

# Biological Resources Technical Report

Riverside University Health System Medical Center Master Plan  
City of Moreno Valley, Riverside County, California

## FINAL REPORT



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## GLOSSARY

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AMSL	Above Mean Sea Level
APNs	Assessor's Parcel Numbers
BMPs	Best Management Practices
CASSA	Criteria Area Species Survey Area
CDFG	California Department of Fish and Game (CDFW effective Jan 1 <sup>st</sup> 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 Ranks
CWA	Clean Water Act
CWL	California Watch List (CDFW)
FC	Federal Candidate
FE	Federal Endangered
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
FT	Federal Threatened
FESA	federal Endangered Species Act
GIS	Geographic Information System
HANS	Habitat Acquisition and Negotiation Strategy
JPR	Joint Project Review
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NCCP	Natural Communities Conservation Plan
NEPSSA	Narrow Endemic Plant Species Survey Area
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
OHWM	Ordinary High-Water Mark
PEIR	Programmatic Environmental Impact Report
RCA	Western Riverside County Regional Conservation Authority
RCIP	Riverside County Integrated Project
OTMG	Riverside County Oak Tree Management Guidelines
RCHCA	Riverside County Habitat Conservation Authority
RUHS	Riverside University Health System
RWQCB	Regional Water Quality Control Board
SCE	State Candidate Endangered
SCT	State Candidate Threatened
SE	State Endangered
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SFP	State Fully Protected
ST	State Threatened
SSC	California Species of Special Concern
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWIG	Urban/Wildlands Interface Guidelines

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## INTRODUCTION

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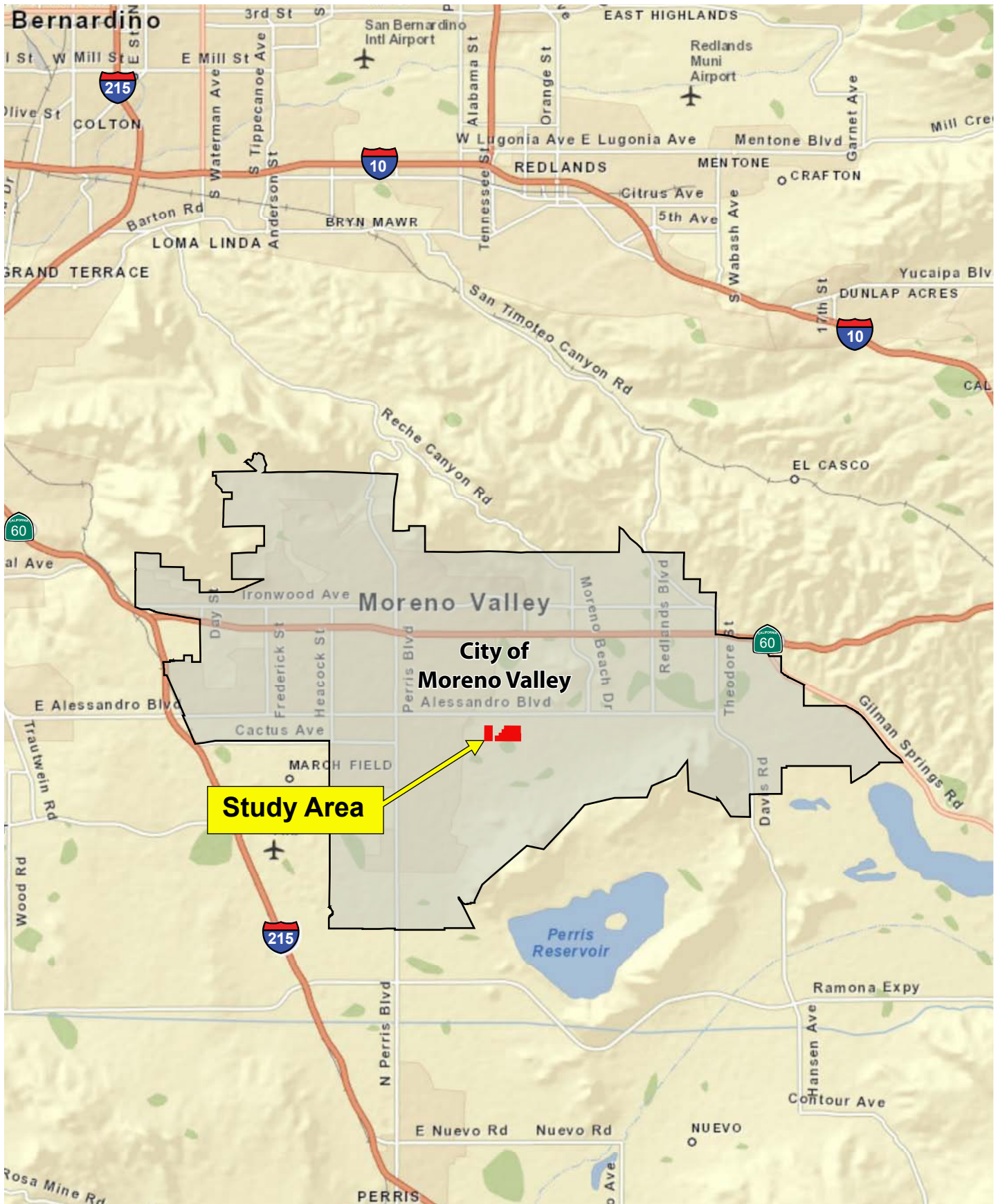
The following biological technical report describes a detailed assessment of potential sensitive natural resources located within and immediately adjacent to the Riverside University Health System (RUHS) Medical Center Master Plan Phase I Development project. Specifically, the report has been prepared to support the California Environmental Quality Act (CEQA), Programmatic Level Environmental Impact Report (PEIR) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) documentation, compliance, and review process conducted by the County of Riverside. As discussed below, the assessment includes a thorough literature review, site reconnaissance characterizing baseline conditions (including floral and faunal and dominate vegetation communities), focused sensitive species surveys, impact analysis, and proposed mitigation/conservation measures, as required.

### STUDY AREA LOCATION & DESCRIPTION

The 58.81-acre RUHS Medical Center Phase I Development Study Area (Study Area) is located in the 78.94-acre Master Plan Area within Assessor's Parcel Numbers (APNs) 486-280-025, -026, -037, and -057. The Study Area is located within United States Geological Survey (USGS) 7.5' Series Sunnymead Quadrangle, Riverside County, Township 3 South, Range 3 West, Section 16. Specifically, the Study Area extends south of Brodiaea Avenue, north of Cactus Avenue, including the existing RUHS Medical Center, City of Moreno Valley, Riverside County, California, as shown in Figure 1, *Regional Location Map*, and Figure 2, *Study Area Map*.

The Study Area is located within the Western Riverside County MSHCP Reche Canyon/Badlands Plan Area and is not located within an MSHCP Criteria Area Cell, Cell Group, or Linkage Area, as shown in Figure 3, *MSHCP Relationship Map* (Western Riverside County Regional Conservation Authority (RCA) Geographic Information System (GIS) Data Downloads 2025).

The proposed project identifies plans for future phases of development on the existing Medical Center Campus through at least 2055. The Master Plan would accommodate a proposed Emergency Department Expansion (EDE) that also would include an Inpatient Medical Care Facility (EDE/IMCF No. 1); five new medical office buildings; two new Inpatient Medical Care Facilities (IMCF Nos. 2 and 3); and four parking structures. EDE/IMCF No. 1 is proposed to consist of a one-story building that would serve as an expansion to the existing Emergency Department building and would contain approximately 55,000 s.f. of floor area with approximately 56 new treatment bays. The five new medical office buildings would consist of two- to three-story tall buildings containing a total of approximately 401,000 s.f. of floor space. IMCF No. 2 would consist of a one-story building with approximately 90,000 s.f. of building area. IMCF No. 3 would consist of a three-story building with approximately 168,000 s.f. of building area. The four proposed parking structures would consist of three- and four-story structures that would accommodate approximately 1,135,500 s.f. of floor area and approximately 3,154 parking spaces. Because site-specific details, such as grading and building plans, are not currently available for the uses accommodated by the Future Phases of the Master Plan, the Future Phases of development are evaluated by this EIR at a programmatic level of detail pursuant to Section 15168 of the State CEQA Guidelines.



APNs Portion of 486-280-025, -026, -037, and -057.

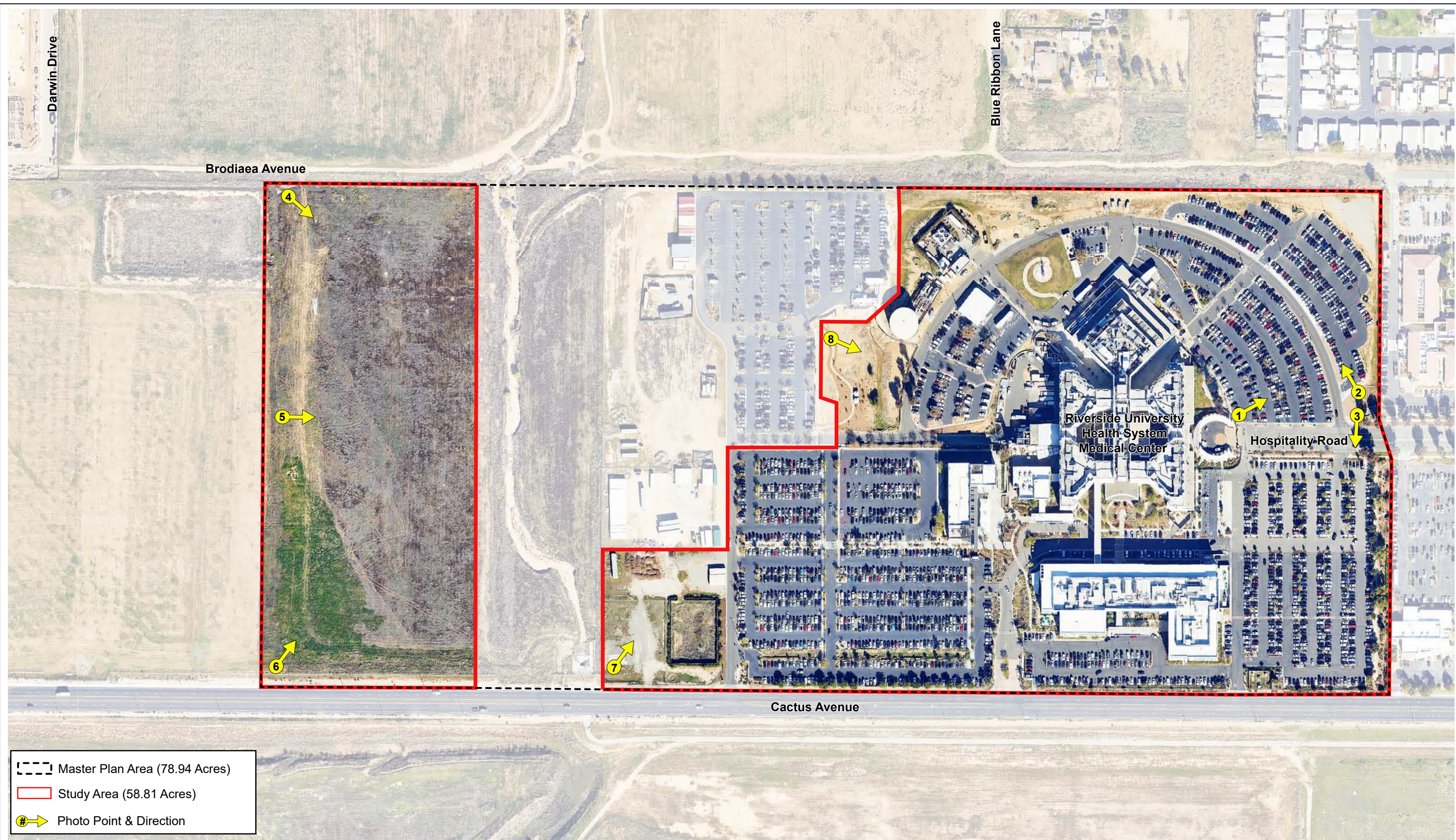
**Figure 1 - Regional Location Map**

*Biological Resources Technical Report*

*Riverside University Health System Medical Center Master Plan*



not to scale

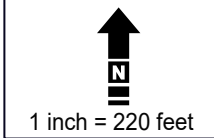


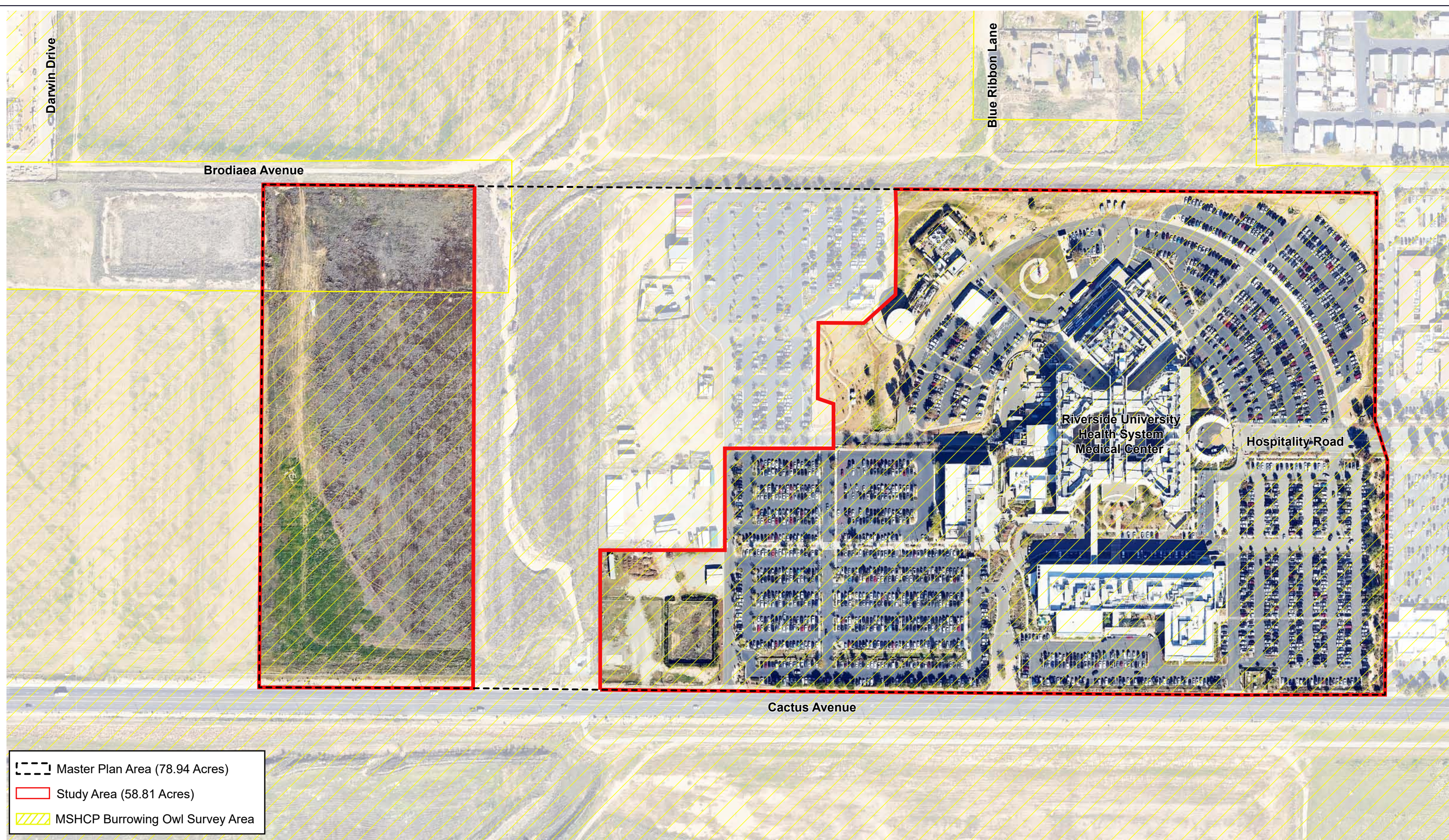
APNs Portion of 486-280-025, -026, -037, and -057.

**Figure 2 - Study Area Map**

*Biological Resources Technical Report*

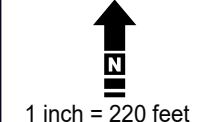
*Riverside University Health System Medical Center Master Plan*





APNs Portion of 486-280-025, -026, -037, and -057.

**Figure 3 - MSHCP Relationship Map**  
 Biological Resources Technical Report  
 Riverside University Health System Medical Center Master Plan



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## METHODOLOGY

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The following section details the methods implemented prior to and during the reconnaissance and focused survey conducted throughout the Study Area.

### LITERATURE REVIEW

Existing biological resource conditions within and adjacent to the Study Area were initially investigated through review of pertinent scientific literature and industry standard databases including but not limited to the following:

- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants in California (CNPS 2025).
- United States Fish and Wildlife Service (USFWS) Species Occurrence Database (USFWS 2025a).
- The Information for Planning and Consultation (IPaC) database from the USFWS (USFWS 2025b).
- USFWS Critical Habitat Mapper (USFWS 2025c).
- The California Natural Diversity Database (CNDDDB) (CDFW 2025a), a California Department of Fish and Wildlife (CDFW) Natural Heritage Division species account database.
- Special Animals (CDFW 2025b).
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025c).
- Endangered, Threatened, and Rare Plants of California (CDFW 2025d).
- Special Vascular Plants and Bryophytes List (CDFW 2025e).
- iNaturalist Database. (iNaturalist 2025).
- eBird (eBird 2025).
- County of Riverside Municipal Codes (County of Riverside 2025).
- County of Riverside General Plan – Reche Canyon/Badlands Area Plan.

### FIELD SURVEYS

An initial reconnaissance survey of the Study Area was conducted by Cadre Environmental on March 14<sup>th</sup>, 2025 in order to characterize and identify potential wildlife habitats, sensitive resources, and to establish the accuracy of the data identified in the literature search and previous surveys.

Geologic and soil maps were examined to identify local soil types that may support sensitive taxa. 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 Study Area 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, habitat assessments and focused surveys (as warranted) were conducted for the following seven (7) species.

### Section 6.1.2 Riparian, Riverine, Vernal Pool Species

- Riverside fairy shrimp (*Streptocephalus woottoni*), Federal Endangered (FE);
- vernal pool fairy shrimp (*Branchinecta lynchi*), Federal 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*), State Candidate Endangered (SCE).

A habitat assessment was also conducted for, but not limited to, the following target species not covered by the MSHCP.

- Crotch's bumble bee (*Bombus crotchii*) – SCE

### **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 Jepson Flora Project (eds.) (Jepson eFlora 2025). 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 documented. 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 (2025) for amphibians and reptiles, the American Ornithological Society (2025) for birds, and American Society of Mammalogists (2025) 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.

### **Crotch’s Bumble Bee Surveys**

The following section is excerpted and/or summarized directly from the document prepared by Huffman Environmental “*2025 Proposed Project Riverside University Health System Medical Center Crotch’s Bumble Bee Summary Report, Riverside, California*” (Huffman Environmental 2015).

A habitat assessment was conducted in May 2025 for the Crotch’s bumble bee by Huffman Environmental. The primary objective of the assessment was to identify optimal nectar resources, thereby determining areas with the highest likelihood of Crotch’s bumble bee occurrence. Nectar patches were delineated based on the relative abundance of blooming or soon-to-bloom floral species known to be preferred by Crotch’s bumble bee. These mapped patches defined the Crotch’s bumble bee Survey Area.

Excluded habitat types were determined based on the absence or scarcity of suitable nectar resources. Habitat types unlikely to support foraging or presenting low detectability for Crotch’s bumble bee included disturbed or developed areas (e.g., access roads), and non-native grasslands dominated by invasive species that had already senesced. Survey areas were delineated using GPS polygons collected in Field Maps (ArcGIS), and dominant nectar species were recorded on digital datasheets via the Fulcrum mobile application. Nectar patches were reevaluated during each subsequent survey round to guide survey effort. Once a nectar patch senesced, it was revisited briefly to confirm its low suitability and was not surveyed further.

Three survey rounds were conducted in May and June 2025 maintaining a minimum of two weeks between each survey in accordance with protocol guidelines. Survey efforts were scheduled to coincide with the peak blooming periods of potential nectar and pollen sources and the expected active flight periods of Crotch’s bumble bee. Biologists concentrated their efforts in areas with the highest quality and density of flowering plant species commonly associated with Crotch’s bumble bee foraging behavior.

Survey speed was generally maintained at a rate of approximately three acres per hour, although this rate was adjusted at the discretion of the biologist based on environmental conditions. Factors influencing survey pace included nectar source availability, floral density, overall vegetation cover, terrain complexity, and observed invertebrate activity. Surveys were conducted using a combination of meandering transects and passive visual monitoring with the aid of binoculars. If a *Bombus* individual was encountered, it was observed and identified through a combination of field observation and photography, without physical capture. All surveys were conducted under protocol-defined weather conditions, which included ambient temperatures between 60°F and 90°F, sustained wind speeds less than 10 mph, and the absence of fog or precipitation (CDFW, 2023).

### **MSHCP Focused Burrowing Owl Surveys**

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined “Survey Area” (MSHCP 2004).

The Study Area occurs almost completely within a predetermined Survey Area for the burrowing owl. Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within and adjacent to the western region of the Study Area including foraging habitat. Therefore, focused surveys were conducted by Cadre Environmental during the spring of 2025. 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, burrow and focused surveys were conducted by Ruben Ramirez, Cadre Environmental. 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 March 14<sup>th</sup> 2025. 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 California 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. Results from the habitat assessment indicated that suitable burrowing owl burrows and foraging habitat were documented within and adjacent to the Study Area. Accordingly, if suitable habitat is documented onsite, both Step II surveys and the 30-day pre-construction surveys are required in order to comply with the MSHCP guidelines.

### **Step II – Locating Burrows and Burrowing Owls**

Concurrent with the initial habitat assessment, a detailed focused burrow survey was conducted and included documentation of appropriately sized natural burrows or suitable man-made structures that may be utilized by burrowing owl - as part of the MSHCP protocol, which is described below under Part A. Focused Burrow Survey. The MSHCP protocol indicated that no more than 100 acres should be surveyed per day/per biologist. A total of 15-acres of suitable habitat was documented within the Study Area burrowing owl Survey Area.

#### **Part A: Focused Burrow Survey**

A systematic survey for burrows, including burrowing owl sign, was conducted by walking across all suitable habitats mapped within the Study Area on March 14<sup>th</sup>, 2025. Pedestrian survey transects were spaced to allow 100% visual coverage of the ground surface. The distances between transect centerlines were no more than 20 meters (approximately 66 ft.) apart, and owing to the terrain, often much smaller. Transect routes were also adjusted to account for topography, general ground surface visibility and/or complete lack of suitable habitat. All observations of suitable burrows or dens, natural or man-made, or sightings of burrowing owl, were recorded and mapped during the survey.

#### **Part B: Focused Burrowing Owl Surveys**

Four (4) focused burrowing owl surveys were conducted within the Study Area on March 19<sup>th</sup>, April 17<sup>th</sup>, May 25<sup>th</sup> and 27<sup>th</sup>, 2025 from one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset. All surveys were conducted following MSHCP guidelines and 2012 CDFW Staff Report on Burrowing Owl Mitigation recommended survey procedures. During visual surveys, all potentially suitable burrow or structure entrances were investigated for signs of owl occupation, such as feathers, tracks, or pellets, and carefully observed to determine if burrowing owls utilize these features, when present. All burrows are monitored at a short

distance from the entrance, and at a location that would not interfere with potential owl behavior, when present. In addition to monitoring potential burrow locations, all suitable habitats in the Study Area were surveyed.

### **Jurisdictional Delineation**

A formal jurisdictional delineation of the Study Area was conducted by Psomas on December 19<sup>th</sup>, 2024 (Psomas 2025). Specifically, the Study Area was assessed for potential jurisdiction by the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB). Non-wetland waters of the United States were assessed based on the limits of the Ordinary High-Water Mark (OHWM) as determined by erosion, the deposition of vegetation or debris, and changes in vegetation and soil characteristics. The assessment utilized the methodology for routine wetland determination according to the methods outlined in the USACE Wetland Delineation Manual (Environmental Laboratory 1987) and the Arid West Wetland Delineation Supplement and updated regulatory guidance letters (USACE 2008). Wetlands are identified by the presence of three characteristics: hydrophytic vegetation, wetland hydrology, and hydric soils.

### **MSHCP Riparian/Riverine/Vernal Pool Resources**

The Study Area was assessed for potential jurisdiction by MSHCP 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 Section 6.1.2. 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)

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## EXISTING ENVIRONMENTAL SETTING

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The majority of the eastern region of the Study Area is characterized as the existing RUHS Medical Center including parking areas, support structures and storage areas (disturbed habitats). The western region of the Study Area is undeveloped and characterized as non-native grassland/ruderal, as shown in Figure 4, *Vegetation Communities Map*, Figures 5 to 8, *Current Study Area Photographs*, and outlined in Table 1, *Study Area Vegetation Community Acreages*.

**Table 1**  
**Study Area Vegetation Community Acreages**

<b>Vegetation Community</b>	<b>Study Area Total (ac)</b>
Developed	37.99
Disturbed	6.23
Non-Native Grassland/Ruderal	14.59
	<b>58.81</b>

Source: Cadre Environmental 2025.

### VEGETATION COMMUNITIES

#### Developed

The eastern region of the Study Area is developed respective of the existing RUHS Medical Center, including parking areas, support structures and storage areas. Ornamental vegetation is scattered throughout the RUHS Medical Center including but not limited to Chinese elm (*Ulmus parvifolia*), holly oak (*Quercus ilex*), pine trees (*Pinus* sp.), red gum (*Eucalyptus camaldulensis*), date palm (*Phoenix dactylifera*), fountain grass (*Pennisetum setaceum*), Bougainvillea (*Bougainvillea* sp.), and Lantana (*Lantana camara*).

#### Disturbed

Disturbed regions of the Study Area include storage and vacant lands adjacent and extending north and west of the RUHS Medical Center which are generally devoid of vegetation. Scattered invasive species documented within the disturbed regions include cheeseweed (*Malva parviflora*), red-stemmed filaree (*Erodium cicutarium*), Australian saltbush (*Atriplex semibaccata*), pineapple weed (*Matricaria discoidea*), California bur clover (*Medicago polymorpha*), prostate knotweed (*Polygonum aviculare*), Russian thistle (*Salsola tragus*), and stinknet (*Oncosiphon piluliferum*). Native species documented include vinegarweed (*Trichostema lanceolatum*) and telegraph weed (*Heterotheca grandiflora*).

#### Non-native Grassland/Ruderal

The western region of the Study Area is characterized as non-native grassland/ruderal vegetation. Species documented within this habitat type include false barley (*Hordeum*

*murinum*), wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), stinknet, cheeseweed, Russian thistle, common fiddleneck (*Amsinckia intermedia*), doveweed (*Croton setigerus*), yellow sweetclover (*Melilotus officinalis*), common sow thistle (*Sonchus oleracens*), tocalote (*Centaurea melitensis*), pigweed (*Amaranthus albus*), and London rocket (*Sisymbrium irio*).

## SOILS

The Soil Survey of Western Riverside Area has classified the Study Area as follows (U.S. Department of Agriculture 2025), as shown in Figure 8, *Soils Association Map*:

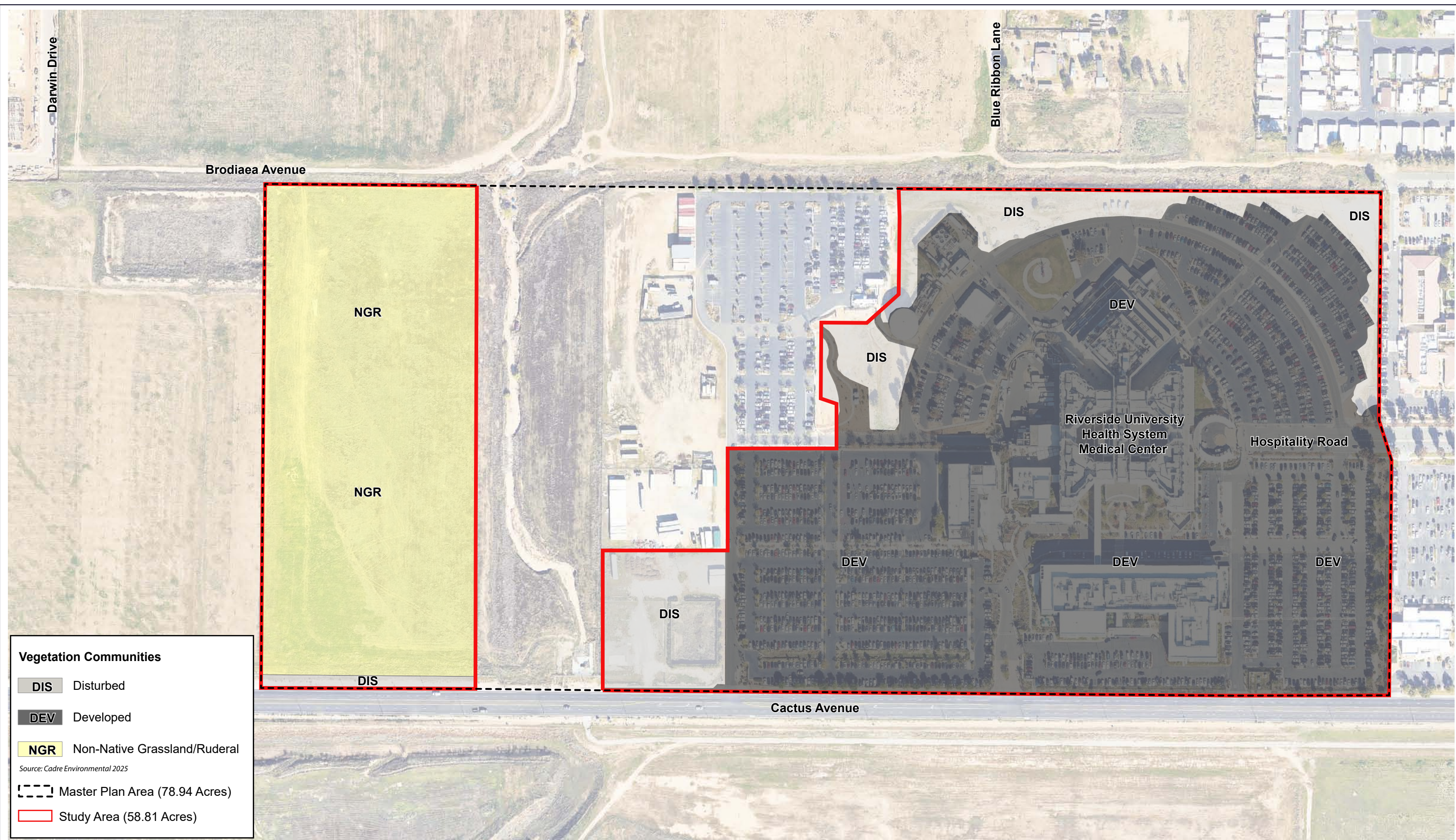
- GyA – Greenfield sandy loam, 0 to 2 percent slopes
- GyC2 – Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC – Hanford coarse sandy loam, 2 to 8 percent slopes
- RaA – Ramona sandy loam, 0 to 2 percent slopes
- ReC2 – Ramona very fine sandy loam, 0 to 8 percent slopes, eroded

## GENERAL WILDLIFE SPECIES

General wildlife species documented within or adjacent to the Study Area during the habitat assessments and focused surveys include red-tailed hawk (*Buteo jamaicensis*), sharp-shinned hawk (*Accipiter striatus*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), turkey vulture (*Cathartes aura*), rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), Cassin's kingbird (*Tyrannus vociferans*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), northern rough-winged swallow (*Stelgidopteryx serripennis*), violet green swallow (*Tachycineta thalassina*), American crow (*Corvus brachyrhynchos*), yellow rumped warbler (*Setophaga coronata*), western meadowlark (*Sturnella neglecta*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), lark sparrow (*Chondestes grammacus*), house sparrow (*Passer domesticus*), white crowned sparrow (*Zonotrichia leucophrys*), western bluebird (*Sialia mexicana*), European starling (*Sturnus vulgaris*), desert cottontail rabbit (*Sylvilagus audubonii*), and California ground squirrel.

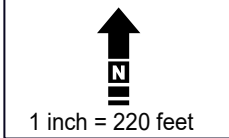
## JURISDICTIONAL RESOURCES

No jurisdictional resources regulated by the USACE, RWQCB and CDFW were documented within the Study Area (Psomas 2025). Regulatory permits/certifications are not required.



APNs Portion of 486-280-025, -026, -037, and -057.

**Figure 4 - Vegetation Communities Map**  
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PHOTOGRAPH 1



PHOTOGRAPH 2

*Refer to Figure 2 for Photographic Key - Study Area Map*

**Figure 5 - Current Study Area Photographs**  
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Riverside University Health System Medical Center Master Plan*





PHOTOGRAPH 3



PHOTOGRAPH 4

*Refer to Figure 2 for Photographic Key - Study Area Map*

**Figure 6 - Current Study Area Photographs**

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PHOTOGRAPH 5



PHOTOGRAPH 6

*Refer to Figure 2 for Photographic Key - Study Area Map*

**Figure 7 - Current Study Area Photographs**

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PHOTOGRAPH 7



PHOTOGRAPH 8

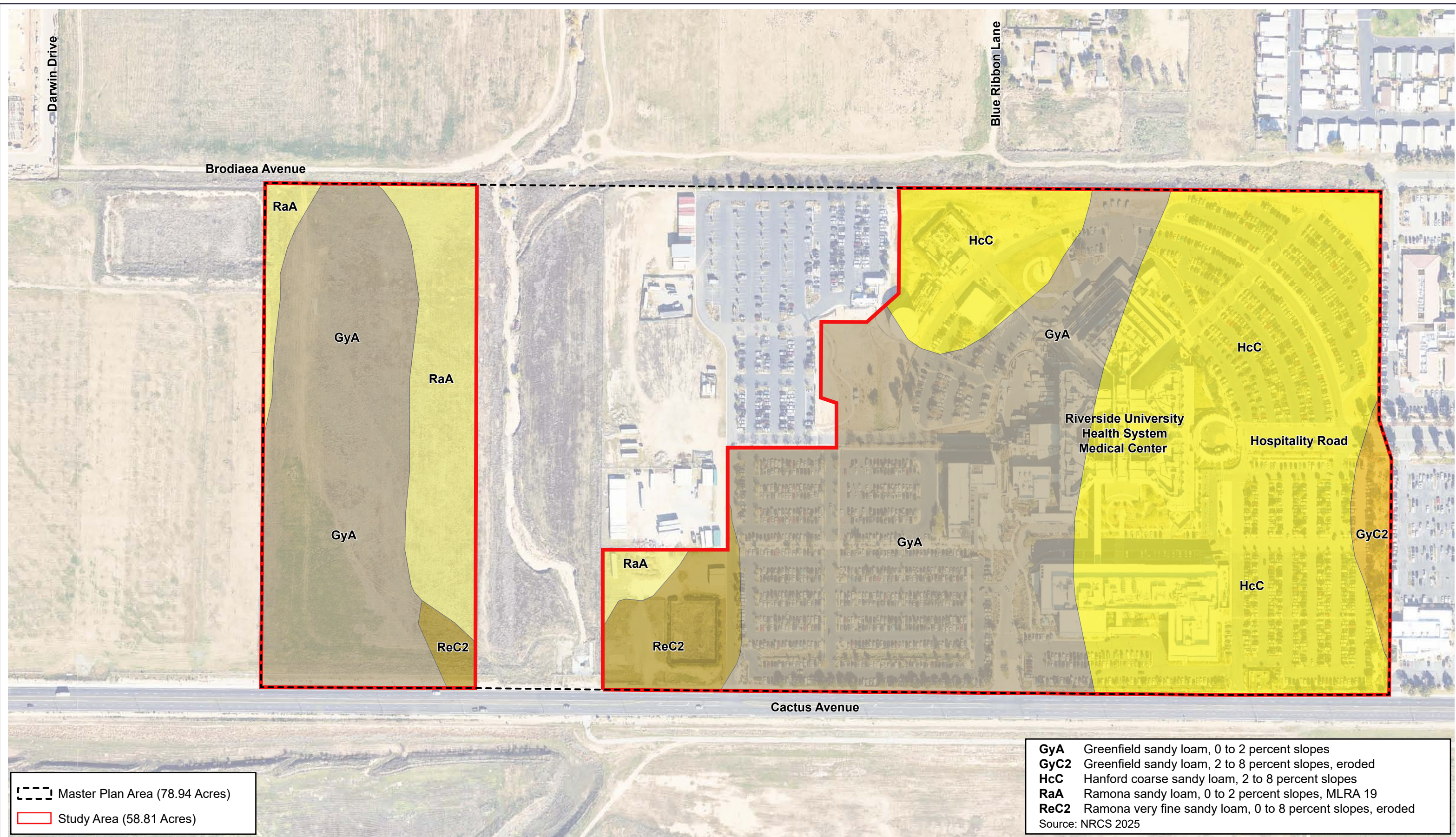
*Refer to Figure 2 for Photographic Key - Study Area Map*

**Figure 8 - Current Study Area Photographs**

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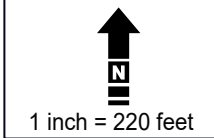


APNs Portion of 486-280-025, -026, -037, and -057.

**Figure 9 - Soils Association Map**

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## SENSITIVE BIOLOGICAL RESOURCES

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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 (2025), CNDDDB (CDFW 2025a), CDFW (2025d, 2025e), CNPS (2025), and Skinner and Pavlik (1994),

**Invertebrate** - Crotch's bumble bee *Bombus crotchii*: Leif Richardson, Paul Williams, Robbin Thorp and Sheila Colla, et al. (2022), CDFW (2019), CDFW (2023), Hatfield, et al. (2019).

**Wildlife:** California Wildlife Habitat Relationships (2008), Ornithological Society (2025), American Society of Mammalogists (2025), eBird (2025), iNaturalist (2025), USFWS (2025a), CNDDDB (CDFW 2025a), and CDFW (2012, 2025b, 2025c, 2025f)

**Habitats:** CNDDDB (CDFW 2025a, 2025f).

## 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 federal Migratory Bird Treaty Act (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.

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. California Species of Special Concern (SSC) 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 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 CNDDDB project. Informally listed taxa are not protected per se but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB 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
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.

### California Native Plant Society

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 references as California Rare Plant Ranks (CRPR):

CRPR 1A	Plants presumed extirpated in California and either rare or extinct elsewhere
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 2025)*

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**

Natural communities are evaluated using NatureServe’s Heritage Methodology, the same system used to assign global and state rarity ranks for plant and animal species in the CNDDDB. The basic ranking concepts of rarity and threats used in the “Heritage Methodology” since the 1970’s remain the same, using the best and most recent scientific information available. For rarity, the ranking involves the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity. Threats and trends are likewise considered in categories such as residential and commercial development, agriculture, energy production and mining, and invasive and other problematic species and genes (among others). Threat scope (typically assessed within a 20-year timeframe for vegetation) and severity are used to calculate an overall threat score, which is added to the overall rarity score for a single rank of 1 through 5. Evaluation is done at both the Global (full natural range within and outside of California) and State (within California) levels resulting in a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents. (CDFW 2025f)

No sensitive natural communities listed by CDFW as sensitive were documented within or adjacent to the Study Area.

## SENSITIVE PLANTS

The Study Area is not located within an MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA); therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.1.3.

The Study Area is not located within an MSHCP Criteria Area Species Survey Area (CASSA) for sensitive plants; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.3.2.

No state or federally listed threatened or endangered plant species were documented or expected to occur onsite based on a lack of suitable habitat, as outlined in Table 2, *Sensitive Plant Species with Potential to Occur within Study Area*.

No suitable habitat was documented onsite for special-status plants not covered under the MSHCP, as outlined in Table 2, *Sensitive Plant Species with Potential to Occur within Study Area*.

**Table 2**  
**Sensitive Plant Species with Potential to Occur within Study Area.**

Species Name (Scientific Name)	Habitat Description	Comments
Status		
<b>Chaparral sand-verbena</b> ( <i>Abronia villosa</i> var. <i>aurita</i> )  CRPR 1B.1	Sandy soils in sage-scrub, chaparral.	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.
<b>San Diego sagewort</b> ( <i>Artemisia palmeri</i> )  CRPR 4.2	Found in sandy and mesic soils within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland. Found at elevations ranging from 49 to 3,002 feet. Blooming period is from February to September.	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.
<b>Plummer's mariposa lily</b> ( <i>Calochortus plummerae</i> )  CRPR 1B.2 MSHCP Covered	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, and valley and foothill grassland.	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.
<b>Payson's jewelflower</b> ( <i>Caulanthus simulans</i> )  CRPR List 4.2 MSHCP Covered	Annual herb generally blooming from February to June within chaparral and costal scrub habitats in association with granitic and sandy substrates (CNPS 2025).	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.

<b>Species Name</b> <i>(Scientific Name)</i>	<b>Habitat Description</b>	<b>Comments</b>
Status  <b>Smooth tarplant</b> <i>(Centromadia pungens ssp. laevis)</i>  CRPR 1B.1 MSHCP Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, and disturbed habitats.	<u>No Potential.</u> No suitable undisturbed vegetation or alkali substrates detected onsite.
<b>Peninsular spine flower</b> <i>(Chorizanthe leptotheca)</i>  CRPR 4.2	Annual herb generally blooming from May to August within alluvial fan, granitic chaparral, coastal scrub and lower montane coniferous forest habitats (CNPS 2025).	<u>No Potential.</u> No suitable undisturbed vegetation or substrates detected onsite.
<b>Parry's spineflower</b> <i>(Chorizanthe parryi var. parryi)</i>  CRPR 3.2 MSHCP Covered	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	<u>No Potential.</u> No suitable undisturbed vegetation or substrates detected onsite.
<b>White-bracted spineflower</b> <i>(Chorizanthe xanti var. leucotheca)</i>  CRPR 1B.2	Annual herb generally blooming from April to June within coastal scrub (alluvial fans), Mojavean desert scrub and pinyon and juniper woodland habitats (CNPS 2025).	<u>No Potential.</u> No suitable undisturbed vegetation or substrates detected onsite.
<b>Paniculate tarplant</b> <i>(Deinandra paniculata)</i>  CRPR 4.2	Annual herb generally blooming from April to November and occurring within vernal mesic habitat, sometimes sandy, coastal scrub, valley and foothill grasslands, and vernal pools (CNPS 2025)	<u>No Potential.</u> No suitable undisturbed vegetation or mesic substrates detected onsite.
<b>Coulter's goldfields</b> <i>(Lasthenia glabrata ssp. coulteri)</i>  CRPR List 1B.1 MSHCP Criteria Area Plant Species	Coulter's goldfields is associated with low-lying alkali and saline habitats along the coast and inland valleys. The majority of the populations are associated with coastal salt marsh. In Riverside County, Coulter's goldfields primarily grow in highly alkaline, silty clays associated with the Traver-Domino-Willows soils, and usually in the wet areas in the alkali vernal plain community.	<u>No Potential.</u> No suitable undisturbed vegetation or alkali substrates detected onsite.

Species Name (Scientific Name)	Habitat Description	Comments
Status  <b>Robinson's pepper-grass</b> ( <i>Lepidium virginicum</i> var. <i>robinsonii</i> )  CRPR 4.3	Annual herb generally blooming from January to July within chaparral and coastal scrub habitats (CNPS 2025).	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.
<b>San Bernardino aster</b> ( <i>Symphotrichum defoliatum</i> )  CRPR 1B.2	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic)/near ditches, streams springs.	<u>No Potential</u> . No suitable undisturbed vegetation or substrates detected onsite.
<p><b>California Native Plant Society (CNPS): California Rare Plant Rank (CRPR)</b>  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</p> <p><b>Federal (USFWS) Protection and Classification</b>  FE – Federally Endangered  FT – Federally Threatened  FC – Federal Candidate for Listing</p> <p><b>State (CDFW) Protection and Classification</b>  SE – State Endangered  ST – State Threatened</p>		

Source : Cadre Environmental 2025.

## SENSITIVE WILDLIFE

Suitable habitat was documented onsite for one (1) special-status invertebrate species not covered under the MSHCP including Crotch's bumble bee (*Bombus crotchii*) SCE, as outlined in Table 3, *Sensitive Wildlife Species with Potential to Occur within Study Area*. Suitable scattered foraging habitat for the Crotch's bumble bee is present within the western region of the Study Area. Burrows representing suitable nesting resources were also documented within this region of the Study Area. As stated by Hatfield, et al.:

*“Bombus crotchii inhabits open grassland and scrub habitats. Nesting occurs underground. Male’s perch and chase moving objects in search of mates. This species is classified as a short-tongued species, whose food plants include Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia (Williams et al. 2014). Bumble bees are social insects that live in colonies composed of a queen, workers, and reproductives (males and new queens). Colonies are annual and only the new, mated queens overwinter. These queens emerge from hibernation in the early spring and immediately start foraging for pollen and nectar and begin to*

search for a nest site. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Initially, the queen does all of the foraging and care for the colony until the first workers emerge and assist with these duties. Bumble bees collect both nectar and pollen of the plants that they pollinate. In general, bumble bees forage from a diversity of plants, although individual species can vary greatly in their plant preferences, largely due to differences in tongue length. Bumble bees are well-known to engage in “buzz pollination,” a very effective foraging technique in which they sonicate the flowers to vibrate the pollen loose from the anthers. Tomatoes (*Solanaceae*), blueberries (*Ericaceae*), and many other important food plants are pollinated by bumble bees in this way.” Hatfield, et al. (2019).

The Crotch’s bumble bee was not documented onsite following focused surveys conducted during the spring of 2025 (Huffman Environmental 2025). No Impact.

The Study Area is not located within an MSHCP Amphibian Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.1.3.

The Study Area is not located within an MSHCP Mammal Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.3.2.

The Study Area occurs almost completely within a predetermined Survey Area for the burrowing owl, as shown in Figure 3, *MSHCP Relationship Map*. Burrowing owl burrows larger than 4 inches in diameter were detected within or immediately adjacent to the western region of the Study Area. Based on the presence of suitable habitat, focused MSHCP protocol burrowing owl surveys were conducted during the spring of 2025. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Study Area during the 2025 survey efforts (Cadre Environmental 2025). As stated in the MSHCP protocol guidelines, regardless of findings during the focused survey efforts, an MSHCP preconstruction survey will also be required at least 30-days immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP (Condition of Approval). If burrowing owls are detected within or adjacent to the Study Area during the burrowing owl preconstruction survey, a burrowing owl relocation plan will be developed for the passive/active translocation of individuals as directed by the County of Riverside and MSHCP wildlife agencies. Following completion of the burrowing owl 30-day preconstruction survey and compliance with MSHCP species guidelines, if detected, the project will be consistent with MSHCP Section 6.3.2.

A total of six (6) sensitive species have potential to occur or were observed within the Study Area including grasshopper sparrow (*Ammodramus savannarum*), sharp-shinned hawk (*Accipiter striatus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). As previously stated, the MSHCP has determined that these sensitive species potentially occurring within Study Area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the

MSHCP Since 1999, 2004). Sensitive species that can be excluded from occurring onsite or known to occur within the region with potential to occur onsite are presented in Table 3, *Sensitive Wildlife Species with Potential to Occur within Study Area*.

Suitable habitat was documented onsite for one (1) special-status wildlife species not covered under the MSHCP including western yellow bat (*Lasiurus xanthinus*) SSC, as outlined in Table 3, *Sensitive Wildlife Species with Potential to Occur within Study Area*. Suitable scattered palm trees representing potential roosting habitat for the western yellow bat is present within the eastern region of the Study Area.

**Table 3**  
**Sensitive Wildlife Species with Potential to Occur within Study Area.**

<b>Species Name</b> <i>(Scientific Name)</i> Status	<b>Habitat Description</b>	<b>Comments</b>
<b>INVERTEBRATES</b>		
<b>Crotch's bumble bee</b> <i>(Bombus crotchii)</i>  SCE	Range extends from southern to northern California within a variety of habitats including grassland, scrub, chaparral and desert habitats. Food plants include but are not limited to the following genera: <i>Antirrhinum, Phacelia, Clarkia, Cordylanthus, Dendromecon, Eschscholzia, Eriogonum, Hypericum, Lantana, Lupinus, Salvia, Asclepias, Cirsium, Monardella, Keckiella, Acmispon, Euthamia, Ehrendorferia, Vicia, and/or Trichostema.</i>	<u>No Potential</u> . Not detected during focused spring 2025 focused surveys (Huffman Environmental 2025)
<b>Vernal pool fairy shrimp</b> <i>(Branchinecta lynchi)</i>  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).	<u>No Potential</u> . No suitable habitat including vernal pools, seasonal depressions or indication of inundation was documented within the Study Area.

Species Name (Scientific Name) Status	Habitat Description	Comments
<b>Riverside fairy shrimp</b> ( <i>Streptocephalus woottoni</i> )  FE MSHCP Covered Species	<i>S. woottoni</i> 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 predictable, and remained filled for extended periods of time (MSHCP 2004).	<u>No Potential</u> . No suitable habitat including vernal pools, seasonal depressions or indication of inundation was documented within the Study Area.
<b>AMPHIBIANS</b>		
<b>Arroyo toad</b> ( <i>Anaxyrus californicus</i> )  FE/SSC MSHCP Covered Species	Shallow, slow moving active and braided stream channels with sandy substrates for breeding, bench and terrace habitats for foraging and aestivation, willow scrub, coastal sage scrub and riparian/oak woodlands.	<u>No Potential</u> . No suitable breeding or upland habitat documented within the Study Area.
<b>Western spadefoot</b> ( <i>Spea hammondi</i> )  SSC MSHCP Covered Species	The western spadefoot population is patchily but widely distributed throughout the Riverside Lowlands and San Jacinto Foothills Bioregions. Habitat for this species includes suitable breeding habitat below 1500 meters (i.e., vernal pools or other standing water is free of exotic species) secondary habitats including adjacent chaparral, sage scrub, grassland, and alluvial scrub habitats (MSHCP 2004).	<u>No Potential</u> . No suitable breeding habitat including vernal pools, seasonal depressions or indication of inundation was documented within the Study Area.

Species Name (Scientific Name) Status	Habitat Description	Comments
<b>REPTILES</b>		
<b>Southern California legless lizard</b> ( <i>Anniella stebbinsi</i> )  SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	<u>No Potential</u> . No suitable habitat was documented within the Study Area based on a lack of mesic conditions.
<b>Orange-throated whiptail</b> ( <i>Aspidoscelis hyperythra</i> )  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.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Coastal western whiptail</b> ( <i>Aspidoscelis tigris stejnegeri</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>San Diego banded gecko</b> ( <i>Coleonyx variegatus abbotti</i> )  SSC MSHCP Covered Species	San Diego banded gecko is a microhabitat generalist and also occurs in habitats ranging from cismontane chaparral and desert scrub to open sand dunes and arid tropical forests (MSHCP 2004).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Red-diamond rattlesnake</b> ( <i>Crotalus ruber</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.

Species Name (Scientific Name) Status	Habitat Description	Comments
<b>Western pond turtle</b> ( <i>Actinemys marmorata</i> )  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 <i>et al.</i> , 1992; Holland, 1994). Pools are the preferred habitat within streams (Bury, 1972, MSHCP 2004)	<u>No Potential</u> . No suitable habitat was documented within the Study Area.
<b>Coast horned lizard</b> ( <i>Phrynosoma blainvillii</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Coast patch-nosed snake</b> ( <i>Salvadora hexalepis virgultea</i> )  SSC	The coast patch-nosed snake prefers brushy coastal sage scrub/ chaparral habitats.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>BIRDS</b>		
<b>Cooper's hawk</b> ( <i>Accipiter cooperii</i> )  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.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Sharp-shinned hawk</b> ( <i>Accipiter striatus</i> )  SSC 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	<u>Present</u> . Detected foraging within the western region of the Study Area.

Species Name (Scientific Name) Status	Habitat Description	Comments
	sage scrub for foraging. (MSHCP 2004)	
<b>Tri-colored blackbird</b> ( <i>Agelaius tricolor</i> )  ST/SSC MSHCP Covered Species	Marshes and grasslands. Breeding colonies require nearby water, nesting substrate, and open range foraging habitat of natural grassland, woodland, or agricultural cropland.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Southern California rufous-crowned sparrow</b> ( <i>Aimophila ruficeps canescens</i> )  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.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Grasshopper sparrow</b> ( <i>Ammodramus savannarum</i> )  SSC MSHCP Covered Species	The grasshopper sparrow generally prefers moderately open grasslands and prairies with patchy bare ground (MSHCP 2004).	<u>Moderate Potential</u> . The western region of the Study Area, non-native grassland/ruderal represents suitable habitat for the species.
<b>Golden eagle</b> ( <i>Aquila chrysaetos</i> )  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 (MSHCP 2004).	<u>No Potential</u> . No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>Bell's sage sparrow</b> ( <i>Artemisospiza belli belli</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.

<b>Species Name</b> <i>(Scientific Name)</i> Status	<b>Habitat Description</b>	<b>Comments</b>
<b>Short-eared owl</b> <i>(Asio otus)</i>  SSC	Suitable habitats include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures. Tule marsh or tall grasslands with cover 30 to 50 cm in height can support nesting pairs.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Long-eared owl</b> <i>(Asio otus)</i>  SSC	Deciduous and evergreen forests, orchards, wooded parks, farm woodlots, river woods, desert oases. Wooded areas with dense vegetation needed for roosting and nesting, open areas for hunting. Often associated with deciduous woods near water.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Burrowing owl</b> <i>(Athene cunicularia)</i>  SCE 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).	<u>No Potential</u> . Not detected during focused spring 2025 focused surveys (Cadre Environmental 2025).
<b>Ferruginous hawk</b> <i>(Buteo regalis)</i>  CWL MSHCP Covered Species	Range-wide, within California, ferruginous hawk winter in open terrain and grasslands of plains and foothills (Grinnell and Miller 1944). Within southern California, including the ferruginous hawks typically winter in open fields, grasslands, and agricultural areas.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.

<b>Species Name</b> <i>(Scientific Name)</i> Status	<b>Habitat Description</b>	<b>Comments</b>
<b>Swainson's hawk</b> <i>(Buteo swainsoni)</i>  ST MSHCP Covered Species	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	<u>No Potential</u> . No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>Vaux's swift</b> <i>(Chaetura vauxi)</i>  SSC	Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned-out snags. Fairly common migrant throughout most of the state in April and May, and August and September.	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>Northern harrier</b> <i>(Circus cyaneus)</i>  SSC MSHCP Covered Species	The northern harrier frequents open wetlands, wet/lightly grazed pastures, fields, dry uplands/prairies, mesic grasslands, drained marshlands, croplands, meadows, grasslands, open rangelands, fresh and saltwater emergent wetlands.	<u>Moderate Potential</u> . May occasionally forage onsite.
<b>Western yellow-billed cuckoo</b> <i>(Coccyzus americanus occidentalis)</i>  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 yellow-billed cuckoo apparently no longer inhabits much of this habitat (MSHCP 2004).	<u>No Potential</u> . No suitable riparian scrub, forest or woodland habitat was documented within the Study Area.

<b>Species Name</b> <i>(Scientific Name)</i> Status	<b>Habitat Description</b>	<b>Comments</b>
<b>White-tailed kite</b> <i>(Elanus leucurus)</i>  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).	<u>Moderate Potential.</u> May occasionally forage onsite.
<b>Southwestern willow flycatcher</b> <i>(Empidonax traillii extimus)</i>  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).	<u>No Potential.</u> No suitable riparian scrub, forest or woodland habitat was documented within the Study Area.
<b>California horned lark</b> <i>(Eremophila alpestris actia)</i>  SWL MSHCP Covered Species	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 habitat - however these are not typical habitats used by the species.	<u>Moderate Potential.</u> May occasionally forage onsite.

<b>Species Name</b> <i>(Scientific Name)</i> Status	<b>Habitat Description</b>	<b>Comments</b>
<b>Merlin</b> <i>(Falco columbarius)</i>  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)	<u>No Potential.</u> No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>Prairie falcon</b> <i>(Falco mexicanus)</i>  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)	<u>No Potential.</u> No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>American peregrine falcon</b> <i>(Falco peregrinus anatum)</i>  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).	<u>No Potential.</u> No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>Yellow-breasted chat</b> <i>(Icteria virens)</i>  SSC MSHCP Covered Species	The yellow-breasted chat is associated with riparian woodland and riparian scrub habitats (MSHCP 2004)	<u>No Potential.</u> No suitable riparian scrub, forest or woodland habitat was documented within the Study Area.
<b>Loggerhead shrike</b> <i>(Lanius ludovicianus)</i>  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.	<u>No Potential.</u> No suitable undisturbed vegetation or nesting habitat for the species detected onsite.

<b>Species Name</b> ( <i>Scientific Name</i> ) Status	<b>Habitat Description</b>	<b>Comments</b>
<b>Coastal California gnatcatcher</b> ( <i>Polioptila californica californica</i> )  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 ( <i>Artemisia californica</i> ), and California buckwheat ( <i>Eriogonum fasciculatum</i> ).	<u>No Potential</u> . No suitable undisturbed vegetation or nesting habitat for the species detected onsite.
<b>Yellow warbler</b> ( <i>Setophaga petechia</i> )  SSC MSHCP Covered Species	Habitat characteristics of the yellow warbler are well known to include riparian scrub and forest and woodland (MSHCP 2004)	<u>No Potential</u> . No suitable riparian scrub, forest or woodland habitat was documented within the Study Area.
<b>Least Bell's vireo</b> ( <i>Vireo bellii pusillus</i> )  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.	<u>No Potential</u> . No suitable riparian scrub, forest or woodland habitat was documented within the Study Area.
<b>Yellow-headed blackbird</b> ( <i>Xanthocephalus xanthocephalus</i> )  SSC	Prefers freshwater marshes habitat dominated by cattails and tule.	<u>No Potential</u> . No suitable marsh habitat was documented within the Study Area.
<b>MAMMALS</b>		
<b>Pallid bat</b> ( <i>Antrozous pallidus</i> )  SSC	In California, the species as occurring in a variety of habitats, including coniferous forests, oak woodlands, brushy terrain, rocky canyons, open farmland, and desert. Roosts are selected on the basis of temperature/proximity to foraging habitat. They are generalists in their roosting requirements, using a variety of structures including rock crevices, tree hollows, mines/caves, structures.	<u>No Potential</u> . No suitable roosting habitat documented within Study Area.

Species Name (Scientific Name) Status	Habitat Description	Comments
<b>Northwestern San Diego pocket mouse</b> ( <i>Chaetodipus fallax fallax</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>San Bernardino kangaroo rat</b> ( <i>Dipodomys merriami parvus</i> )  FE MSHCP Covered Species	Alluvial sage scrub on alluvial fans, flood plains, along washes, in adjacent upland areas, and in areas with historic braided stream channels; these habitats characterized by sand, loam, sandy loam, or gravelly soils. Prefers the more open early and intermediate phases of alluvial sage scrub, but mature sage scrub is important as refugia during floods.	<u>No Potential</u> . No suitable habitat documented onsite.
<b>Stephens' kangaroo rat</b> ( <i>Dipodomys stephensi</i> )  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).	<u>No Potential</u> . No suitable habitat documented onsite.
<b>Western mastiff bat</b> ( <i>Eumops perotis californicus</i> )  SSC	Western mastiff bats are found in a variety of biotic environments from low desert scrub to chaparral, oak woodland and ponderosa pine.	<u>No Potential</u> . No suitable roosting habitat documented onsite.
<b>Western yellow bat</b> ( <i>Lasiurus xanthinus</i> )  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.	<u>Low Potential</u> . A few scattered date palms are present within the Study Area.

<b>Species Name</b> ( <i>Scientific Name</i> ) Status	<b>Habitat Description</b>	<b>Comments</b>
<b>San Diego black-tailed jackrabbit</b> ( <i>Lepus californicus bennettii</i> )  SSC MSHCP Covered Species	The San Diego black-tailed jackrabbit in open habitats, primarily including grasslands, sage scrub, alluvial fan sage scrub, and Great Basin sage scrub.	<u>Moderate Potential</u> . The western region of the Study Area, non-native grassland/ruderal represents suitable habitat for the species.
<b>Bobcat</b> ( <i>Lynx rufus</i> )  MSHCP Covered Species	The bobcat requires large expanses of relatively undisturbed brushy and rocky habitats near springs or other perennial water sources.	<u>No Potential</u> . No suitable habitat documented onsite.
<b>Pocketed free-tailed bat</b> ( <i>Nyctinomops femorosaccus</i> )  SSC	Usually associated with rugged canyons, high cliffs, and rock outcroppings. Roosts in rock crevices and caves during the day; may also roost in buildings or under roof tiles (Ziener et al. 1988-1990).	<u>No Potential</u> . No suitable roosting habitat documented onsite.
<b>Big free-tailed bat</b> ( <i>Nyctinomops macrotis</i> )  SSC	Desert habitats. Roosts in rock crevices in cliffs	<u>No Potential</u> . No suitable roosting habitat documented onsite.
<b>Townsend's big-eared bat</b> ( <i>Corynorhinus townsendii</i> )  SSC	A wide variety of habitats including woodlands and arid grasslands. Roosts in mines and caves.	<u>No Potential</u> . No suitable roosting habitat documented within Study Area.
<b>Dulzura kangaroo rat</b> ( <i>Dipodomys simulans</i> )  MSHCP Covered Species	The Dulzura kangaroo rat occurs throughout the Plan Area in coastal sage scrub and alluvial fan sage scrub), sage scrub/grassland ecotones, chaparral, and desert scrubs at all elevations up to 2,600 feet (MSHCP 2004)	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>San Diego desert woodrat</b> ( <i>Neotoma lepida intermedia</i> )  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).	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.

Species Name (Scientific Name) Status	Habitat Description	Comments
<b>Los Angeles pocket mouse</b> ( <i>Perognathus longimembris brevinasus</i> )  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)	<u>No Potential</u> . No suitable undisturbed vegetation detected onsite.
<b>American badger</b> ( <i>Taxidea taxus</i> )  SSC	The American badger prefers friable soils in open grassland and scrub habitat in southern California.	<u>No Potential</u> . No burrows documented onsite.
<b>Federal (USFWS) Protection and Classification</b> FE – Federal Endangered FT – Federal Threatened FC – Federal Candidate for Listing  <b>State (CDFW) Protection and Classification</b> SE – State Endangered SCE – State Candidate Endangered ST – State Threatened SSC – State Species of Special Concern CWL – California Watch List SPF – State Fully Protected		

Sources: Cadre Environmental 2025.

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

## 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 Gallagher 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:

*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 does not represent a regional wildlife movement corridor and provides no cover, food, natural unrestricted water courses or habitats that would facilitate regional wildlife movement onsite. The Study Area is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area.

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## **REGIONAL AND REGULATORY SETTING**

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### **LOCAL/MSHCP CONSISTENCY ANALYSIS**

#### **Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis**

The proposed Study Area 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 MSHCP 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 7<sup>th</sup>, 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 22<sup>nd</sup>, 2004. The County of Riverside is a Permittee under the MSHCP.

#### **MSHCP Reserve Design & Criteria Area Objectives**

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

The Study Area is located within the Reche Canyon/Badlands Plan Area. The Reche Canyon/Badlands Plan Area has a target conservation acreage of 30,815 - 35,905 acres; it is composed of approximately 20,295 - acres of existing Public/Quasi-Public Lands and 10,520 - 15,610 acres of Additional Reserve Lands. The target acreage range within the City of Moreno Valley is 10,520 - 15,610 acres (MSHCP 2004).

The Study Area is not located within an MSHCP Criteria Area Cell or Cell Group. Therefore, no Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required.

## **MSHCP Urban/Wildlands Interface Guidelines**

The MSHCP Urban/Wildlands Interface Guidelines (UWIG) presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to a MSHCP Conservation Area. The Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area. The project is compliant 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. The Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area. The project is compliant with MSHCP Section 6.4.

## **County of Riverside General Plan**

### **Reche Canyon/Badlands Area Plan Policies**

RCBAP 16.1 Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands area. The Reche Canyon/Badlands region includes substantial areas of remaining natural habitat within the Riverside Lowlands, including a portion of the San Jacinto River, the Badlands, Reche Canyon area, and the Mystic Lake/San Jacinto Wildlife Area.

The Study Area is not located within or adjacent to the San Jacinto River, the Badlands, Reche Canyon area, and the Mystic Lake/San Jacinto Wildlife Area. The proposed project would not conflict with Policy RCBAP 16.1.

RCBAP 16.2 Conserve existing habitat values in the Reche Canyon/ Badlands portion of the San Jacinto River with a focus on conservation of flood plain areas supporting Traver-Domino-Willows soils. Conservation should focus on maintaining habitat for sensitive plant species and maintaining and enhancing linkage values along this portion of the San Jacinto River between the San Jacinto and Santa Ana Mountains.

The Study Area is not located within or adjacent to the Reche Canyon/ Badlands portion of the San Jacinto River and does not possess Traver, Domino, or Willow series soils. The proposed project would not conflict with Policy RCBAP 16.2.

RCBAP 16.3 Conserve existing vernal pool complexes associated with the San Jacinto River flood plain, in the Mystic Lake/San Jacinto Wildlife Area. Conservation should focus on vernal pool surface area and supporting watersheds.

The Study Area is not located within or adjacent to the San Jacinto River flood plain, in the Mystic Lake/San Jacinto Wildlife Area and no vernal pools occur onsite. The proposed project would not conflict with Policy RCBAP 16.3.

RCBAP 16.4 Conserve existing, intact upland habitat blocks between Sycamore Canyon Park area, Box Springs Mountain Reserve, and San Bernardino County to the north, focusing on sage scrub, grassland, and chaparral habitat.

The Study Area is not located within or adjacent to upland habitat blocks between Sycamore Canyon Park area, Box Springs Mountain Reserve, and San Bernardino County. The proposed project would not conflict with Policy RCBAP 16.4.

RCBAP 16.5 Provide for a connection of intact habitat between San Jacinto Wildlife Area/Mystic Lake and adjacent Badlands area to the north.

The Study Area is not located within or adjacent to or represent a connection between the San Jacinto Wildlife Area/Mystic Lake and adjacent Badlands area to the north. The proposed project would not conflict with Policy RCBAP 16.5.

RCBAP 16.6 Provide for connection of intact habitat between the Badlands and San Bernardino National Forest to the south.

The Study Area is not located within or adjacent to or represent a between the Badlands and San Bernardino National Forest to the south. The proposed project would not conflict with Policy RCBAP 16.6.

RCBAP 16.7 Conserve high quality sage scrub and chamise chaparral in order to protect core population of Bell's sage sparrow in Badlands area.

The Study Area does not represent suitable habitat for the Bell's sage sparrow and no sage scrub or chaparral habitat is present onsite. The proposed project would not conflict with Policy RCBAP 16.7.

RCBAP 16.8 Conserve San Jacinto Valley crownscale, vernal barley, Davidson's saltbush, Coulter's goldfields, and spreading navarretia. Conservation should focus on the Traver-Domino-Willows soil series occurring in the San Jacinto River flood plain. Key populations of these three species are known to exist within this section of the San Jacinto River.

The Study Area is not located within or adjacent to the San Jacinto River and does not possess Traver, Domino, or Willow series soils. The proposed project would not conflict with Policy RCBAP 16.8.

RCBAP 16.9 Conserve vernal pool complexes supporting thread-leaved brodiaea and California Orcutt grass known to exist within the Reche Canyon/Badlands Area Plan.

No vernal pools occur onsite. The proposed project would not conflict with Policy RCBAP 16.9.

RCBAP 16.10 Conserve alluvial scrub and alkali vernal plain habitat supporting a key population of smooth tarplant, Wright's trichocoronis, and little mousetail within this section of the San Jacinto River system.

The Study Area is not located within or adjacent to the San Jacinto River and does not possess alluvial scrub and alkali vernal plain habitat. The proposed project would not conflict with Policy RCBAP 16.10.

RCBAP 16.11 Conserve sandy-granitic soils within chaparral and coastal sage scrub habitats capable of supporting Payson's jewelflower and prostrate spineflower known to exist within the Reche Canyon/Badlands area.

No chaparral or coastal sage scrub habitat is located onsite. The proposed project would not conflict with Policy RCBAP 16.11.

RCBAP 16.12 Conserve existing populations of the California gnatcatcher in the Reche Canyon/Badlands area.

No coastal sage scrub or suitable habitat for the coastal California gnatcatcher is located onsite. The proposed project would not conflict with Policy RCBAP 16.12.

RCBAP 16.13 Provide for and maintain a continuous habitat corridor linkage along the San Jacinto River.

The Study Area is not located within or adjacent to the San Jacinto River. The proposed project would not conflict with Policy RCBAP 16.13.

RCBAP 16.14 Protect sensitive biological resources in the RCBAP through adherence to policies found in the Multiple Species Habitat Conservation Plans, Environmentally Sensitive Lands, Wetlands, and Floodplain and Riparian Area Management sections of the General Plan Multipurpose Open Space Element.

Implementation of Conservation Measures BIO-CM1 through BIO-CM4, would reduce all potential significant unavoidable impacts on biological resources below a level of significance and ensure compliance with MSHCP conservation requirements. The proposed project would not conflict with Policy RCBAP 16.14.

## **County of Riverside Municipal Code**

### **Chapter 4.62, MSHCP Mitigation Fee, BIO-CM1**

The County of Riverside's Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the County General Plan and proposed development projects. As stated by the County of Riverside,

the following are provisions within the Counties Municipal Code that are relevant to the proposed project.

*“Sec. 4.62.070 – Western Riverside County Multiple Species Habitat Conservation Plan mitigation fee. In order to assist in providing revenue to acquire and conserve lands necessary to implement the MSHCP, the Western Riverside County Multiple Species Habitat Conservation Plan mitigation fee shall be paid for each residential unit, development project or portion thereof to be constructed. Five categories of the fee are defined and include: (1) residential units, density less than 8.0 dwelling units per acre; (2) residential units, density between 8.1 and 14.0 dwelling units per acre; (3) residential, density greater than 14.1 dwelling units per acre; (4) commercial acreage; and (5) industrial acreage. Because there can be mixed traditional commercial, industrial and residential uses within the same project, for fee assessment purposes only, the commercial or industrial acreage fee shall be applied to the whole project based upon the existing underlying zoning classification of the property at the time of issuance of a building permit. Subject to an adjustment of the fee as set forth in Section 4.62.160 of this chapter, the following fee shall be paid for each development project within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan fee area:“*

The project applicant shall pay MSHCP Local Development Mitigation fees as established by the RCA and implemented by the County of Riverside. Five categories of the fee are defined, include and are effect till June 30<sup>th</sup>, 2026: Residential, density less than 8.0 dwelling units per acre \$4,486 per dwelling unit; Residential, density between 8.1 and 14.0 dwelling units per acre \$1.870 per dwelling unit; Residential, density greater than 14.1 dwelling units per acre \$827 per dwelling unit; Commercial \$20,191 per acre; and Industrial \$20,191 per acre. Annual updated MSHCP fees are available at [Permits and Fees | Western Riverside County Regional Conservation Authority](#).

#### **Chapter 4.64, Stephens’ Kangaroo Rat (SKR) Mitigation Fee**

*“4.64.060 Stephens’ Kangaroo Rat Mitigation fee. All applicants for development permits within the boundaries of the fee assessment area who cannot satisfy mitigation requirements through on-site mitigation as determined through the environmental review process shall pay a mitigation fee of five hundred dollars (\$500.00) per gross acre of the parcels proposed for development. However, for single-family residential development, wherein all lots within the development are greater than one-half acre in size, a mitigation fee of two hundred twenty-five dollars (\$250.00) per residential unit shall be paid; and for agricultural development which requires a development permit excluding the construction of single-family residences in connection with the agricultural development, a mitigation fee of one hundred dollars (\$100.00) or one percent of the valuation of the buildings to be constructed whichever is greater shall be paid, provided that at no time shall such fee exceed the amount required to be paid if a fee of*

*five hundred dollars (\$500.00) per gross acre were applied to the parcel proposed for agricultural development. The determination of value or valuation of an agricultural building shall be made by the building official.”*

*“4.64.070 Imposition of fee. No development permit for real property located within the boundaries of the fee assessment area shall be issued or approved except upon the condition that on-site mitigation will be provided as determined through the environmental review process or the mitigation fee required by this chapter be paid, and it is determined that the development will not jeopardize the implementation of a habitat conservation plan for the Stephens' Kangaroo Rat.”*

*“4.64.080 Payment of fee. The mitigation fee shall be paid upon issuance of a grading permit or a certificate of occupancy or upon final inspection, whichever occurs first. Payment of the mitigation fee shall satisfy county conditions of approval previously placed on development permits with regard to impact mitigation for the Stephens' Kangaroo Rat which have not been previously satisfied and no further review and approval pursuant to the provisions of this chapter shall be required..... The total number of surface acres of land within each phase shall be determined through a physical survey prepared by a licensed surveyor or registered civil engineer.”*

The Study Area falls within the SKR Fee Area outlined in the Riverside County SKR HCP. It should be noted that while Riverside County Ordinance No. 663 generally requires the payment of fees for projects located within the areas covered by the SKR HCP, Section 10 of Ordinance No. 663 explicitly exempts from payment of the fee developments on "...any parcel used by local, state or federal entities for government purposes." As the RUHS comprises a publicly-owned facility that would be used for government purposes (i.e., the provision of health care), the proposed Project would be exempt from paying fees pursuant to Ordinance No. 663.

### **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 trees will be removed within the County of Riverside right-of-way and the Study Area is located below 5,000 feet in elevation. No regulated oak species occur onsite. The proposed project would not conflict with any County of Riverside protected tree ordinance or oak tree management guidelines.

## 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.

### Clean Water Act

The Clean Water Act, Section 401 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board administers the certification program in California. Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with the USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

### Wetland Definition Pursuant to Section 404 of the Clean Water Act

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and fall under the jurisdiction of several regulatory agencies. The USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the OHWM. The OHWM is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a 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."

On April 21, 2020 the U.S. Environmental Protection Agency (EPA) and the USACE published the Navigable Waters Protection Rule to define "Waters of the United States" in the Federal Register. The April 2020 definition includes four simple categories of jurisdictional waters, including: (1) the territorial seas and traditional navigable waters; (2) perennial and intermittent tributaries to those waters; (3) certain lakes, ponds and impoundments; and (4) wetlands adjacent to jurisdictional waters.

The April 2020 definition provides clear exclusions for many water features that traditionally have been regulated, such as ephemeral drainages. The April 2020 definition has been formally adopted by EPA and the USACE and was used for this Jurisdictional Delineation.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (USACE 1987).

It is important to note that the RWQCB definition of wetland was redefined and the new definition went into effect May 28<sup>th</sup>, 2020. The definition of a wetland is 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. This RWQCB modified three-parameter definition is similar to the federal definition in that it identifies three wetland characteristics that determine the presence of a wetland: wetland hydrology, hydric soils, and hydrophytic vegetation. Unlike the federal definition, however, the RWQCB wetland definition allows for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland.

However, if any vegetation is present, then the USACE delineation procedures would apply to the vegetated component (i.e., hydrophytes must dominate). Examples of waters that would be considered wetlands by the RWQCB definition, but not by the federal wetland definition, are non-vegetated wetlands, or wetlands characterized by exposed bare substrates like mudflats and playas, as long as they meet the three-parameters as described in the RWQCB definition. It is important to note that while the USACE may not designate a feature as a wetland, that feature could be considered a special aquatic site or other water of the U.S. by the USACE and potentially subject to USACE jurisdiction.

### **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 Socialist 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.

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 threatened under the CESA. No plants listed under the CESA occur on the Study Area onsite or offsite impact areas.

### **Regional Water Quality Control Board**

The RWQCB also has jurisdiction over waters deemed "isolated" or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County v. Corps decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of

waste to waters of the state and prospective dischargers are required to obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Under Section 401 of the CWA, the local RWQCB must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

### **CDFW Streambed Alteration Agreement**

Waters of the State are regulated by the California Department of Fish and Wildlife (CDFW) through Section 1600 et seq. of the California Fish and Game Code. Section 1600 et seq. requires notifying the CDFW prior to any project activity that might (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. If, after this notification, the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will need to be obtained. CDFW may then place conditions in the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

The limits of Waters of the State are defined as the “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.” Therefore, the limits extend from the channel bed to the top of the bank, with the addition of the canopy of any riparian habitat associated with the watercourse.

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## **ENVIRONMENTAL IMPACTS**

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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 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.

- Have a substantial adverse effect, either directly or through habitat modification, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or Title 50, Code of Federal Regulations (Sections 17.11 or 17.12).

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS, and meets the definition of Section 15380 (b), (c), or (d) of the CEQA Guidelines.
- 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 CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident migratory wildlife corridors, or impede the use of native nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state conservation plan.

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. Specifically, the biological resources assessment report addresses the following CEQA Environmental Checklist items.

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Environmental Issues	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Native Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		

## DIRECT IMPACTS

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

### Sensitive Plants

The Study Area is not located within an MSHCP Narrow Endemic Plant Survey; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.1.3. No Impact.

The Study Area is not located within an MSHCP CAPSSA for sensitive plants; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.3.2. No Impact.

No state or federally listed threatened, endangered, or special-status plants not covered under the MSHCP were documented or expected to occur onsite based on a lack of suitable habitat, as outlined in Table 2, *Sensitive Plant Species with Potential to Occur within Study Area*. No Impact.

### Sensitive Wildlife

Suitable habitat was documented onsite for one (1) special-status invertebrate species not covered under the MSHCP including Crotch's bumble bee, as outlined in Table 3,

*Sensitive Wildlife Species with Potential to Occur within Study Area.* Suitable scattered foraging habitat for the Crotch's bumble bee is present within the western region of the Study Area and burrows representing suitable nesting resources were also documented onsite. Therefore, focused surveys were conducted during the spring of 2025. The Crotch's bumble bee was not documented onsite following focused surveys conducted during the spring of 2025 (Huffman Environmental 2025). No Impact.

The Study Area is not located within an MSHCP Amphibian Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.1.3.

The Study Area is not located within an MSHCP Mammal Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2025). The project is consistent with MSHCP Section 6.3.2.

The Study Area occurs almost completely within a predetermined Survey Area for the burrowing owl, as shown in Figure 3, *MSHCP Relationship Map*. Burrowing owl burrows larger than 4 inches in diameter were detected within or immediately adjacent to the western region of the Study Area. Based on the presence of suitable habitat, focused MSHCP protocol burrowing owl surveys were conducted during the spring of 2025. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Study Area during the 2025 survey efforts (Cadre Environmental 2025). As stated in the MSHCP protocol guidelines, regardless of findings during the focused survey efforts, an MSHCP preconstruction survey will also be required at least 30-days immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP (Condition of Approval). If burrowing owls are detected within or adjacent to the Study Area during the burrowing owl preconstruction survey, a burrowing owl relocation plan will be developed for the passive/active translocation of individuals as directed by the County of Riverside and MSHCP wildlife agencies. Following completion of the burrowing owl 30-day preconstruction survey and compliance with MSHCP species guidelines, if detected, the project will be consistent with MSHCP Section 6.3.2. (**BIO-CM2** MSHCP Burrowing Owl 30-Day Preconstruction Surveys). Less than Significant Impact.

A total of six (6) sensitive species have potential to occur or were observed within the Study Area including grasshopper sparrow (*Ammodramus savannarum*), sharp-shinned hawk (*Accipiter striatus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). As previously stated, the MSHCP has determined that these sensitive species potentially occurring within Study Area have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Sensitive species that can be excluded from occurring onsite or known to occur within the region with potential to occur onsite are presented in Table 3, *Sensitive Wildlife Species with Potential to Occur within Study Area*. Potential impacts to MSHCP covered species will be mitigated following implementation of **BIO-CM1** MSHCP Local Development Mitigation Fee, **BIO-CM2** MSHCP Burrowing Owl 30-Day Preconstruction Surveys, and compliance with **BIO-CM3** Nesting Bird Preconstruction Surveys. Less than Significant Impact with Mitigation.

Suitable habitat was documented onsite for one (1) special-status wildlife species not covered under the MSHCP including western yellow bat, as outlined in Table 3, *Sensitive Wildlife Species with Potential to Occur within Study Area*. Suitable scattered palm trees representing potential roosting habitat for the western yellow bat is present within the eastern region of the Study Area. Loss of an active bat roost would be considered a potentially significant impact. If removal of palms will occur as a result of project activities, impacts to potential roosting yellow bat habitat would be reduced to less than significant with the implementation of Conservation Measure **BIO-CM4**: Preconstruction Bat Survey. Less than Significant.

The Study Area possess vegetation expected to provide habitat for nesting migratory birds and raptors protected under the federal MBTA and CDFG Codes. In order to avoid violation of the MBTA and the CDFG Code Sections 3503, 3503.5, and 3513, vegetation clearing shall be conducted outside of the bird nesting season to the extent feasible. If avoidance of the nesting season is not feasible, a nesting bird survey shall be conducted by a qualified biologist within no more than 72 hours of such scheduled disturbance, to determine the presence of nests or nesting birds. Loss of an active nest would be considered a potentially significant impact. Impacts to potential nesting bird habitat would be reduced to less than significant with the implementation of Conservation Measure **BIO-CM3**: Nesting Bird Preconstruction Surveys. Less than Significant.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?*

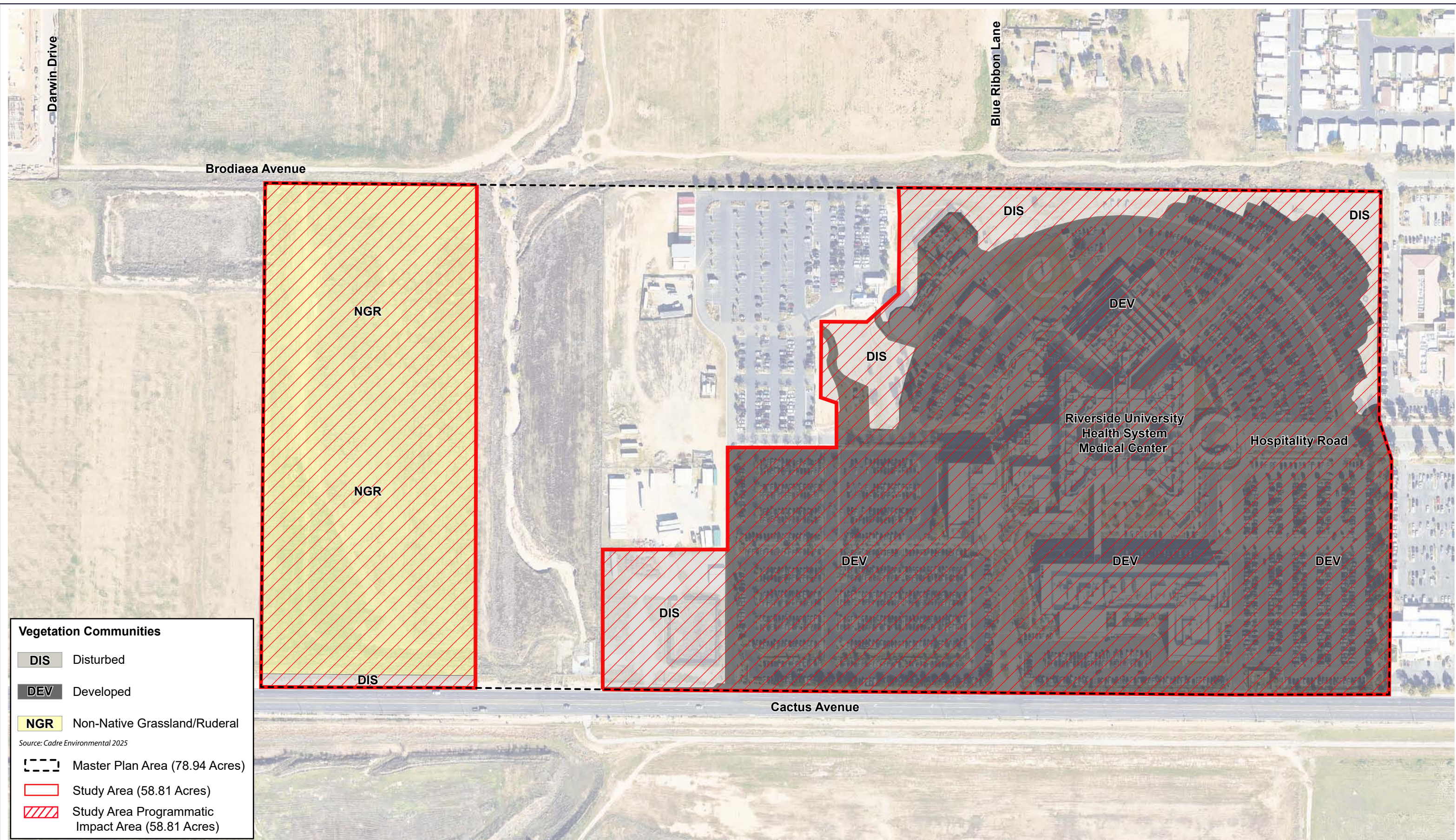
No sensitive natural community vegetation is present onsite or will be impacted as a result of the project activities. No Impact.

A total of 58.81-acres of exclusively developed, disturbed and non-native grassland/ruderal vegetation communities may be directly and permanently impacted as a result of the project programmatic implementation, as outlined Table 4, *Study Area Vegetation Community Impacts*, and illustrated on Figure 10, *Vegetation Communities Impact Map*. Compliance with the County of Riverside MSHCP Local Development Mitigation Fees (Condition of Approval) would ensure direct impacts to all vegetation communities will remain consistent with MSHCP guidelines, **BIO-CM1** MSHCP Local Development Mitigation Fee.

**Table 4**  
**Study Area Vegetation Community Impacts**

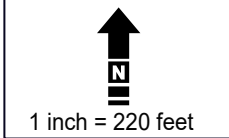
<b>Vegetation Community</b>	<b>Study Area Programmatic Impact Area (ac)</b>
Developed	37.99
Disturbed	6.23
Non-Native Grassland/Ruderal	14.59
	<b>58.81</b>

Cadre Environmental 2025



APNs Portion of 486-280-025, -026, -037, and -057.

**Figure 10 - Vegetation Communities Impact Map**  
*Biological Resources Technical Report*  
*Riverside University Health System Medical Center Master Plan*



- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No jurisdictional resources regulated by the USACE, RWQCB and CDFW were documented within the Study Area (Psomas 2025). The proposed project would not result in impacts to USACE, RWQCB and CDFW jurisdictional resources. Regulatory permits/certifications are not required. No Impact.

The project will comply with all applicable water quality regulations, including complying with a NPDES regulations and MS4 permit requirements. The MS4 permit places pollution prevention requirements on planned developments, construction sites, commercial and industrial businesses, municipal facilities and activities, and residential communities. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable BMPs during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any stream course or municipal system.

- 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?*

The Study Area does not represent a regional wildlife movement corridor and provides no cover, food, natural unrestricted water courses or habitats that would facilitate regional wildlife movement onsite. The Study Area is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. No Impact.

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

Aside from the MSHCP and SKR HCP, which are addressed below under the discussion of Threshold f., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines (OTMG) and Riverside County Ordinance No. 559 (Regulating the Removal of Trees).

Under existing conditions, and as previously indicated, the Study Area does not contain any oak woodland habitat as defined by the OTMG. In addition, the only trees that occur on site consist of ornamental tree species that occur within and adjacent to parking areas and drive aisles. In addition to Chinese elm trees, pine trees, red gum trees, and date palms, the existing landscaping only includes one species of oaks consisting of holly oak trees (*Quercus ilex*). However, as defined by the OTMG, oak trees consist of "...an individual plant of the genus *Quercus*, including in Riverside County the species *Quercus agrifolia*, *Quercus chrysolepis*, *Quercus engelmannii*, *Quercus kelloggii*, *Quercus morehus*, and *Quercus wislizenii*." The existing ornamental holly oak trees on site therefore are not subject to regulation by the OTMG. Accordingly, the Project has no potential to conflict with the OTMG, and no impact would occur. (Riverside County, 1993)

Riverside County Ordinance No. 559 applies to properties located above 5,000 feet above mean sea level (amsl) in elevation, while the maximum elevation at the Study Area is approximately 1,564 feet amsl; thus, Riverside County Ordinance No. 559 is not applicable to the proposed Project.

Based on the foregoing analysis, the Project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Native Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Project area is subject to two (2) separate habitat conservation plans: the Stephens' Kangaroo Rat HCP and the Western Riverside County MSHCP. Each is discussed below.

### **Project Consistency with the SKR HCP**

The SKR HCP was prepared under the direction of the Riverside County Habitat Conservation Authority (RCHCA) Board of Directors, in consultation with USFWS and CDFW. Riverside County is a member agency of the RCHCA. The Study Area is not located within or adjacent to any SKR core reserve area. It should be noted that while Riverside County Ordinance No. 663 generally requires the payment of fees for projects located within the areas covered by the SKR HCP, Section 10 of Ordinance No. 663 explicitly exempts from payment of the fee developments on "...any parcel used by local, state or federal entities for government purposes." As the RUHS comprises a publicly-owned facility that would be used for government purposes (i.e., the provision of health care), the proposed Project would be exempt from paying fees pursuant to Ordinance No. 663. Thus, the proposed Project would not conflict with any provisions of the SKR HCP. Less Than Significant Impact.

### **Project Consistency with the MSHCP**

Provided below is an evaluation of the Project's consistency with MSHCP Reserve Assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

### **Project Relationship to MSHCP Reserve Assembly**

The Study Area is not located within an MSHCP Criteria Area Cell or Cell Group, thereby indicating that the Study Area is not targeted for conservation under the MSHCP. The nearest lands located within the Reserve Assembly area occurs approximately 3.0 miles to the east of the Study Area. Accordingly, the Project would have no potential to conflict with the MSHCP Reserve Assembly requirements. No Impact.

### **Project Consistency with MSHCP Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools)**

No MSHCP Section 6.1.2 riverine resources were documented within the Study Area. Additionally, no MSHCP Section 6.1.2 riparian scrub, forest, or woodland habitat is located within the Study Area. Additionally, no evidence of vernal pools, seasonal depressions, seasonally inundated road ruts, or other wetland features were recorded within the Study Area. Additionally, based on a review of historical aeriels, 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. Accordingly, the proposed Project would not result in any impacts to riparian habitats, riverine areas, or vernal pools, and as such the Project would have no potential to conflict with MSHCP Section 6.1.2. No Impact.

### **Project Consistency with MSHCP Section 6.1.3 (Protection of Narrow Endemic Plant Species)**

The Study Area is not located within the MSHCP NEPSSA, and as such focused surveys for narrow endemic plant species are required for the Project pursuant to MSHCP Section 6.1.3. Accordingly, the proposed Project has no potential to conflict with the provisions of MSHCP Section 6.1.3. No Impact.

### **Project Consistency with MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface)**

The MSHCP Urban/Wildlands Interface Guidelines (UWIG) presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses, and residential developments in proximity to a MSHCP Conservation Area. As noted above, the nearest MSHCP Criteria Cell to the Study Area is located approximately 3.0 miles to the east. As such, the Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area. Therefore, the Project is not subject to the UWIG, and the Project has no potential to conflict with the UWIG provisions of MSHCP Section 6.1.4. No Impact.

### **Project Consistency with MSHCP Section 6.3.2 (Additional Survey Needs and Procedures)**

The Study Area is not located in area requiring surveys for MSHCP CASSA plant species, amphibians, or mammals, and as such the Project has no potential to conflict with MSHCP Section 6.3.2 with respect to plants, amphibians, and mammals. No Impact.

However, the Study Area occurs almost completely within the MSHCP CASSA's predetermined survey area for the burrowing owl. Burrowing owl burrows larger than 4 inches in diameter were detected within or immediately adjacent to the western region of the Study Area. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2025. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Study Area during the 2025 survey efforts. However, there is potential for the Study Area to become occupied by the burrowing owl prior to the commencement of

construction activities on site. If present, the Project could result in impacts to the burrowing owl in conflict with MSHCP Section 6.3.2. This is evaluated as a significant impact for which mitigation would be required. Less Than Significant with Mitigation.

### **MSHCP Consistency Conclusion Summary**

The proposed Project would have no potential to conflict with the MSHCP Reserve Assembly requirements; MSHCP Section 6.1.2 with respect to riparian/riverine areas and vernal pools; MSHCP Section 6.1.3 with respect to NEPSSA species; or the UWIG requirements pursuant to MSHCP Section 6.1.4. Although the Project would have no potential to result in a conflict with MSHCP Section 6.3.2 with respect to MSHCP CASSA plant species, amphibians, or mammals, and although no burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Study Area during the 2025 survey efforts, there is potential for the Study Area to become occupied by the burrowing owl prior to the commencement of construction activities on site. If present, the Project could result in impacts to the burrowing owl in conflict with MSHCP Section 6.3.2. This is evaluated as a significant impact for which mitigation would be required.

### **INDIRECT IMPACTS**

The MSHCP UWIG presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to a MSHCP Conservation Area. The Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area. The project is compliant with MSHCP Section 6.1.4. No Impact.

### **CUMULATIVE IMPACTS**

The permanent impacts of the project would not result in 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. The Study Area is located completely within the City of Moreno Valley, County of Riverside. As stated in the County of Riverside Transportation and Land Management Agency:

*"Implementation of the MSHCP and Covered Projects will not result in a cumulative adverse effect, either directly or through habitat modifications, on any of the Covered Species, including the 31 species that are currently listed as threatened or endangered and the one species that is currently proposed for listing. Implementation of the MSHCP will benefit the Covered Species by preserving their habitat in order to address their life cycle needs. Thus, based on the features of the Plan itself, impacts to Covered Species are mitigated below a level of significance." (County of Riverside Transportation and Land Management Agency 2003)*

Although the project would result in the permanent loss of 58.81-acres of exclusively developed, disturbed and non-native grassland/ruderal habitats, as referenced above, the

MSHCP was developed to address the comprehensive regional planning effort and anticipated growth in the County of Riverside including City of Moreno Valley.

As stated in the County of Riverside Transportation and Land Management Agency:

*“The Plan will not cause adverse cumulative effects related to the reduction of sensitive vegetation communities within the Plan Area; rather, the Plan is designed to preserve sufficient acreage of the sensitive vegetation communities present in western Riverside County. Similarly, the Plan will not cause adverse cumulative effects related to interference with the movement of any native resident or migratory fish or wildlife species or obstruction of genetic flow for the identified Planning Species. Part of the purpose and goals of the MSHCP is to use regional planning efforts to assemble a reserve that will preserve contiguous blocks of habitat in large enough areas to ensure that the reserve will allow movement of species and flow of genetic information.*

*The MSHCP will not cause adverse cumulative impacts by conflicting with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional, or State habitat conservation plan either within or outside of the Plan area. Rather, the MSHCP has been written specifically to complement existing HCPs, such as the Stephens’ kangaroo rat long-term HCP.” (County of Riverside Transportation and Land Management Agency 2003)*

The proposed project has been designed and conservation measures will be implemented to remain in compliance with all MSHCP conservation goals and guidelines and therefore will not result in an adverse cumulative impact. No Impact.

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## CONSERVATION MEASURES

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The following biological conservation measures address those adverse impacts determined to be potentially significant or are relevant to the protection of biological resources to the extent practicable as part of ensuring compliance and consistency with all MSHCP conservation goals and CEQA guidelines.

### **BIO-CM1 MSHCP Local Development Mitigation Fee**

The project applicant shall pay MSHCP Local Development Mitigation fees as established by the RCA and implemented by the County of Riverside. Five categories of the fee are defined, include and are effect till June 30<sup>th</sup>, 2026: Residential, density less than 8.0 dwelling units per acre \$4,486 per dwelling unit; Residential, density between 8.1 and 14.0 dwelling units per acre \$1.870 per dwelling unit; Residential, density greater than 14.1 dwelling units per acre \$827 per dwelling unit; Commercial \$20,191 per acre; and Industrial \$20,191 per acre. Annual updated MSHCP fees are available at [Permits and Fees | Western Riverside County Regional Conservation Authority](#).

## **BIO-CM2 MSHCP Burrowing Owl 30-Day Preconstruction Surveys**

To avoid take of active burrowing owl burrows (nests) and in accordance with MSHCP Objective 6, prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall retain a qualified biologist to perform a burrowing owl survey at all potentially suitable habitat sites within the Project's limits of disturbance within 30 days of the commencement of any ground-disturbing activities at the Study Area, as discussed below.

**Pre-Construction Survey:** The pre-construction survey shall be performed by a qualified biologist that will survey the site for the presence/absence of burrowing owls within 30 days prior to commencement of ground-disturbing activities at the Study Area. The results of the survey should be submitted to Riverside County and the CDFW within three days of survey completion. The pre-construction survey shall be conducted in accordance with the current Burrowing Owl Instruction for the Western Riverside MSHCP.

**Burrowing Owl Management Plan:** If active burrowing owl burrows are detected, the Project Applicant shall not commence activities until no sign is present that the burrows are being used by adult or juvenile owls or following CDFW approval of a Burrowing Owl Plan as described below. If owl presence is difficult to determine, a qualified biologist shall monitor the burrows with motion-activated trail cameras for at least 24 hours to evaluate burrow occupancy. The onsite qualified biologist will verify the nesting effort has finished according to methods identified in the Burrowing Owl Plan.

The Burrowing Owl Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and Western Riverside County MSHCP. The qualified biologist and Project Applicant shall coordinate with the County of Riverside, CDFW, and USFWS to develop a Burrowing Owl Plan to be approved by the County, CDFW, and USFWS prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, relocation, monitoring, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites and details on proposed buffers if avoiding the burrowing owls or information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. The County shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

If burrowing owls are observed within Study Area during Project implementation and construction, the Project Applicant shall notify CDFW immediately in writing within 48 hours of detection. A Burrowing Owl Plan shall be submitted to CDFW for review and approval within two weeks of detection and no Project activity shall continue within 1,000 feet of the burrowing owls until CDFW approves the Burrowing Owl Plan. The County shall be responsible for implementing appropriate avoidance and mitigation measures, including burrow avoidance, passive or active relocation, or other appropriate mitigation measures as identified in the Burrowing Owl Plan.

If ground-disturbing activities occur but the site is left undisturbed for more than 30 days, a preconstruction survey for burrowing owl shall be conducted within 3 days prior to initiation of Project activities and reported to CDFW as described above. If burrowing owl are found, the same coordination described above shall be necessary.

A final report shall be prepared by the qualified biologist documenting the results of the burrowing owl surveys and detailing avoidance, minimization, and mitigation measures. The final report shall be submitted to the County and CDFW within 30 days of completion of the survey and burrowing monitoring for mitigation monitoring compliance record keeping.

### **BIO-CM3 Nesting Bird Preconstruction Surveys**

Prior to the issuance of grading permits, Riverside County shall ensure that the following note is included on the Project's grading plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

In order to avoid violation of the MBTA and the CDFG Code Sections 3503, 3503.5, and 3513, vegetation clearing shall be conducted outside of the bird nesting season to the extent feasible. If avoidance of the nesting season is not feasible, a nesting bird survey shall be conducted by a qualified biologist within no more than 72 hours of such scheduled disturbance, to determine the presence of nests or nesting birds. The nest surveys shall include the Study Area and adjacent areas where project activities have the potential to cause nest failure. The survey results shall be provided to the County's Planning Department. The Project Applicant shall adhere to the following:

The Project Applicant shall designate a biologist (Designated Biologist) experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the Study Area; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.

If no nesting birds are observed during the survey, site preparation and construction activities may begin. If active nests are identified, avoidance or minimization measures shall be undertaken in consultation with the County of Riverside and CDFW. Measures shall include immediate establishment of an appropriate buffer zone to be established by a qualified biologist, and approved by the County of Riverside, based on their best

professional judgement and experience. The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active, or the nest has failed. The Designated Biologist shall monitor the nest at the onset of Project activities, and at the onset of any changes in such Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Biologist determines that such Project activities may be causing an adverse reaction, the Designated Biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Within 30 days of completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the County for mitigation monitoring compliance record keeping.

#### **BIO-CM-4 Preconstruction Bat Survey**

If removal of palms will occur as a result of project activities, impacts to potential roosting yellow bat habitat would be reduced to less than significant with the implementation of the following conservation measure.

Prior to implementation of project activities, a qualified bat biologist shall be retained to determine whether potential roosting sites for yellow bats may be affected. For large palms suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to removal to determine whether the palms support a nursery or roost. This work will occur between late -spring and late summer and/or in the fall (generally mid-March through late October).

If the results of the bat survey find a total of a single roosting individual of a special status bat species or 25 or more individuals of a non-special status bat species with potential to be present, a Bat Management Plan shall be developed by a qualified bat biologist to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Plan will provide details both in text and graphically where exclusion devices/and or staged palm removal will need to occur, the timing for exclusion work and the timeline and methodology needed to exclude the bats. The plan will need to be reviewed and approved by the County of Riverside and CDFW prior to disturbance of the roost(s).

Implementation of Conservation Measures **BIO-CM1** through **BIO-CM4**, would reduce all potential significant unavoidable impacts on biological resources below a level of significance and ensure compliance with MSHCP conservation requirements.

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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."*

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