to the Navigable Waters Protection Rule[3] (NWPR), as:

(a) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ‘‘waters of the United States’’ means:
(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(2) Tributaries;
(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.
(b) Non-jurisdictional waters. The following are not ‘‘waters of the United States’’:
(1) Waters or water features that are
not identified in paragraph (a)(1), (2), (3), or (4) of this section;
(2) Groundwater, including groundwater drained through subsurface drainage systems;
(3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
(4) Diffuse stormwater run-off and directional sheet flow over upland;
(5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;
(6) Prior converted cropland;
(7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
(8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-

[3] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;
(9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
(10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
(11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and (12) Waste treatment systems.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the Ordinary High Water Mark (OHWM) which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Wetland Definition Pursuant to Section 404 of the Clean Water Act **-** The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[4][5]);

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

[4] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.
[5] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

Migratory Bird Treaty and Bald and Golden Eagle Protection Acts

Migratory birds including resident raptors and passerines are protected under the federal MBTA. The MBTA of 1918 implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the U.S. and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the Union of Soviet Socialists Republics (1976) further expanded the scope of international protection of migratory birds. Each new treaty has been incorporated into the MBTA as an amendment and the provisions of the new treaty are implemented domestically. These four treaties and their enabling legislation, the MBTA, established Federal responsibilities for the protection of nearly all species of birds, their eggs and nests.

The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof. The Bald and Golden Eagle Protection Act affords additional protection to all bald and golden eagles.

STATE

California Endangered Species Act

The CESA is similar to FESA in that it contains a process for listing of species regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The MSHCP serves as an HCP pursuant the Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001, allowing participating jurisdictions to authorize "*Take*" of plant and wildlife species within the northern Study Area (RCDWR property).

As stated by CDFW:

> “*On June 22, 2004, the Department issued NCCP Approval and Take Authorization for the Western Riverside County MSCHP per Section 2800 et seq. of the California Fish and Game Code. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit*.” (CDFG 2004)

California Fish and Game Code 3503 and 3513

As stated by CDFW:

> "*CHAPTER 1. General Provisions [3500 - 3516] (Chapter 1 enacted by Stats. 1957, Ch. 456.) 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. (Amended by Stats. 1971, Ch. 1470.)"*

Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The CESA follows the NPPA and covers both plants and wildlife determined to be threatened with extinction or endangered. Plants listed as rare under the NPPA are designated as threated under the CESA. No plants listed under the CESA occur on the Study Area onsite or offsite impact areas.

Regional Water Quality Control Board

Regional Water Quality Control Board - The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[6] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

[6] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

State Wetland Definition - The State Board Wetland Definition and Procedures define an area as wetland as follows: An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The following wetlands are waters of the State:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state;[7] and
3. Artificial wetlands[8] that meet any of the following criteria:

a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
b. Specifically identified in a water quality control plan as a wetland or other water of the state;
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[9]

[7] "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.
[8] Artificial wetlands are wetlands that result from human activity.
[9] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

California Department of Fish and Wildlife - Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

The Fish and Game Code defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

ENVIRONMENTAL IMPACTS

The following sections include an analysis of the direct impacts, indirect impacts, and cumulative effects of the proposed action on sensitive biological resources. This analysis characterizes the project related activities that are anticipated to adversely impact the species, and when feasible, quantifies such impacts. Direct effects are defined as actions that may cause an immediate effect on the species or its habitat, including the effects of interrelated actions and interdependent actions. Indirect effects are caused by or result from the proposed actions, are later in time, and are reasonably certain to occur. Indirect effects may occur outside of the area directly affected by the proposed action.

Cumulative impacts refer to incremental, individual environmental effects of two or more projects when considered together. These impacts taken individually may be minor but

to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

may be collectively significant. Cumulative effects include future tribal, local, or private actions that are reasonably certain to occur in the proposal vicinity considered in this report. A cumulative impact to biological resources may occur if a project has the potential to collectively degrade the quality of the environment, substantially reduce the habitat of wildlife species or cause a population to drop below self-sustaining levels, thereby threatening to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

THRESHOLD OF SIGNIFICANCE

The environmental impacts relative to biological resources are assessed using impact significance criteria which mirror the policy statement contained in the CEQA at Section 21001 (c) of the Public Resources Code. This section reflects that the legislature has established it to be the policy of the state to:

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

The following definitions apply to the significance criteria for biological resources:

- "*Endangered*" means that the species is listed as endangered under state or federal law.
- "*Threatened*" means that the species is listed as threatened under state or federal law.
- "*Rare*" means that the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.
- "*Region*" refers to the area within southern California that is within the range of the individual species.
- "*Sensitive habitat*" refers to habitat for plants and animals (1) which plays a special role in perpetuating species utilizing the habitat on the property, and (2) without which there would be substantial danger that the population of that species would drop below self-perpetuating levels.
- "*Substantial effect*" means significance loss or harm of a magnitude which, based on current scientific data and knowledge, (1) would cause a species or a native plant or animal community to drop below self-perpetuating levels on a statewide or regional basis or (2) would cause a species to become threatened or endangered.

Impacts to biological resources may result in a significant adverse impact if one or more of the following conditions would result from implementation of the proposed project.

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

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California

Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

c) 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. Wildlife Service?

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) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?

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

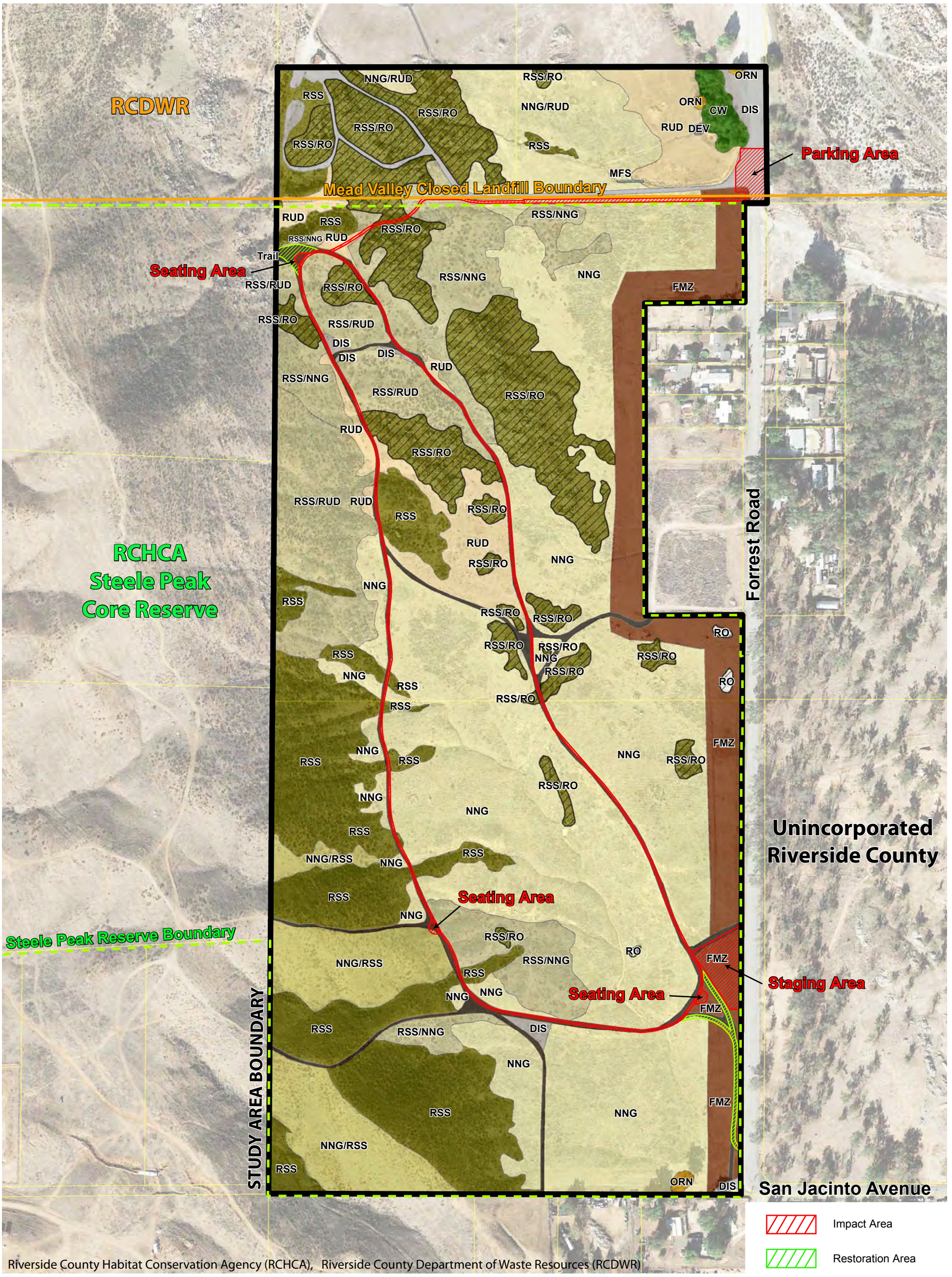
g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Also, the determination of impacts has been made according to the federal definition of "*take*". The federal FESA prohibits the "*taking*" of a member of an endangered or threatened wildlife species or removing, damaging, or destroying a listed plant species by any person (including private individuals and private or government entities). The FESA defines "*take*" as "*to harass, harm, pursue, hunt, shoot, would, kill, trap, capture or collect*" an endangered or threatened species, or to attempt to engage in these activities.

DIRECT IMPACTS

Vegetation Communities

A total of 1.80-acre of vegetation communities will be directly impacted as a result of project implementation, operation and proposed restoration at two (2) sites, as summarized in Table 4, *Vegetation Community Impacts,* and illustrated on Figure 11*, Vegetation Communities Impact Map*. Specifically, a total of 1.66-acre (92%) of impacts will occur to disturbed habitats (existing trails, fuel modification zones, and ruderal), with only 0.13-acre of non-native grassland and 0.01-acre of Riversidean sage scrub/rock outcrop impacts. No sensitive vegetation communities will be directly or indirectly impacted. Impacts to 1.80-acre of primarily disturbed vegetation would not result in a substantial adverse effect to sensitive vegetation and no mitigation is proposed.



Vegetation Communities

NNG	Non Native Grassland	RUD	Ruderal	Trail	Trail (existing)
NNG/RUD	Non Native Grassland/Ruderal	RSS/RO	Riversidean Sage Scrub/Rock Outcrop	FMZ	Fuel Modification Zone
NNG/RSS	Non Native Grassland/Riversidean Sage Scrub	RSS	Riversidean Sage Scrub	ORN	Ornamental
CW	Cottonwood Willow Riparian	RSS/NNG	Riversidean Sage Scrub/Non Native Grassland	DIS	Disturbed
MFS	Mule Fat Scrub	RSS/RUD	Riversidean Sage Scrub/Ruderal	DEV	Developed
				RO	Rock Outcrop

Figure 11 - Vegetation Communities Impact Map

Biological Resources Technical Report
Steele Peak Inaugural Trail Project

CADRE Environmental

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1 inch = 250 feet

Table 4.
Vegetation Community Impacts

*Vegetation Type	Acres (TOTAL)	Impacts Acres (RCHCA Lands)	Impacts Acres (RCDWR Lands)	Impacts Acres (TOTAL)
GRASSLAND Habitats				
Non-native Grassland	28.14	--	0.13	0.13
Non-native Grassland/Ruderal	3.30	--	--	--
Non-native Grassland/Riversidean Sage Scrub	4.42	--	--	--
Scrub Habitats				
Riversidean Sage Scrub	11.67	--	--	--
Riversidean Sage Scrub/Non-native Grassland	5.59	--	--	--
Riversidean Sage Scrub/Ruderal	5.06	--	--	--
Riversidean Sage Scrub/Rock Outcrops	9.17	0.01	--	0.01
Rock Outcrops	0.07	--	--	--
Riparian Habitats				
Mule Fat Scrub	0.01	--	--	--
Cottonwood Willow Riparian	0.42	--	--	--
Developed & Disturbed Habitats				
Ornamental	0.10	--	--	--
Disturbed	1.53	--	0.25	0.25
Disturbed (Fuel Modification Zone (FMZ))	6.06	0.37	0.04	0.41
Disturbed (Trail)	2.25	0.99	--	0.99
Developed	0.02	--	--	--
Ruderal	3.57	0.01	--	0.01
TOTAL	**81.38**	**1.38**	**0.42**	**1.80**

**Source: Cadre Environmental 2021.*

Protected Trees

The following regulations apply to tree removal within Riverside County.

- Riverside County Ordinance No. 499.
- Riverside County Ordinance No. 559.
- The Riverside County Oak Tree Management Guidelines address the treatment of oak woodlands and their preservation.

No protected or regulated trees will be removed as a result of project implementation, operation and proposed restoration at two (2) sites. No Impact.

Sensitive Plants

No state or federally listed threatened or endangered plant species were detected or expected to occur onsite as outlined in Table 3, *Sensitive Plant Species with Potential to Occur Onsite*. No Impact.

Suitable habitat for two (2) sensitive plant species was documented onsite within the Riversidean sage scrub associations including:

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CRPR 3.2, and
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) CRPR 1B.1.

Permanent impacts to 0.01-acre of Riversidean sage scrub/rock outcrop habitat would not result in a substantial adverse effect to Parry's spineflower or Robinson's pepper-grass suitable habitat. Less than significant impact.

Sensitive Wildlife

Three (3) sensitive wildlife species were documented onsite during the site assessment as shown in Figure 10, *Sensitive Species Occurrences,* and include:

- Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC,
- Loggerhead shrike (*Lanius ludovicianus*) SSC, and
- Northern harrier (*Circus cyaneus*) SSC.

Impacts to a total of 0.01-acre of suitable coastal California gnatcatcher habitat as a result of project implementation, operation and proposed restoration at two (2) sites would not result in a substantial adverse effect to the species. Regardless, a total of 0.22-acre of existing disturbed (trail) habitat devoid of vegetation will be restored with Riversidean sage scrub vegetation as shown in Figure 11*, Vegetation Communities Impact Map*. All proposed restoration efforts will comply with the existing Riversidean Sage Scrub Restoration Plan developed and approved by the RCHCA (**BIO-CM1 Habitat Restoration and Monitoring Plan**). Less than significant impact.

A total of 1.66-acre (92%) of impacts to disturbed habitats (existing trails, fuel modification zones, and ruderal), with only 0.13-acre of non-native grassland and 0.01-acre of Riversidean sage scrub/rock outcrop would not result in a substantial adverse effect to the loggerhead shrike or northern harrier. Less than significant impact.

Suitable habitat for twenty-four (24) sensitive wildlife species was documented within the Study Area including:

- Quino checkerspot butterfly (*Euphydryas editha quino*) FE
- Coast horned lizard (*Phrynosoma blainvillii*) SSC
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC
- Coastal western whiptail (*Aspidoscelis tigris stejnegeri*) SSC
- Orange-throated whiptail (*Aspidoscelis hyperythra*) CWL
- Red-diamond rattlesnake (*Crotalus ruber*) SSC
- Bell's sage sparrow (*Artemisiospiza belli belli*) CWL
- Burrowing owl (*Athene cunicularia*) SSC
- California horned lark (*Eremophila alpestris actia*) CWL
- Cooper's hawk (*Accipiter cooperii*) SSC
- Least Bell's vireo (*Vireo bellii pusillus*) FE/SE
- Prairie falcon (*Falco mexicanus*) CWL

- Sharp-shinned hawk (*Accipiter striatus*) CWL
- Southern Ca. rufous-crowned sparrow (*Aimophila ruficeps canescens*) CWL
- White-tailed kite (*Elanus leucurus*) SFP
- Yellow-breasted chat (*Icteria virens*) SSC
- Yellow warbler (*Setophaga petechia*) SSC
- American badger (*Taxidea taxus*) SSC
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax)* SSC
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) SSC
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) SSC
- Southern grasshopper house (*Onychomys torridus ramona*) SSC
- Stephens' kangaroo rat (*Dipodomys stephensi*) FE/ST

A total of 1.66-acre (92%) of impacts to disturbed habitats (existing trails, fuel modification zones, and ruderal), and only 0.13-acre of non-native grassland and 0.01-acre of Riversidean sage scrub/rock outcrop impacts would occur and not result in a substantial adverse effect to potential habitat for the preceding twenty-four (24) sensitive species. Implementation of Biological Conservation Measure 2 (**BIO-CM2 Sensitive Biological Resources**) would ensure the proposed action and operation would result in a less than significant impact to potential habitat for the preceding sensitive wildlife species. To further ensure no direct impacts occur to sensitive resources during operation of the trail system, fencing would be placed on both sides of the 6-foot-wide trail. Fencing on the trails would consist of a composite rail with splitting (Trex composite). Perimeter fencing would also be added or replaced along Forrest Road and end at the intersection of San Jacinto Avenue and Forrest Road to help prevent unauthorized entry and illegal offloading in the Reserve. Lastly, day-to-day operations would be handled by a full-time patrol that would be present during the hours of operation. The patrol would help to encourage appropriate use of the site and discourage vandalism and off-roading. The gate to the parking area would be locked outside of hours of operation.

Suitable habitat and potential burrows for one (1) sensitive wildlife species was documented within the Study Area including:

- Stephens' kangaroo rat (*Dipodomys stephensi*) FE/ST

Suitable foraging and kangaroo rat burrow matrixes were documented scattered along the proposed trail alignment. As stated in the RCHCA staff report dated September 19th, 2019:

> "*The SKR HCP describes the specific habitat requirements for the species that is helpful in understanding ecologically sensitive trail alignments. The vegetation most commonly associated with SKR includes two native shrubs (coastal sagebrush and California buckwheat) and the non-native herb filaree. The two shrubs usually are indicator species of coastal sage scrub habitat.*
>
> *Within the project area SKR are typically found in transition areas, including areas where grasslands border coastal sage scrub, areas where*

sage scrub and grasslands are intermixed, areas of sparse sage scrub, and areas where native habitat has been removed or disturbed by agriculture and other uses. What each of these areas has in common is sparse, perennial vegetation covering less than 50% of the ground.

KR inhabit landforms that are relatively level or gently sloping. This species has been observed on slopes of 0 to 50% but seem to prefer areas of 7 to 10% slope, which coincides with common slopes for recreational trails. On steeper slopes and in shrublands, SKR typically is replaced by Pacific Kangaroo Rat (PKR). In terms of elevation, most SKR are found below 600 meters. However, some have been observed in areas as high as 1,100 meters." (RCHCA 2019)

Direct impacts to SKR would represent a substantial adverse effect to the species. However, the proposed project intends to utilize existing trails that are between 10 and 12 feet wide. Using this disturbed trail within the Reserve is most ideal for the proposed trail because damage to the Reserve has already been done there. Further, the proposed action would narrow these disturbed existing roads to approximately 6 feet using vegetation, rocks, and fencing to prevent unauthorized OHV access on the trail. Narrowing of the trails would result in approximately 0.48 to 0.73 acre of area that can revegetate to become viable SKR habitat. The fencing would also keep trail users on the designated paths and prevent damage to the surrounding SKR habitat and vegetation. The proposed trail would only be open to hikers and amenities would be minimal. Implementation of Biological Conservation Measure 3 (**BIO-CM3 Stephens' Kangaroo Rat**) would ensure the proposed action and operation would result in a less than significant impact to potential habitat for the SKR.

The Study Area including adjacent lands possess vegetation including shrubs and trees expected to provide nesting habitat for raptors and migratory birds protected under the CDFG Codes. Measures for potential direct/indirect impacts to common and sensitive bird and raptor species as outlined above will require compliance with the CDFG Code Section 3503. Construction outside the nesting season (between September 1st and January 31st) does not require preconstruction nesting bird surveys. However, if construction is proposed between February 16th and August 31st, a qualified biologist will conduct a preconstruction nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds or raptors within or directly adjacent (100 feet) to the impact area.

Loss of an active nest would be considered a potentially significant impact. Impacts to raptor foraging and potential nesting habitat would be reduced to less than significant with the implementation of Biological Conservation Measure 4 (**BIO-CM4 Nesting Bird and Raptors**)

Jurisdictional Resources/MSHCP Section 6.1.2 Resources

The southern region of the Study Area (RCHCA property) possesses several ephemeral drainages and swales extending southwest from the slopes located along the western boundary to the southwest region of the Study Area. These ephemeral drainages and swales do not possess wetland, riparian scrub, forest or woodland habitats, as shown in

Figure 9, *Potential Jurisdictional Resources Map*. Regardless, these features are expected to be regulated by both CDFW and the RWQCB. No USACE regulated features were documented within the southern Study Area

The northern region of the Study Area (RCDWR property) possesses several ephemeral drainages which extend in a southwestern direction offsite through a culvert. The onsite drainages merge in the eastern region of the property and support a small patch of mule fat scrub and cottonwood willow riparian habitat. These features are expected to be regulated by CDFW, the RWQCB, and Section 6.1.2 of the MSHCP (riparian and riverine resources). No USACE regulated features were documented within the northern Study Area

No potential CDFW, RWQCB or MSHCP Section 6.1.2 riverine or riparian regulated resources will be directly impacted as a result of project construction of operation as shown in Figure 12, *Potential Jurisdictional Resource Impact Map*. The proposed trail alignment would cross a total of five (6) potential regulated features and a swale. Puncheon bridges will be constructed (spanned) over all potential regulated features. As stated by Alta Planning + Design:

> "*Puncheon bridges are cost effective long-lasting structures that allow trail users to cross shallow wet areas and small drainages. Puncheons are usually constructed from sawed, treated lumber or native logs, and rest directly on the ground. Reclaimed wood from an old nearby railway trestle can be used to construct the puncheons which will tie the history of the area into the Steele Peak Inaugural Trail*." (Alta Planning + Design 2021)

Implementation of Biological Conservation Measure 2 (**BIO-CM2 Sensitive Biological Resources**) would ensure the proposed action and operation would result in a less than significant impact to jurisdictional resources. Less than significant.

Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis

As documented in the previous section (REGIONAL AND REGULATORY SETTING, LOCAL, Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis)**,** implementation of the proposed northern Study Area segment of the trail will be consistent with all provisions, guidelines and objectives of the MSHCP following implementation of Biological Conservation Measure 2 (**BIO-CM2**).

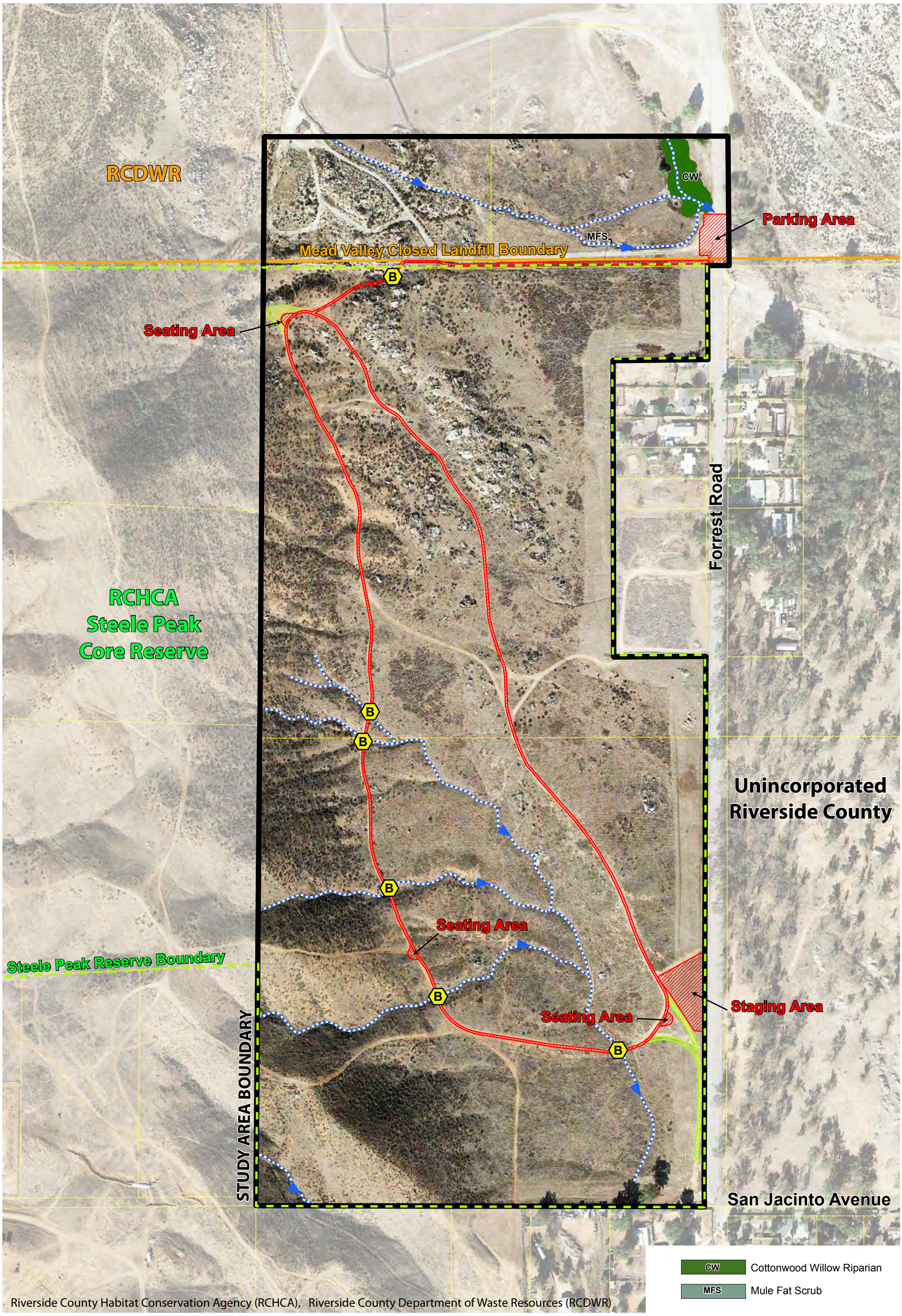

Figure 12 - Potential Jurisdictional Resources Impact Map

Biological Resources Technical Report

Steele Peak Inaugural Trail Project

CADRE Environmental

N

1 inch = 250 feet

INDIRECT IMPACTS

All proposed Urban/Wildlands Interface Guidelines and Best Management Practices (BMP) will be implemented to ensure the proposed construction and operation of the Steele Peak Inaugural Trail will not result in a significant indirect impact to sensitive or regulated resources.

Water Quality/Hydrology/Toxics

The proposed Steele Peak Inaugural Trail project would not alter existing flow patterns or indirectly impact water quality. The proposed parking area would be lined with decomposed granite. Other amenities would include multiple trash receptacles to help minimize waste along the trail. No significant impacts are anticipated.

Lighting

No additional lighting would be added to the proposed trail system primarily due to the potential adverse impacts to wildlife species. The proposed trail would only be open from sunrise to sunset when natural sunlight present.

Noise

Because the proposed project will not result in noise levels that exceed residential, commercial or mixed-use noise standards established for Riverside County, wildlife within adjacent open space habitats will not be subject to noise that exceeds these established standards. Short-term construction-related noise impacts will be reduced by the implementation of the following:

- During all Study Area construction activities, the contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards

- The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by RCHCA and RCDWR staff.

- The construction contractor shall limit impacts to predetermined trail alignments and staging areas as shown in Figure11, *Vegetation Communities Impact* Map.

No significant impacts are anticipated.

Invasive Species

Invasive plants that should be avoided are included in Table 6-2 of the MSHCP, *Plants That Should Be Avoided Adjacent to the MSHCP Conservation Area*. A total of 0.22-acre of existing disturbed (trail) habitat devoid of vegetation will be restored with Riversidean sage scrub vegetation as shown in Figure 11*, Vegetation Communities Impact Map*. All proposed restoration efforts will comply with the existing Riversidean

Sage Scrub Restoration Plan developed and approved by the RCHCA (**BIO-CM1 Habitat Restoration and Monitoring Plan**). Less than significant impact

Barriers

Barriers are intended to reduce or minimize unauthorized public access and associated impacts to protected resources. The proposed RCHCA portion of the Study Area has been historically closed to the public and has been fenced and gated to prevent unauthorized access. Consequently, fencing has been illegally removed in many locations, allowing unauthorized access to the site. The proposed Study Area and surrounding area has retained numerous, sporadic trails that are evident in aerial images as early as 1994, which was prior to RCHCA's creation. The presence of these numerous trails today suggests continued public use of the Reserve, where illegal public use of the Reserve has increased over the previous years.

The RCHCA continues to face frequent difficulties from illegal use of the Reserve, such as trash dumping, trail use and OHV use. These problems have resulted in areas of the Reserve not able to successfully provide habitat for SKR, which is the purpose of the Reserve. The RCHCA understands there is benign community interest in use of the Reserve, however, the larger trails have branches to many smaller 'trails-to-be' that have increased areas of disturbance to the Reserve. RCHCA recognizes that community access can help inform the public on the importance of conservation for SKR and provide a mechanism to proactively address the difficulties the Reserve faces.

Although the Reserve has historically been closed to public access with the intent of preserving SKR habitat, governing agencies are now investigating ways to combine the preservation effort with recreational benefits, which includes directives for multi-use trails and multi-use open space. The RCHCA Board of Directors, staff and other stakeholders identified the 250-acre Reserve within the southwest corner of the Mead Valley planning area as the best suited for public access because the land is solely owned by RCHCA, and staff spends numerous hours and resources repairing and replacing fencing for unapproved access at the Reserve. Therefore, a new approach is warranted to increase positive awareness and appreciation for these lands by allowing for proper public access. Less than significant impact.

CUMULATIVE IMPACTS

The permanent 1.80-acre direct and/or indirect impacts of the project would not result in significant cumulative impacts (CEQA Section 15310) to environmental resources within the region of the Study Area. Cumulative impacts refer to incremental effects of an individual project when assessed with the effects of past, current, and proposed projects. Although the project would result in 1.66-acre (92%) of impacts to disturbed habitats (existing trails, fuel modification zones, and ruderal), only 0.13-acre of non-native grassland and 0.01-acre of Riversidean sage scrub/rock outcrop would be impacted and would not result in a substantial adverse effect. The MSHCP was developed to address the comprehensive regional planning effort and anticipated growth in the County of Riverside. The proposed project has been designed and mitigated to remain in compliance with all MSHCP conservation goals and CEQA guidelines and therefore will not result in an adverse cumulative impact.

The following biological conservation and avoidance measures would ensure the proposed action and trail operation would result in a less than significant impact to the extent practicable as part of ensuring compliance and consistency with all MSHCP conservation goals and CEQA guidelines.

BIO-CM1 Habitat Restoration and Monitoring Plan

A total of 0.22-acre of existing disturbed (trail) habitat currently devoid of vegetation will be restored with Riversidean sage scrub vegetation. Therefore, all proposed restoration efforts will comply with the existing Riversidean Sage Scrub Restoration Plan developed and approved by the RCHCA (RCHCA 2021).

BIO-CM2 Sensitive Biological Resources

- **Biological Monitor**: All construction related activities will be monitored by a designated biologist knowledgeable and experienced with the target sensitive resources potentially present within and adjacent to the Study Area. The monitoring biologist shall be responsible for monitoring activities including all activities associated with the construction of the trail facilities. Specifically, the designated biologist shall ensure that impacts do not extend outside of the proposed impact area. The designated biologist shall have the authority to immediately halt all activities that may result in a direct or indirect impact to a sensitive species or potential regulated resources (ephemeral drainages and swales). In the event a federal/state endangered species or regulated resource may be directly or indirectly impacted, the designated biologist shall halt all work and contact the RCHCA, RCDWR and appropriate wildlife agencies. Monthly monitoring reports shall be prepared and submitted to the RCHCA and RCDWR for review and comment. The reports shall include a summary of all actions taken to ensure no sensitive species or regulated resources were impacted as a result of project construction activities.

- **Quino Checkerspot Butterfly**: The following conservation measures will be implemented to ensure protection for the Quino checkerspot butterfly: 1) A designated USFWS Quino permitted biologist will conduct a pre-construction host plant survey of the impact area, 2) The designated Quino monitor shall oversee construction activities, provide recommendations for avoidance of host plants and suitable habitat, and further minimize impacts, as warranted, 3) Work within and adjacent to suitable habitat would be conducted outside flight and growth season to the extent possible (February 1st to July 31st), 4) Standard Best Management Practices (BMPs) will be employed to limit the release of fugitive dust, and 5) Quino checkerspot butterfly observations would be reported to the RCHCA, RCDWR and USFWS.

  If suitable habitat (host plant) cannot be avoided, focused USFWS protocol Quino checkerspot butterfly surveys shall be conducted by a biologist possessing a federal Section 10(a)1(A) permit to determine the presence/absence of the species within and adjacent to the impact areas. The surveys will follow

guidelines outlined in the "*Quino Checkerspot Butterfly Survey Guidelines*" (USFWS 2014). A final report of the findings, including recommendations and mitigation measures, if detected onsite, shall be prepared by a qualified biologist and submitted to the RCHCA, RCDWR and USFWS.

- **Coastal California Gnatcatcher**: Before initiating construction, if work is to occur between February 15th and July 1st, a USFWS coastal California gnatcatcher permitted biologist shall conduct a preconstruction and breeding status survey within the Riversidean sage scrub located within 500 feet of the impact area. The purpose of the survey is to determine if any active gnatcatcher nests are located adjacent to the construction area which may be indirectly impacted. Should the study and report show, to the satisfaction of the RCHCA and RCDWR, that gnatcatcher nests are not present adjacent to the construction area, approval may be granted to commence project activities within the coastal California gnatcatcher nesting season from February 15th through July 1st.

  If coastal California gnatcatchers are nesting adjacent to the area to be impacted, no construction will be allowed during this time until such time as breeding has been determined to have completed.

- **Burrowing Owl:** A 30-day burrowing owl preconstruction survey will be conducted immediately prior to the initiation of ground-disturbing activities to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP and CEQA. The survey will be conducted in compliance with both MSHCP and CDFW guidelines (MSHCP 2006, CDFW 2012). A report of the findings prepared by a qualified biologist and shall be submitted to the RCHCA and RCDWR prior to initiation of ground disturbing activities.

  If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1st to August 31st) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are compete or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season, a burrowing owl protection plan will be developed and approved by the wildlife agencies.

BIO-CM3 Stephens' Kangaroo Rat

Before initiating construction, a USFWS SKR permitted biologist shall conduct a preconstruction survey of the impact area to determine the presence and/or absence of surface sign including burrows scat, runways, tail drags, tracks and dust bowls. The purpose of the survey is to determine if any suitable SKR borrows are located within or adjacent to the construction area which may be directly or indirectly impacted. Should the study and report show, to the satisfaction of the RCHCA, that SKR burrows can be avoided within the construction area, approval will be granted to commence project activities. As stated by Dudek "*A biologist familiar with SKR surface sign typically can generate a reasonably accurate "gestalt" of habitat quality and relative abundance of individuals based on this information. A simple checklist of presence/absence and*

abundance of these kinds of surface sign for each sample transect should be adequate to generally and reliably characterize SKR activity in the area." (Dudek 2007).

If potential SKR burrows may be impacted, adjustments to the trail alignment or width will be made to ensure no direct and/or indirect impacts occur to the species as a result of project initiation and operation.

BIO-CM4 Nesting Bird and Raptors

Regulatory requirement for potential direct/indirect impacts to nesting common and sensitive bird and raptor species will require compliance with the CDFG Code Section 3503. Construction outside the nesting season (between September 1st and January 31st) do not require pre-removal nesting bird surveys. If construction is proposed between February 1st and August 31st, a qualified biologist will conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the impact area. The survey(s) will focus on identifying any raptors and/or bird nests that would be directly or indirectly affected by construction activities.

If active nests are documented, species-specific measures will be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, construction in the vicinity of a nest will be postponed until the young birds have fledged. The perimeter of the nest setback zone will be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, will be submitted to the RCHCA and RCDWR for review and approval prior to initiation of construction in the nest-setback zone.

The qualified biologist will serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. A final monitoring report of the findings, prepared by a qualified biologist, will be submitted to the RCHCA and RCDWR documenting compliance with the CDFG Code. Any nest permanently vacated for the season would not warrant protection pursuant to the CDFG Code.

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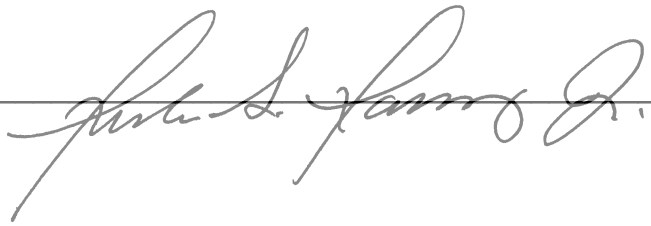
Certification "*I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge.*

Author:  Date: September 9, 2021

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