Appendix B
HABITAT ASSESSMENT REPORT

Habitat Assessment for the Chino Airport Master Plan Update

Prepared for

Coffman Associates

Prepared by

SWCA Environmental Consultants

April 2012

HABITAT ASSESSMENT FOR THE CHINO AIRPORT MASTER PLAN UPDATE

Project Area Location:
USGS 7.5-minute Topographical Quadrangles:
Prado Dam, CA and Corona North, CA

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SWCA Project Number: 21218

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EXECUTIVE SUMMARY

Purpose and Scope: SWCA Environmental Consultants (SWCA) was retained by Coffman and Associates to provide biological resource services in support of the Chino Airport Master Plan update for the Chino Airport located in the County of San Bernardino, California. SWCA was tasked with providing a habitat assessment for the entire 453-hectare (1,120-acre) project area that is owned and operated by the County of San Bernardino. This habitat assessment report follows guidelines recommended by the Advanced Planning Division of the County of San Bernardino's Land Use Services Department, and is intended to fulfill requirements of the California Environmental Quality Act, with the County of San Bernardino as the lead agency. Additionally, the Federal Aviation Administration may use data from this assessment to support future National Environmental Policy Act projects.

Dates of Investigation: SWCA biologists reviewed existing sources of information regarding occurrences of special-status species and assessed the potential for occurrence of these species in the project area in March 2012. SWCA biologist Matthew South visited the project area on March 6, 2012, to assess the biological conditions in the project area, including vegetation community and habitat mapping.

Findings of the Investigation: A total of 50 plants and 52 wildlife special-status species were identified from federal, state, and local lists and databases and found to occur near the project area. During the site visit, no natural vegetation communities were identified, and the project area was composed of four anthropogenically disturbed habitats: maintained, developed, ruderal lands, and drainages. Based on the character of the project area and lack of natural vegetation communities, focal species present in the project area are limited to two species: California horned lark (*Eremophila alpestris actia*) and burrowing owl
(*Athene cunicularia*). These species are known to occur in disturbed and ruderal areas of non-native grasses. The remaining special-status species were assessed as not likely to occur in the project area or absent from the project area.

The drainages include two ditches located within the project area that may be considered Waters of the U.S. under the Clean Water Act. Both drainages are artificial and appear to be designed to focus surface flow away from airport runways. The drainages are located on the east and west side of the airport project site. The drainage located on the east side of the property includes a broad concrete lined ditch that flows into a large underground box culvert draining onto lands south of the airport property. The ditch located on the west side of the property includes a narrow man made unlined ditch that empties into a small field north of Kimball Ave, and drains into fields south of Kimball Ave. Both drainages continue south through residential and agricultural lands and terminate at Prado Reservoir.

Recommendations: To better understand how any of the proposed projects implemented under the master plan update may impact sensitive biological resources, the following studies are recommended as part of each biological resource assessment:

- Protocol burrowing owl surveys
- Nesting bird surveys
- Impact-mitigation analysis
- USACE consultation and Jurisdictional Waters Delineation/permitting (if required)

Burrowing owl surveys should minimally consist of breeding season surveys, and should be conducted between February 1 and August 31 according to protocol described by CDFG (2012). Nesting bird surveys should be conducted if project activities will be initiated during the avian nesting season, which generally occurs between 1 February and 30 September. Jurisdictional wetland delineations may be conducted during any season.

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1. INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by Coffman and Associates to provide biological resource services in support of the Chino Airport Master Plan update for the Chino Airport located in the County of San Bernardino, California. SWCA was tasked with providing a habitat assessment for the entire 453-hectare (ha) (1,120-acre) project area that is owned and operated by the County of San Bernardino. This habitat assessment report follows guidelines recommended by the Advanced Planning Division of the County of San Bernardino's Land Use Services Department, and is intended to fulfill requirements of the California Environmental Quality Act (CEQA), with the County of San Bernardino as the lead agency. Additionally, the Federal Aviation Administration (FAA) may use data from this assessment to support future National Environmental Policy Act projects.

2. PROJECT AND PROPERTY DESCRIPTION

2.1. Project Description

The County of San Bernardino's Department of Airports (County), the owner and operator of Chino Airport, has initiated the preparation of a master plan update for the Chino Airport. The master plan update will provide the following: 1) an assessment of the airport's existing and future role, 2) guidance for future development, and 3) updated justification for projects for which the airport may receive funding participation through federal and state airport improvement programs. The County has hired Coffman Associates, an airport consulting firm that specializes in master planning and environmental studies, to complete the master plan update.

The master plan update is intended to be a proactive document that identifies future facility needs and provides a planning framework for their implementation well in advance of their actual need. This is to ensure that the County can coordinate project approvals, design, financing, and construction to avoid experiencing detrimental effects due to inadequate facilities. The master plan update will be prepared in accordance with FAA requirements, including Advisory Circular 150/5300-13, Airport Design (as amended), and Advisory Circular 150/5070-6B, Airport Master Plans.

The goal of the master plan update is to accommodate the airport's needs in an environmentally and fiscally responsible manner while adhering to appropriate safety design standards. Alternative development scenarios will be devised, each satisfying projected needs in a unique way. Through coordinated review by the County, the City of Chino, California Department of Transportation, the FAA, airport users, and the public, a recommended development concept will evolve and serve as a guide to realistic and achievable airport development. The plan will aid local, state, and federal decision-makers in considering airport improvements.

The master plan update is necessary as a timely reassessment of the development direction of the airport to meet the needs of a dynamic local economy and an ever-changing air transportation industry. Airport master plans are commonly updated every 5–10 years. The previous master plan for the Chino Airport was updated in 2003. An airport comprehensive land use plan update was completed in 1991. A reassessment of the current development direction will ensure that the airport meets the demands of general aviation users and continues to be an economic asset to the region. The master plan update will include an evaluation of airport-related development areas with regard to aviation forecasts, demand/capacity, airport design standards, facility requirements, land use, costs, environmental reviews, and opportunities. It will also serve as a strategic tool for establishing airport improvement priorities and obtaining funding.

Future airport projects will be initiated when demand dictates the need for development. The forecasts will identify a timeline in which development might reasonably be anticipated; however, if activity does not materialize as quickly as forecasted, then development envisioned by the master plan update would be delayed accordingly. Conversely, if demand were to accelerate, projects could be initiated prior to the timeline associated with the master plan update. The County will monitor aviation activity at Chino Airport annually to determine whether activity is tracking as projected and which projects from the master plan update should be programmed into the airport's 5-year Capital Improvement Program. Each project will still need to be individually approved for funding and development, first by the of San Bernardino Board of Supervisors, then by the FAA.

2.2. Property Description

The project area consists of approximately 453 ha (1,120 acres) of land located in southwestern San Bernardino County within the corporate limits of the City of Chino and adjacent to the City of Ontario (Figures 1 and 2). The project area is bounded on the north by Merrill Avenue, to the east by agricultural-related farmland and dairy operations, to the south by Kimball Avenue, and to west by Euclid Avenue. The project includes the following Assessor's Parcel Numbers (Figure 3):

102607203	102608109	102609101	105440103	105518102	105521102	105523103	105608103
102607204	102608110	102609102	105501101	105519101	105521103	105523103	105608104
102607205	102608111	102609103	105501102	105519102	105521103	105523103	105609101
102607206	102608112	102609104	105504101	105519103	105522101	105607103	105609102
102608105	102608113	102610201	105517101	105520101	105522102	105607106	105609103
102608106	102608114	105440101	105517102	105520102	105522103	105608101	105610101
102608108	102608115	105440102	105518101	105521101	105522104	105608102	105610101

The project area is composed of both developed lands and maintained areas associated with the airport and adjacent agricultural fields and tree nursery. The topography of the project area is nearly flat, with elevations ranging from 183 to 201 meters (m) (600 to 660 feet) above mean sea level. Figure 4 shows an overview of the project area.

According to the University of California Davis Soil Resource Laboratory, several soil types have been mapped near the project area: Chino silt loam, Merrill silt loam, Chualar clay loam (2%–9%), Chualar clay loam (9%–15%), and Grangeville fine sandy loam. With the exception of Chualar clay loam (9%–15%), the soils are included on Natural Resources Conservation Service (NRCS) Hydric Soils Lists (NRCS 2011).

The regional climate is characterized by warm summers, mild winters, and infrequent rainfall. The normal daily minimum temperature ranges from 5 degrees Celsius (°C) (41 degrees Fahrenheit [°F]) in December to 15°C (59°F) in July and August. The normal daily maximum temperature ranges from 20°C (68°F) in December and January to 32°C (89°F) in July and August. The region averages approximately 43 centimeters (17 inches) of precipitation annually. On average, Chino experiences sunshine 70% of the year. The monthly average wind speed is 10 kilometers (km) (6.2 miles) per hour, and the predominant wind direction is from the southwest to northeast.

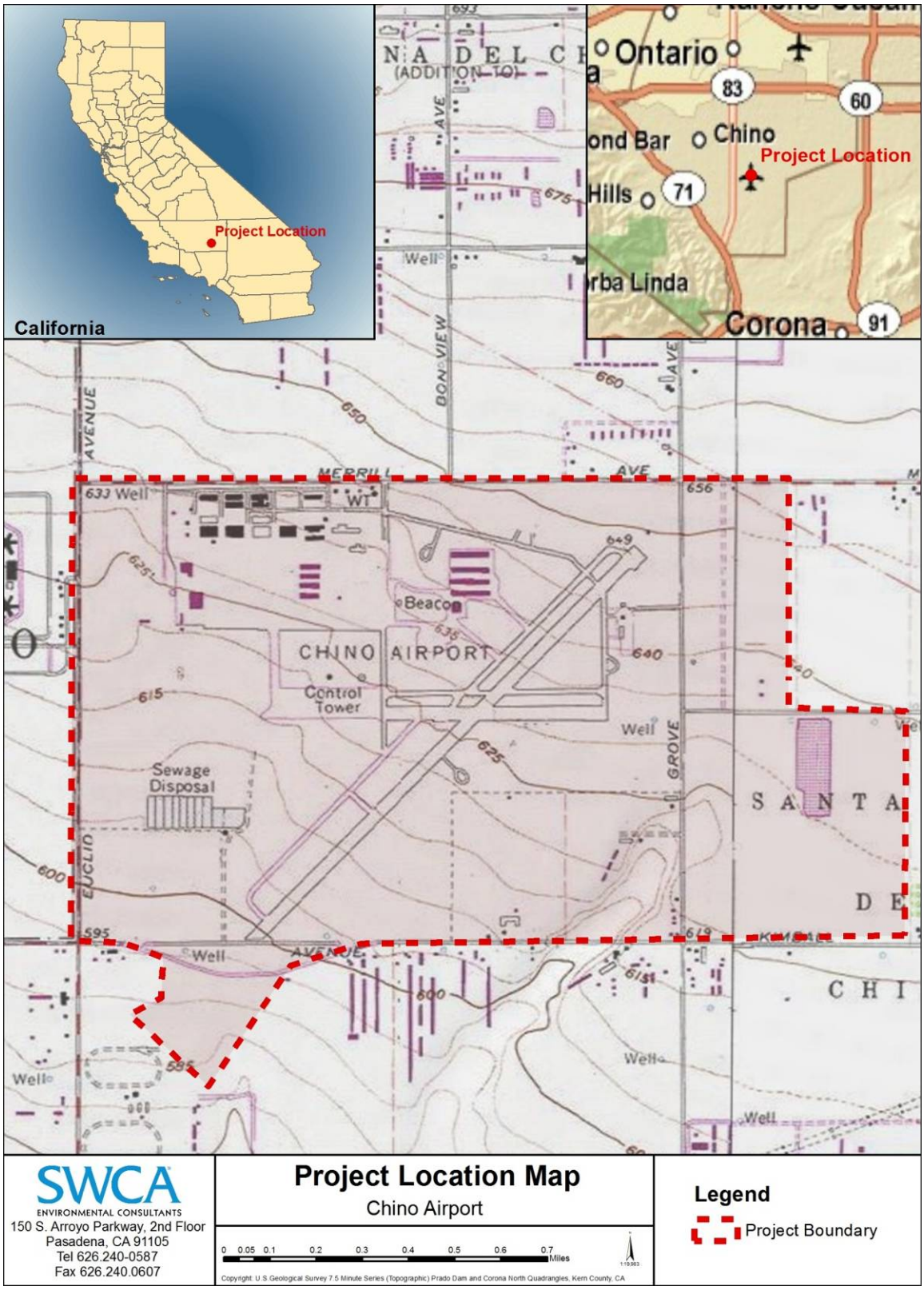

Figure 1. Project location map.

Figure 2. Project area overview map.

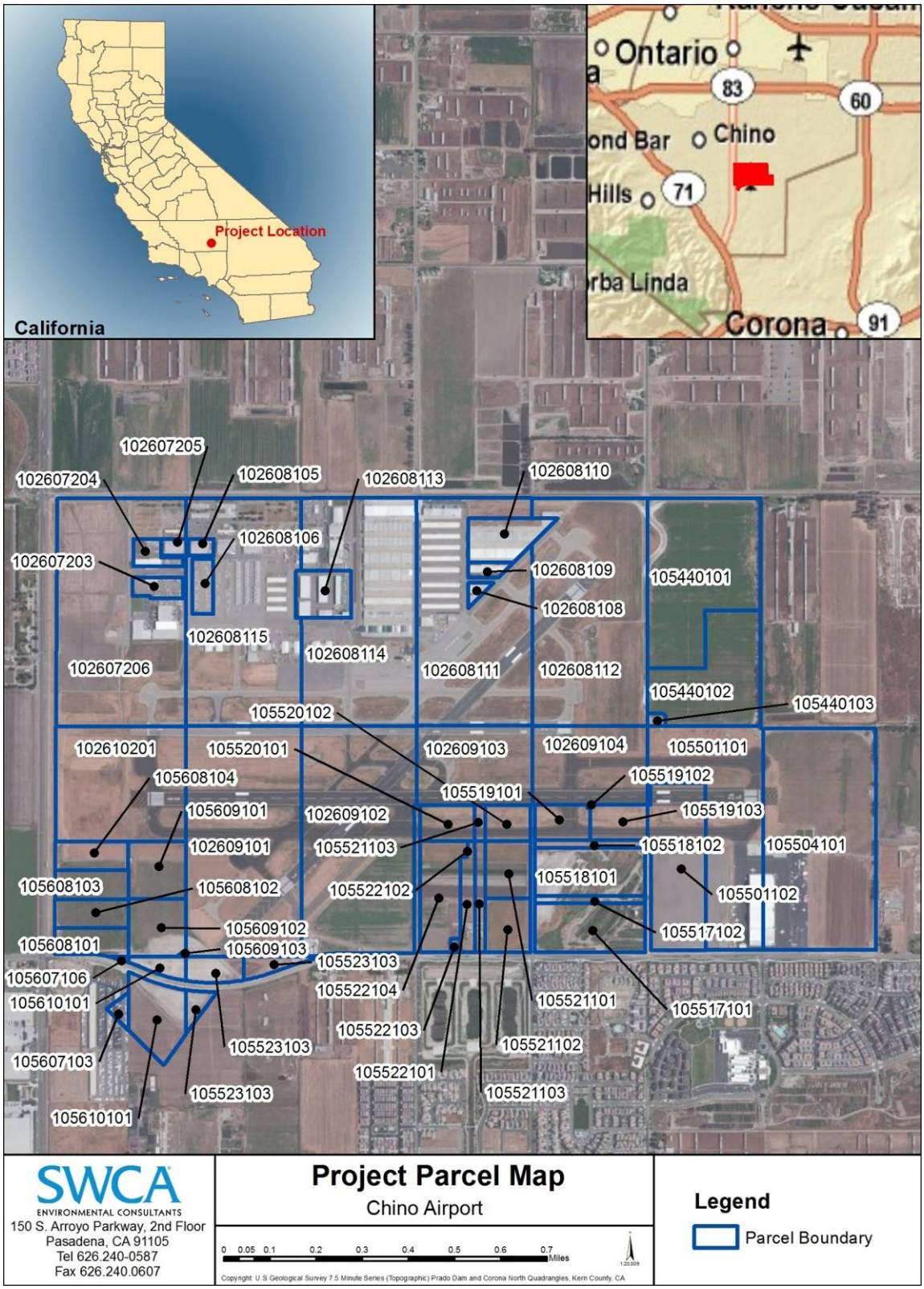

Figure 3. Project area with Assessor's Parcel Numbers.

Figure 4. Project area overview facing west. Photograph taken from eastern edge of Assessor's Parcel Number 105504101.

2.3. Focus Study and Species of Concern

To determine which special-status species could be present in the project area, and for which habitat assessments should be made, SWCA biologists reviewed existing sources of information regarding the occurrences of special-status species near the project area.

2.4. Definition of Special-Status Species

Special-status species are plants and animals in one or more of the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations [C.F.R.] § 17.12 [listed plants], 50 C.F.R. § 17.11 [listed animals], and various notices in the Federal Register [Fed. Reg.] [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under the ESA (67 Fed. Reg. 40657, June 13, 2002).
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (California ESA) (14 California Code of Regulations § 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines § 15380).

- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code § 1900 et seq.).
- Plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered in California (Lists 1B and 2 in CNPS 2001).
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2001), which may be included as special-status species on the basis of local significance or recent biological information.
- Animal species of special concern as listed by California Department of Fish and Game (CDFG) (CDFG 2011).
- Animals fully protected in California (California Fish and Game Code §§ 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Animals included on the California Special Animals List (CDFG 2011) because of inclusion on one or more of several "watch lists," including the International Union for Conservation of Nature (IUCN) Red List, the American Bird Conservancy Green List, the Audubon WatchList, the Bureau of Land Management sensitive species list, the California Department of Forestry and Fire Protection Sensitive Species list, the U.S. Forest Service Sensitive Species list, the U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern list, the United States Bird Conservation Watch List, bat species included on the Western Bat Working Group's Regional Priority Matrix as High or Medium, and the Xerces Society Red list of pollinators.

2.5. Databases and Lists Reviewed

2.5.1. Federal Lists

A total of 43 special-status species, including 22 plants and 21 wildlife species (three invertebrates, six fish, three amphibians, two reptiles, five birds, and two mammals), was identified as occurring in the County of San Bernardino according to the USFWS list of Endangered and Threatened plant and wildlife species (http://ecos.fws.gov/tess_public/). Many of these were eliminated from consideration because of lack of basic habitat elements (e.g., wetlands) in the project area or if the known range of the species is located outside the project area.

2.5.2. State Databases

SWCA queried CDFG's California Natural Diversity Database (CNDDB) and CNPS's Online Inventory of Rare and Endangered Plants (CNPS 2012) in February 2012 to determine the occurrence of sensitive biological resources near the project area. This included the U.S. Geologic Survey's Prado Dam 7.5-minute topographic quadrangle, and surrounding eight quadrangles: Corona North, Guasti, Ontario, San Dimas, Yorba Linda, Orange, Black Star canyon, and Corona South (nine-quad area). According to the CNDDB, a total of 113 special-status species and habitats have been recorded in the nine-quad area. Forty-nine special-status plant species were identified in the nine-quad area according to the CNPS inventory, including an additional seventeen species not identified in the CNDDB results.

2.6. Focal Species Identified

A comprehensive list of special-status species, identified in the federal, state, and local lists and databases that occur near the project area is summarized in Table 1. In total, 50 plant species, 52 wildlife species, and 11 sensitive habitats occur in the nine-quad area.

Table 1. Special-status Plant and Wildlife Species and Sensitive Habitats with Recorded Occurrences in the Nine-Quad Area, Organized Alphabetically by Scientific Name

Common Name	Scientific Name	Federal Status	State Status	Other Status
PLANTS				
Chaparral sand-verbena	*Abronia villosa* var. *aurita*	None	None	1B.1
Munz's onion	*Allium munzii*	CT	FE	1B.1
California androsace	*Androsace elongata* ssp. *acuta*	None	None	4.2
Western spleenwort	*Asplenium vespertinum*	None	None	4.2
Braunton's milk-vetch	*Astragalus brauntonii*	Endangered	None	1B.1
Coulter's saltbush	*Atriplex coulteri*	None	None	1B.2
Davidson's saltscale	*Atriplex serenana* var. *davidsonii*	None	None	1B.2
Malibu baccharis	*Baccharis malibuensis*	None	None	1B.1
Brewer's calandrinia	*Calandrinia breweri*	None	None	4.2
Round-leaved filaree	*California macrophylla*	None	None	1B.1
Catalina mariposa lily	*Calochortus catalinae*	None	None	4.2
Plummer's mariposa-lily	*Calochortus plummerae*	None	None	1B.2
Intermediate mariposa-lily	*Calochortus weedii* var. *intermedius*	None	None	1B.2
Santa Barbara morning-glory	*Calystegia sepium* ssp. *binghamiae*	None	None	1B.1
Payson's jewel-flower	*Caulanthus simulans*	None	None	4.2
Southern tarplant	*Centromadia parryi* ssp. *australis*	None	None	1B.1
Smooth tarplant	*Centromadia pungens* ssp. *laevis*	None	None	1B.1
San Fernando Valley spineflower	*Chorizanthe parryi* var. *fernandina*	Candidate	Endangered	1B.1
Parry's spineflower	*Chorizanthe parryi* var. *parryi*	None	None	1B.1
Long-spined spineflower	*Chorizanthe polygonoides* var. *longispina*	None	None	1B.2
White-bracted spineflower	*Chorizanthe xanti* var. *leucotheca*	None	None	1B.2
California saw-grass	*Cladium californicum*	None	None	2.2
Paniculate tarplant	*Deinandra paniculata*	None	None	4.2
Slender-horned spineflower	*Dodecahema leptoceras*	Endangered	Endangered	1B.1
Many-stemmed dudleya	*Dudleya multicaulis*	None	None	1B.2

Table 1. Special-status Plant and Wildlife Species and Sensitive Habitats with Recorded Occurrences in the Nine-Quad Area, Organized Alphabetically by Scientific Name

Common Name	Scientific Name	Federal Status	State Status	Other Status
Santa Ana River woollystar	*Eriastrum densifolium* ssp. *sanctorum*	Endangered	Endangered	1B.1
Palmer's grapplinghook	*Harpagonella palmeri*	None	None	4.2
Tecate cypress	*Hesperocyparis forbesii*	None	None	1B.1
Vernal barley	*Hordeum intercedens*	None	None	3.2
Mesa horkelia	*Horkelia cuneata* ssp. *puberula*	None	None	1B.1
Heart-leaved pitcher sage	*Lepechinia cardiophylla*	None	None	1B.2
Robinson's pepper-grass	*Lepidium virginicum* var. *robinsonii*	None	None	1B.2
Ocellated Humboldt lily	*Lilium humboldtii* ssp. *ocellatum*	None	None	4.2
Jokerst's monardella	*Monardella australis* ssp. *jokersti*	None	None	1B.1
California muhly	*Muhlenbergia californica*	None	None	4.3
Prostrate vernal pool navarretia	*Navarretia prostrata*	None	None	1B.1
Chaparral nolina	*Nolina cismontana*	None	None	1B.2
California beardtongue	*Penstemon californicus*	None	None	1B.2
Allen's pentachaeta	*Pentachaeta aurea* ssp. *allenii*	None	None	1B.1
Hubby's phacelia	*Phacelia hubbyi*	None	None	4.2
Santiago Peak phacelia	*Phacelia keckii*	None	None	1B.3
Woolly chaparral-pea	*Pickeringia montana* var. *tomentosa*	None	None	4.3
Fish's milkwort	*Polygala cornuta* var. *fishiae*	None	None	4.3
White rabbit-tobacco	*Pseudognaphalium leucocephalum*	None	None	2.2
Engelmann oak	*Quercus engelmannii*	None	None	4.2
Coulter's matilija poppy	*Romneya coulteri*	None	None	4.2
Chaparral ragwort	*Senecio aphanactis*	None	None	2.2
Salt Spring checkerbloom	*Sidalcea neomexicana*	None	None	2.2
San Bernardino aster	*Symphyotrichum defoliatum*	None	None	1B.2
Rigid fringepod	*Thysanocarpus rigidus*	None	None	1B.2
WILDLIFE				
Cooper's hawk	*Accipiter cooperii*	None	None	None
Tricolored blackbird	*Agelaius tricolor*	None	None	SSC
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None	None	None
Grasshopper sparrow	*Ammodramus savannarum*	None	None	SSC

Table 1. Special-status Plant and Wildlife Species and Sensitive Habitats with Recorded Occurrences in the Nine-Quad Area, Organized Alphabetically by Scientific Name

Common Name	Scientific Name	Federal Status	State Status	Other Status
Bell's sage sparrow	*Amphispiza belli belli*	None	None	None
Arroyo toad	*Anaxyrus californicus*	Endangered	None	SSC
Silvery legless lizard	*Anniella pulchra pulchra*	None	None	SSC
Pallid bat	*Antrozous pallidus*	None	None	SSC
Golden eagle	*Aquila chrysaetos*	None	None	None
Great blue heron	*Ardea herodias*	None	None	None
Long-eared owl	*Asio otus*	None	None	SSC
Orangethroat whiptail	*Aspidoscelis hyperythra*	None	None	SSC
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	None	None	None
Burrowing owl	*Athene cunicularia*	None	None	SSC
San Diego fairy shrimp	*Branchinecta sandiegonensis*	Endangered	None	None
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*	None	None	SSC
Santa Ana sucker	*Catostomus santaanae*	Threatened	None	SSC
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	None	None	SSC
Rosy boa	*Charina trivirgata*	None	None	None
Mexican long-tongued bat	*Choeronycteris mexicana*	None	None	SSC
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Candidate	Endangered	None
San Diego banded gecko	*Coleonyx variegatus abbotti*	None	None	None
red-diamond rattlesnake	*Crotalus ruber*	None	None	SSC
yellow warbler	*Dendroica petechia brewsteri*	None	None	SSC
California diplectronan caddisfly	*Diplectrona californica*	None	None	None
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	Endangered	None	SSC
Stephens' kangaroo rat	*Dipodomys stephensi*	Endangered	Threatened	None
White-tailed kite	*Elanus leucurus*	None	None	None
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered	Endangered	None
Western pond turtle	*Emys marmorata*	None	None	SSC
California horned lark	*Eremophila alpestris actia*	None	None	None
Western mastiff bat	*Eumops perotis californicus*	None	None	SSC
Merlin	*Falco columbarius*	None	None	None
Arroyo chub	*Gila orcuttii*	None	None	SSC
Yellow-breasted chat	*Icteria virens*	None	None	SSC

Table 1. Special-status Plant and Wildlife Species and Sensitive Habitats with Recorded Occurrences in the Nine-Quad Area, Organized Alphabetically by Scientific Name

Common Name	Scientific Name	Federal Status	State Status	Other Status
California mountain kingsnake (San Diego population)	*Lampropeltis zonata (pulchra)*	None	None	SSC
Western yellow bat	*Lasiurus xanthinus*	None	None	SSC
Northern leopard frog	*Lithobates pipiens*	None	None	SSC
Yuma myotis	*Myotis yumanensis*	None	None	None
San Diego desert woodrat	*Neotoma lepida intermedia*	None	None	SSC
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	None	None	SSC
Big free-tailed bat	*Nyctinomops macrotis*	None	None	SSC
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	None	None	SSC
Coast horned lizard	*Phrynosoma blainvillii*	None	None	SSC
Coastal California gnatcatcher	*Polioptila californica californica*	Threatened	None	SSC
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	Endangered	None	None
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	None	None	SSC
Western spadefoot	*Spea hammondii*	None	None	SSC
Coast Range newt	*Taricha torosa*	None	None	SSC
American badger	*Taxidea taxus*	None	None	SSC
Two-striped garter snake	*Thamnophis hammondii*	None	None	SSC
Least Bell's vireo	*Vireo bellii pusillus*	Endangered	Endangered	None

Notes:

CNPS Status:

1A: CNPS Priority List 1A: plant presumed extinct in California.

1B: CNPS Priority List 1B: plant rare, threatened, or endangered in California and elsewhere; eligible for state listing.

2: CNPS Priority List 2: plant rare, threatened, or Endangered in California, but more common elsewhere; eligible for state listing.

3: CNPS Priority List 3: more information is needed about this species; some eligible for state listing.

4: CNPS Priority List 4: on watch list for plants of limited distribution.

The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking as follows:

1:- Seriously threatened in California (high degree/immediacy of threat)

2:- Fairly threatened in California (moderate degree/immediacy of threat)

3:- Not very threatened in California (low degree/immediacy of threats or no current threats known)

CDFG Status:

SSC: Species of Special Concern; native species not having state or federal threatened or endangered species status, but thought to warrant monitoring due to declining population numbers. (Includes those species tracked in the CNDDB but not given any other special status.)

WL: Watch List. The species warrants further monitoring and review, but no actions or legal protection are given.

3. FIELD METHODOLOGY

3.1. Project Area Site Visit

SWCA biologist Matthew South visited the project area on March 6, 2012, to assess habitats, identify potential Waters of the U.S. and assess the special-status species occurrence potential. During the survey, weather conditions were mostly cloudy, temperatures were 13°C–16°C (55°F–60°F), and winds were 8–16 km per hour (5–10 miles per hour) from the west. During the site visit, vegetation communities and habitats were documented and compared against aerial photographs, representative vegetation communities and habitats in the project area were photographed and described in field notes, and a list of observed plant and wildlife species was compiled. Following the visit, SWCA biologists classified the vegetation communities according to both Holland (1986; 1992) and Sawyer et al. (2009) and compared them to habitat requirements of special-status species known to occur near the project area.

3.2. Special-Status Species Occurrence Assessment

SWCA biologists assessed the potential for occurrence of special-status species within and adjacent to the project area by assessing its biological conditions and the known occurrences of special-status species in the nine-quad area. During the assessment, each species was assigned to one of four categories:

- **Present:** Species is known to occur in the project area, based on recent (within 20 years) CNDDB or other records, and/or was observed in the project area during the site visit.
- **May occur:** Species is known to occur in the nine-quad area, based on recent (within 20 years) CNDDB or other records within 8 km (5 miles) (16 km [10 miles] for butterfly, bird, and bat species), and/or based on professional expertise specific to the project area or species, *and* there is suitable habitat in the project area. Alternatively, there is suitable habitat in the project area and the project area is within the known range of the species. For bird species, a distinction was made between occurrence potential in the project area as a forager, nester, and/or transient.
- **Not likely to occur:** Species is known to occur in the nine-quad area (within 8 km [5 miles] for plants and terrestrial animals or 16 km (10 miles) for butterfly, bird, and bat species); however, there is poor quality or marginal habitat in the project area. If the species occurs in the project area, it would likely be as a migrant, and the species is not likely to reproduce (breed or nest) within the project area due to a lack of suitable habitat or because the project area is outside of their known breeding range.
- **Absent:** There is no suitable habitat for the species in the project area, or the project area is located outside of the known range of the species. Alternatively, a species was surveyed for during the appropriate season with unequivocal negative results for species occurrence.

4. GENERAL BIOLOGICAL SURVEY RESULTS

4.1. Vegetation Communities and Plants

No natural vegetation communities were mapped in the project area. The project area is composed of four anthropogenically disturbed habitats: maintained, developed, ruderal lands, and drainages (Figure 5).

No sensitive habitats were observed in the project area. Two drainages present on the project site may be considered jurisdictional by USACE. Descriptions for each disturbed habitat and the potential USACE jurisdictional waters are provided below.

Figure 5. Anthropogenically disturbed habitats found in the project area. Potential Waters of the U.S. are approximate.

4.1.1. Maintained

Maintained areas are characterized by transitions from one land use activity to another (Anderson et al. 1976). In the project area, maintained areas near the airport runways have been repeatedly disturbed (mowed) through mechanical means, and vegetation there consists primarily of brome grasses and red-stem filaree (Figure 6). A total of approximately 290 ha (691 acres) of this habitat occurs in the project area. Wildlife species observed in this habitat during the site visit included California horned lark and burrowing owl.

Figure 6. Maintained area. Photo taken facing southwest from northeast corner of Assessor's Parcel Number 105501101

4.1.2. Developed Lands

Developed lands are areas of intensive use with much of the land covered by structures or pavement. Included in this category are cities; transportation, power, and communications facilities and infrastructure; and areas occupied by mills, shopping centers, industrial and commercial complexes, and institutions that may, in some instances, be isolated from urban areas. These areas are characterized by buildings, asphalt, concrete, suburban gardens, and a systematic street pattern (Anderson et al. 1976). Developed lands were identified throughout much of the project area and include infrastructure associated with the airport (Figures 7 and 8). These areas, comprising approximately 163 ha (403 acres), are almost entirely paved and predominantly devoid of vegetation, with the exception of landscaping. Species that are expected to occur in this habitat include mourning dove (*Zenaida macroura*) and common raven (*Corvus corax*).

Figure 7. Developed area. Photograph taken facing south on border of Assessor's Parcel Number 102608112 and Assessor's Parcel Number 105440101.

Figure 8. Developed and maintained area. Photograph taken facing southwest from Assessor's Parcel Number 102608112.

4.1.3. Ruderal

Ruderal habitats occur in areas subjected to a high degree of anthropogenic disturbance or modification, and are dominated by opportunistic, non-native, and often invasive species. Although ruderal habitat is not pristine, it does provide some limited wildlife value by serving as food and cover for insects, reptiles, small mammals, songbirds, and raptors. In the project area, ruderal habitat occurs adjacent to airport runways where vegetation is disturbed on a regular basis, and comprises approximately 10 ha (24 acres) (Figure 9). Wildlife observed in this habitat during the site visit included California ground squirrels (*Otospermophilus beecheyi*).

Figure 9. Ruderal area. Photograph taken facing south at Assessor's Parcel Number 105518101.

4.1.4. Potential Jurisdictional Waters

Two drainage ditches that may be considered Waters of the U.S. under the Clean Water Act are located within the project area. Both drainages are artificial and appear to be designed to focus surface flow away from airport runways. The drainages are located on the east and west side of the airport project area (see Figure 5). The small drainage located on the west side of the project area occurs at the southwestern end of Runway 3-21 and empties into the drainage basin at the southwestern corner of the project area. A second larger drainage is located on the east side of the project area, east of the northwest end of Runway 3-21 and north of Runway 8R-26L along S. Grove Ave., and extends south under Runway 8R-26L (via an underground culvert) emptying into a ruderal drainage adjacent to a nursery north of Kimball Ave. A formal jurisdictional delineation was not preformed at this time. No wetland plant species were observed in any of the drainages during preliminary field observations, and all observed plants appeared to be ruderal in nature.

The large drainage located on the east side of the project area consists of a broad partially concrete lined ditch (Figure 10) that flows into a large underground box culvert (Figure 11), draining onto lands south of runway access roads and north of Kimball Ave. Off of the project site, this drainage passes under Kimball Ave at Mill Creek Ave, where it flows into an area containing three retention basins. Overflow from these basins continues south within an established and maintained channel, flowing under Bickmore Ave through a box culvert at Rincon Meadows Ave. From this point, the channel continues south and west for approximately 1.3 miles to the northeastern portion of Prado Reservoir.

The ditch located on the west side of the project area at the southwestern end of Runway 3-21 consists of a narrow man made unlined ditch originating from an isolated box culvert (Figure 12). The origin of waters flowing out of this isolated box culvert could not be identified during the field visit or by review of existing areal imagery. The drainage ditch continues south passing under an existing airport road through a box culvert (Figure 13) to the southern end of the project site and passes under existing dirt maintenance roads through a drainage pipe and empties into a small drainage basin north of Kimball Ave. Excess surface water may drain into fields south of Kimball Ave. Off of the project site the channel opens up into sheet flow on a cattle farm north of Bickmore Ave. If water flow is sufficient, water may cross Bickmore Ave., and return to a small channel that continues for approximately 1 mile to where it enters the northwest portion of Prado Reservoir.

Figure 10. Cement lined drainage channel located on east side of project site along S. Grove Ave. Photograph taken facing north along drainage from Parcel 102608108.

Figure 11. Box culvert at end of drainage on east side of project site along S Grove Ave. Photograph taken facing south along drainage from parcel 102608112.

Figure 12. Drainage ditch on west side of project site. Photograph taken from atop the box culvert in Parcel 105609101, looking north at culvert from which flow originates.

Figure 13. Drainage ditch on west side of project site. Photograph taken from atop the box culvert in Parcel 105609101, looking south.

5. RARE, ENDANGERED, OR SENSITIVE SPECIES AND HABITAT RESULTS

Based on the existing biological conditions in and adjacent to the project area, the known occurrences of special-status species in the nine-quad area, and SWCA biologists' local knowledge of the nine-quad area, the potential for occurrence of 102 focal species was assessed (Appendix A). The following is a discussion of those special-status species that are present in or immediately adjacent to the project area, as well as those species assessed as 'may occur,' 'not likely to occur,' and 'absent' in the project area. A discussion of the habitat elements in the project area that aided in the assessment of each species' potential for occurrence is also provided. Expanded species descriptions are included for those that are present or may occur in the project area. CNDDB occurrence records for focal species near the project area are presented in Figure 14.

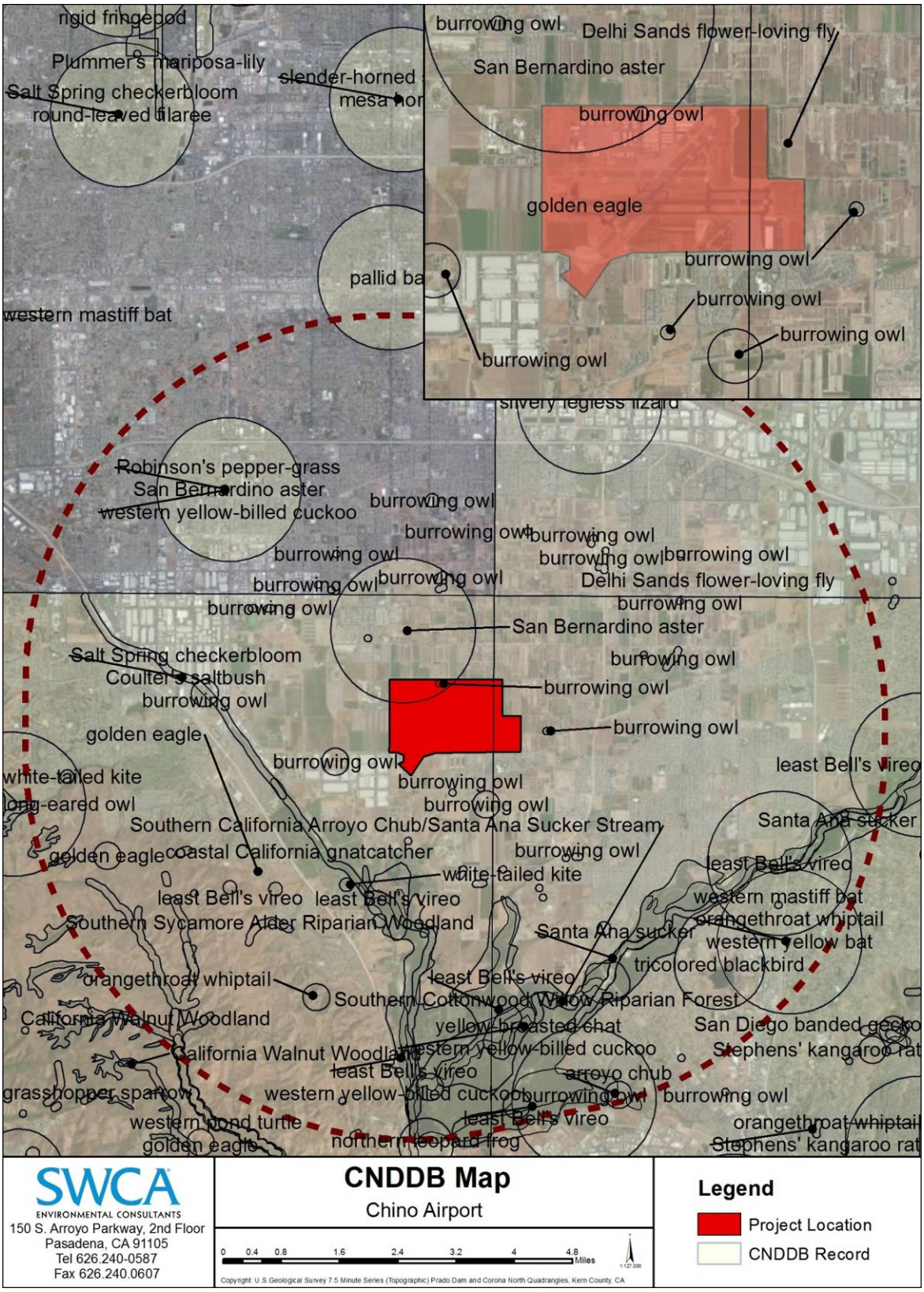

Figure 14. CNDDB record occurrences in the project area.

5.1. Special-Status Species that are Present

Two special-status wildlife species were observed in the project area:

- Burrowing owl
- California horned lark

5.1.1. Burrowing Owl

The burrowing owl is a California Species of Special Concern, and its nests are protected under the Migratory Bird Treaty Act (MTBA). Within the California desert region, the western burrowing owl occurs primarily in agricultural fields and desert scrub habitats in the Mojave and Colorado Deserts. Burrowing owls require large, open expanses of sparsely vegetated areas on gently rolling or level terrain, with an abundance of active small mammal burrows, particularly those of the California ground squirrel. The burrows of these rodents are an important habitat feature for burrowing owls, because they modify and use squirrel (and other rodent) burrows for refugia, roosting, and nesting. They sometimes use artificial features such as pipes, culverts, and nest boxes in areas where squirrel burrows are scarce (Robertson 1929).

Breeding occurs from March through August and peaks in April and May. The male attracts a female to the burrow and defends the nest site by calling in front of the burrow. One burrow is typically used for nesting; however, satellite burrows are usually found immediate near the nest burrow within the owl's territory. Within California, clutch size ranges from one to 11 eggs, with an average of seven (Landry 1979). The young emerge from the burrow at approximately 2 weeks and can fly by approximately 4 weeks (Zarn 1974). Martin (1973) reported that 95% of the young fledged in one population, with a mean reproductive success of 4.9 young per pair. Burrowing owls in southern California may winter in the nesting burrow or a nearby burrow following successful fledging of juveniles, but are more likely to disperse from the nesting area if the nest fails (Catlin et al. 2005; Rosier et al. 2006). Little is understood about the migratory movements of this species. Breeding populations from the northern range of the species are apparently migratory, though southern California populations are probably year-round residents (Thomsen 1971). Increases in winter population sizes within southern California are probably the result of immigration of owls from more northerly areas (Coulombe 1971). Nesting burrowing owls banded in Idaho have been observed wintering in southern California (Brian W. Smith, personal communication, November 2006). Male burrowing owls that are year-round residents in southern California may overwinter in burrows within nesting areas, because this allows them to retain possession of their burrows and territories, as well as maintain the burrows (Johnsgard 2002:165). Thus, burrowing owls may occur in the project area as year-round residents and breeders, and/or as winter residents from populations that breed further north, and/or as transients during dispersal and migration.

Two burrowing owls were observed by SWCA staff during a survey of the project area (see Figure 10). Additionally, there is one previously recorded observation of this species in the project area and an additional 37 occurrences within 10 miles of the project area (CNDDB 2012; see Figure 10). Habitats in the project area where burrowing owls may occur and nest include the maintained and ruderal habitats. Multiple burrowing mammal species were observed in the project area, including California ground squirrel; the burrows of this species could provide suitable starting burrows for modification and occupancy by burrowing owls.

5.1.2. California Horned Lark

The California horned lark is a California Species of Special Concern, and its nests are protected under the MBTA. This species is a short-distance migrant that occupies short-grass prairie, “bald” hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. It prefers open, sparsely vegetated grasslands, ruderal habitats, and desert scrub communities with wide shrub spacing, and is a ground nester in these locations. There are no previously recorded occurrences of this species within 16 km (10 miles) of the project area recorded in the CNDDB, but a flock of approximately 10 individuals was observed in a recently plowed agricultural field in the maintained habitat (see Figure 10). This species may occur and nest in ruderal habitat, and open, sparsely vegetated portions of the maintained habitats in the project area.

5.2. Special-status Species that are Absent

Based on the analysis for each species provided in Appendix A, 50 special-status plant species and 50 special-status wildlife species were assessed as “absent” from the project area because 1) there is no suitable habitat in the project area and there are no local records adjacent to the project area, and/or 2) the project area is outside of their known range. Alternatively, although there are records of these species adjacent to the project area, there is no suitable habitat in the project area to support the occurrence of these species. The following species are absent in the project area:

- Chaparral sand-verbena
- Munz's onion
- California androsace
- Western spleenwort
- Braunton's milk-vetch
- Coulter's saltbush
- Davidson's saltscale
- Malibu baccharis
- Brewer's calandrinia
- Round-leaved filaree
- Catalina mariposa lily
- Plummer's mariposa-lily
- Intermediate mariposa-lily
- Santa Barbara morning-glory
- Payson's jewel-flower
- Southern tarplant
- Smooth tarplant
- San Fernando Valley spineflower
- Parry's spineflower
- Long-spined spineflower
- White-bracted spineflower
- California saw-grass
- Paniculate tarplant
- Slender-horned spineflower
- Many-stemmed dudleya
- Santa Ana River woollystar
- Palmer's grapplinghook
- Tecate cypress
- vernal barley
- Mesa horkelia
- Heart-leaved pitcher sage
- Robinson's pepper-grass
- Ocellated Humboldt lily
- Jokerst’s monardella
- California muhly
- Prostrate vernal pool navarretia
- Chaparral nolina
- California beardtongue
- Allen's pentachaeta
- Hubby's phacelia
- Santiago Peak phacelia
- Woolly chaparral-pea
- Fish's milkwort
- White rabbit-tobacco
- Engelmann oak
- Coulter's matilija poppy
- Chaparral ragwort
- Salt Spring checkerbloom
- San Bernardino aster
- Rigid fringepod
- San Diego fairy shrimp
- California diplectronan caddisfly
- Delhi Sands flower-loving fly
- Santa Ana sucker
- Arroyo chub
- Arroyo toad

- Northern leopard frog
- Western spadefoot
- Coast Range newt
- Silvery legless lizard
- Orangethroat whiptail
- Coastal whiptail
- Rosy boa
- San Diego banded gecko
- Red-diamond rattlesnake
- Western pond turtle
- California mountain kingsnake (San Diego population)
- Coast horned lizard
- Coast patch-nosed snake
- Two-striped garter snake
- Cooper's hawk
- Tricolored blackbird
- Southern California rufous-crowned sparrow
- Grasshopper sparrow
- Bell's sage sparrow
- Golden eagle
- Great blue heron
- Long-eared owl
- Coastal cactus wren
- Western yellow-billed cuckoo
- Yellow warbler
- White-tailed kite
- Southwestern willow flycatcher
- California horned lark
- Merlin
- Yellow-breasted chat
- Coastal California gnatcatcher
- Least Bell's vireo
- Pallid bat
- Northwestern San Diego pocket mouse
- Mexican long-tongued bat
- San Bernardino kangaroo rat
- Stephens' kangaroo rat
- Western mastiff bat
- Western yellow bat
- San Diego desert woodrat
- Pocketed free-tailed bat
- Big free-tailed bat
- Los Angeles pocket mouse
- American badger

6. SUMMARY AND RECOMMENDATIONS

Suitable habitat is present in the project area for the following species that are present or may occur in there:

- Burrowing owl
- California horned lark

To better understand how any of the proposed projects implemented under the master plan update may impact sensitive biological resources, the following studies are recommended as part of each biological resource assessment:

- Protocol burrowing owl surveys
- Nesting bird surveys
- An impact-mitigation analysis
- USACE consultation and Jurisdictional Waters Delineation/permitting (if required)

Burrowing owl surveys should minimally consist of breeding season surveys, and should be conducted between February 1 and August 31 according to protocol described by CDFG (2012). Nesting bird surveys should be conducted if project activities will be initiated during the avian nesting season, which generally occurs between 1 February and 30 September. Jurisdictional wetland delineations may be conducted during any season.

7. CERTIFICATION

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 and belief. Fieldwork conducted for this assessment was performed by me or under my supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or applicant's representative and I that I have no financial interest in the project."

Date: April 6, 2012 Signed: Michael W. Tuma

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Appendix A

Special-status Plants and Wildlife Occurrence Assessments

NOTES FOR SENSITIVE BIOLOGICAL RESOURCES TABLES

Federal Status – The ESA is administered by the USFWS and the National Oceanic and Atmospheric Administration Fisheries.

E Endangered: Species is in immediate danger of extirpation or extinction from existing pressures.

T Threatened: Species not presently in eminent danger of extinction, but is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.

C Candidate: Candidate species are plants and animals for which the UWFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA, but for which development of a listing regulation is precluded by other higher priority listing activities.

D Delisted: Species is no longer in immediate danger of extirpation or extinction nor is it likely to reach this status in the foreseeable future. Delisted species are monitored according to a post-delisting monitoring plan.

State Status – The California Endangered Species Act of 1984 (CESA) (Fish & Game Code §§ 2050, et seq.) and the Native Plant Protection Act of 1977 (NPPA) (Fish & Game Code §§1900-1913) generally parallel the main provisions of the ESA and are administered by the CDFG.

E Endangered: a species of plant, fish, or wildlife which is "in serious danger of becoming extinct throughout all, or a significant portion of its range." This designation is limited to species or subspecies native to California. (CESA)

T Threatened: 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 special protection and management efforts. (CESA)

R Rare: (applies to plants only) a species, subspecies, or variety is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. (This designation was replaced by "threatened" for all animal species in 1985) (NPPA)

CDFG - The Wildlife Branch, Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, reptiles, and amphibians. The Fisheries Branch is responsible for updates to the Fish Species of Special Concern document.

SSC: Species of Special Concern: native species not having state or federal threatened or endangered species status, but thought to warrant monitoring due to declining population numbers (includes those species tracked in the CNDDB but not given any other special status).

FP: Fully Protected: The classification of fully protected was the state's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts. The Fish and Game Code sections dealing with fully protected species state that these species "....may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003 the code sections dealing with fully protected species were amended to allow CDFG to authorize take resulting from recovery activities for state-listed species.

WL: Watch List. The species warrants further monitoring and review, but no actions or legal protection are given.

CNPS – The CNPS tracks the conservation status of hundreds of plant species and maintains the CNPS *Inventory of Rare and Endangered Plants of California.* The CNPS Rare Plant Program's data are widely accepted as the standard for information on the rarity and endangerment status of the California flora.

1A CNPS Priority List 1A: plant presumed extinct in CA.

1B CNPS Priority List 1B: plant Rare, Threatened, or Endangered in CA and elsewhere; eligible for state listing.

2 CNPS Priority List 2: plant rare, threatened, or Endangered in CA, but more common elsewhere; eligible for state listing.

3 CNPS Priority List 3: more information is needed about this species; some eligible for state listing.

4 CNPS Priority List 4: on watch list for plants of limited distribution.

The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking as follows:

1 - Seriously threatened in California (high degree/immediacy of threat)

2 - Fairly threatened in California (moderate degree/immediacy of threat)

3 - Not very threatened in California (low degree/immediacy of threats or no current threats known)

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
PLANTS							
chaparral sand-verbena	*Abronia villosa* var. *aurita*	None	None	1B.1	Chaparral, coastal scrub, and desert dunes.	Local occurrence in sandy flats with depressions; 75–1,600 m.	**Absent:** The project area lacks the habitat to support the species.
Munz's onion	*Allium munzii*	CT	FE	1B.1	Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland.	Mesic, clay soils; 297–1,070 m.	**Absent:** The project area lacks the habitat to support the species.
California androsace	*Androsace elongata* ssp. *acuta*	None	None	4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland.	150–1,200 m.	**Absent:** The project area lacks the habitat to support the species.
western spleenwort	*Asplenium vespertinum*	None	None	4.2	Chaparral, cismontane woodland, and coastal scrub.	Rocky areas; 180–1,000 m	**Absent:** The project area lacks the habitat to support the species.
Braunton's milk-vetch	*Astragalus brauntonii*	Endangered	None	1B.1	Closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grasslands.	Recent burns or disturbed areas, in stiff gravelly clay soils overlying granite or limestone; 4–640 m.	**Absent:** The project area lacks the habitat to support the species.
Coulter's saltbush	*Atriplex coulteri*	None	None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland.	Ocean bluffs, ridgetops, and alkaline low places; 10–440m.	**Absent:** The project area lacks the habitat to support the species.
Davidson's saltscale	*Atriplex serenana* var. *davidsonii*	None	None	1B.2	Coastal bluff scrub and coastal scrub.	Alkaline soil; 3–250 m.	**Absent:** The project area lacks the habitat to support the species.
Malibu baccharis	*Baccharis malibuensis*	None	None	1B.1	Chaparral, cismontane woodland, coastal scrub, and riparian woodland.	150–305 m.	**Absent:** The project area lacks the habitat to support the species.
Brewer's calandrinia	*Calandrinia breweri*	None	None	4.2	Chaparral and coastal scrub.	Sandy or loamy soils, disturbed sites and burned areas; 10–1,220 m.	**Absent:** The project area lacks the habitat to support the species.
round-leaved filaree	*California macrophylla*	None	None	1B.1	Cismontane woodland, and valley and foothill grasslands.	Clay soils; 15–1,200 m.	**Absent:** The project area lacks the habitat to support the species.
Catalina mariposa lily	*Calochortus catalinae*	None	None	4.2	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	15–700 m.	**Absent:** The project area lacks the habitat to support the species.

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
Plummer's mariposa-lily	*Calochortus plummerae*	None	None	1B.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest.	Occurs on rocky and sandy sites, usually of granitic or alluvial material; can be very common after fire; 90–1,610 m	**Absent:** The project area lacks the habitat to support the species.
intermediate mariposa-lily	*Calochortus weedii* var. *intermedius*	None	None	1B.2	Coastal scrub, chaparral, and valley and foothill grasslands.	Dry, rocky, open slopes and rock outcrops; 120–850 m.	**Absent:** The project area lacks the habitat to support the species.
Santa Barbara morning-glory	*Calystegia sepium* ssp. *binghamiae*	None	None	1B.1	Marsh and swamp, salt marsh, and wetland.	0–20 m.	**Absent:** The project area lacks the habitat to support the species.
Payson's jewel-flower	*Caulanthus simulans*	None	None	4.2	Chaparral and coastal scrub.	Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes; 90–2,200 m	**Absent:** The project area lacks the habitat to support the species.
southern tarplant	*Centromadia parryi* ssp. *australis*	None	None	1B.1	Margins of marshes and swamps and valley and foothill grasslands.	Often in disturbed sites near the coast at marsh edges. Also in alkaline soils, sometimes with *Distichlis spicata*.	**Absent:** The project area lacks the habitat to support the species.
smooth tarplant	*Centromadia pungens* ssp. *laevis*	None	None	1B.1	Valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodland.	Alkali meadow, alkali scrub; also in disturbed places; 0–480 m	**Absent:** The project area lacks the habitat to support the species.
San Fernando Valley spineflower	*Chorizanthe parryi* var. *fernandina*	Candidate	Endangered	1B.1	Coastal scrub (sandy) and valley and foothill grasslands.	150–1,220 m.	**Absent:** The project area lacks the habitat to support the species.
Parry's spineflower	*Chorizanthe parryi* var. *parryi*	None	None	1B.1	Coastal scrub and chaparral.	Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland; dry, sandy soils; 40–1,705 m	**Absent:** The project area lacks the habitat to support the species.
long-spined spineflower	*Chorizanthe polygonoides* var. *longispina*	None	None	1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools.	Often clay soils; 30–1,530 m.	**Absent:** The project area lacks the habitat to support the species.
white-bracted spineflower	*Chorizanthe xanti* var. *leucotheca*	None	None	1B.2	Mojavean desert scrub, pinyon-juniper woodland.	300–1,200 m	**Absent:** The project area lacks the habitat to support the species.
California saw-grass	*Cladium californicum*	None	None	2.2	Meadows and seeps and Marshes and swamps (freshwater and alkaline).	60–600 m.	**Absent:** The project area lacks the habitat to support the species.
paniculate tarplant	*Deinandra paniculata*	None	None	4.2	Coastal scrub, valley and foothill grasslands, and vernal	Usually vernally mesic; 25–	**Absent:** The project area lacks

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					pools.	940 m.	the habitat to support the species.
slender-horned spineflower	*Dodecahema leptoceras*	Endangered	Endangered	1B.1	Alluvial fan sage scrub, chaparral, cismontane woodland, and coastal scrub.	Typically found in alluvial fan sage scrub sub-communities on silty deposits that are at least 100 years old.	**Absent:** The project area lacks the habitat to support the species.
many-stemmed dudleya	*Dudleya multicaulis*	None	None	1B.2	Chaparral, coastal scrub, and valley and foothill grasslands.	In heavy, often clayey soils on grassy slopes; 0–790 m.	**Absent:** The project area lacks the habitat to support the species.
Santa Ana River woollystar	*Eriastrum densifolium* ssp. *sanctorum*	Endangered	Endangered	1B.1	Gravelly river beds, chaparral and coastal scrub.	Sandy or gravely soils; 91–610 m.	**Absent:** The project area lacks the habitat to support the species.
Palmer's grapplinghook	*Harpagonella palmeri*	None	None	4.2	Chaparral, coastal scrub, and valley and foothill grasslands.	Clay soils; 20–955 m.	**Absent:** The project area lacks the habitat to support the species.
Tecate cypress	*Hesperocyparis forbesii*	None	None	1B.1	Closed-cone coniferous forest and chaparral.	Clay, gabbroic or metavolcanic soils; 80–1,500 m.	**Absent:** The project area lacks the habitat to support the species.
vernal barley	*Hordeum intercedens*	None	None	3.2	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), and vernal pools.	5–1,000 m.	**Absent:** The project area lacks the habitat to support the species.
mesa horkelia	*Horkelia cuneata* ssp. *puberula*	None	None	1B.1	Chaparral, cismontane woodland, and coastal scrub.	Sandy or gravelly sites; 70–810 m.	**Absent:** The project area lacks the habitat to support the species.
heart-leaved pitcher sage	*Lepechinia cardiophylla*	None	None	1B.2	Closed-cone coniferous forest, cismontane woodland, and chaparral.	520–1,370 m.	**Absent:** The project area lacks the habitat to support the species.
Robinson's pepper-grass	*Lepidium virginicum* var. *robinsonii*	None	None	1B.2	Coastal scrub and chaparral.	Coastal scrub and chaparral.	**Absent:** The project area lacks the habitat to support the species.
ocellated Humboldt lily	*Lilium humboldtii* ssp. *ocellatum*	None	None	4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland.	Openings; 30–800 m.	**Absent:** The project area lacks the habitat to support the species.
Jokerst's monardella	*Monardella australis* ssp. *jokersti*	None	None	1B.1	Chaparral and lower montane coniferous forest.	Steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes; 1,350–1,750 m.	**Absent:** The project area lacks the habitat to support the species.
California muhly	*Muhlenbergia californica*	None	None	4.3	Chaparral, coastal scrub, lower montane coniferous forest, and meadows and	Mesic, seeps, and streambanks; 100–2,000 m.	**Absent:** The project area lacks the habitat to support the species.

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Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					seeps.		
prostrate vernal pool navarretia	*Navarretia prostrata*	None	None	1B.1	Coastal scrub, valley and foothill grasslands, and vernal pools.	Alkaline soils in grasslands or in vernal pools; 15–700m.	**Absent:** The project area lacks the habitat to support the species.
chaparral nolina	*Nolina cismontana*	None	None	1B.2	Coastal scrub and chaparral.	Sandstone or gabbro; 140–1,275 m.	**Absent:** The project area lacks the habitat to support the species.
California beardtongue	*Penstemon californicus*	None	None	1B.2	Chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Sandy soils; 1,170–2,300 m.	**Absent:** The project area lacks the habitat to support the species.
Allen's pentachaeta	*Pentachaeta aurea* ssp. *allenii*	None	None	1B.1	Coastal scrub (openings) and valley and foothill grasslands.	75–520 m.	**Absent:** The project area lacks the habitat to support the species.
Hubby's phacelia	*Phacelia hubbyi*	None	None	4.2	Chaparral, coastal scrub, and valley and foothill grasslands.	Gravelly, rocky, and talus; 0–1,000 m.	**Absent:** The project area lacks the habitat to support the species.
Santiago Peak phacelia	*Phacelia keckii*	None	None	1B.3	Closed-cone coniferous forest and chaparral.	545–1,600 m.	**Absent:** The project area lacks the habitat to support the species.
woolly chaparral-pea	*Pickeringia montana* var. *tomentosa*	None	None	4.3	Chaparral.	Gabbroic, granitic, clay; 0–1,700 m.	**Absent:** The project area lacks the habitat to support the species.
Fish's milkwort	*Polygala cornuta* var. *fishiae*	None	None	4.3	Chaparral, cismontane woodland, and riparian woodland.	100–1,000 m.	**Absent:** The project area lacks the habitat to support the species.
white rabbit-tobacco	*Pseudognaphalium leucocephalum*	None	None	2.2	Riparian woodland, cismontane woodland, coastal scrub, and chaparral.	Sandy, gravelly sites; 0–2,100 m.	**Absent:** The project area lacks the habitat to support the species.
Engelmann oak	*Quercus engelmannii*	None	None	4.2	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands.	50–1,300 m.	**Absent:** The project area lacks the habitat to support the species.
Coulter's matilija poppy	*Romneya coulteri*	None	None	4.2	Coastal scrub and chaparral.	Often in burned areas; 20–1,200 m.	**Absent:** The project area lacks the habitat to support the species.
chaparral ragwort	*Senecio aphanactis*	None	None	2.2	Chaparral, cismontane woodland, and coastal scrub.	Flat alkaline areas; 15–800 m.	**Absent:** The project area lacks the habitat to support the species.
Salt Spring checkerbloom	*Sidalcea neomexicana*	None	None	2.2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub.	Alkali springs and marshes; 0–1,500m.	**Absent:** The project area lacks the habitat to support the species.

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
San Bernardino aster	*Symphyotrichum defoliatum*	None	None	1B.2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland.	Vernally mesic grassland or near ditches, streams and springs; disturbed areas; 2–2,040 m	**Absent:** The project area lacks the habitat to support the species.
rigid fringepod	*Thysanocarpus rigidus*	None	None	1B.2	Pinyon and juniper woodland.	Dry, rocky slopes; 600–2,200 m.	**Absent:** The project area lacks the habitat to support the species.
WILDLIFE							
Invertebrates							
San Diego fairy shrimp	*Branchinecta sandiegonensis*	Endangered	None	None	Habitat specialist found in small, shallow vernal pools, which range in depth from 5 to 30 centimeters (cm) (2 to 12 inches) and in water temperature from 10°C to 20°C (50°F to 68°F).	The animal is often found in vernal pools on chaparral covered mesas. Also occasionally occurs in ditches and road ruts that can support suitable conditions.	**Absent:** The project area lacks the habitat to support the species.
California diplectronan caddisfly	*Diplectrona californica*	None	None	None	San Bernardino County, California. Known only from the type locality (Claremont) and Thurman Flats.	No information has been published on the larva of this species, but other larvae in the genus live in fast-flowing, cool streams.	**Absent:** The project area lacks the habitat to support the species.
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	Endangered	None	None	Restricted (endemic) to the Colton Dunes (Delhi soil series) that once covered over approximately 40 square miles in northwestern Riverside and southwestern San Bernardino Counties in California.	Fine sandy soils, often wholly or partly sand dunes stabilized by the sparse native vegetation.	**Absent:** The project area lacks the habitat to support the species.
Fish							
Santa Ana sucker	*Catostomus santaanae*	Threatened	None	SSC	Streams that are generally small and shallow that may be swift in canyons and sluggish in the bottomlands, but are subject to severe flooding during winter and spring rains.	Preferred substrates are generally coarse and consist of gravel, rubble, and boulder, but also found on sand/mud substrates.	**Absent:** The project area lacks the habitat to support the species.
arroyo chub	*Gila orcuttii*	None	None	SSC	Warm fluctuating streams of the Los Angeles Plain.	Prefers slow moving or backwater sections of warm	**Absent:** The project area lacks the habitat to support the species.

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Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
						to cool streams with substrates of sand or mud.	
Amphibians							
arroyo toad	*Anaxyrus californicus*	Endangered	None	SSC	Inhabits washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, cottonwoods.	Extremely specialized habitat needs, including exposed sandy stream sides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding.	**Absent:** The project area lacks the habitat to support the species.
northern leopard frog	*Lithobates pipiens*	None	None	SSC	Native range is east of Sierra Nevada-Cascade crest. Found near permanent or semi-permanent water in a variety of habitats.	Local records are transplants.	**Absent:** The project area lacks the habitat to support the species.
western spadefoot	*Spea hammondii*	None	None	SSC	Occurs primarily in grassland habitats but can also be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.	**Absent:** The project area lacks the habitat to support the species.
Coast Range newt	*Taricha torosa*	None	None	SSC	Valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub and mixed chaparral, but is also known from annual grassland and mixed conifer types.	Adults migrate from terrestrial locations to ponds, reservoirs, and sluggish pools in streams to breed.	**Absent:** The project area lacks the habitat to support the species.
Reptiles							
silvery legless lizard	*Anniella pulchra pulchra*	None	None	SSC	Sandy or loose loamy soils under sparse vegetation.	Soil moisture is essential; they prefer soils with a high moisture content.	**Absent:** The project area lacks the habitat to support the species.
orangethroat whiptail	*Aspidoscelis hyperythra*	None	None	SSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Prefers washes and other sandy areas with patches of brush and rocks; perennial plants necessary for its major food: termites.	**Absent:** The project area lacks the habitat to support the species.
coastal whiptail	*Aspidoscelis tigris stejnegeri*	None	None	None	Chaparral, woodland, and riparian areas.	Hot and dry open areas with sparse foliage.	**Absent:** The project area lacks the habitat to support the species.
rosy boa	*Charina trivirgata*	None	None	None	Arid scrublands, semi-arid	Appears to be common in	**Absent:** The project area lacks

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					shrublands, rocky shrublands, rocky deserts, canyons, and other rocky areas.	riparian areas, but does not require permanent water.	the habitat to support the species.
San Diego banded gecko	*Coleonyx variegatus abbotti*	None	None	None	Occurs in a wide variety of sage scrub and chaparral vegetation communities where suitable cover exists (e.g., rocks, organic debris, vegetation).	Rock outcrops with some associated ground cover are cited as a preferred habitat.	**Absent:** The project area lacks the habitat to support the species.
red-diamond rattlesnake	*Crotalus ruber*	None	None	SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains.	Occurs in rocky areas and dense vegetation; needs rodent burrows, cracks in rocks or surface cover objects.	**Absent:** The project area lacks the habitat to support the species.
western pond turtle	*Emys marmorata*	None	None	SSC	Permanent or nearly permanent bodies of water in many habitat types; below 1,825 m.	Requires basking sites such as partially submerged logs, vegetation mats, or open mud banks.	**Absent:** The project area lacks the habitat to support the species.
California mountain kingsnake (San Diego population)	*Lampropeltis zonata (pulchra)*	None	None	SSC	Found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub.	Wooded areas near a stream with rock outcrops, talus, or rotting logs that are exposed to the sun.	**Absent:** The project area lacks the habitat to support the species.
coast horned lizard	*Phrynosoma blainvillii*	None	None	SSC	Coastal sage scrub and chaparral in arid and semiarid climates; below 2,450 m.	Prefers friable, rocky, or shallow sandy soils.	**Absent:** The project area lacks the habitat to support the species.
coast patch-nosed snake	*Salvadora hexalepis virgultea*	None	None	SSC	Semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	At elevations from below sea level to approximately 2,130 m.	**Absent:** The project area lacks the habitat to support the species.
two-striped garter snake	*Thamnophis hammondii*	None	None	SSC	Coastal California from vicinity of Salinas to northwest Baja California; sea level to 7,000 feet elevation.	Highly aquatic, found in or near permanent freshwater; often along streams with rocky beds and riparian growth.	**Absent:** The project area lacks the habitat to support the species.
Birds							
Cooper's hawk	*Accipiter cooperii*	None	None	None	Dense stands of live oak, riparian deciduous, or other forest habitats near water sea	Dense stands with moderate crown-depths used for nesting. Often uses patchy woodlands and edges with	**Absent:** The project area lacks appropriate nesting habitat. May occur on site for foraging

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					level to above 2,700 m.	snags for perching.	
tricolored blackbird	*Agelaius tricolor*	None	None		The species' basic requirements for selecting breeding sites are open accessible water; a protected nesting substrate, including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few kilometers of the nesting colony.	Historically, most colonies were in freshwater marshes dominated by cattails (*Typha* spp.) or tules (*Scirpus* spp.), but some were in nettles (*Urtica* spp.), thistles (*Cirsium* spp.), and willows (*Salix* spp.). An increasing percentage of colonies have been reported in Himalayan blackberry (*Rubus discolor*) and thistles, and some of the largest recent colonies were in silage and grain fields near dairies in the San Joaquin Valley.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None	None	None	Semiarid coastal sage scrub and sparse chaparral.	Prefer coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
grasshopper sparrow	*Ammodramus savannarum*	None	None	SSC	In general, prefers short to middle-height, moderately open grasslands with scattered shrubs.	Generally are absent from areas with extensive shrub cover.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
Bell's sage sparrow	*Amphispiza belli belli*	None	None	None	Resident breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	In cismontane California, it frequents chaparral dominated by chamise, and coastal scrub dominated by sage.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
golden eagle	*Aquila chrysaetos*	None	None	None	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
great blue heron	*Ardea herodias*	None	None	None	Marshes, shores, swamps, tidal flats, lakes, rivers,	Breeds most commonly in isolated areas, such as	**Absent:** The project area lacks the appropriate nesting habitat to

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Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					lagoons, riparian forests, and coastal wetlands.	wooded swamps or predator-free islands. Upland hardwood forest, forest-bordered lakes and ponds, and riparian woodlands are also used. Breeding sites are always near water.	support the species.
long-eared owl	*Asio otus*	None	None	SSC	Riparian bottomlands grown to tall willows & cottonwoods; also, belts of live oak paralleling stream courses. Riparian or other thickets with small, densely canopied trees required for roosting and nesting; below 2,745 m.	Frequents dense, riparian, and live oak thickets near meadow edges, and nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
burrowing owl	*Athene cunicularia*	None	None	SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Subterranean nester, dependent on burrowing mammals, especially California ground squirrel.	**Present**
coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*	None	None	SSC	Obligate, nonmigratory resident of the coastal sage scrub plant community.	It is closely associated with three species of cacti and occurs almost exclusively in thickets of cholla (*Opuntia prolifera)* and prickly pear (*Opuntia littoralis* and *Opuntia oricola)*–dominated stands of coastal sage scrub below 457 m in elevation.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Candidate	Endangered	None	Valley foothill and desert riparian habitats; In Sacramento Valley, also utilizes adjacent orchards, especially of walnut. Along Colorado River, may inhabit mesquite thickets where willow is absent. Below 1,400 m.	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
yellow warbler	*Dendroica petechia brewsteri*	None	None	SSC	Usually found in riparian	Cottonwoods, willows, alders,	**Absent:** The project area lacks

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Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
					deciduous habitats in summer: Also breeds in montane shrubbery in open conifer forests. In migration, visits woodland, forest, and shrub habitats. Breeds as high as 2,600 m on the eastern Sierra Nevada slopes.	and other small trees and shrubs typical of low, open-canopy riparian woodland. Frequents open to medium-density woodlands and forests with a heavy brush understory in breeding season.	the appropriate nesting habitat to support the species.
white-tailed kite	*Elanus leucurus*	None	None	FP	Inhabits low elevation, open grasslands, savannah-like Habitats, agricultural areas, wetlands, and oak woodlands.	Riparian areas adjacent to open areas are used for nesting. Winter habitat is generally similar to the breeding habitat, but the proximity to nest trees is not important. Ungrazed areas tend to be used more than grazed lands.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered	Endangered	None	Wet meadow and montane riparian habitats; from 600 to 2,500 m.	Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
California horned lark	*Eremophila alpestris actia*	None	None	None	Open habitats, usually where trees and large shrubs are absent.	Open fields, grasslands, and rangelands	**Present**
merlin	*Falco columbarius*	None	None	None	Frequents open habitats at low elevation near water and tree stands. Favors coastlines, lakeshores, wetlands.	Does not breed in California.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
yellow-breasted chat	*Icteria virens*	None	None	SSC	Valley foothill riparian woodland up to about 1,450 m, and desert riparian habitats east of the Sierra Nevada up to 2,050 m.	Summer resident; dense, brushy thickets and tangles near water, and thick understory in riparian woodland. Nests in low, dense riparian, consisting of willow, blackberry, wild grape.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
coastal California gnatcatcher	*Polioptila californica californica*	Threatened	None	SSC	Obligate permanent resident of coastal sage scrub below 700 m in southern California.	Low, coastal sage scrub in arid washes, on mesas and slopes.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.

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Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
least Bell's vireo	*Vireo bellii pusillus*	Endangered	Endangered	None	Willow woodlands and low, dense valley foothill and desert riparian habitat. Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,500 m.	Low, dense riparian growth along water or along dry parts of intermittent streams dominated by willow, cottonwood, mulefat, wild blackberry, or mesquite. Typically nests on willow, mulefat, and mesquite.	**Absent:** The project area lacks the appropriate nesting habitat to support the species.
Mammals							
pallid bat	*Antrozous pallidus*	None	None	SSC	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Below 600 m.	**Absent:** The project area lacks the habitat to support the species.
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	None	None	SSC	Coastal scrub, chaparral, grasslands, sagebrush, etc. In western San Diego County	Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	**Absent:** The project area lacks the habitat to support the species.
Mexican long-tongued bat	*Choeronycteris mexicana*	None	None	SSC	Occurs in a variety of habitats, including thorn scrub, Palo Verde-saguaro desert, semi-desert grassland, oak woodland and tropical deciduous forests.	In the southwestern United States, it is typically observed in oak-conifer woodlands and semi desert grasslands.	**Absent:** The project area lacks the habitat to support the species.
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	Endangered	None	SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Needs early to intermediate seral stages	**Absent:** The project area lacks the habitat to support the species.
Stephens' kangaroo rat	*Dipodomys stephensi*	Endangered	Threatened	None	Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover.	Prefers buckwheat, chamise, brome grass, and filaree; will burrow into firm soil	**Absent:** The project area lacks the habitat to support the species.
western mastiff bat	*Eumops perotis californicus*	None	None	SSC	Open, semiarid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban; from 70 to 2,600 m.	Lower and upper Sonoran desert scrub near cliffs in rugged rocky canyons with abundant crevices. Roosts wedged into the backs of tight cracks or crevices a foot or more deep and 2 inches or more wide. Colonies use crevices to 10 or more feet deep.	**Absent:** The project area lacks the habitat to support the species.
western yellow	*Lasiurus*	None	None	SSC	Associated with dry, thorny	Shows a particular	**Absent:** The project area lacks

Table A-1. Special-Status Species with Recorded Occurrences in the Project Area and Their Potential to Occur in the Project Area

Common Name	Scientific Name	Federal	State	CNPS, CDFG, or Other	General Habitat	Micro Habitat	Potential for Occurrence
bat	*xanthinus*				vegetation on the Mexican Plateau, and are found in desert regions of the Southwestern United States.	association with palms and other desert riparian habitats.	the habitat to support the species.
San Diego desert woodrat	*Neotoma lepida intermedia*	None	None	SSC	Coastal scrub of southern California from San Diego County to San Luis Obispo County.	Moderate to dense canopies preferred; particularly abundant in rock outcrops and rocky cliffs and slopes.	**Absent:** The project area lacks the habitat to support the species.
pocketed free-tailed bat	*Nyctinomops femorosaccus*	None	None	SSC	Arid regions including pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian habitats.	Rocky areas with high cliffs.	**Absent:** The project area lacks the habitat to support the species.
big free-tailed bat	*Nyctinomops macrotis*	None	None	SSC	Low-lying arid areas of southern California.	Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Absent:** The project area lacks the habitat to support the species.
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	None	None	SSC	Lower elevation grasslands and coastal sage.	Open ground with fine sandy soils; may not dig extensive burrows, hiding under weeds and dead leaves instead.	**Absent:** The project area lacks the habitat to support the species.
American badger	*Taxidea taxus*	None	None	SSC	Open woodland, desert scrub, and grassland communities.	Friable soils required; inhabits and breeds in burrows. In the Southwest, plant indicators of the Sonoran and Transition life zones (relatively low, dry elevations) commonly associated with American badgers include creosote, junipers, oaks, willows, cottonwoods, ponderosa pine, grasses, and sagebrushes.	**Absent:** The project area lacks the habitat to support the species.