

APPENDIX 2b

BRA / JD (2020)

BIOLOGICAL RESOURCES ASSESSMENT JURISDICTIONAL DELINEATION REPORT

Airport Gateway Specific Plan Project
Cities of San Bernardino and Highland, CA

Date Prepared: August 22, 2020

Prepared for:

Tom Dodson and Associates
PO Box 2307,
San Bernardino, CA 92406-2307
(909) 882-3612

Prepared by:



Shay Lawrey
47 1st Street, Suite 1
Redlands, CA 92373-4601

Certification

Jericho Systems, Inc.
47 1st Street, Suite 1
Redlands, CA 92373-4601
(909) 915-5900

Contact: Shay Lawrey, President and Ecologist/Regulatory Specialist

Certification: I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this Biological Resources Report to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me and/or under my direct supervision.



Shay Lawrey, Ecologist/Regulatory Specialist

TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 1 | Introduction | 1 |
| 1.1 | Site Location | 1 |
| 2 | Project Description | 1 |
| 2.1 | Land Use | 2 |
| 2.2 | Environmental Setting | 3 |
| 2.3 | Ecoregion | 3 |
| 2.4 | Watershed and Hydrology | 3 |
| 3 | Regulatory Background | 4 |
| 3.1 | Clean Water Act (CWA) | 4 |
| 3.1.1 | US Army Corps of Engineers Regulated Activities | 4 |
| 3.2 | Activities Regulated by the State | 6 |
| 3.2.1 | California Fish and Game Code | 6 |
| 3.3 | Special Status Species Regulations | 7 |
| 3.3.1 | Federal Endangered Species Act | 7 |
| 3.3.2 | California Endangered Species Act | 7 |
| 4 | Methods | 7 |
| 4.1 | Biological Resources Assessment | 7 |
| 4.2 | Jurisdictional Delineation | 9 |
| 4.2.1 | Hydrophytic vegetation | 10 |
| 4.2.2 | Hydric Soil | 10 |
| 4.2.3 | Wetland Hydrology | 11 |
| 5 | Results | 12 |
| 5.1 | Literature Review | 12 |
| 5.1.1 | Critical Habitat | 2 |
| 5.2 | Field Review | 12 |
| 5.2.1 | General Habitat | 12 |
| 5.2.2 | Vegetation/Heritage Trees | 1 |
| 5.2.3 | Sensitive Plants | 1 |
| 5.2.4 | General Wildlife | 2 |
| 5.2.5 | Sensitive Wildlife | 2 |
| 5.2.6 | Wildlife Corridors | 5 |
| 5.2.7 | Jurisdictional waters | 5 |
| 6 | Conclusions | 5 |

TABLES

Table 1 - Wetland Indicator Vegetation Categories

Table 2 - Federally Listed Species Occurrence Potential within the Action Area

FIGURES

Figure 1 - Regional Overview Site Vicinity

Figure 2 - Site Location (Topography)

Figure 3 - Site Location (Aerial)

Figure 4 – Soils

Figure 5 - FEMA/NHD

Figure 6 - Critical Habitat

Figure 7 – CNDDDB

Figure 8 - Vegetation

APPENDICES

Appendix A – Site Photos

Appendix B – Sensitive Species Potential To Occur

1 INTRODUCTION

On behalf of Tom Dodson and Associates, Jericho Systems, Inc. (Jericho) conducted a biological resources assessment (BRA) and jurisdictional delineation (JD) for the Airport Gateway Specific Plan (AGSP or Specific Plan area) located in the cities of San Bernardino and Highland, San Bernardino County, California. The purpose of the BRA/JD was to identify sensitive or protected biological and hydrological resources that occur within, or adjacent to, the Specific Plan area and to determine if any project-related impacts would result to those resources. Attention was focused on the overall Specific Plan area, the City Creek Bypass Channel which traverses the eastern portion of the Specific Plan area, as well as sensitive species known to occur locally such as the burrowing owl (*Athene cunicularia hypugaea*) [BUOW] which is known to occupy or have occurred previously in the Specific Plan area.

This report is designed to address potential effects to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), or species designated as sensitive by California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). This report also addresses resources protected under the Migratory Bird Treaty Act (MBTA), federal Clean Water Act (CWA) regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) respectively, and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW.

1.1 Site Location

The Specific Plan area is an approximately 679-acre area located within the cities of San Bernardino and Highland, San Bernardino County, California, within northwest quarter of the *Redlands* U.S. Geological Survey (USGS) 7.5-minute topographic map series (Figures, 1, 2, and 3). The Specific Plan area is just north of the San Bernardino International Airport (SBIA) and extends to the north side of 6th street. The western boundary extends to the Tippecanoe Ave, and to the east as far as the I-210, along 3rd and 5th streets near SBIA (Figures 1-3). The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194 acres).

The north side of the Specific Plan area is predominantly bordered by vacant lands, as well as low to medium density residential uses and is located directly across the street from several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park, and the Highland Branch Library.

2 PROJECT DESCRIPTION

Overall, the purpose of developing a Specific Plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area. The primary goal of the AGSP is to implement a streamlined regulatory framework for the plan area that includes a comprehensive theme for the corridor, align land use and development codes, provide efficient and effective access to freeway corridors, improve infrastructure and drainage, and develop streetscape and design standards that support opportunities for transition and change within the planning area.

Regional access to the Specific Plan area is located within the cities of San Bernardino and Highland, is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the Specific Plan area. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5

miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan area eastern boundary. The streets that service the Specific Plan area are Waterman Avenue, Tippecanoe Avenue, Del Rosa Drive, Sterling Avenue, Victoria Avenue, 6th Street, 5th Street and 3rd Street.

The AGSP also identifies improvements to existing roads to improve connectivity to major thoroughfares.

2.1 Land Use

The Specific Plan area occupies a visually prominent and heavily trafficked location as the gateway to the SBIA from the I-210 freeway; however, the irregular jurisdictional boundaries, long and narrow configuration of the blocks, and the narrow lot depths have made economic development of the area more challenging than areas to the south and west that had larger parcel configurations. The Specific Plan area is also located in a unique transition area between the established residential neighborhoods to the north, distribution centers to the west and the boundary of the SBIA to the south.

The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that never came to fruition partly because of the configuration of the properties in the project area (requiring significant lot consolidation of existing residential uses to create an industrial lot) and partly because demand for retail was not as strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the freeways).

Existing land uses surrounding the site include:

- North: Immediately 6th Street single-family residential properties
- East: Immediately Interstate 210, industrial land uses
- South: SBIA and industrial uses
- West: Commercial, residential, and institutional

The existing land use category most affected is “Vacant” land which comprises about 209 acres of the existing land within the Specific Plan area. The total acreage within the Specific Plan planning area is 669.73 acres, so the 209 acres of vacant land constitutes about 31.2 percent of the total acreage in the planning area.

The three uses envisioned in the future within the planning area are:

- Industrial Mixed Use
- Right-of-Way (ROW)
- Floodway

In summary, the AGSP envisions replacing the existing mix of uses within the planning area (residential, commercial, educational, industrial, and vacant land) with approximately 9.2 million square feet (sf) of Industrial Mixed Uses. To accomplish this land use transition within the Specific Plan area would require development of up to 251.26 acres of existing developed acreage and conversion of about 209 acres of vacant land to Industrial Mixed Uses. Also, due to the number of small parcels that existing within the AGSP, future developers and project proponents will have to assemble land parcels in order to fully develop the AGSP. The areas of most intense property consolidation must occur in the area between Tippecanoe and Del Rosa on the west and Victoria and the freeway on the east.

2.2 Environmental Setting

The local area climate of the Specific Plan area is semi-arid, with an average annual temperature of 67°F and a range from 25-110°F. The rainy season begins in November and continues through March, with the quantity and frequency of rain varying from year to year. The average annual rainfall is approximately 18.1 inches. Elevations within the Plan Area range from approximately from 1,470 feet to 1,500 feet above mean sea level. The terrain is level, with a gradual increase in elevation to the north and east.

There are no distinctive topographic features or rock outcroppings that exist within or adjacent to the Specific Plan area.

Under present circumstances, the Specific Plan area contains a mix of uses, with large expanses of vacant land. Where undeveloped, the onsite soils have historically been used to support dry farming activities. Most native vegetation has been removed by past activities, and most trees and shrubs are found where limited human landscaping occurs.

2.3 Ecoregion

According to the U.S. Environmental Protection Agency (EPA) Regional map, the Plan Area is located in the Inland Valleys Ecoregion. An Ecoregion is a regional area that has similar ecosystems in terms of type, quality, and quantity of environmental resources. The Inland Valleys Ecoregion consists of alluvial fans and basin floors immediately south of the San Gabriel and San Bernardino Mountains of Southern California and includes the San Jacinto and Perris Valleys toward the south. This ecoregion includes some floodplains along the Santa Ana River. The soil moisture regime is xeric which is characterized by long periods of drought in the summer. Historically, vegetation in this ecoregion included Riversidean coastal sage scrub, valley grasslands, and riparian woodlands. However, currently, much of this ecoregion, including the Plan Area and surrounding vicinity is heavily urbanized.

2.4 Soils

Figure 4 shows the soils within the Specific Plan area which consists of the following:

Grangeville fine sandy loam, saline-alkali; Hanford coarse sandy loam, 2 to 9 percent slopes; Hanford sandy loam, 0 to 2 percent slopes; Psamments, Fluvents and Frequently flooded soils; Soboba gravelly loamy sand, 0 to 9 percent slopes; Soboba stony loamy sand, 2 to 9 percent slopes; Tujunga loamy sand, 0 to 5 percent slopes; Tujunga gravelly loamy sand, 0 to 9 percent slopes.

2.5 Watershed and Hydrology

The Specific Plan Area is located within the Santa Ana River Wash Watershed (HUC 180702030403) in the. Surface runoff within the Specific Plan area generally flows to the south and west. A small man-made drainage channel, City Creek Bypass, originates along the western levee of City Creek just north of the State Route 30 (I-210) and 5th Street Interchange and crosses through the central-southern portion of the Specific Plan area along 3rd and 5th Streets and extends west to Warm Creek Channel where it terminates at a confluence with Twin Creek outside of the planning area. The City Creek Bypass typically experiences flows during storms and flows to the south over a very shallow grade.

The existing drainage system in the project area is fairly rudimentary. The following information is abstracted from a study of the area hydrology by JLC Engineering & Consulting, Inc, titled “*Preliminary Hydrology and Channel Design for City Creek By-Pass Channel*,” April 20, 2020. The study concludes that downstream of the Victoria Avenue-City Creek Bypass Channel it is insufficient to convey the 100-

year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. For reference, Figure 5 identifies the National Hydrology Dataset flow lines and FEMA 100-Year flood zones.

As part of the proposed Project, the channel may be altered, although final designs are not yet complete.

3 REGULATORY BACKGROUND

3.1 Clean Water Act (CWA)

The CWA is the principal federal law that governs pollution in the nation's lakes, rivers, and coastal waters. Originally enacted in 1972 as a series of amendments to the Federal Water Pollution Control Act of 1948 the Act was last amended in 1987. The overriding purpose of the CWA is to "restore and maintain the chemical, physical and biological integrity of the nation's waters." Discharges of dredged or fill material in Waters of the U.S (WoUS) are regulated pursuant to Sections 404 and 401 of the CWA. The congressional intent of Section 404 of the CWA as articulated in Section 10 is to "maintain and restore the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA gives the USACE and the U.S. Environmental Protection Agency (EPA) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters." Permits issued by the USACE in California require certification by the State of California that the proposed discharge complies with the requirements of the California Porter-Cologne Water Quality Control Act. These certifications are issued by the State Water Resources Control Board or one of the nine RWQCBs.

Waters are defined broadly under the CWA to include all traditionally navigable waters, including those used or susceptible for use in interstate commerce, including all waters subject to the ebb and flow of the tide, interstate waters, territorial seas, impoundments and tributaries. Waters may also include wetlands and other waters that are not traditionally navigable such as wetlands that are adjacent to traditionally navigable waters. Wetlands are defined under federal regulations as "those areas that are inundated or saturated by surface or ground water 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. Wetlands generally include swamps, marshes, bogs, and similar areas."

3.1.1 US Army Corps of Engineers Regulated Activities

Pursuant to Section 404 of the CWA, the US Army Corps of Engineers (USACE) regulates the discharge (temporary or permanent) of dredged or fill material into Waters of the US (WoUS), including wetlands. A discharge of fill material includes, but is not limited to, grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into WoUS. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, performing certain drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

The limit of USACE jurisdiction, excluding wetlands and tidal waters, is delineated using the Ordinary High Water Mark (OHWM), defined in CFR 328.3(e) as:

...that line on the shore established by the fluctuations 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 United States Environmental Protection Agency (US EPA) and the United States Army Corps of Engineers (Corps) published, in the Federal Register, their final rule (2020 Rule) that revised the definition of “waters of the United States,” narrowing the scope of waters subject to federal regulation under the Clean Water Act, particularly with respect to adjacent wetlands and ephemeral streams, and also abandons the “significant nexus text” in the 2015 Rule.

The 2020 Rule defines four categories of waters as jurisdictional:

1. *Waters which are traditionally thought of as “waters of the United States,” those being the territorial seas and traditional navigable waters. 33 CFR 328.3(a).*
2. *Perennial and intermittent tributaries that contribute surface water flow to the territorial seas and navigable waters either directly or indirectly through other jurisdictional waters. 33 CFR 328.3(b).*
3. *Lakes, ponds, and impoundments that are standing bodies of water that contribute surface water flow in a typical year to a territorial sea or a traditional navigable water either directly or through another jurisdictional water. 33 CFR 328.3(c).*
4. *Wetlands that abut a territorial sea or traditional navigable water, or other jurisdictional water and that are inundated by flooding by a jurisdictional water in a typical year, are physically separated from a jurisdictional water by a natural berm, dune or similar feature or physically separated by an artificial structure so long as that artificial structure allows for a direct hydrologic surface connection between the wetlands and a jurisdictional water in a typical year. 33 CFR 328.3(c)*

The surface water flow is gauged in the “typical year” which is defined to mean “when precipitation and other climatic variables are within the normal periodic range (e.g. seasonally, annually) for the geographic area of the applicable aquatic resource based on a rolling thirty-year period.” 33 CFR 328.3(c)(13). The “significant nexus test” with its reliance on whether a water has a significant nexus to another jurisdictional water has been abandoned in favor of this categorical approach.

The 2020 Rule excluded the following:

1. *Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;*
2. *Groundwater, including groundwater drained through subsurface drainage systems;*
3. *Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
4. *Diffuse stormwater run-off and directional sheet flow over upland;*
5. *Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
6. *Prior converted cropland;*
7. *Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
8. *Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
9. *Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
10. *Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;*
11. *Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
12. *Wastewater treatment systems.*

“Ephemeral” is now defined as “surface water flowing or pooling only in direct response to precipitation (e.g. rain or snow fall).”

3.2 Activities Regulated by the State

A federal permit or license cannot be issued that may result in a discharge to WoUS unless certification under Section 401 of the CWA is granted or waived by EPA, the state, or the tribe where the discharge would originate (EPA 2010).

Pursuant to Section 401 of the CWA:

...any applicant for a federal permit for activities that involve a discharge to WoUS shall provide the federal permitting agency a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal CWA.

Therefore, before USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification or waiver, as applicable. Under Section 401 of the CWA, all activities that are regulated at the federal level by USACE are also regulated at the state level.

Therefore, state jurisdiction usually includes all waters or tributaries to waters that are determined to be WoUS and, similar to WoUS, are typically delineated at the OHWM. State-regulated WoUS are overseen by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs).

However, if waters are determined not to be WoUS, they may still be subject to state jurisdiction based on the Porter-Cologne Act, which are regulated by the SWRCB and the RWQCBs under California’s Porter-Cologne Water Quality Control Act (Porter-Cologne). In April 2019, the SWRCB adopted a state wetlands definition and procedures for the discharge of dredged or fill material into waters of the State (collectively, the Procedures). The Procedures are expected to become effective in mid-2020. The Procedures establish a permit process for discharges to both wetland and non-wetland waters of the State. Under Porter-Cologne and the Procedures, “Waters of the State” are defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Under the Procedures, a water of the State is a 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 definition varies from the federal definition in several respects, most notably that the state considers unvegetated features, such as mudflats or playas, to constitute wetlands.

3.2.1 California Fish and Game Code

Sections 1600 to 1616 of the California Fish and Game Code require any person, state, or local government agency or public utility (i.e., an entity) to notify the CDFW before beginning any activity that will divert the flow of or substantially modify a river, stream, or lake or result in the deposit of certain waste materials that may pass into a river, stream or lake. Following receipt of such a notification, CDFW determines whether the activity may affect fish and wildlife resources and, if it will, issues a “Lake and Streambed Alteration Agreement” to be entered into by the entity and CDFW and which authorizes the activity in question. CDFW defines the term “stream” as “a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic regime [i.e., ‘circa 1800 to the present’], and where the width of its course can

reasonably be identified by physical or biological indicators.” CDFW regulates rivers and streams to their “maximum expression” on the landscape, often including the entire floodplain. *MESA Field Guide, Mapping Episodic Stream Activity* (2011).

3.3 Special Status Species Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to the continued existence and existing knowledge of population levels.

3.3.1 Federal Endangered Species Act

The USFWS administers the federal ESA of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the act.

3.3.2 California Endangered Species Act

The CDFW administers the CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. And a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. Further, all raptors and their nests are protected under Section 3503.5 of the California Fish and Game Code (FGC).

4 METHODS

4.1 Biological Resources Assessment

As stated above, the objective of this document is to determine whether the Specific Plan area supports special status or otherwise sensitive species and/or their habitat, and to address the potential effects associated with the proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

Prior to conducting the field study, species and habitat information was gathered from the relevant industry standard databases for the *Redlands* USGS quadrangle to determine which species and/or habitats would be expected to occur in the Specific Plan area. These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*;

- CNDDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USFWS Designated Critical Habitat Maps

Jericho biologists Shay Lawrey, Craig Lawrey and Lauren Hall conducted a general BRA on March 4 and 5, 2020 with an emphasis on special-status species known to occur in the area. Each member of the survey team has advance degrees, expertise and is experienced in conducting floristic and faunal field surveys, has knowledge in taxonomy and natural community ecology, is familiar with the habitats and sensitive species that occur locally and the applicable protective state and federal statutes, and has experience with analyzing impacts on natural communities.

Due to the presence of suitable habitat within the Specific Plan area for BUOW, the survey team conducted focused protocol BUOW surveys on April 20, May 12, May 29 and June 21, 2020 in accordance with the *Burrowing Owl Survey Protocol and Mitigation Guidelines*” prepared by the California Burrowing Owl Consortium and the March 7, 2012 “*California Department of Fish and Game Staff Report on Burrowing Owl Mitigation.*” The protocol survey was conducted consistent with the rule which recommends each visit occur at least three weeks apart during the peak of the breeding season, commonly accepted in California as between April 15 and July 15.

For BUOW natural and non-natural substrates were examined for potential burrow sites. All burrows encountered were examined for shape, size, molted feathers, owl whitewash, suitable surrogate burrows, cast pellets and/or prey remains. Disturbance characteristics and all other animal sign encountered within the survey area were recorded.

The survey team conducted systematic and comprehensive surveys during calm weather, one hour before dawn to three hours after dawn and again two hours before dusk to one hour after dusk each day. Weather conditions during the surveys consisted of clear skies with temperatures ranging from 54° F to 78° F and 5 mph winds. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the project area.

The surveys included 100 percent coverage of Specific Plan area where accessible and feasible due to private occupied parcels. Field work included the following activities:

- a) Recording dominant vegetation communities and plant species
- b) Focused BUOW surveys
- c) Focused searches for woollystar (which can be surveyed for any time of year),
- d) Systematic searches for heteromyid burrows and burrowing owl surrogate burrows
- e) General wildlife survey and inventory
- f) Assessment of habitat suitability for sensitive species.

The surveyors concentrated their survey efforts inside and directly adjacent to City Creek Bypass Channel, along roads in the Specific Plan area, and vacant parcels where accessible. All plant species present on site were identified in the field or, if unknown, either a photo or relevant pieces of the plant were collected. Identification of species utilized a Leica 7- 35x dissecting scope and floras such as the *Jepson Manual of the California Flora*, *Manual of North American Grasses*, and Calflora.org. Plant communities were identified within the project area; all plant and alliance classifications will in

accordance with Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009, *A Manual of California Vegetation. Second Edition*, California Native Plant Society, Sacramento, California.

Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species actually observed, expected wildlife usage of the sites was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area.

The primary focus of the biological surveys was to identify potential habitat for the following special status wildlife and critical habitat found locally in surrounding areas:

- burrowing owl (*Athene cunicularia hypugaea*) [BUOW]
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR]
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) critical habitat
- Santa Ana sucker (*Catostomus santaanae*) critical habitat
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
- Coastal California gnatcatcher (*Polioptila californica californica*)

The suitability of habitat on-site was assessed for these species, taking into consideration the different habitat requirements and any Primary Constituent Elements (PCEs) defined for these species. It is acknowledged that some wildlife species with a nocturnal pattern of activity or otherwise difficult to detect may have not been identified by the survey. No trapping/focused surveys for SBKR were conducted. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (1997) and Fisher (2001) for amphibians and reptiles, Jones, et al., (1992) for mammals and American Ornithologists' Union (AOU) Check-list (2006) for birds.

No limitations affected the results and conclusions given herein. Surveys were conducted during the appropriate season to observe the target species, in good weather conditions and by qualified biologists who followed all pertinent protocols.

4.2 Jurisdictional Delineation

The survey team also evaluated the Specific Plan area for the limits of jurisdictional waters, i.e. WoUS as regulated by the USACE and RWQCB, and streambed and associated riparian habitat as regulated by the CDFW. The evaluation of CWA WoUS was based upon the Corps' regulations and technical guidance issued by the USACE including, among other sources described further below, (i) *USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition)*, *Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Delineation Manual)*, *USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, December 2008 (Arid West Supplement)* and *USACE A Guide to Ordinary High Water Mark (OHWM) Delineation Arid West Region of the United States, 2010*. The lateral extent of USACE jurisdiction was measured at the Ordinary High Watermark (OHWM), which is 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.

Evaluation of FGC Section 1600 Streambed Waters followed guidance in the FGC in the *MESA Field Guide*, described above, pursuant to which CDFW claims jurisdiction beyond traditional stream banks and the outer edge of riparian. Under MESA, the term stream is defined broadly to include "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic regime [i.e., 'circa 1800 to the present'], and where

the width of its course can reasonably be identified by physical or biological indicators.” Specifically, CDFW jurisdiction was delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation. Here the extent of associated riparian vegetation was used to mark the lateral extent of the jurisdictional areas. Other data recorded included bank height and morphology, substrate type, and vegetation within and adjacent to the low flow streambed.

A variety of reference materials relevant to the project site were reviewed during the course of this delineation, including historical and current aerial imagery, Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRM), National Oceanic & Atmospheric Administration (NOAA) climate data, USFWS National Wetland Inventory (NWI) and EPA Water Program “My Waters” data layers and United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) web soil survey. The data provided in the Web Soil Survey provides a standard basis for the soil textures and types that are assigned a hydric indicator status of “hydric” or “non-hydric” by the National Technical Committee for Hydric Soils.

The wetland investigation was based on the three-parameter approach (vegetation, soil, and hydrology). Potential wetland areas were assessed to the outer reach of the applicable vegetative community and corresponding soils that displayed wetland characteristics. Plant species were identified and given an indicator status as prescribed in the 2016 National Wetland Plant List (Arid West Region) (Lichvar, 2016). Vegetation nomenclature follows The Jepson Manual, Vascular Plants of California, 2nd Edition (Baldwin, 2012). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology.

4.2.1 Hydrophytic vegetation

Hydrophytic (wetland) vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2016 National Wetland Plant List (Arid West Region) (Lichvar, 2016). Each species on the list is rated according to a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have wetland indicator status, i.e., be rated as Obligate Wetland (OBL), Facultative Wetland (FACW) or Facultative (FAC).

**Table 1
Wetland Indicator Vegetation Categories**

| Category | Probability |
|----------------------------|--|
| Obligate Wetland (OBL) | Almost always occur in wetlands (estimated probability >99%) |
| Facultative Wetland (FACW) | Usually occur in wetlands (estimated probability 67 to 99%) |
| Facultative (FAC) | Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%) |
| Facultative Upland (FACU) | Usually occur in non-wetlands (estimated probability 67 to 99%) |
| Obligate Upland (UPL) | Almost always occur in non-wetlands (estimated probability >99%) |

4.2.2 Hydric Soil

Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. Generally, hydric soils are dark in color resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration.

Generally, the hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are indicators suggesting a long-term reducing environment in the upper part of the soil profile. Typically, reducing conditions are most easily assessed using soil color.

- a) Color characteristics (Hue, Value, and Chroma) were recorded using a standard Munsell soil color chart (Munsell Color 2009).
- b) Soil physical characteristics were evaluated during the field delineations by excavating to a depth needed to evaluate potential hydric soil indicators below ground surface 18-24 inches.
- c) Soils that exhibited hydric soil indicators, such as low chroma colors and/or evidence of reducing conditions met the hydric soil criterion per USACE (1987 and 2012).

The Arid West Supplement provides a list of 23 of hydric soil indicators known to occur in the Arid West region. Hydric soils are considered to be present at any sample plot where the soil samples met one or more of those 23 hydric indicators. As set forth in the Arid West Supplement (2008), some wetlands can be difficult to identify because wetland indicators, including those relating to soils, may be missing due to natural processes or recent disturbances. As set forth on Page 97 of the Arid West Supplement, sand and gravel bars within floodplains can be problematic because they may lack hydric indicators due to seasonal and annual depositions, resulting in sandy substrates that are low in iron and manganese content and have low organic matter content. Chapter 5 of the Arid West Supplement provides guidance for making wetland determinations in these and other “difficult-to-identify wetland situations,” and was referred to for purposes of evaluating soil indicators in the City Creek Bypass Channel.

The riverine system within the Plan Area has varying patterns of increasing and decreasing flows associated with storms and seasonal variation in rainfall. The patterns of flow in conjunction with the size composition and amount of sediments that the flow carries or deposits, determines the dynamic nature of the channel. Here, the soils are sandy and highly porous and therefore typical field indicators for hydric soils are not present (e.g.: low chroma colors, mottling, organic matter, etc.).

4.2.3 *Wetland Hydrology*

Hydrology (water depth, extent of inundation, period of inundation) determines all other wetland characteristics. Federal Regulation 33 CFR 328.3(b) defines “wetlands” 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.” According to the Corps’ 1987 Wetland Delineation Manual, the primary hydrologic test to determine soil saturation was whether the area’s water table rises to within 18 inches of the surface for seven consecutive days during the growing season (February-June).

Seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage are factors that control hydrology. Wetland hydrology indicators include: surface water, high water tables, saturation, water marks, sediment deposits, drift deposits, surface soil cracks, inundation visible on aerial imagery, water stained leaves, salt crusts, biotic crusts, aquatic invertebrates, hydrogen sulfide odor, oxidized rhizospheres along living roots, the presence of iron reduction in tilled soils, thin muck surfaces, drainage patterns, crayfish burrows, and shallow aquitards. The Project area was examined for primary or secondary indicators of wetland hydrology as described in the Arid West Supplement.

In normal rainfall years, the instream floodplain within the Project area is in a state of dynamic equilibrium in terms of how the flows move sediment. Large flood events change the main channel form and results in a reset. This of type of change occurs approximately every 20-50 years. The instream

floodplain is an infinitely adjustable complex of interrelations among flow, width, depth, bed resistance, sediment transport, and vegetation. Changes in any of these factors causes adjustments in all other factors. Thus, the instream floodplain in the Project area encompasses a riverine/wetland mosaic of wetlands, and other waters which include active channels and unvegetated wetlands.

5 RESULTS

5.1 Literature Review

According to the database queries, 49 sensitive species and habitats (13 plants, 33 animals, and 3 habitats) have been documented to in the *Redlands* USGS quadrangle. (See Appendix A for full list). The native sensitive habitats documented in the local vicinity are Riversidean alluvial fan sage scrub RAFSS, Southern Willow Scrub and Southern Sycamore-Alder Riparian Woodland. None of these habitats occur within or adjacent to the Specific Plan area.

As per the CNDDDB and USFWS species occurrence data overlay, no sensitive species are documented within the Specific Plan area (Figure 6). However, some sensitive species including woollystar, SBKR and BUOW are documented in the literature in areas where suitable habitat occurs adjacent to the east (City Creek) and southeast corner (SBIA property and Santa Ana River) of the Specific Plan area.

Table 2 represents a compiled list of results from databases of the listed species which have been documented within approximately 3 miles of the Plan Area. A total of 10 listed species (5 plants, 5 animals) are identified. Table 2 also provides a potential to occur assessment based on the field investigations and surveyor's knowledge of the species and local ecology. Table 3, located at the end of the document, provides a complete list of State and/or federally listed threatened or endangered species CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

5.1.1 Critical Habitat

According to the databases, the developable area of the Specific Plan area is not located within designated Critical Habitat (CH) and is separated from the CH for the SBKR and Santa Ana sucker (*Catostomus santaanae*) [SASU] located to the south and east of the Plan Area by the SBIA (Figure 7). The CH in the east of the Specific Plan area are currently developed.

5.2 Field Review

5.2.1 General Habitat

Based on the field survey results, the overall conditions within the Plan Area are disturbed and degraded. The habitat within the Specific Plan area includes non-native grassland (Holland community code 42200), transitional bare areas (Holland community code 11760), and disturbed ground (Holland community code 11100). A small one-quarter acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area contains disturbed isolated buckwheat scrub alliance. Figure 8 identifies vegetation in the Specific Plan area. Please note that the vegetation map also serves as to where BUOW surveys were conducted. Appendix A contains photos of typical habitat within the Specific Plan area.

**Table 2:
Listed Species Occurrence Potential within the Action Area**

| Scientific Name | Common Name | Federal Status | Habitat | Potential to Occur |
|-----------------------------------|--------------------------------|----------------|---|--|
| Mammals | | | | |
| <i>Dipodomys merriami parvus</i> | San Bernardino kangaroo rat | Endangered | Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages. | None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is low . |
| <i>Dipodomys stephensi</i> | Stephens' kangaroo rat | Endangered | Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil. | Suitable habitat for this species does not exist within the Specific Plan area. The site location is outside of the current range of this species. The potential for this species to occur is none . |
| Birds | | | | |
| <i>Poliophtila californica</i> | coastal California gnatcatcher | Threatened | Obligate, permanent resident of coastal sage scrub below 762 m in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied. | None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support CAGN. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is low . |
| <i>Vireo bellii pusillus</i> | least Bell's vireo | Endangered | Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 610 m. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. | This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx.. 2.5 miles to the west southwest of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none . |
| <i>Empidonax traillii extimus</i> | Southwestern Willow Flycatcher | Endangered | Habitat consists of dense linear stands of riparian. Dominant species include salix lasiolepis, salix hindsiana, populus fremontii and bacharis glutinosa. | Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none . |

| Scientific Name | Common Name | Federal Status | Habitat | Potential to Occur |
|--|----------------------------|----------------|--|--|
| Plants | | | | |
| <i>Arenaria paludicola</i> | marsh sandwort | Endangered | Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh, lake-margins. | Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none . |
| <i>Berberis nevinii</i> | Nevin's barberry | Endangered | Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m. | Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none . |
| <i>Chloropyron maritimum</i> ssp. <i>maritimum</i> | salt marsh bird's-beak | Endangered | Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh. | Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none . |
| <i>Dodecahema leptoceras</i> | slender-horned spineflower | Endangered | Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m. | This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx.. 2.5 miles to the east of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is low . |
| <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> | Santa Ana River woollystar | Endangered | Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m. | This species is found on the east ¼ of the Airport and to the south within the Santa Ana River in areas that are highly suitable for this species. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support this species. The remainder of the Specific Plan area has no suitable habitat for this species. This species was not found during survey The potential for this species to occur is low . |

The ground cover in the Plan Area generally consists of compact graded dirt, old pavement, non-native grasses, ruderal herbs, and non-native and native trees.

Adjacent to the roadways and within all of the vacant parcels, habitat consist of dense ruderal vegetation dominated by numerous non-native plant species are also found throughout the project area including tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), fountaingrass (*Pennisetum setaceum*), date palm (*Phoenix* sp.), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), Peruvian pepper tree (*Schinus molle*), tamarisk (*Tamarix ramosissima*), Mexican fan palm (*Washingtonia robusta*), and Eucalyptus trees as well as numerous ornamental trees and shrubs. Native species include California buckwheat (*Eriogonum fasciculatum*) which is found at the far east of the Specific Plan area in isolated patches adjacent to the west levee of City Creek and within the City Creek Bypass Channel between City Creek downstream to Church Street and sycamore trees (*Platanus occidentalis*) which occur sparsely scattered about the Specific Plan area.

5.2.2 Vegetation/Heritage Trees

According to the City of Highland Municipal Code (16.64.040) heritage tree preservation requires replacement at a 2:1 ratio of all mature trees (those with 24-inch diameters or greater measured 4½ feet above the ground) that are removed by permit. The requirements for a permit states:

1. *No person, firm, or corporation shall remove, relocate or destroy any heritage tree within the city limits, including an applicant for a building permit, without first obtaining a tree removal permit from the community development director.*
2. *No tree removal permit shall be issued for the removal of any heritage tree on any lot associated with a proposal for development, unless all discretionary approvals have been obtained from the city.*
3. *No tree designated as an historic landmark shall be altered, removed, relocated or destroyed by any person, firm or corporation without first obtaining a landmark alteration permit and tree removal permit.*

There are trees scattered throughout the City of Highland portion of the Specific Plan area that meet the size requirements to be considered a heritage tree.

5.2.3 Sensitive Plants

None of the sensitive plant species documented within the *Redlands* quadrangle have anything greater than a low potential to occur within and/or adjacent to the Plan Area because the required habitat types are absent including RAFSS, chaparral, riparian and/or brackish wetlands. The City Creek Bypass Channel does not have the hydrological regime and broad flood plain associated with the sensitive plants known locally.

Sensitive plants identified by literature review to occur within the *Redlands* quadrangle included marsh sandwort, Nevin's barberry, salt marsh bird's-beak, slender-horned spineflower or Santa Ana River woollystar. None of these species were observed during the general floristic survey conducted by the survey team. No suitable environment for these species occurs within the Specific Plan area and the local RAFSS or riparian habitats are outside of the Specific Plan area envelope. No further investigations relative to these species are warranted or required.

5.2.4 General Wildlife

Birds were the most observed wildlife group during survey. Common wildlife species observed or otherwise detected on or in the vicinity of the site during the reconnaissance-level survey included mallard (*Anas platyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California towhee (*Melospiza crissalis*), bushtit (*Psaltiriparus minimus*).

Wildlife detections or signs included those for amphibians, reptiles, birds, and mammals. The most common wildlife observed included coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Great Basin fence lizard (*Sceloporus occidentalis longipes*) and side-blotched lizard (*Uta stansburiana elegans*).

5.2.5 Sensitive Wildlife

According to the CNDDDB, USFWS species occurrence data overlay, and other relevant literature and databases, four State and/or federally-listed threatened or endangered wildlife species are documented within three miles of the Specific Plan area. Additionally, there are several other sensitive wildlife species that are documented to occur within the vicinity of the Specific Plan area. An analysis of the likelihood for occurrence of all sensitive wildlife species is provided in Table 3. This analysis takes into account species range as well as documentation within the vicinity of the project area. The five State and/or federally-listed threatened or endangered wildlife species documented within the proposed maintenance project area are described below, as well as the burrowing owl (*Athene cunicularia*), considered a SSC by the CDFW.

San Bernardino kangaroo rat

The San Bernardino kangaroo rat (SBKR) is one of several kangaroo rat species in its range. The Dulzura (*Dipodomys simulans*), the Pacific kangaroo rat (*D. agilis*) and the Stephens kangaroo rat (*D. stephensi*) occur in areas occupied by the SBKR, but these other species have a wider habitat range. The habitat of the SBKR is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs. The SBKR is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage.

No aspect of the Specific Plan area supports habitat suitable for SBKR for the following reasons:

- The Specific Plan area is NOT located within proximity of where SBKR have been found in the last 10 years;
- The surrounding area does NOT consist of alluvial sage scrub and associated vegetation, such as RAFSS with a moderately open canopy, the California buckwheat scrub is a monotypical habitat;
- A river and floodplain bench/terrace subject to dynamic geomorphological and hydrological processes typical of fluvial systems does NOT occur in the Specific Plan area and;
- Upland areas proximal to the floodplains with suitable habitat does NOT occur nearby

Further, permitted biologist Mikael Romich (USFWS 10(A)1(a) permit # TE-068799-5) conducted a presence/absence survey for SBKR in the City Creek Bypass Channel between October 15 and 20, 2018. Results of that survey were negative for SBKR. A total of two deer mouse (*Peromyscus maniculatus*) individuals and one house mouse (*Mus musculus*) were trapped. The lack of SBKR presence during the

2018 trapping effort was not surprising because the habitat conditions within the City Creek Bypass Channel are not what typify SBKR occupation and/or utilization. Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral, with a moderately open canopy is absent from the channel and the channel morphology lacks any benches, terraces or braids. The City Creek Bypass channel is not subject to a dynamic geomorphological and hydrological processes typical of fluvial systems and the adjacent upland areas proximal to City Creek Bypass do not contain habitat suitable for SBKR.

Ms. Lawrey is a permitted biologist to trap and handle SBKR (USFWS 10(A)1(a) permit # TE-094308-4) surveyed the Specific Plan area and found the overall habitat conditions unsuitable for SBKR with the exception of a small, approximately one-quarter acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of SBKR by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

Riparian birds

A variety of sensitive, riparian obligate birds such as the least bell's vireo (LBVI), southwestern willow flycatcher (SWWF) and yellow-billed cuckoo (YBCU) have nesting habitats consisting of a well-developed overstory, understory, and low densities of aquatic and herbaceous cover. The understory frequently contains dense sub-shrub or shrub thickets. These thickets are often dominated by plants such as narrow-leaf willow, mulefat, young individuals of other willow species such as arroyo willow or black willow, and one or more herbaceous species. This type of habitat is absent from the Specific Plan area. Further investigation related to LBVI, SWWF and YBCU is not warranted or recommended for this project.

California gnatcatcher

The California gnatcatcher (CAGN) is a resident (non-migratory) small songbird which typically nests and forages in coastal sage scrub vegetation in southern California year-round. CAGN occur in dynamic and successional sage scrub habitats and non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats. The CAGN was federally listed as Threatened in 1993 and critical habitat for this species was designated by the USFWS in 2000 and revised in 2007. The PCEs identified by the USFWS for CAGN consist of the following: (1) Dynamic and successional sage scrub habitats: Venturan coastal sage scrub, San Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, RAFSS, southern coastal bluff scrub, and coastal sage-chaparral scrub in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and (2) Non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats as described for PCE 1 above that provide space for dispersal, foraging, and nesting.

Ms. Lawrey biologist familiar with CAGN surveyed the Specific Plan area and found the overall habitat conditions unsuitable for CAGN with the exception of a small, approximately one acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is only marginal for CAGN but is potentially suitable to support for them. Aside from this small area, the Specific Plan area is separated from suitable habitat for CAGN by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

western Burrowing Owl

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA.

Although not a federally listed species, the BUOW is protected under the MBTA and is listed as a Migratory Birds of Conservation Concern (BCC) by the USFWS and is therefore, also recognized by the CNDBB. The western Burrowing Owl (*A.c. hypugaea*) is one of 18 New World Burrowing Owl subspecies, and one of only two in North America. The western BUOW ranges from Texas to California and north to southern Canada. Individuals of resident populations in southern California, northern Mexico, and Florida breed and overwinter in an area without a significant migration (Haug et al. 1993). BUOW are found across American open landscapes, showing activity chiefly in the daytime. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils. In addition, BUOW may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities if the surrounding vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.

Unique among North American raptors, the BUOW requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year-round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species and/or human made structures such as cement culverts and pipes.

BUOW have a high fidelity to their birth territory and they often prefer nesting in areas of high burrow densities. Breeding pairs are easily located within the surrounding of their nests (usually 90 feet) due to their territorial behavior. They are active during the day and night and are generally observed in the early morning hours or at twilight. BUOW breeding season begins February 1 and extends to August 31. Pair formation can begin in February. Peak of the BUOW breeding season, commonly accepted in California, occurs between April 15 and July 15. April to mid-May is when most burrowing owls are in the egg laying and incubation stages. BUOW egg incubation period is about 27-28 days Chick rearing typically occurs between May 15 and July 1. July 15 is typically considered the late nestling period when most owls are spending time above ground. The non-breeding season (September 1 to January 31). BUOW are semi-colonial and will sometimes share a burrow for incubation and chick rearing.

Following the survey protocol for BUOW within burrowing owl breeding season, no BUOW individuals or sign (burrows, surrogate burrows, feathers, whitewash, castings, prey remains, etc.) were observed within the City Creek Bypass Channel, vacant parcels or adjacent to the roads associated with the Specific Plan area therefore, BUOW is currently absent.

The habitat within the City Creek Bypass Channel and within the vacant parcels throughout the Specific Plan area remain potentially suitable for this species because of the presence of surrogate ground squirrel burrows, culvert pipes and short grasses part of the year.. Future investigation as the Specific Plan area is developed are warranted for BUOW.

5.2.6 Wildlife Corridors

The Specific Plan area is not considered an established wildlife movement corridor or nursery site for native or migratory wildlife, because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities. The AGSP will not create any shift in habitat use by wildlife, alter population dynamics, or change the local species compositions. Therefore, this project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species through the Specific Plan area.

5.2.7 Jurisdictional waters

The area surrounding the City Creek Bypass is primarily urbanized and is in a heavily disturbed condition. The channel bottom is primarily sandy and is periodically maintained; it is also primarily unvegetated and the sparse vegetation that does occur is non-native dominated by scattered tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), and Mexican fan palm (*Washingtonia robusta*).

No wetland or riparian habitat characteristics are present. Therefore, modifications to the channel will not impact a state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal areas) as they do not exist within the Specific Plan area. This channel is considered a non-wetland jurisdictional water subject to the federal CWA regulated by the USACE and RWQCB respectively and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. It originates at City Creek and terminates at the Warm Creek/Twin Creek confluence which is tributary to the Santa Ana River which is then tributary to the Pacific Ocean. Improvements to this channel will require permits from these agencies.

6 CONCLUSIONS

No federally listed species, or other sensitive species were observed during the field survey nor are any expected to occur. Two federally listed species are documented on the Airport property. One is the endangered SBKR which has been found along the southwestern border of the Airport, and the other is the threatened Santa Ana River woollystar which is found in the eastern 1/10th of the Airport AOA. A Conservation Management Plan (CMP) governs these portions of the Airport property where SBKR and woollystar are known to occur. Both species are associated with habitat strictly associated with the Santa Ana River and floodplain and are not found in the Specific Plan area due to the composition of incompatible habitat and plant composition, weed management regimes and current uses.. The occupied habitat on the Airport property is separated from the Specific Plan area by the existing AOA. No impacts will occur to any listed species as a result of this project.

Overall, the habitat conditions within the Specific Plan area are not suitable for any sensitive species found locally, particularly woollystar, spineflower, riparian birds, CAGN, and/ or SBKR. The vegetation is non-native and is far more dense than what these species prefer or require. Further, weed abatement occurs frequently on the vacant parcels by way of disking and within City Creek Bypass Channel by way of herbicide and mechanical treatments. Domestic dogs and cats were seen throughout the survey area of the Specific Plan area as well as raptors - all of which are predators of BUOW and SBKR. This is all with the exception of the ¼ acre parcel located at the east end of the Specific Plan area that is vacant consisting of California buckwheat alliance.

As far as BUOW, the habitat within the vacant parcels and the City Creek Bypass Channel is considered potentially suitable for burrowing owl. Per the definition provided in the 1993 and 2012 *CDFG Staff Report on Burrowing Owl Mitigation*, “Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey.” Although, there was no evidence indicating BUOW historical use or current occupation with no BUOW individuals or sign of BUOW, including feathers, casting, prey remains or whitewash being observed during the protocol survey, future surveys for BUOW would be recommended as development occurs. Therefore, the following is recommended to minimize and avoid potential impacts to BUOW:

- A Pre-construction Burrowing Owl Survey shall be conducted by a qualified biologist at least 14 days prior to any Project activities, at any time of year. Surveys shall be completed following the recommendations and guidelines provided within the *Staff Report on Burrowing Owl Mitigation* (CDFG, March 2012) or most recent version by a qualified biologist. If an active burrowing owl burrow is detected within any Project disturbance area, or within a 500-foot buffer of the disturbance area, a 300-foot radius buffer zone surrounding the burrow shall be flagged, and no impacts to soils or vegetation or noise levels above 65 dBA shall be permitted while the burrow remains active or occupied. Disturbance-free buffers may be modified based on site-specific conditions in consultation with CDFW. The qualified biologist shall monitor active burrows daily and will increase buffer sizes as needed if owls show signs of disturbance. If active burrowing owl burrows are located within any work area and impact cannot be avoided, a qualified biologist shall submit a burrowing owl exclusion plan to CDFW for review and approval. The burrowing owl exclusion plan shall include permanent compensatory mitigation consistent with the recommendations in the *Staff Report on Burrowing Owl Mitigation* such that the habitat acreage, number of burrows and burrowing owls impacted are replaced. Passive relocation shall take place outside the nesting season (1 February to 31 August).

There is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and *Eucalyptus* trees found in the Specific Plan area. Therefore, to reduce potential impacts to nesting birds and foraging raptors at the time of development, the following recommendation is made:

- Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

The City Creek Bypass Channel is located along 3rd and 5th Streets and extends from Warm Creek Channel on the west (terminus) and terminates at City Creek Channel just north of the State Route 30 (I-210) and 5th Street Interchange. Downstream of the Victoria Avenue-City Creek Bypass Channel is insufficient to convey the 100-year flood flows in its current configuration. Therefore, a new channel design (two alternatives) will need to be installed to have sufficient capacity to convey the 100-year flood

flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. To date the alternative channel designs are preliminary and not ready for construction. Impacts to the City Creek Bypass Channel will require CWA 404/401 permits from the USACE and RWQCB respectively; and a Section 1602 of the California Fish and Game Code (FCG) Streambed Alteration Agreement from the CDFW.

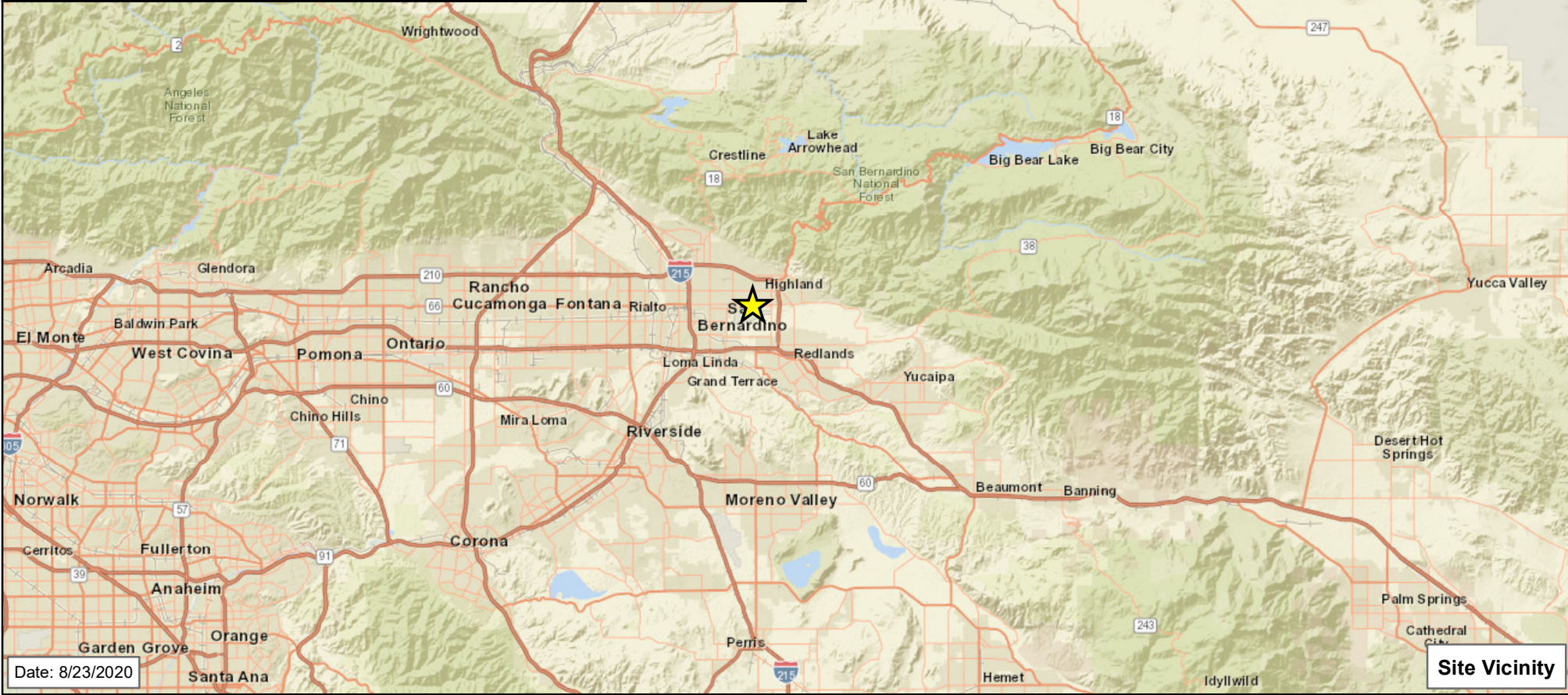
Preconstruction surveys for SBKR by a permitted biologist and a habitat suitability assessment for CAGN by a permitted biologist in the ¼ acre parcel are recommended to ensure no impacts to these species will result.

FIGURES

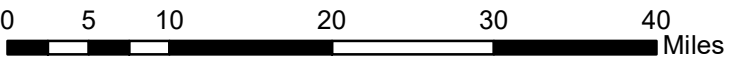


Legend

★ Site Vicinity



Date: 8/23/2020

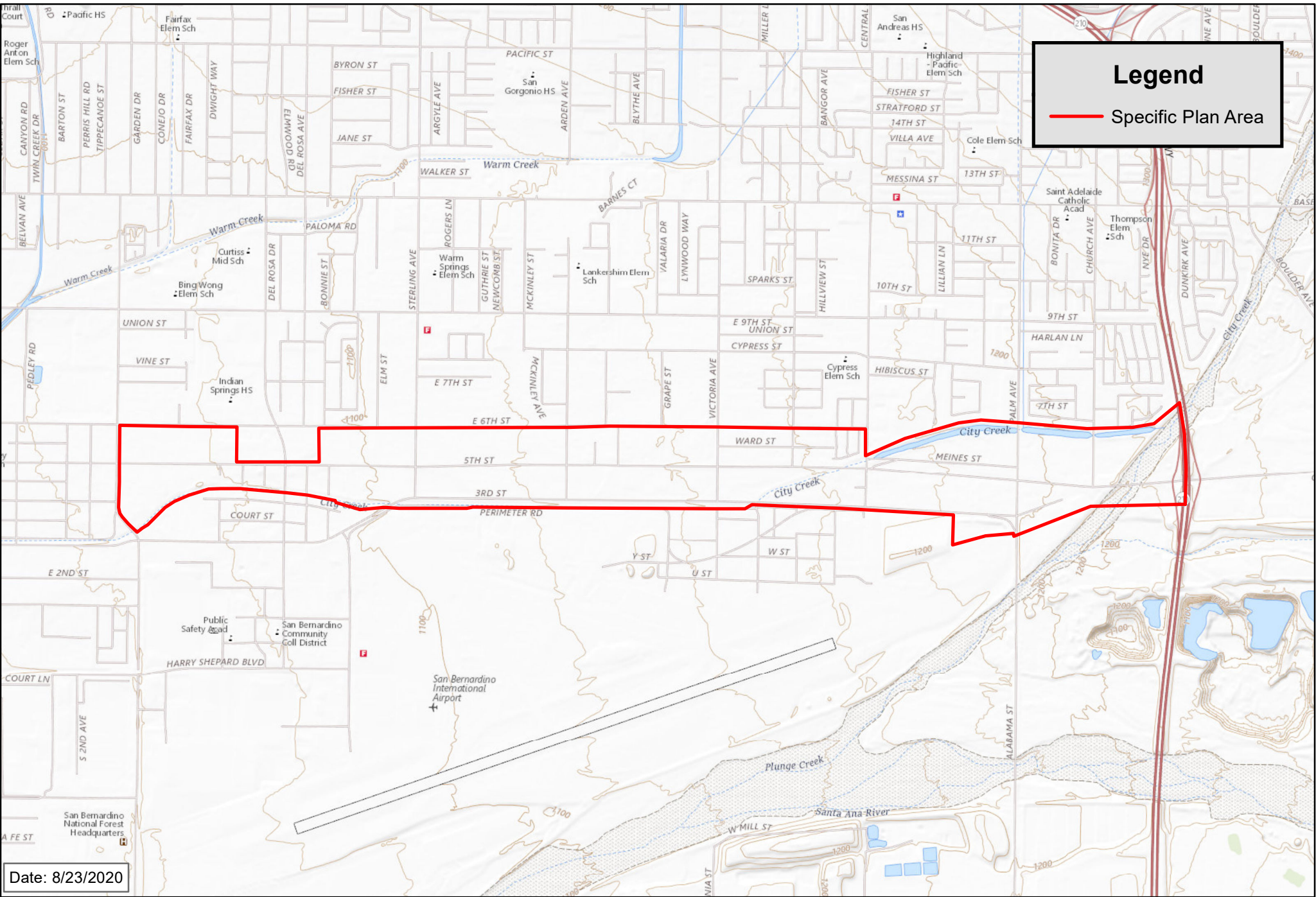


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

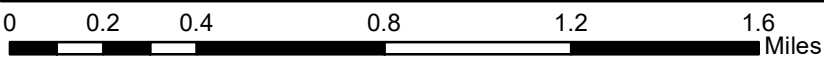


**Figure 1 - Regional Overview
Site Vicinity**

Airport Gateway
Specific Plan



Date: 8/23/2020



Imagery Date: 2/19/2019

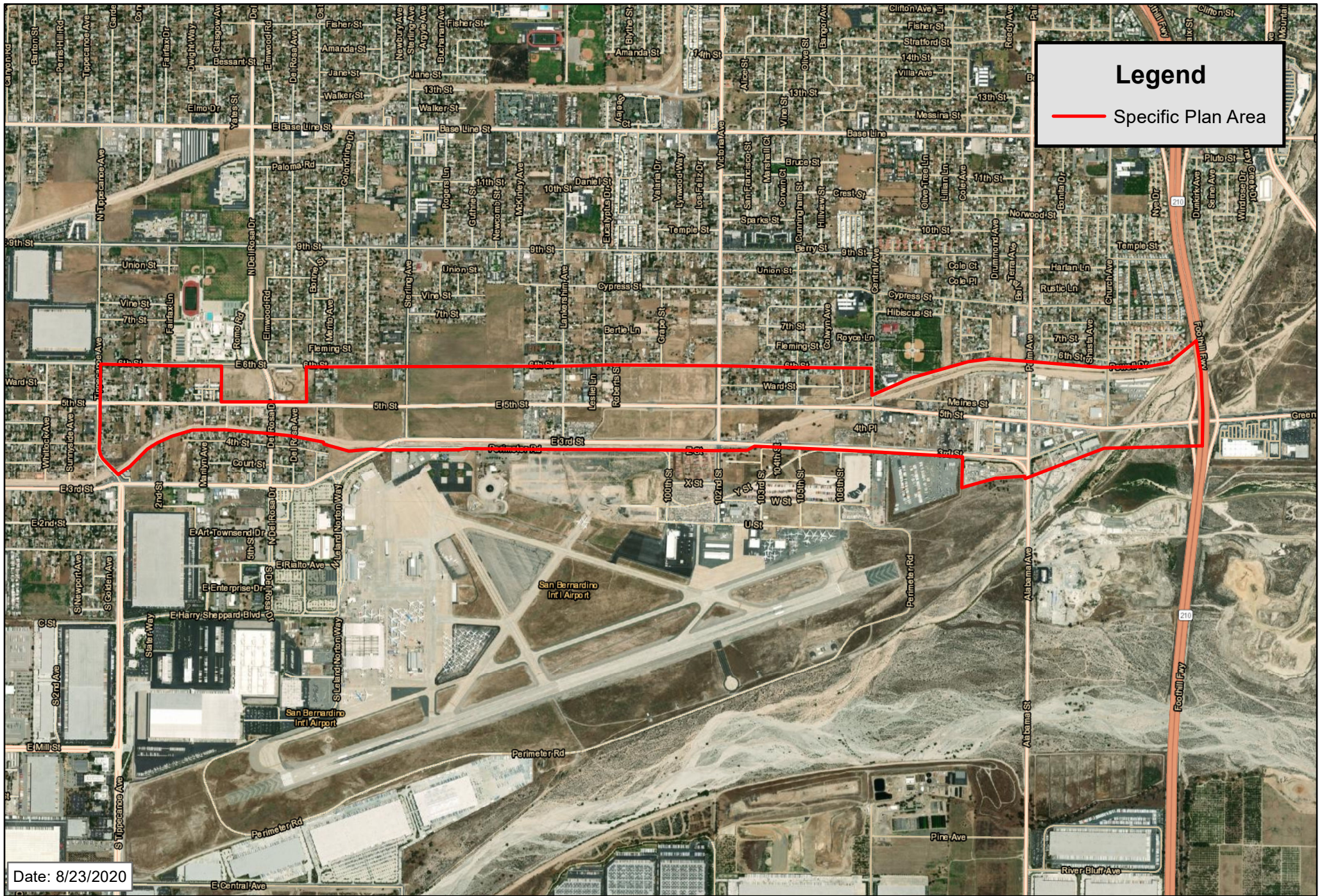
Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset,



1 inch = 2,167 feet

Figure 2
Site Location

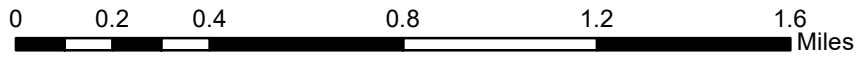
Airport Gateway
Specific Plan



Legend

— Specific Plan Area

Date: 8/23/2020



Imagery Date: 2/19/2019

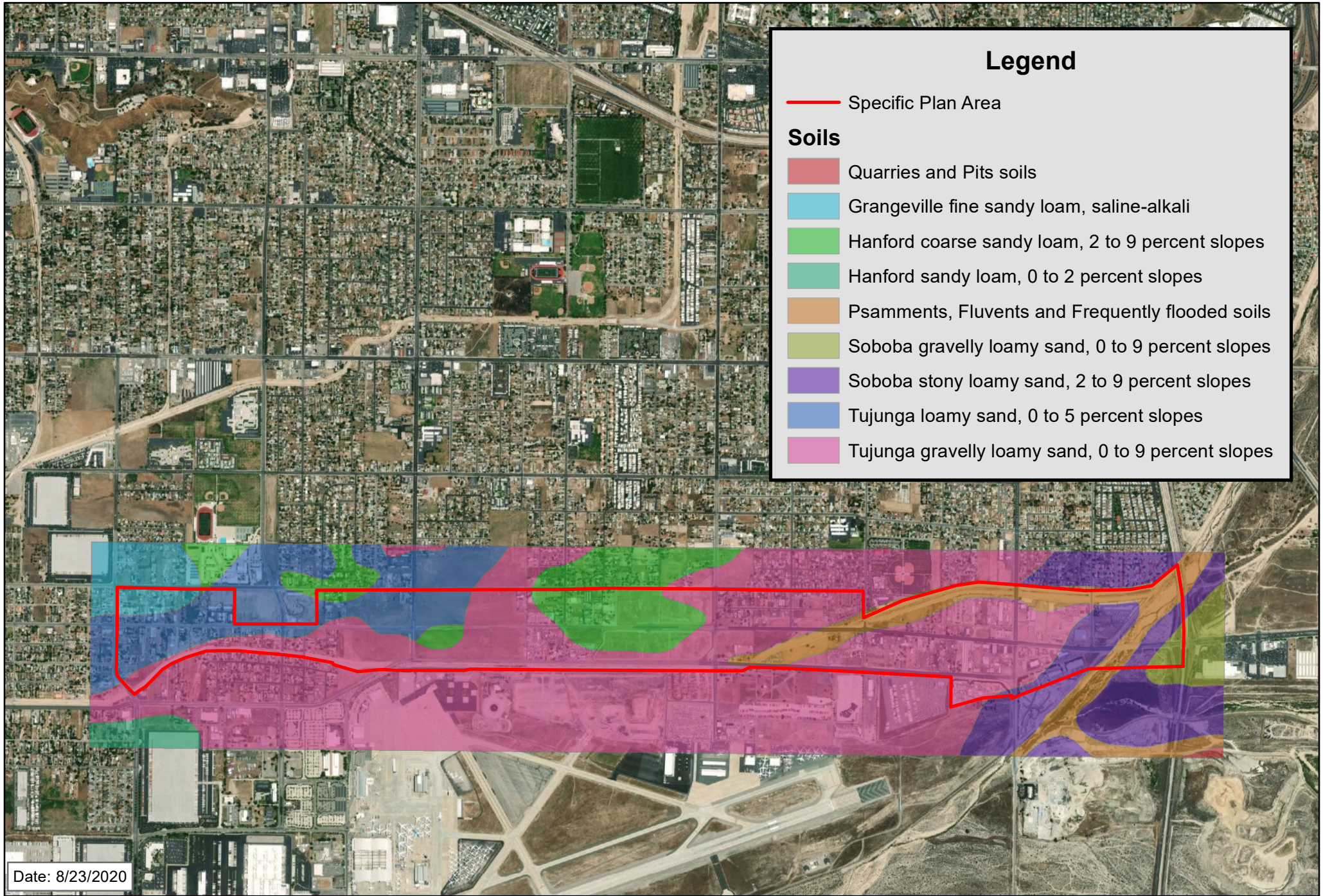
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,



1 inch = 2,094 feet

Figure 3
Site Location

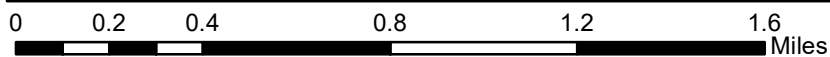
Airport Gateway
Specific Plan



Legend

- Specific Plan Area
- Soils**
- Quarries and Pits soils
- Grangeville fine sandy loam, saline-alkali
- Hanford coarse sandy loam, 2 to 9 percent slopes
- Hanford sandy loam, 0 to 2 percent slopes
- Psamments, Fluvents and Frequently flooded soils
- Soboba gravelly loamy sand, 0 to 9 percent slopes
- Soboba stony loamy sand, 2 to 9 percent slopes
- Tujunga loamy sand, 0 to 5 percent slopes
- Tujunga gravelly loamy sand, 0 to 9 percent slopes

Date: 8/23/2020



Imagery Date: 2/19/2019

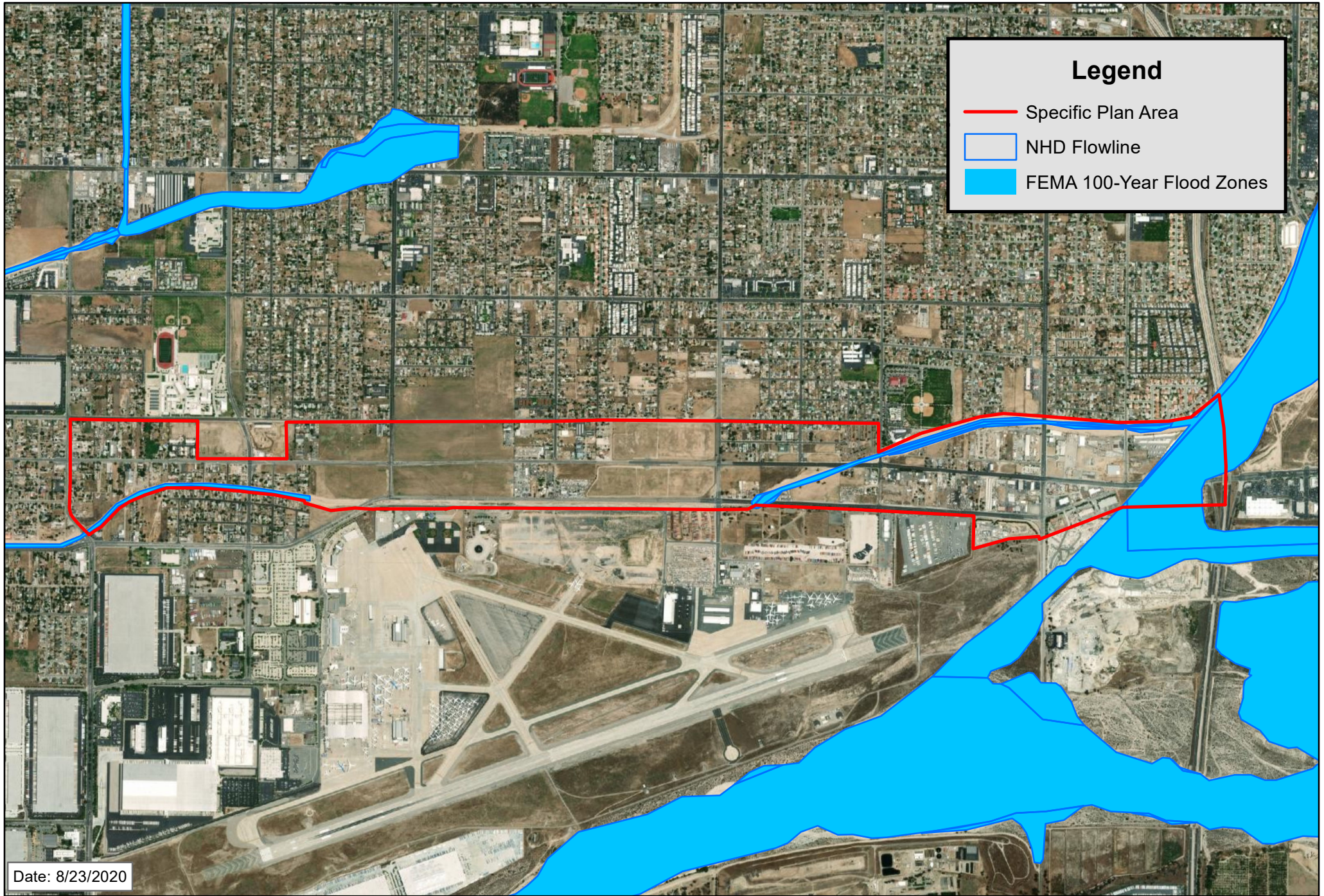
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 2,167 feet

**Figure 4
Soils**

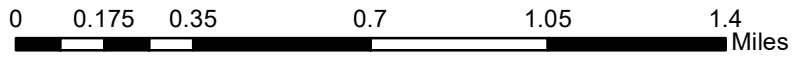
**Airport Gateway
Specific Plan**



Legend

- Specific Plan Area
- NHD Flowline
- FEMA 100-Year Flood Zones

Date: 8/23/2020



Imagery Date: 2/19/2019

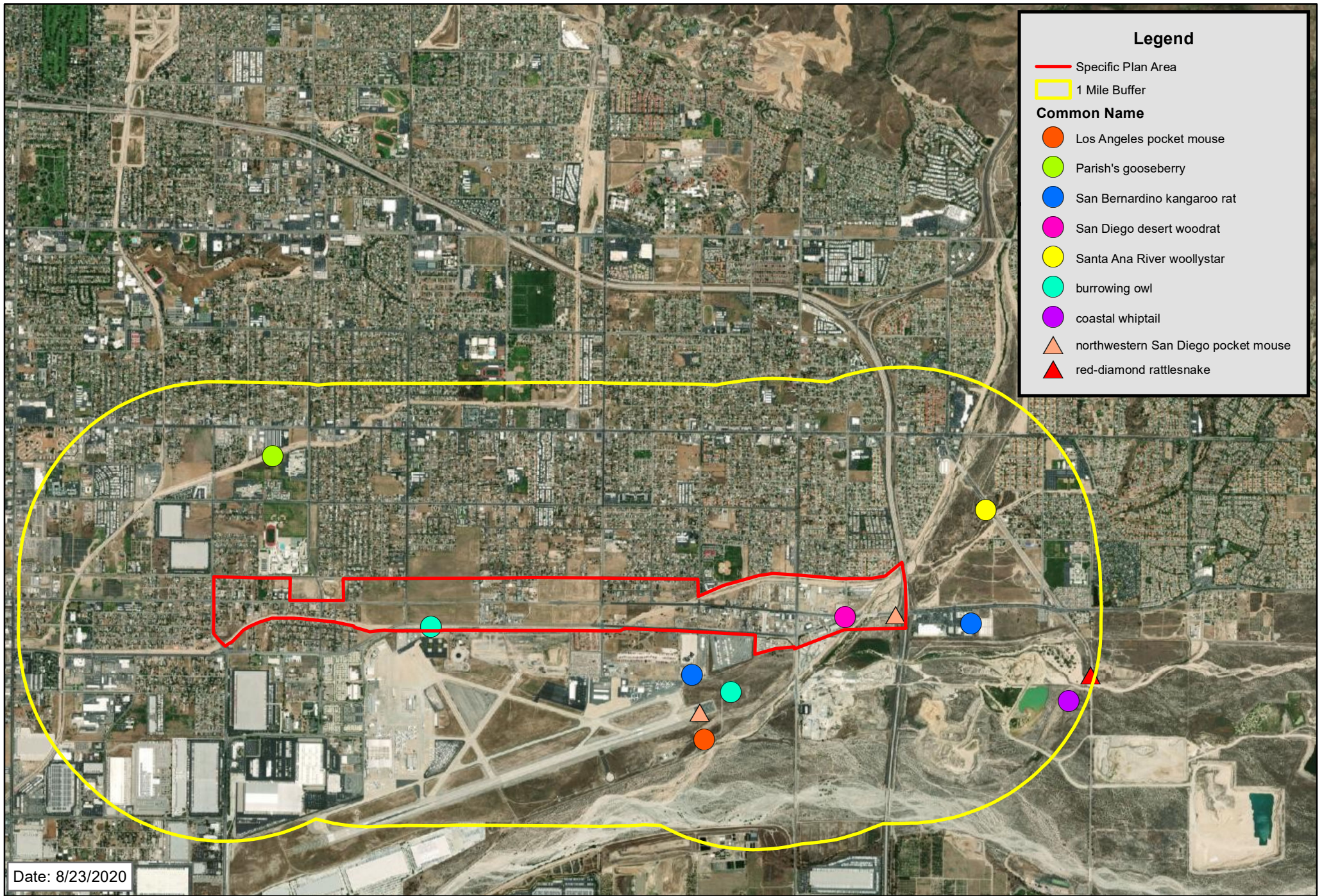
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 2,000 feet

Figure 5 FEMA/NHD

Airport Gateway
Specific Plan



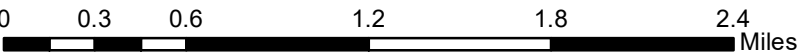
Legend

- Specific Plan Area
- 1 Mile Buffer

Common Name

- Los Angeles pocket mouse
- Parish's gooseberry
- San Bernardino kangaroo rat
- San Diego desert woodrat
- Santa Ana River woollystar
- burrowing owl
- coastal whiptail
- ▲ northwestern San Diego pocket mouse
- ▲ red-diamond rattlesnake

Date: 8/23/2020



Imagery Date: 2/19/2019

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 3,333 feet

Figure 6
CNDDDB

Airport Gateway
Specific Plan

Legend

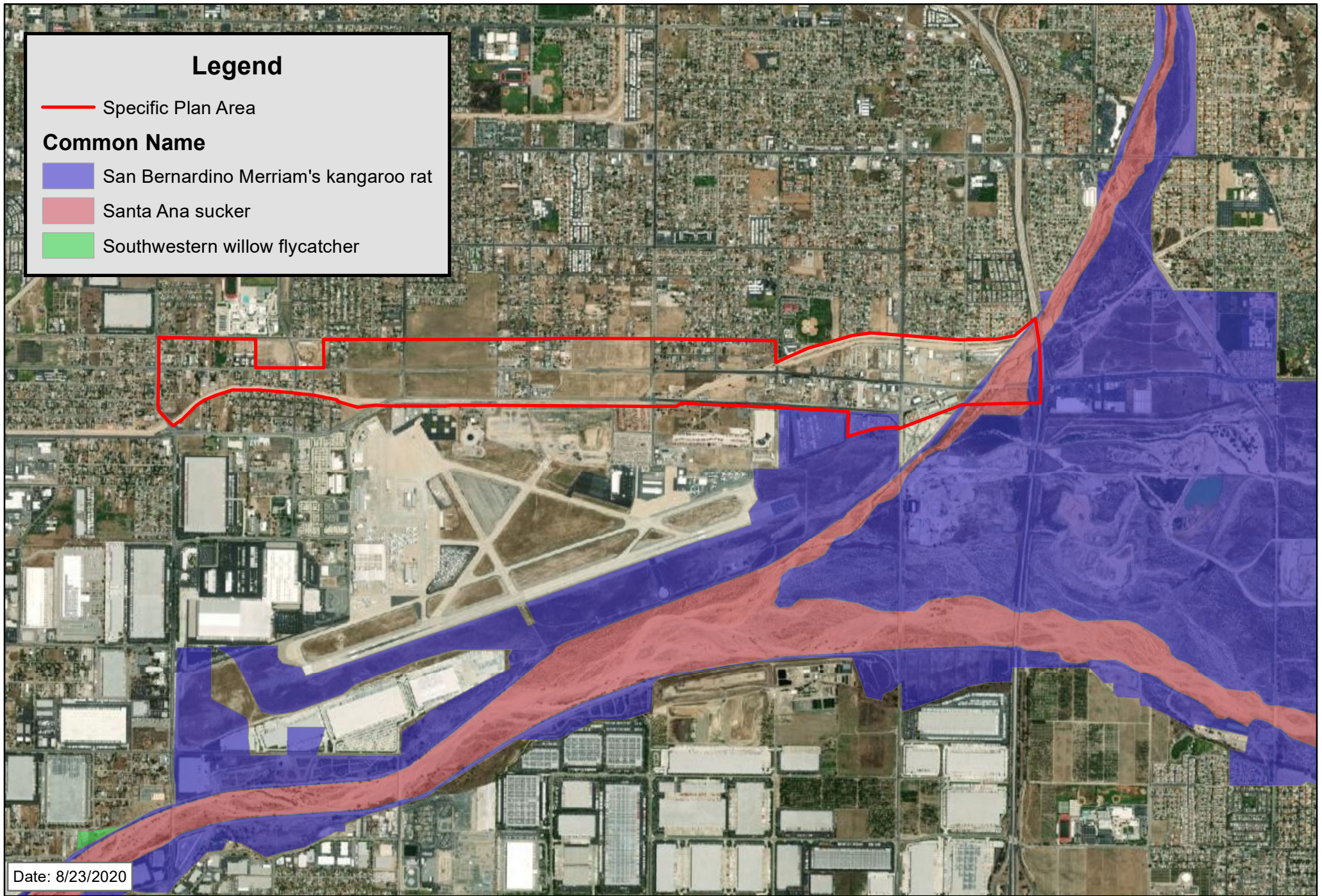
— Specific Plan Area

Common Name

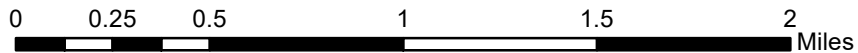
San Bernardino Merriam's kangaroo rat

Santa Ana sucker

Southwestern willow flycatcher



Date: 8/23/2020



Imagery Date: 2/19/2019

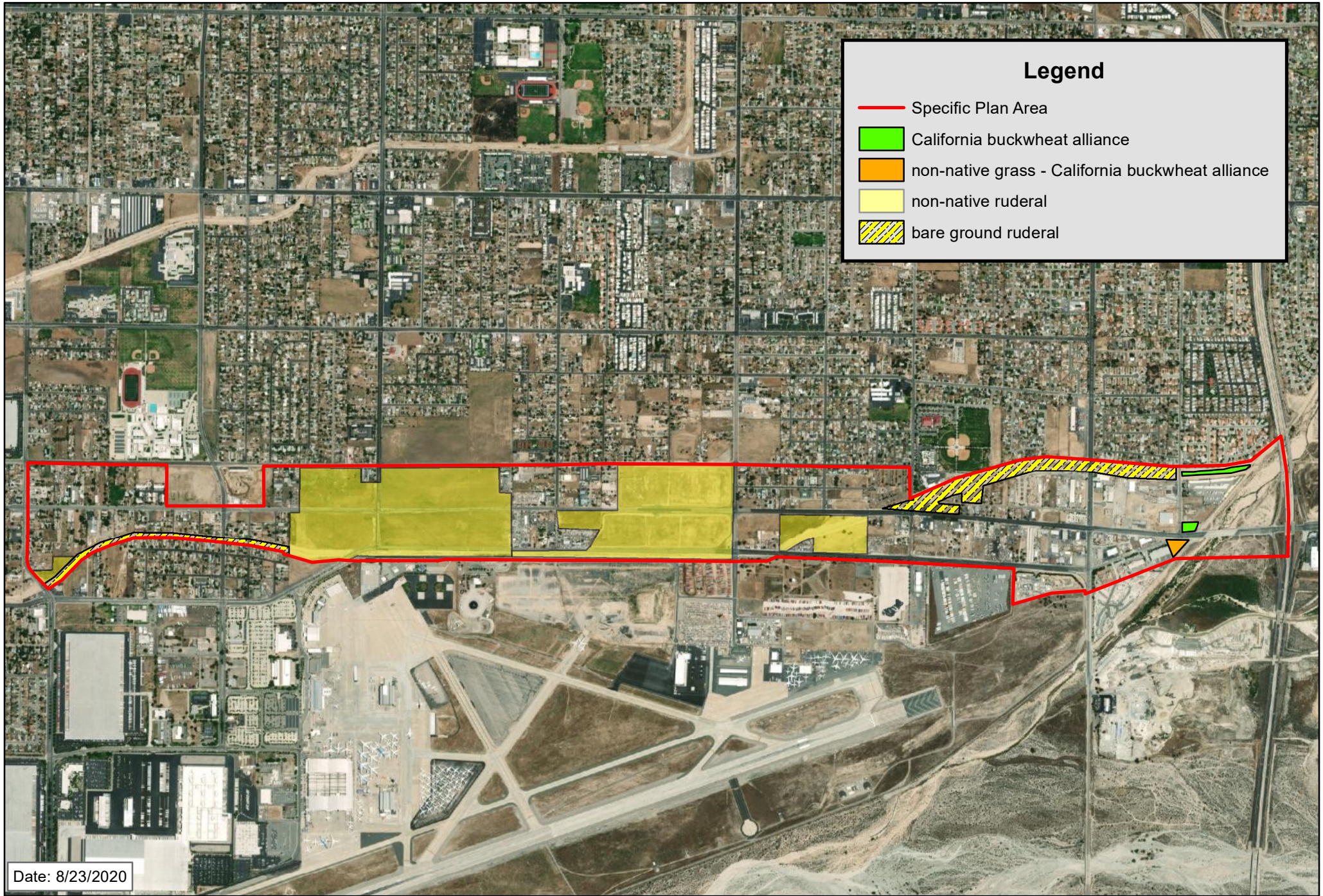
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 2,617 feet

Figure 7 Critical Habitat

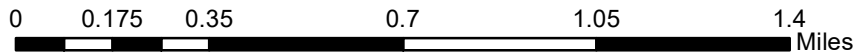
Airport Gateway
Specific Plan



Legend

- Specific Plan Area
- California buckwheat alliance
- non-native grass - California buckwheat alliance
- non-native ruderal
- bare ground ruderal

Date: 8/23/2020



Imagery Date: 2/19/2019

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 1,833 feet

Figure 8 Vegetation

Airport Gateway
Specific Plan

APPENDIX A

Site Photos



Photo 1. Facing north toward 5th Street at vacant field adjacent to the City Creek Bypass Channel. An example of the BUOW survey area.



Photo 2. Looking at the City Creek Bypass Channel facing west along 3rd Street. An example of the BUOW survey area.



Photo 3. Looking at the City Creek Bypass Channel facing east along 3rd Street. An example of the BUOW survey area.



Photo 4. Looking at small vacant area with native buckwheat facing west along 5th street towards Central Avenue. City Creek and the 210 freeway located in opposite direction.



Photo 5.
Standing at Church Street looking at the City Creek Bypass Channel facing east toward the bypass origination point along the west levee of City Creek.



Photo 6.
Standing at 5th Street looking south at a vacant field an example of a BUOW survey area.



Photo 7.
Example
photo
representing
the presence
of scattered
sycamore
trees.

APPENDIX B

Sensitive Species Potential To Occur

CNDDDB Sensitive Species Documented within the Redlands USGS 7.5 Minute Quadrangle

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|-------------------------------------|--|-----------------------|--|--|--|
| <i>Accipiter cooperii</i> | Cooper's hawk | None/None | G5, S4, CDFW-WL | Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest. Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Aimophila ruficeps canescens</i> | southern California rufous-crowned sparrow | None/None | G5T3, S3, CDFW-WL | Chaparral, Coastal scrub. Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Anniella stebbinsi</i> | southern California legless lizard | None/None | G3, S3, CDFW-SSC | Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub. Generally, south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Antrozous pallidus</i> | pallid bat | None/None | G5, S3, CDFW-SSC | Chaparral, Coastal scrub, Desert wash, Great Basin Grassland Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Arenaria paludicola</i> | marsh sandwort | Endangered/Endangered | G1, S1, 1B.1, SB_SBBG-Santa Barbara Botanic Garden | Freshwater marsh, Marsh & swamp, Wetland. Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Arizona elegans occidentalis</i> | California glossy snake | None/None | G5T2, S2, CDFW-SSC | Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Aspidoscelis hyperythra</i> | orange-throated whiptail | None/None | G5, S2S3, CDFW-WL | Chaparral, Cismontane woodland, Coastal scrub. 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. | Suitable habitat does not occur on site. Potential to occur is low . |

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|---|-------------------------------------|-----------------------|------------------------|---|--|
| <i>Aspidoscelis tigris stejnegeri</i> | coastal whiptail | None/None | G5T5, S3, CDFW-SSC | Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Athene cucicularia</i> | burrowing owl | None/None | G4, S3, CDFW-SSC | Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran-desert scrub, Valley & foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | Species not observed during protocol presence absence surveys. Potentially suitable habitat occurs on site. Preveiously documented in the City Creek Bypass Channel. Potential to occur is moderate |
| <i>Berberis nevini</i> | Nevin's barberry | Endangered/Endangered | G1, S1, 1B.1 | Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Bombus crotchii</i> | Crotch bumble bee | None/None | G3G4, S1S2 | Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> . | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Calochortus plummerae</i> | Plummer's mariposa-lily | None/None | G4, S4, 4.2 | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland. Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Carolella busckana</i> | Busck's gallmoth | None/None | G1G3, SH | Coastal dunes and Coastal scrub. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Centromadia pungens ssp. laevis</i> | smooth tarplant | None/None | G3G4T2, S2, 1B.1 | Alkali playa, Chenopod scrub Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland. Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Chaetodipus fallax fallax</i> | northwestern San Diego pocket mouse | None/None | G5T3T4, S3S4, CDFW-SSC | Chaparral, Coastal scrub, Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Chloropyron maritimum ssp. maritimum</i> | salt marsh bird's-beak | Endangered/Endangered | G4, T1, S1, 1B.2 | Coastal dunes, Marsh & swamp, Salt marsh, Wetland. Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Chorizanthe parryi var. parryi</i> | Parry's spineflower | None/None | G3T2, S2, 1B.1 | Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation | Suitable habitat does not occur on site. Potential to occur is low . |

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|--|--------------------------------|-----------------------|----------------------|--|---|
| | | | | types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m. | |
| <i>Coccyzus americanus occidentalis</i> | western yellow-billed cuckoo | Threatened/Endangered | G5T2T3, S1 | Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Crotalus ruber</i> | red-diamond rattlesnake | None/None | G4, S3, CDFW-SSC | Chaparral, Mojavean desert scrub, Sonoran-desert scrub. Chaparral, woodland, grassland, & 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. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> | Peruvian dodder | None/None | G5T4T5, SH, 2B.2, | Marsh & swamp, Wetland. Marshes and swamps (freshwater). Freshwater marsh. 15-280 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Dipodomys merriami parvus</i> | San Bernardino kangaroo rat | Endangered/None | G5T1, S1, CDFW-SSC | Coastal scrub. Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Dipodomys stephensi</i> | Stephens' kangaroo rat | Endangered/Threatened | G2, S2 | Coastal scrub, Valley & foothill grassland. Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil. | Suitable habitat does not occur on site. Potential to occur is none . Outside of species range |
| <i>Dodecahema leptoceras</i> | slender-horned spineflower | Endangered/Endangered | G1, S1, 1B.1 | Chaparral, Cismontane woodland, Coastal scrub. Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Empidonax traillii extimus</i> | southwestern willow flycatcher | Endangered/Endangered | G5T2, S1 | Riparian woodland. Riparian woodlands in Southern California. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Eremophila alpestris actia</i> | California horned lark | None/None | G5T4Q, S4, CDFW-WL | Marine intertidal & splash zone communities, Meadow & seep. Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> | Santa Ana River woollystar | Endangered/Endangered | G4T1, S1, 1B.1 | Chaparral, Coastal scrub. Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Eumops perotis californicus</i> | western mastiff bat | None/None | G5T4, S3S4, CDFW-SSC | Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels. | Suitable habitat does not occur on site. Potential to occur is low . |

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|---|--------------------------|----------------|------------------------|--|--|
| <i>Icteria virens</i> | yellow-breasted chat | None/None | G5, S3, CDFW-SSC | Riparian forest, Riparian scrub, Riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Imperata brevifolia</i> | California satintail | None/None | G4, S3, 2B.1 | Chaparral Coastal scrub, Meadow & seep, Mojavean desert scrub, Riparian scrub, Wetland Coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Lanius ludovicianus</i> | loggerhead shrike | None/None | G4, S4, CDFW-SSC | Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon & juniper woodlands, Riparian woodland, and Sonoran-desert scrub Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Lasiurus xanthinus</i> | western yellow bat | None/None | G5, S3, CDFW-SSC | Desert wash. Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Lepidium virginicum</i> var. <i>robinsonii</i> | Robinson's pepper-grass | None/None | G5T3, S3, 4.3 | Chaparral, Coastal scrub, Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Malacothamnus parishii</i> | Parish's bush-mallow | None/None | GXQ, SX, 1A | Chaparral, Coastal scrub. Chaparral, coastal sage scrub. In a wash. 305-455 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Neotoma lepida intermedia</i> | San Diego desert woodrat | None/None | G5T3T4, S3S4, CDFW-SSC | Coastal scrub. Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Nyctinomops femorosaccus</i> | pocketed free-tailed bat | None/None | G4, S3, CDFW-SSC | Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran-desert scrub. Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Perognathus longimembris brevinasus</i> | Los Angeles pocket mouse | None/None | G5T1T2, S1S2, CDFW-SSC | Coastal scrub. Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Phrynosoma blainvillii</i> | coast horned lizard | None/None | G3G4, S3S4, CDFW-SSC | Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland. Frequents a wide variety of habitats, most | Suitable habitat does not occur on site. Potential to occur is low . |

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|---|---|-----------------------|-----------------------|--|--|
| | | | | common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. | |
| <i>Poliophtila californica californica</i> | coastal California gnatcatcher | Threatened/None | G4G5T2Q, S2, CDFW-SSC | Coastal bluff scrub, Coastal scrub. Obligate, permanent resident of coastal sage scrub below 2500 ft. in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Rana muscosa</i> | southern mountain yellow-legged frog | Endangered/Endangered | G1, S1, , CDFW-WL | Aquatic; Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Rhinichthys osculus</i> ssp. 3 | Santa Ana speckled dace | None/None | G5T1, S1, CDFW-SSC | Aquatic, South coast flowing waters. Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles. | Suitable habitat does not occur on site. Potential to occur is none . |
| <i>Ribes divaricatum</i> var. <i>parishii</i> | Parish's gooseberry | None/None | G4TX, SX, 1A | Riparian woodland. Riparian woodland. Salix swales in riparian habitats. 65-300 m. | Suitable habitat does not occur on site. Potential to occur is low . |
| Riversidian Alluvial Fan Sage Scrub | Riversidian Alluvial Fan Sage Scrub | None/None | G1, S1.1 | Coastal scrub | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Setophaga petechia</i> | yellow warbler | None/None | G5, S3S4, , CDFW-SSC | Riparian forest, Riparian scrub, Riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. | Suitable habitat does not occur on site. Potential to occur is none . |
| Southern Coast Live Oak Riparian Forest | Southern Coast Live Oak Riparian Forest | None/None | G4, S4 | Riparian forest | Absent |
| Southern Sycamore Alder Riparian Woodland | Southern Sycamore Alder Riparian Woodland | None/None | G4, S4 | Riparian woodland | Absent |
| <i>Spea hammondi</i> | western spadefoot | None/None | G3, S3, CDFW-SSC | Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland. Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying. | Suitable habitat does not occur on site. Potential to occur is low . |

| Scientific Name | Common Name | Federal/ State | Other Ranking | Habitat | Potential to Occur |
|------------------------------|-------------------------|-----------------------|--------------------|--|--|
| <i>Taxidea taxus</i> | American badger | None/None | G5, S3, , CDFW-SSC | Many habitat types. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Thamnophis hammondi</i> | two-striped gartersnake | None/None | G4, S3S4, CDFW-SSC | Marsh & swamp, Riparian scrub, Riparian woodland, Wetland. Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft. elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth. | Suitable habitat does not occur on site. Potential to occur is low . |
| <i>Vireo bellii pusillus</i> | least Bell's vireo | Endangered/Endangered | G5T2, S2 | Riparian forest, Riparian scrub, Riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. | Suitable habitat does not occur on site. Potential to occur is none . |

Coding and Terms

E = Endangered T = Threatened SSC = Species of Special Concern
R = Rare C = Candidate FP = Fully Protected

Federal Species of Concern: "taxa for which the U.S. Fish and Wildlife Service has information that indicates proposing to list the taxa as endangered or threatened is possibly appropriate, but for which substantial data on the biological vulnerability and threats are not currently known or on file to support the immediate preparation of rules." (Arnold). All of these species have a limited range. In fact, some species are limited to the San Bernardino Mountains area, however, they are locally common.

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Plant Rankings:

- S1 - less than 6 element occurrences, or less than 1,000 individuals, or less than 2,000 acres
- S2 - 6 to 20 element occurrences, or between 1,000 and 3,000 individuals, or between 2,000 and 10,000 acres
- S3 - 21 to 100 element occurrences, or between 3,000 and 10,000 individuals, or between 10,000 and 50,000 acres
- S4 - No Threat Rank
- S5 - No Threat Rank
- SH - all sites in California are historical
- .1 - very threatened
- .2 - threatened
- .3 - no current threats known

