Appendix C

Delineation of State and Federal jurisdictional Waters, Habitat Assessment, California Gnatcatcher Surveys, San Bernardino Kangaroo Rat Surveys, Rare Plant Survey Report

I-15 Logistics Project

Draft Environmental Impact Report

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Appendix C.1

Delineation of State and Federal jurisdictional Waters

I-15 Logistics Project

Draft Environmental Impact Report

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CAPROCK WAREHOUSE PROJECT

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS

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October 2017
JN: 161657

CAPROCK WAREHOUSE PROJECT

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS

The undersigned certify that this report is a complete and accurate account of the findings and conclusions of a jurisdictional "waters of the United States" (including wetlands) and "waters of the State" determination for the above-referenced project.

Travis J. McGill
Biologist
Natural Resources

Thomas J. McGill, Ph.D.
Vice President
Natural Resources

October 2017
JN: 161657

Executive Summary

Michael Baker International has prepared this Delineation of State and Federal Jurisdictional Waters Report for the CapRock Warehouse Project (Project), located in the City of Fontana, San Bernardino County, California. The jurisdictional delineation documents the regulatory authority of the United States Army Corps of Engineers (Corps), the Santa Ana Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Sections 1600 *et. seq.* of the California Fish and Game Code.[1]

Three (3) unnamed, ephemeral drainage features (D-1, D-2 and D-3) were observed within the boundaries of the project site. These drainage features exhibited evidence of an ordinary high water mark (OHWM); however, it was determined that all three drainages do not exhibit a surface hydrologic connection to downstream waters of the United States. Surface flows within with the drainage features are provided by surface runoff from storm events and urban runoff from Lytle Creek Road and surrounding residential developments. Storm water runoff from the San Gabriel Mountains is also a source of flows. Additionally, all three drainages have small drainage areas and mostly contain vegetation typical of surrounding upland areas. The acreage and liner footage of the on-site drainage features is provided in Table ES-1 below:

Table ES-1: On-Site Jurisdictional Areas and Impact Summary

Jurisdictional Feature	Stream Flow	Cowardin Class	Class of Aquatic Resource	Regional Board		CDFW Streambed and Riparian Habitat	
				On-Site Jurisdiction acreage (linear feet)	**Project Impacts** acreage (linear feet)	**On-Site Jurisdiction** acreage (linear feet)	**Project Impacts** acreage (linear feet)
Drainage 1	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.029 (666)	0.000	0.029 (666)	0.000
Drainage 2	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.045 (1,099)	0.043 (1,055)	0.225 (1,099)	0.043 (1,055)
Drainage 3	Ephemeral	Riverine	Non-Section 10 Non-Wetland	0.046 (1,350)	0.046 (1,350)	0.046 (1,350)	0.046 (1,350)
			TOTALS	**0.12 (3,115)**	**0.089 (2,405)**	**0.30 (3,115)**	**0.089 (2,405)**

[1] The field surveys for this jurisdictional delineation were conducted on September 20, 2017 pursuant to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008); and *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (Corps 2017); *The MESA Field Guide: Mapping Episodic Stream Activity* (CDFW 2014); and a *Review of Stream Processes and Forms in Dryland Watersheds* (CDFW 2010).

Through the field investigation and aerial review (both recent and historical), it was determined that:

- D-1 exits the project site boundary and flows continue in a southeast direction until they dissipate along the western edge of Sierra Avenue;
- D-2 dissipates into sheet flow across the northern portion of the project site; and
- D-3 dissipates into sheet flow across the southern portion of the project site.

The on-site drainages are considered intrastate isolated waters with no apparent interstate or foreign commerce connection. As a result, all three drainages would not be considered jurisdictional under the Corps. An Approved Jurisdictional Determination (AJD) will need to be processed with the Corps to confirm that the on-site drainage features do not qualify as waters of the United States. Both the Santa Ana Regional Board and CDFW will assert jurisdiction over the three drainage features as isolated jurisdictional non-wetland waters of the State, and CDFW jurisdictional streambed, respectively. Any impacts to on-site jurisdictional areas will require the following regulatory approvals prior to project implementation: Regional Board Report of Waste Discharge (ROWD), and CDFW Section 1602 Streambed Alteration Agreement. Refer to Sections 1-7 for a detailed analysis of site conditions and regulatory requirements.

Table of Contents

EXHIBITS

APPENDIX

LIST OF ACRONYMS

CDFW	California Department of Fish and Wildlife
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	Facultative Vegetation
FACU	Facultative Upland Vegetation
FACW	Facultative Wetland Vegetation
Michael Baker	Michael Baker International
NEPA	National Environmental Policy Act
NI	No Indicator
NRCS	Natural Resources Conservation Service
NWP	Nationwide Permit
OBL	Obligate Wetland Vegetation
OHWM	Ordinary High Water Mark
Rapanos	Rapanos v. United States
Regional Board	Santa Ana Regional Water Quality Control Board
SIP	Standard Individual Permit
SWANCC	Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers
TNW	Traditional Navigable Water
UPL	Obligate Upland Vegetation
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Section 1 Introduction and Purpose

This delineation has been prepared to document the jurisdictional authority of the United States Army Corps of Engineers' (Corps), the Santa Ana Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Sections 1600 *et seq.* of the California Fish and Game Code. The analysis presented in this report is supported by field surveys and verification of site conditions conducted on September 20, 2017.

This jurisdictional delineation explains the methodology undertaken by Michael Baker International (Michael Baker) to define the regulatory authority of the aforementioned regulatory agencies and documents the findings made by Michael Baker. This report presents our best effort at documenting the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. Ultimately the regulatory agencies make the final determination of jurisdictional boundaries.

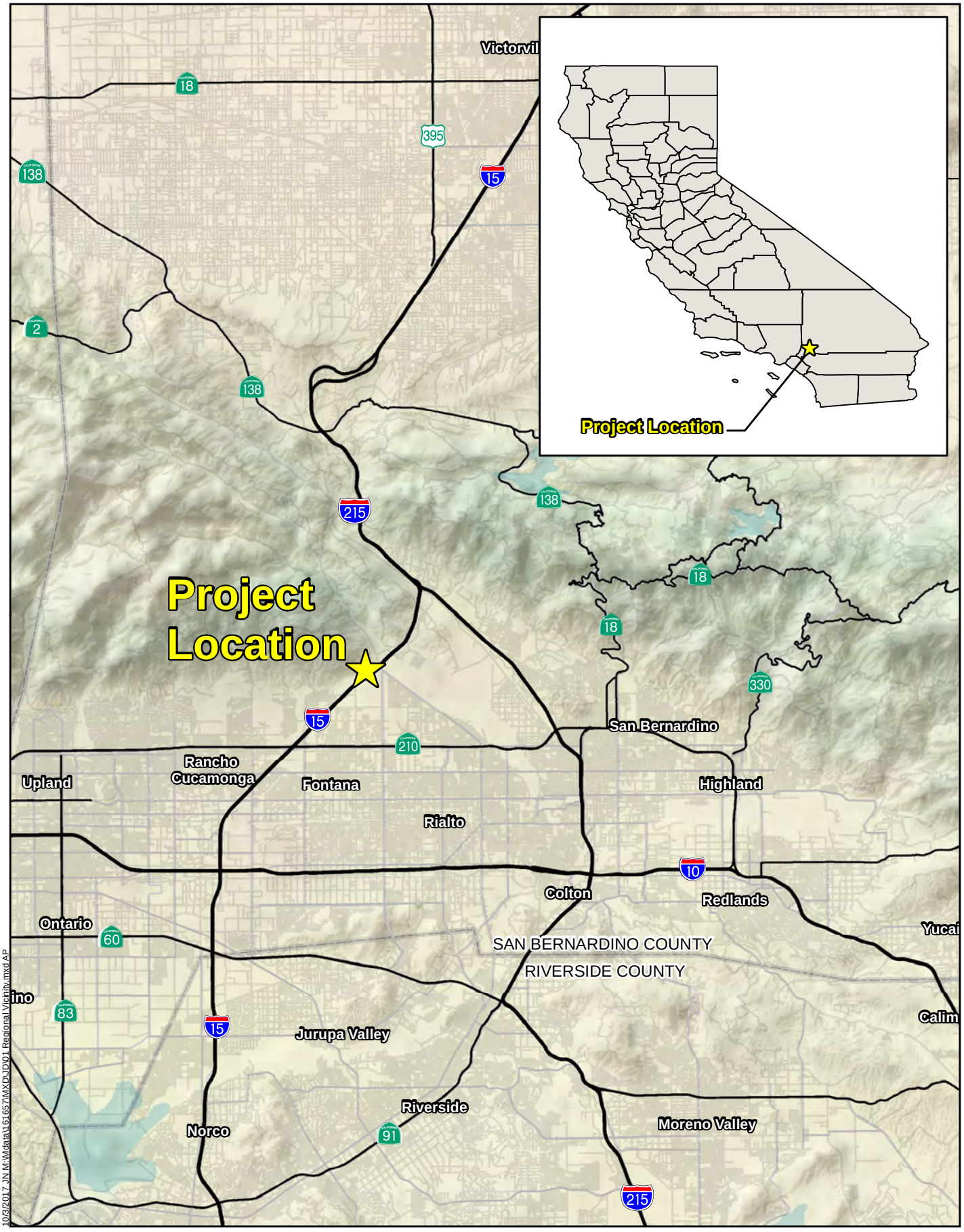
1.1 PROJECT LOCATION

The CapRock Warehouse Project (Project or project site) is generally located north of Interstate 15 and west of Lytle Creek Wash in the City of Fontana, San Bernardino County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Devore quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Section 7 and 18 of Township 1 north, Range 5 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located northwest of Interstate 15 and east of Sierra Avenue at the foothills of the San Bernardino Mountains (Exhibit 3, *Project Site*).

1.2 PROJECT DESCRIPTION

The Project is located within the unincorporated San Bernardino County and will require annexation into the City of Fontana, as well as approval of a Sphere of Influence amendment and other entitlements as described below. The Project includes a warehouse development project (high cube), as well as the annexation of adjacent parcels (21), and portions of the right-of-way for Lytle Creek Road, Sierra Avenue and the 1-15 Freeway (Exhibit 4, *Depiction of Proposed Project*). The total annexation area is approximately 114 acres. Other components included:

- Warehouse site totals 1,175,720 square foot, features approximately 200 truck bays, and two (2) office spaces that totaling 30,000 square feet;
- Parcel map for warehouse site and adjacent annexed area;
- A sphere of influence amendment to include the area that is not currently within the City of Fontana's existing sphere of influence boundary;
- General plan land use designation; and
- Pre-zoning.



10/3/2017 JN M:\Wdata\161657\MXD\JD\01 Regional Vicinity.mxd AP

Michael Baker INTERNATIONAL

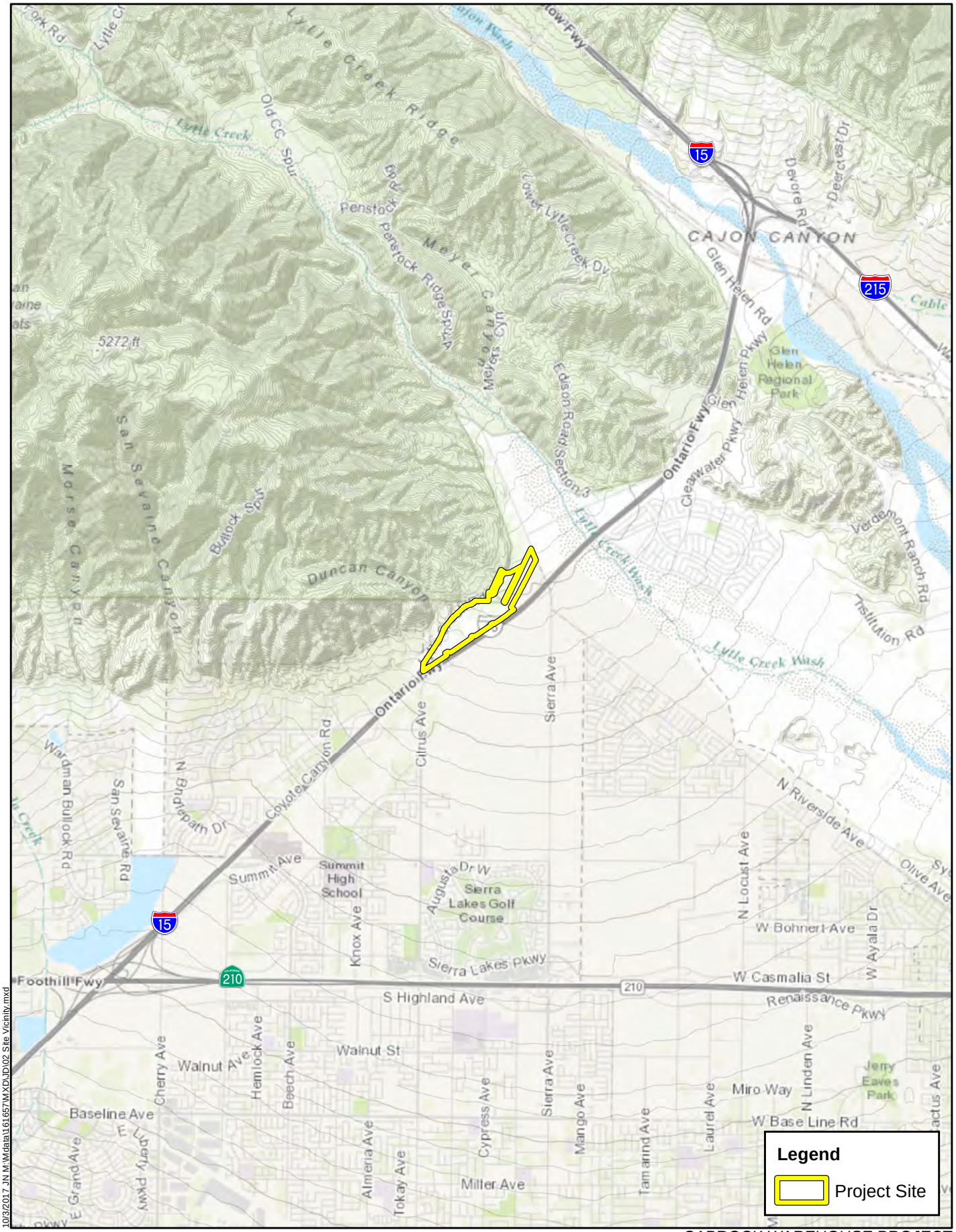
0 2.5 5 Miles

Source: ESRI Relief Map, National Highway Planning Network

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Regional Vicinity

Exhibit 1



10/3/2017 JN M:\Mdata\161657\MXD\JD\02 Site Vicinity.mxd

Michael Baker INTERNATIONAL

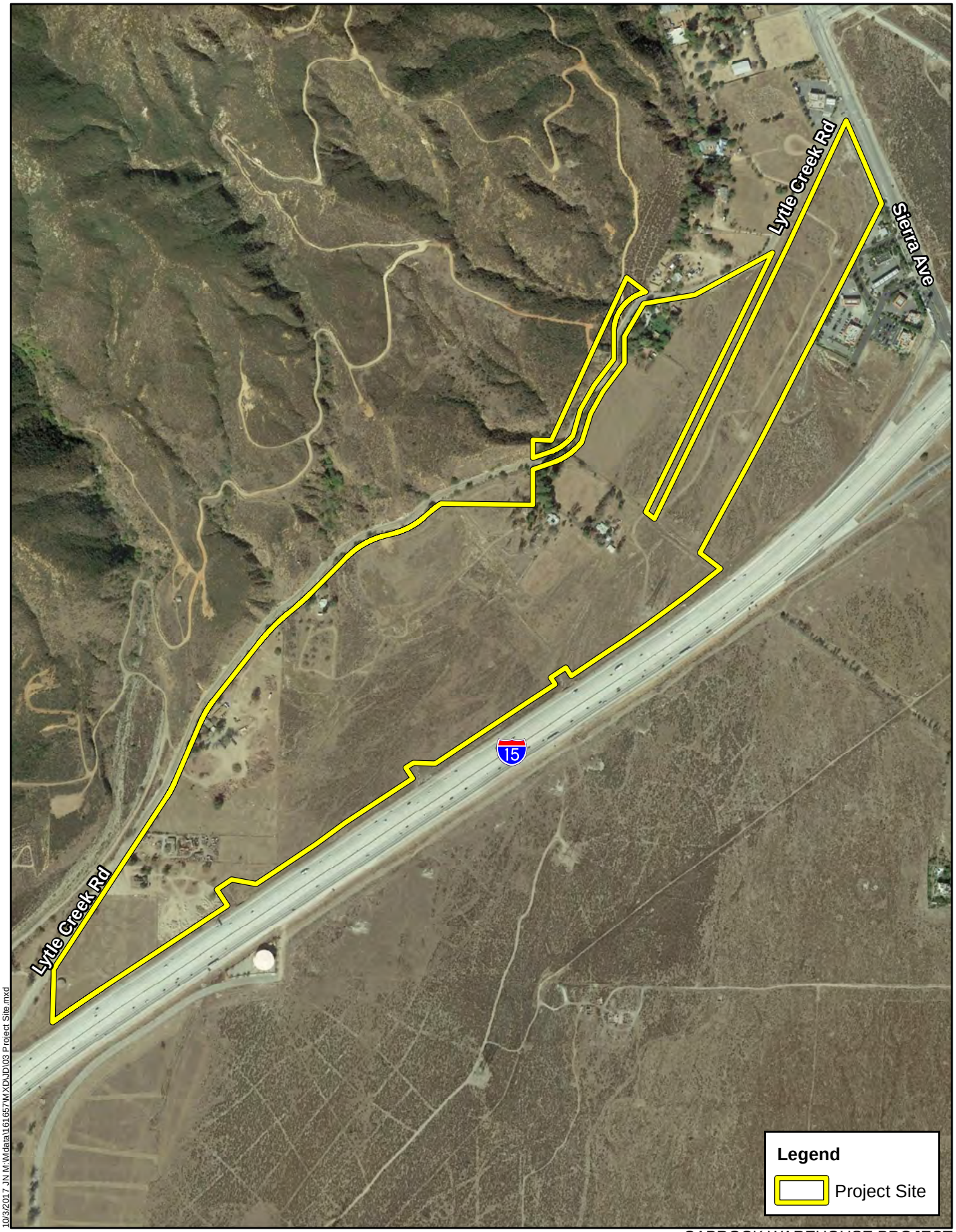
0 1 2 Miles

Source: ESRI USA Topographic Basemap, San Bernardino County, United States Geological Survey

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Site Vicinity

Exhibit 2



10/3/2017 JN M:\Mdata\161657\MXD\JD\03 Project Site.mxd

Michael Baker INTERNATIONAL

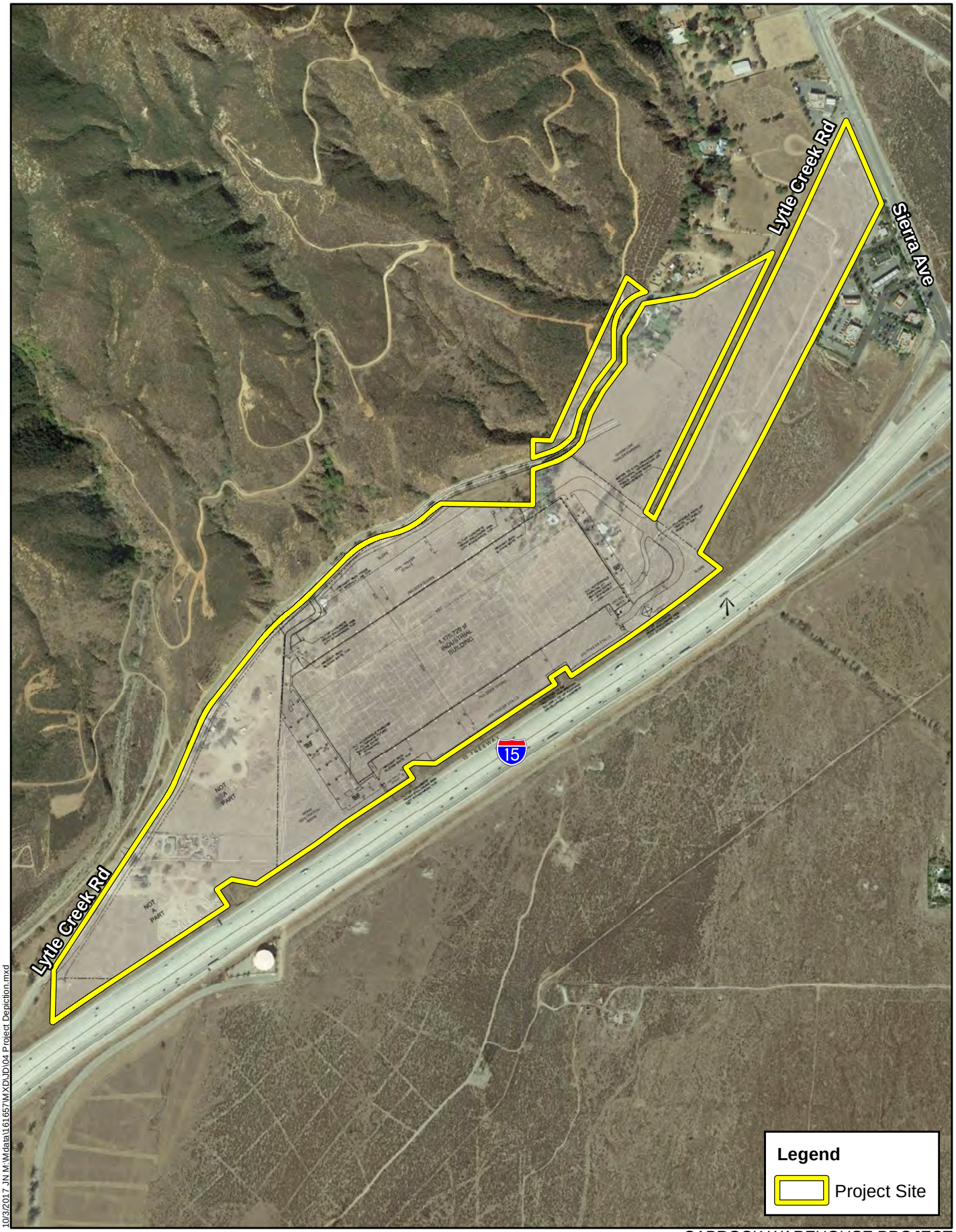
0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Project Site

Exhibit 3



10/3/2017 JN M:\Mdata\161657\MXD\JD\04 Project Depiction.mxd

Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: Google Imagery 2016, Douglas Franz Architects Inc.

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Project Depiction

Exhibit 4

Section 2 Regulations

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Division regulates activities pursuant to Section 404 of the CWA, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act. The Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates activities under Sections 1600 *et seq*. of the California Fish and Game Code.

2.1 UNITED STATES ARMY CORPS OF ENGINEERS

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the discharge of dredged or fill material into waters of the United States, including wetlands, pursuant to Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." The terms *waters of the United States* and *wetlands* are defined under CWA Regulations 33 Code of Federal Regulations (CFR) §328.3 (a) through (b).

2.2 REGIONAL WATER QUALITY CONTROL BOARD

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Boards that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

Additionally, the California Porter-Cologne Water Quality Control Act gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Water Quality Control Act has become an important tool post *Solid Waste Agency of Northern Cook County vs. United States Corps of Engineers*[2] (SWANCC) and *Rapanos v. United States*[3] (Rapanos) court cases with respect to the State's regulatory authority over isolated and insignificant

[2] Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, 531 U.S. 159 (2001)
[3] Rapanos v. United States, 547 U.S. 715 (2006)

waters. Generally, any applicant proposing to discharge waste into a water body must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include discharge of dredged and fill material into water bodies.

2.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Sections 1600 *et seq.* of the California Fish and Game Code establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided. Pursuant to Section 1602 of the California Fish and Game Code, a notification must be submitted to the CDFW for any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream or use material from a streambed. This includes activities taking place within rivers or streams that flow perennially or episodically and that are defined by the area in which surface water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical and biological indicators.

Section 3 Methodology

The analysis presented in this report is supported by field surveys and verification of site conditions conducted on September 20, 2017. Michael Baker conducted a field delineation to determine the jurisdictional limits of "waters of the United States" and "waters of the State" (including potential wetlands), located within the boundaries of the project site. While in the field, jurisdictional features were recorded on a aerial base map at a scale of 1" = 50' using topographic contours and visible landmarks as guidelines. Data points were obtained with a Garmin Map62 Global Positioning System to record and identify specific widths for ordinary high water mark (OHWM) indicators and the locations of photographs, soil pits, and other pertinent jurisdictional features, if present. This data was then transferred as a .shp file and added to the Project's jurisdictional exhibits. The jurisdictional exhibits were prepared using ESRI ArcInfo Version 10 software.

3.1 WATERS OF THE UNITED STATES

In the absence of adjacent wetlands, the limits of the Corps jurisdiction in non-tidal waters extend to the OHWM, which is defined 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.*"[4] Indicators of an OHWM are defined in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Corps 2008). An OHWM can be determined by the observation of a natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; presence of litter and debris; wracking; vegetation matted down, bent, or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; bed and banks; water staining; and/or change in plant community. The Regional Board shares the Corps' jurisdictional methodology, unless SWANCC or Rapanos conditions are present. In the latter case, the Regional Board considers such drainage features to be jurisdictional waters of the State.

Pursuant to the Corps Wetland Delineation Manual (Corps 1987), the identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soils, and wetland hydrology. In order to qualify as a wetland, a feature must exhibit at least minimal characteristics within each of these three parameters. It should also be noted that both the Regional Board and CDFW follow the methods utilized by the Corps to identify wetlands. For this project location, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008).

[4] CWA regulations 33 CFR §328.3(e).

3.2 WATERS OF THE STATE

3.2.1 REGIONAL WATER QUALITY CONTROL BOARD

The California *Porter-Cologne Water Quality Control Act* gives the Regional Board very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Regional Board shares the Corps' methodology for delineating the limits of jurisdiction based on the identification of OHWM indicators and utilizing the three parameter approach for wetlands.

3.2.2 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Sections 1600 *et seq*. of the California Fish and Game Code applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. Generally, the CDFW's jurisdictional limit is not defined by a specific flow event, nor by the presence of OHWM indicators or the path of surface water as this path might vary seasonally. Instead, CDFW's jurisdictional limit is based on the topography or elevation of land that confines surface water to a definite course when the surface water rises to its highest point. Further, the CDFW's jurisdictional limit extends to include any habitat (e.g. riparian), including wetlands and vernal pools, supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. For this project location, CDFW jurisdictional limits were delineated using the methods outlined in the *MESA Field Guide* (Brady, III and Vyverberg 2013) and *A Review of Stream Processes and Forms in Dryland Watersheds* (Vyverberg 2010), which were developed to provide guidance on the methods utilized to describe and delineate episodic streams within the inland deserts region of southern California.

Section 4 Literature Review

Michael Baker conducted a thorough review of relevant literature and materials to preliminarily identify areas that may fall under the jurisdiction of the regulatory agencies. A summary of materials utilized during Michael Baker's literature review is provided below and in Appendix A. In addition, refer to Section 8 for a complete list of references used throughout the course of this delineation.

4.1 WATERSHED REVIEW

The project site is located within the Santa Ana River Watershed (HUC 18070203). The Santa Ana River watershed is located in southern California, south and east of the City of Los Angeles. The watershed includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. The watershed is bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea and Southern Mojave watersheds, and on the north/west by the Mojave and San Gabriel watersheds. The watershed is approximately 2,800 square miles in area.

The Santa Ana River Watershed is located in the Peninsular Ranges and Transverse Ranges Geomorphic Provinces of Southern California (California Geological Survey Note 36). The highest elevations (upper reaches) of the watershed occur in the San Bernardino Mountains (San Gorgonio Peak – 11,485 feet in elevation), eastern San Gabriel Mountains (Transverse Ranges Province; Mt. Baldy – 10,080 feet in elevation), and San Jacinto Mountains (Peninsular Ranges Province, Mt. San Jacinto – 10,804 feet in elevation). Further downstream, the Santa Ana Mountains and the Chino Hills form a topographic high before the river flows into the Coastal Plain (in Orange County) and into the Pacific Ocean. Primary slope direction is northeast to southwest, with secondary slopes controlled by local topography.

This watershed is in an arid region, and therefore has little natural perennial surface water. Surface waters start in the upper erosion zone of the watershed, primarily in the San Bernardino and San Gabriel Mountains. This upper zone has the highest gradient and soils/geology that do not allow large quantities of percolation of surface water into the ground. Flows consist mainly of snowmelt and storm runoff from the lightly developed San Bernardino National Forest; this water is generally high quality at this point. In this zone, the Santa Ana River is generally confined in its lateral movement, contained by the slope in the mountainous regions. In the upper valley, flows from the Seven Oaks Dam to the City of San Bernardino consist mainly of storm flows, flows from the San Timoteo Creek, and groundwater that is rising due to local geological conditions. From the City of San Bernardino to the City of Riverside, the river flows perennially, and it includes treated discharges from wastewater treatment plants. From the City of Riverside to the recharge basins below Imperial Highway, river flow consists of highly treated wastewater discharges, urban runoff, irrigation runoff, and groundwater forced to the surface by shallow/rising bedrock. Near Corona, the river cuts through the Santa Ana Mountains and the Puente-Chino Hills. The river then flows into the Orange County Coastal Plain; the channel lessens and the gradient decreases. In a natural environment, a river in this area would have a much wider channel, increased meandering, and increased

sediment build-up. However, much of the Santa Ana River channel in this area has been contained in concrete-lined channels, which modifies the flow regime and sediment deposition environment. The only major tributary of the Santa Ana River in Orange County is Santiago Creek, which joins the river in the City of Santa Ana. There is only one natural freshwater lake of any size – Lake Elsinore. A variety of water storage reservoirs (Lake Perris, Lake Mathews, and Big Bear Lake) and Flood Control areas (Prado Dam area and Seven Oaks Dam area) have been created to hold surface water.

4.2 LOCAL CLIMATE

San Bernardino County is characterized by cool winter temperatures and warm summer temperatures, with its rainfall occurring almost entirely in the winter. Relative to other areas in Southern California, winters are colder with chilly to cold morning temperatures common. Climatological data obtained for the City of Fontana indicates the annual precipitation averages 14.77 inches per year. Almost all of the precipitation occurs in the months between November and March, with hardly any occurring in July. The wettest month is March, with a monthly average total precipitation of 3.49 inches. The average maximum and minimum temperatures for the region are 80 and 53 degrees Fahrenheit (°F) respectively with July and August (monthly average 95° F) being the hottest months and December (monthly average 44°F) being the coldest. Temperatures during the site visit were in the low-70s (°F) with overcast skies.

4.3 USGS TOPOGRAPHIC QUADRANGLE

The project site is located within the Devore quadrangle of the USGS 7.5-minute topographic map series in Sections 7 and 18 of Township 1 north, Range 5 west. On-site surface elevation ranges from approximately 1,850 to 2,079 feet above mean sea level and generally slopes to the southwest. The project site is relatively flat within no areas of significant topographic relief. According to the topographic map, the project site does not contain any drainage features, ponds, basins and consists of open space with scattered residential land uses. However, in the field, three (3) drainage features were observed on-site. Surrounding land uses consist of vacant land with scattered residential properties and commercial land uses to the north, south, east, and west.

4.4 AERIAL PHOTOGRAPHS

Prior to conducting the field delineation, Michael Baker reviewed current and historical aerial photographs (1994-2016) of the project site as available from Google Earth Pro Imaging (Version 7.1.2.2041). Aerial photographs can be useful during the delineation process, as they often indicate the presence of drainage features and riparian/riverine habitat within the boundaries of the project site, if any. According to the 1994 through 2016 aerial photographs, the project site has been exposed to a variety of disturbances including clearing/disking, off road vehicle use, residential land uses, and illegal dumping. Additionally, three ephemeral drainage features were observed along the western boundary of the project site. No additional drainage features, ponds, basins, or gravel pits were observed when reviewing current and historical aerial photographs of the project site.

4.5 SOILS

Soils within and adjacent to the project site were researched prior to the field delineation using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for the San Bernardino County Southwestern Part, California. The presence of hydric soils is initially investigated by comparing the mapped soil series for the site to the County list of hydric soils. Soil surveys furnish soil maps and interpretations originally needed in providing technical assistance to farmers and ranchers; in guiding other decisions about soil selection, use, and management; and in planning, research, and disseminating the results of the research. In addition, soil surveys are now heavily utilized in order to obtain soil information with respect to potential wetland environments and jurisdictional areas (i.e., soil characteristics, drainage, and color).

According to the Custom Soil Resource Report, the project site is underlain by the following soil units (Exhibit 5, *Soils*):

- **Cieneba – Rock Outcrop Complex, 30 to 50 Percent Slopes, MLRA 20 (Cr):** The Cieneba-rock outcrop complex (30 to 50 percent slopes, MLRA 20) soil unit consists of somewhat excessively drained soils formed from residuum weathered from granite sources. It is found on mountain slopes and hillsides. Elevations are recorded at 500 to 5,500 feet above mean sea level (msl).

- **Hanford Coarse Sandy Loam, 2 to 9 Percent Slopes (HaC):** The Hanford coarse sandy loam (2 to 9 percent slopes) soil unit consists of well drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 150 to 900 feet above msl.

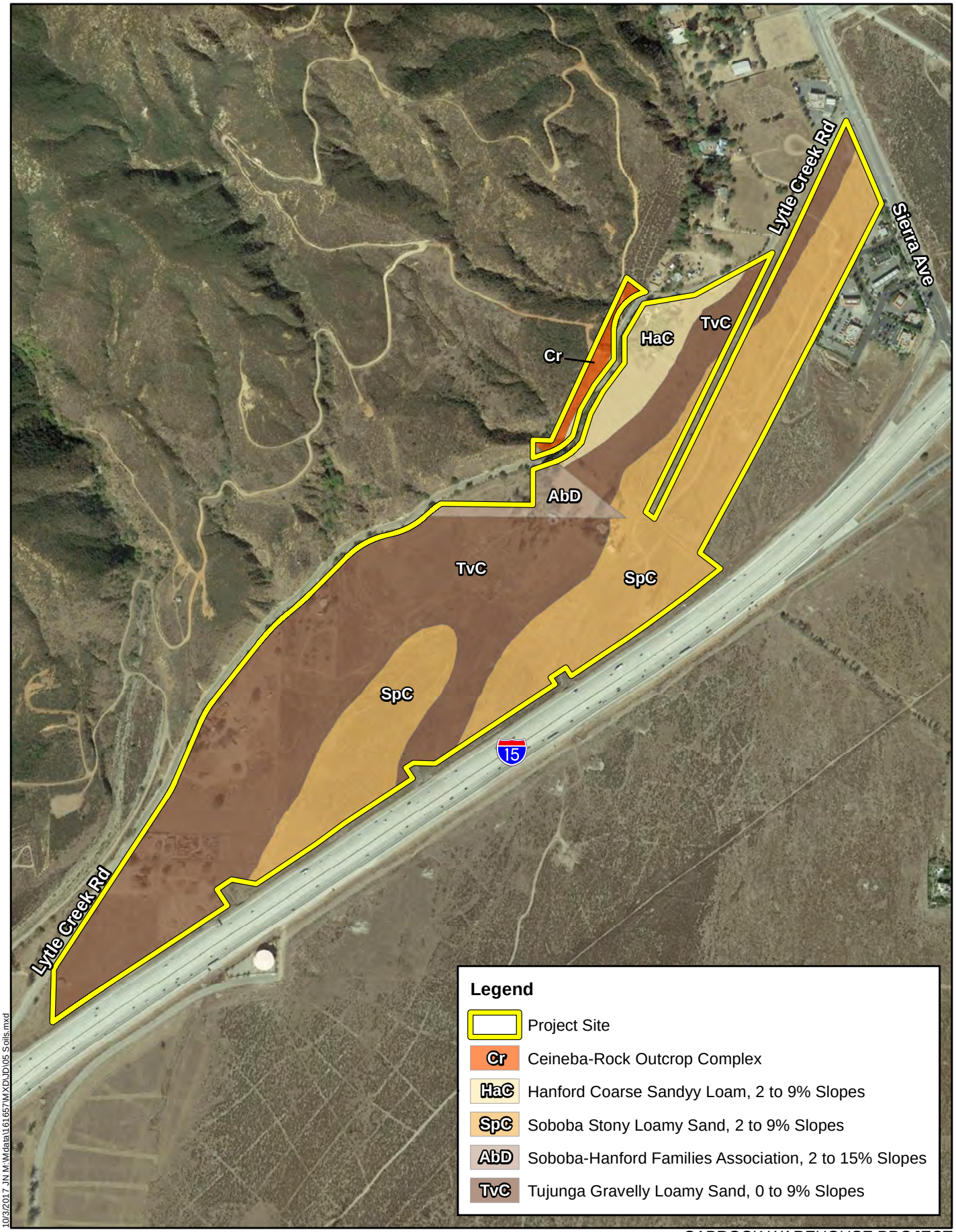
- **Soboba Stony Loamy Sand, 2 to 9 Percent Slopes (SpC):** The Soboba stony loamy sand (2 to 9 percent slopes) soil unit consists of excessively drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 960 to 3,690 feet above msl.

- **Tujunga Gravelly Loamy Sand, 0 to 9 Percent Slopes (TvC):** The Tujunga gravelly loamy sand (0 to 9 percent slopes) soil unit consists of somewhat excessively drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 10 to 1,500 feet abouve msl.

4.6 HYDRIC SOILS LIST OF CALIFORNIA

Michael Baker reviewed the USDA NRCS Hydric Soils List of California in an effort to verify whether on-site soils are considered to be hydric[5]. It should be noted that lists of hydric soils along with soil survey

[5] A hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part.



10/3/2017 JN M:\Mdata\161657\MXD\JD\05 Soils.mxd

Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Soils

Exhibit 5

maps provide off-site ancillary tools to assist in wetland determinations, but they are not a substitute for field investigations. According to the hydric soils list, Tujunga gravelly loamy sand, 0 to 9 percent slopes (TvC) has been listed as a hydric soil in the "San Bernardino County Southwestern Part" soil mapping area of San Bernardino County, California. None of the remaining on-site soils have been listed as hydric in the "San Bernardino County Southwestern Part".

4.7 NATIONAL WETLANDS INVENTORY

Michael Baker reviewed the Untied Stats Fish and Wildlife Service's (USFWS) National Wetland Inventory maps. No wetland features have been documented within or adjacent to the project site. Refer to Appendix A, *Documentation*.

4.8 FLOOD ZONE

Michael Baker searched the Federal Emergency Management Act website for flood data for the project site. Based on Flood Insurance Rate Map No. 06071C7915H, the project site is not within any flood zones. Refer to Appendix A, *Documentation*.

Section 5 Site Conditions

Michael Baker biologists Thomas C. Millington and Travis J. McGill conducted a field delineation on September 20, 2017 to verify existing site conditions and document the extent of potential jurisdictional areas within the boundaries of the project site. Temperatures during the site visits were in the mid-70's (°F) with light winds and 100% cloud cover. Michael Baker field staff encountered no limitations during the field delineation. Refer to Appendix B for representative photographs taken throughout the project site.

5.1 JURISDICTIONAL FEATURES

5.1.1 DRAINAGE FEATURES

Drainage 1 (D-1)

D-1 is an unnamed, ephemeral drainage feature that was observed within the northern portion of the project site and runs in a north to south direction. Surface flows within D-1 are provided by direct precipitation and surface runoff from storm events and urban runoff from Lytle Creek Road and surrounding residential developments. Surface runoff from Lytle Creek Road enter D-1 and follows site topography to the southeast as an earthen drainage feature for approximately 338 feet before dissipating along an unimproved dirt access road for approximately 57 feet. D-1 continues southeast of the dirt road for approximately 150 feet along the eastern boundary of the project site, where is transitions from an earthen feature into a 2-foot concrete lined v-ditch for approximately 48 feet. D-1 transitions back into an earthen channel for approximately 75 feet before discharging into three (3) 6-foot concrete culverts. From this point, flows continue outside the project boundary in a southeast direction, flow under the Interstate 15 freeway, and continue south along the western edge of Sierra Avenue where they dissipate and sheet flow. The OHWM ranged from 1 to 2 feet in width and CDFW jurisdictional streambed was consistent with the OHWM. Within the boundaries of the project site, D-1 measures approximately 0.03-acre (666 linear feet). No surface water was present within D-1 during the site visit.

The earthen streambed portions of D-1 consists of natural substrates composed of gravel, fine sediment, and boulders. Evidence of an OHWM and surface hydrology was observed via the following indicators: sediment deposition, scour, matted down vegetation, presence of litter and debris, and debris lines. Even though an OHWM was observed within D-1, a nexus to downstream waters of the United States could not be established or supported for this drainage feature. Additionally, D-1 does not meet wetland requirements. D-1 exits the project site boundary and flows continue in a southeast direction until they dissipate along the western edge of Sierra Avenue. Therefore, it was determined that D-1 does not exhibit a hydrological connection to other on-site or off-site waters of the United States and would not be considered jurisdictional under the Corps. However, it is still considered jurisdictional non-wetland waters, under the Regional Board and CDFW.

The in-channel vegetation is dominated by jimsonweed (*Datura wrightii*, UPL), castorbean (*Ricinus communis*, FACU), and Russian thistle (*Salsola tragus*, FACU). Additional plant species that are scattered throughout D-1 include California sagebrush (*Artemisia californica*, UPL), California mugwort *(Artemisia douglasiana*, FAC), black elderberry (*Sambucus nigra*, FAC), doveweed (*Croton setiger*, UPL), and common sunflower (*Helianthus annuus*, FACU). Areas surrounding D-1 are comprised entirely of non-native grasses dominated by short-podded mustard (*Hirschfeldia incana*, UPL), ripgut brome (*Bromus diandrus*, UPL), wild oat (*Avena fatua*, UPL), and Mediterranean grass (*Schismus barbatus*, UPL).

Drainage 2 (D-2)

D-2 is an unnamed, ephemeral drainage feature that is located within the northern portion of the project site and runs in a northeast to south direction. Surface flows within D-2 are provided by direct precipitation and surface runoff from storm events and urban runoff from Lytle Creek Road and surrounding residential and commercial developments. D-2 enters the project site along the western boundary as a natural drainage feature at the foothills of the San Gabriel mountains for approximately 44 feet before entering into a 3-foot culvert under Lytle Creek Road through a residential property. Within the residential property, D-2 transitions into a concrete channel before transitioning back to an earthen channel for approximately 930 feet. D-2 then dissipates into sheet flow across the northern portion of the project site, where no discrete channel was observed. The OHWM ranged from 1 to 3 feet in width and CDFW jurisdictional streambed was consistent with OHWM. However, a portion of D-2, north of Lytle Creek Road, supports a small patch of riparian vegetation. Within the boundaries of the project site, D-2 measures Regional Board jurisdiction measures approximately 0.04 acre (1,099 linear feet) and CDFW jurisdiction measures 0.22-acre (1,099 linear feet). This measurement does not include the approximate linear feet measurement of the portion of the drainage feature that enters the residential property. No surface water was present within D-2 during the site visit.

The earthen streambed portions of D-2 consists of natural substrates composed of gravel, fine sediment, and boulders. Evidence of an OHWM and surface hydrology was observed via the following indicators: sediment deposition, scour, matted down vegetation, and debris lines. Even though an OHWM was observed within D-2, a nexus to downstream waters of the United States could not be established or supported for this drainage feature. Additionally, D-2 does not meet wetland requirements. Through the field investigation and aerial review, it was determined that D-2 dissipates into sheet flow across the northern portion of the project site. Therefore, D-2 does not exhibit a hydrological connection to other on-site or off-site waters of the United States and would not be considered jurisdictional under the Corps. However, it is still considered jurisdictional non-wetland waters, under the Regional Board and CDFW.

In-channel vegetation within the upper portion of D-2 was denser compared to the lower portion of D-2 which is disturbed and exhibits little in-channel vegetation. Within the upper portion of D-2, in-channel vegetation consists of Western sycamore (*Platanus racemosa*, FAC), Fremont cottonwood (*Populus fremontii*, FAC), tree tobacco (*Nicotiana glauca*, FAC), California mugwort, and castorbean. When present, plant species observed in the lower portions of the channel included southern California walnut (*Juglans californica*, FAC), California buckwheat (*Eriogonum fasciculatum*, UPL), common sunflower, and Russian

thistle. Areas surrounding D-2 are comprised entirely of non-native grassland dominated by short-podded mustard, ripgut brome, and Mediterranean grass.

Drainage 3 (D-3)

D-3 is an unnamed, ephemeral drainage feature that runs within the central portion of the project site in a northwest to southeast then transitions to a southwest direction. Surface flows within D-3 are provided by direct precipitation and surface runoff from storm events and urban runoff from Lytle Creek Road and surrounding residential and developments. Surface runoff from Lytle Creek Road enter D-3 along the western boundary and follow site topography to the southeast for before changing course to the southwest. D-3 continues to flow in a southwest direction for approximately 245 feet before dissipating due to an unimproved dirt access road. D-3 measures approximately 700 feet from its beginning to the dirt access road. D-3 dissipates for approximately 13 feet due to the dirt access road before continuing in a southwest direction for approximately 651 where it then sheet flows across the southern portion of the project site. The OHWM ranged from 1 to 3 feet in width and CDFW jurisdictional streambed was consistent with OHWM. Within the boundaries of the project site, D-3 measures approximately 0.05-acre (1,350 linear feet). No surface water was present within D-3 during the site visit.

The earthen streambed of D-3 consists of natural substrates composed of gravel, fine sediment, and boulders. Evidence of an OHWM and surface hydrology was observed via the following indicators: sediment deposition, scour, and debris lines. Even though an OHWM was observed within D-3, a nexus to downstream waters of the United States could not be established or supported for this drainage feature. Additionally, D-3 does not meet wetland requirements. Through the field investigation and aerial review (both recent and historical), it was determined that D-3 dissipates into sheet flow across the southern portion of the project site. Therefore, D-3 does not exhibit a hydrological connection to other on-site or off-site waters of the United States and would not be considered jurisdictional under the Corps. However, it is still considered jurisdictional non-wetland waters, under the Regional Board and CDFW.

The in-channel vegetation is dominated by California buckwheat, California sagebrush, common sunflower, and tree tobacco. Areas surrounding D-3 are comprised entirely of California buckwheat, California sagebrush, and non-native grasses dominated by short-podded mustard, ripgut brome, wild oat, and Mediterranean grass.

5.1.2 WETLAND FEATURES

An area must exhibit all three wetland parameters described in the Corps Arid West Regional Supplement to be considered a wetland. This includes the presence of hydrophytic vegetation, the presence of hydric soils, and the presence of wetland hydrology. Based on the results of the field investigation, it was determined that no areas within the boundaries of the project site met all three wetland parameters. Therefore, no jurisdictional wetland features exist within the project site.

Section 6 Findings

This report presents Michael Baker's best effort at determining the extent of jurisdictional features using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. Please refer to the following sections for a summary of jurisdictional areas within the project site.

6.1 U.S. ARMY CORPS OF ENGINEERS DETERMINATION

6.1.1 WATERS OF THE UNITED STATES DETERMINATION

Three unnamed, ephemeral drainage features were observed within the boundaries of the project site. These drainage features exhibited evidence of an OHWM; however, it was determined that all three drainages do not exhibit a surface hydrologic connection to downstream waters of the United States. The on-site drainages are considered intrastate isolated waters with no apparent interstate or foreign commerce connection. As a result, all three drainages would not be considered jurisdictional under the Corps.

6.1.2 WETLAND DETERMINATION

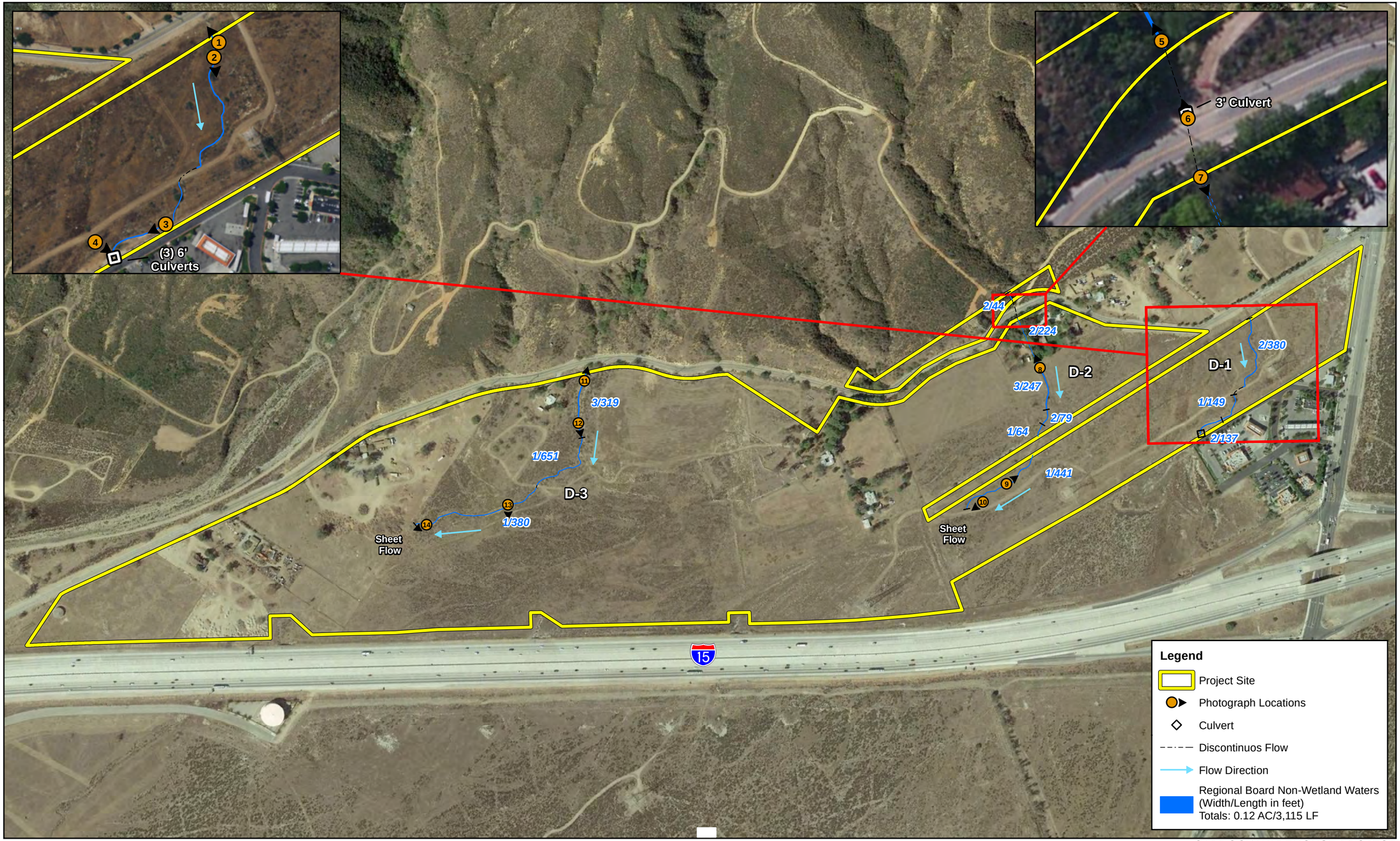
An area must exhibit all three wetland parameters described in the Corps Arid West Regional Supplement to be considered a jurisdictional wetland. Based on the results of the field delineation, it was determined that no areas within the project site met all three wetland parameters. Therefore, no jurisdictional wetland features exist within the project site.

6.2 REGIONAL WATER QUALITY CONTROL BOARD

As a result of the lack of Corps jurisdiction and the presence of isolated or Rapanos conditions within the boundaries of the project site, the Regional Board would assume jurisdiction over those surface waters documented during the site visits. Based on the results of the field investigation, a total of approximately 0.12-acre (3,115 linear feet) of non-wetland waters of the State are located within the project site. Refer to Exhibit 6, *Regional Board Jurisdiction*, for an illustration of Regional Board jurisdictional areas.

6.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

All three drainages exhibit characteristics consistent with CDFW's methodology and would be considered CDFW streambed. Therefore, approximately 0.30 acres (3,115 linear feet) of CDFW jurisdiction is located within boundaries of the project site. Refer to Exhibit 7, *CDFW Jurisdiction*, for an illustration of CDFW jurisdictional areas.



Michael Baker INTERNATIONAL

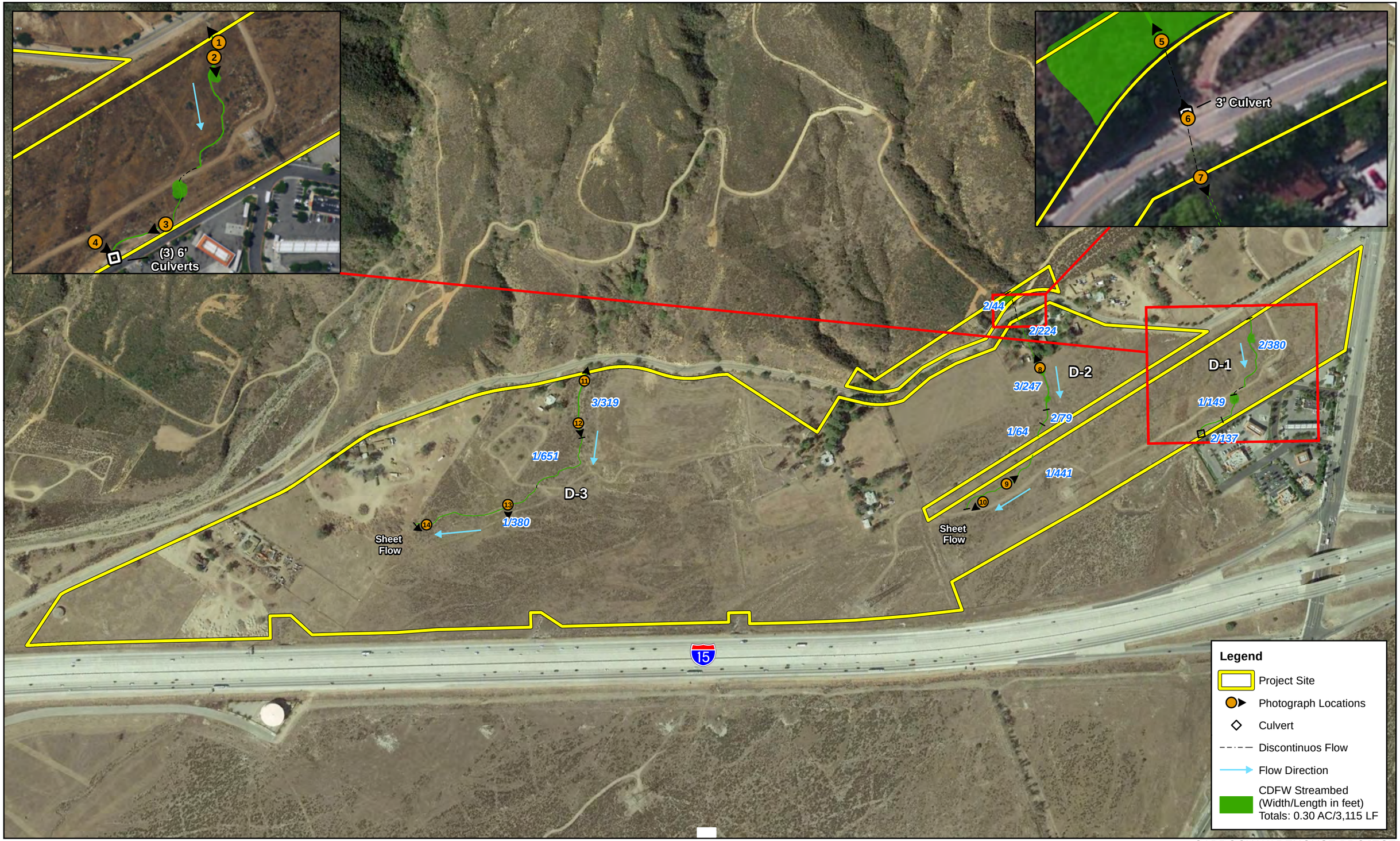
0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

Regional Board Jurisdiction

Exhibit 6



Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
JURISDICTIONAL DELINEATION

CDFW Jurisdiction

Exhibit 7

Section 7 Regulatory Approval Process

The following is a summary of the various permits, certifications, and agreements that may be necessary prior to construction and/or alteration within jurisdictional areas. Ultimately the regulatory agencies make the final determination of jurisdictional boundaries and permitting requirements.

7.1 U.S. ARMY CORPS OF ENGINEERS

A permit would not be required from the Corps Regulatory Branch-Los Angeles District Office as no Corps jurisdictional areas were located within the project site. However, an Approved Jurisdictional Determination (AJD) shall be obtained from the Corps. A concurrence from the Corps would document the findings of the delineation to confirm that the on-site drainage features do not qualify as waters of the United States and provide a determination concerning the isolated nature of the on-site conditions.

7.2 REGIONAL WATER QUALITY CONTROL BOARD

The Regional Board regulates discharges to surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. Based on current design plans, implementation of the project will result in 0.089-acre (2,405 liner feet) of impact to Regional Board waters of the State. Although there are no Corps jurisdictional areas on-site, a Report of Waste Discharge (ROWD) from the Regional Board will be required prior to construction within the Regional Board's jurisdictional area (California Water Code Section 13260). The Regional Board also requires that CEQA compliance be obtained prior to obtaining the ROWD.

The U.S. Supreme Court's ruling in the SWANCC decision has no bearing on the California Porter-Cologne Act. Thus, since Porter-Cologne was enacted, the State has always retained authority to regulate discharges of waste into any waters of the State, regardless of whether the Corps has concurrent jurisdiction under Section 404. Since the on-site drainages were determined to display isolated conditions (SWANCC drainages), a ROWD pursuant to California Water Code Section 13260 would be required from the Regional Board. Section 13260 states that persons discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a ROWD containing information which may be required by the appropriate Regional Board.

7.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Pursuant to Section 1602 of the California Fish and Game Code, the CDFW regulates any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream. Based on current design plans, implementation of the project will result in 0.089-acre (2,405 liner feet) of impact to CDFW jurisdictional streambed. Therefore, any impacts to the on-site jurisdictional areas will require a Section 1602 Streambed Alteration Agreement from the

CDFW prior to project implementation. The notification fee is based on the term and cost of a project. The Section 1602 Streambed Alteration Agreement will not be issued until all fees are paid to the CDFW.

7.4 RECOMMENDATIONS

It is recommended that this delineation be forwarded to the regulatory agencies for their review and concurrence. The concurrence/receipt would solidify findings noted within this report.

Section 8 References

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Appendix A Documentation

U.S. Fish and Wildlife Service

National Wetlands Inventory

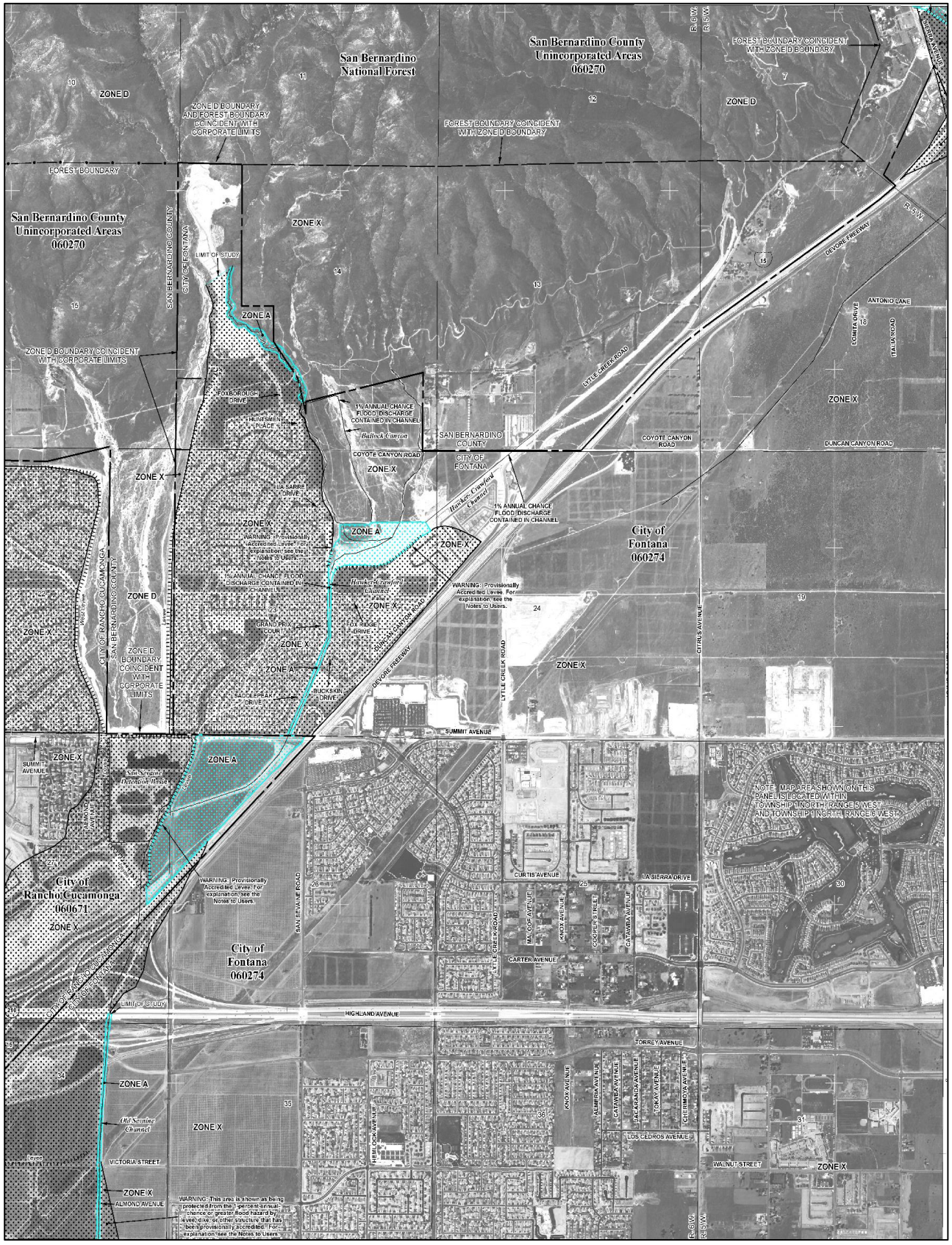
CapRock Warehouse Project

October 2, 2017

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 20 — 20 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4376000mN — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone V (FIPSZONE 0405), Lambert Conformal Conic projection
- DX5510 X — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
March 18, 1998

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
January 17, 1997 - to change Base Flood Elevations and Special Flood Hazard Areas, and to update map format.
August 28, 2008 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

PANEL 7915H

FIRM

FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 7915 OF 9400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
FONTANA, CITY OF	060274	7915	H
RANCHO CUCAMONGA, CITY OF	060671	7915	H
SAN BERNARDINO COUNTY	060270	7915	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06071C7915H

MAP REVISED
AUGUST 28, 2008

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

Appendix B Site Photographs

Photograph 1: Looking west at where flows enter Drainage 1 from Lytle Creek Road.

Photograph 2: Looking downstream across Drainage 1. Russian thistle (*Salsola tragus)* dominates this portion of the drainage feature.

Photograph 3: View of the 2-foot concrete lined v-ditch portion of Drainage 1 located along the eastern boundary of the project site.

Photograph 4: Photo of the three 6-foot concrete culverts Drainage 1 discharges into located along the eastern boundary of the project site.

Photograph 5: View of the riparian vegetation associated with Drainage 2 within the western portion of the project site, west of Lytle Creek Road.

Photograph 6: Photo of the 3-foot culvert, located under Lytle Creek Road, where Drainage 2 flows into.

Photograph 7: View of the concrete-lined portion of Drainage 2 located within a residential property on-site. Drainage 2 flows east through the residential area before transitioning back into an earthen channel.

Photograph 8: Photo of where Drainage 2 exits the residential property and flows southeast onto the project site.

Photograph 9: Looking upstream at Drainage 2 where it flows for approximately 930 feet before dissipating as sheet flow across the project site.

Photograph 10: View of the area where Drainage 2 sheet flows across the project site.

Photograph 11: View of where Drainage 3 enters the project site. Flows enter the project site along the western boundary.

Photograph 12: Looking downstream at Drainage 3.

Photograph 13: Looking downstream at Drainage 3. California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*) dominate this channel.

Photograph 14: View of where Drainage 3 sheet flows onto the southern portion of the project site.

Appendix C.2

Habitat Assessment

I-15 Logistics Project

Draft Environmental Impact Report

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CAPROCK WAREHOUSE PROJECT

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

HABITAT ASSESSMENT

Prepared For:

City of Fontana
8353 Sierra Avenue
Fontana, California 92335
Contact: *DiTanyon Johnson*

Prepared By:

Michael Baker International
3536 Concours Street, Suite 100
Ontario, California 91764
Contact: *Thomas J. McGill, Ph.D.*
909.974.4907

October 2017
JN: 161657

CAPROCK WAREHOUSE PROJECT

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

HABITAT ASSESSMENT

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Ashley M. Barton
Biologist
Natural Resources

Thomas J. McGill, Ph.D.
Vice President
Natural Resources

October 2017
JN: 161657

Executive Summary

This report contains the findings of Michael Baker International's (Michael Baker) Habitat Assessment for the CapRock Warehouse Project (Project or project site) located in the City of Fontana, San Bernardino County, California. Michael Baker biologists Ashley M. Barton, Thomas C. Millington, and Travis J. McGill inventoried and evaluated the condition of the habitat within the project site on September 20, 2017.

The majority of the project site consists of vacant parcels of undeveloped land located northwest of Interstate 15 at the southeastern base of the San Gabriel Mountains. Based on historical aerial photographs (Google Earth Pro, 1994-2017), the project site has been exposed to a variety of disturbances including clearing/disking activities, residential land uses, off road vehicle use, and illegal dumping. Five (5) plant communities were observed within the boundaries of the project site during the habitat assessment: disturbed Riversidian alluvial fan sage scrub (RAFSS), Riversidian sage scrub (RSS), mixed riparian scrub, non-native grassland, ornamental. In addition, the project site contains land cover types that would be classified as disturbed and developed.

No special-status plant species were observed on-site during the field survey. Based on the results of the field survey, it was determined that the project site has a moderate potential to support Plummer's mariposa-lily (*Calochortus plummerae*) and Parry's spineflower (*Chorizanthe parryi* var. *parryi*). All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. Additionally, based on the field survey it was determined that the project site does not provide suitable habitat for Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) and this species has a low potential to occur within the boundaries of the project site. Additionally, it was determined special-status plant species identified in the California Natural Diversity Database (CNDDB) or California Native Plant Society Electronic Inventory of Rare and Endangered Vascular Plants of California either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. A focused special-status plant survey is recommended during the 2018 spring blooming period to determine the presence/absence of special-status plants on the project site.

Loggerhead shrike (*Lanius ludovicianus*) was the only special-status wildlife species observed during the habitat assessment. Based on the results of the field survey, it was determined that the project site has a high potential to support Cooper's hawk (*Accipiter cooperii*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); and a moderate potential to support California glossy snake (*Arizona elegans occidentali*s), northern harrier (*Circus cyaneus*), and coast horned lizard (*Phrynosoma blainvillii*). All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. Even though it was determined San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR) has a low potential to occur within the boundaries of the project site, United States Fish and Wildlfie Service (USFWS) will likely request that a focused presence/absence trapping study be conducted prior to development to ensure no SBKR occur on-site.

Three (3) unnamed, ephemeral drainage features (D-1, D-2 and D-3) were observed within the boundaries of the project site. These drainage features exhibited evidence of an ordinary high water mark (OHWM); however, it was determined that all three drainages do not exhibit a surface hydrologic connection to downstream waters of the United States. Therefore, the drainages on-site are considered intrastate isolated waters with no apparent interstate or foreign commerce connection. As a result, all three drainages would not be considered jurisdictional under the United States Army Corps of Engineers (Corps). An Approved Jurisdictional Determination (AJD) will need to be processed with the Corps to confirm that the on-site drainage features do not qualify as waters of the United States. Both the Santa Ana Regional Water Quality Control Board (Regional Board) and California Department of Fish and Wildlife (CDFW) will assert jurisdiction over the three drainage features as isolated jurisdictional non-wetland waters of the State, and CDFW jurisdictional streambed, respectively. Any impacts to on-site jurisdictional areas will require the following regulatory approvals prior to project implementation: Regional Board Report of Waste Discharge (ROWD), and CDFW Section 1602 Streambed Alteration Agreement. A Delineation of State and Federal Jurisdictional Waters was prepared under a separate cover for this project site.

The southern half of the project site is located within the boundary of the North Fontana Conservation Program, also referred to as the North Fontana Interim Multiple Species Habitat Conservation Plan (MSHCP). Per the North Fontana Conservation Program, the southern half of the project site is located within three habitat qualities (or mitigation fee types): "Suitable Habitat", "Restorable RAFSS Habitat", and "Unsuitable Habitat". The southern half of the project site consists of approximately 2.47 acres of "Suitable Habitat", 35.97 acres of "Restorable RAFSS Habitat" and 42.47 acres of "Unsuitable Habitat" as identified in the North Fontana Conservation Program. "Suitable Habitat" is mitigated in the North Fontana Conservation Program at a cost of $6,210 per acre totaling an estimated $15,338.70 of mitigation costs for the loss of "Suitable Habitat". "Restorable RAFSS Habitat" is mitigated at a cost of $4,140 per acre in the North Fontana Conservation Program equaling an estimated cost of $148,915.80 to mitigate for the loss of "Restorable RAFSS Habitat". "Unsuitable Habitat" is mitigated in the North Fontana Conservation Program at a cost of $1,035 per acres totaling an estimated $43,956.45 of mitigation costs for the loss of "Unsuitable Habitat". Development of the southern portion of the project site would result in a total of $208,210.95 in mitigation costs under the North Fontana Conservation Program. Refer to Table ES-1 below.

Table ES-1: North Fontana Conservation Program Habitat Qualities and Mitigation Fees

Habitat Qualities	Mitigation Fee (per acre)	On-Site Acreage	Total Mitigation Fee
Suitable Habitat	$6,210.00	2.47	$15,338.70
Restorable RAFSS Habitat	$4,140.00	35.97	$148,915.80
Unsuitable Habitat	$1,035.00	42.47	$43,956.45
	TOTALS	**80.91**	**$208,210.95**

Pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season.

The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds should be conducted within thirty (30) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur. As part of the nesting bird clearance survey, a pre-construction burrowing owl clearance survey shall be conducted within thirty days of the start of ground disturbing activities to ensure that burrowing owl remains absent from the project site.

Pursuant to California Fish and Game Code Section 3503, it is unlawful to destroy any bird's nest or any bird's eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks and owls) are protected under California Fish and Game Code Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. Consultation with CDFW might be required prior to the removal of any raptor nest on the project site, if found.

Table of Contents

EXHIBITS

APPENDIX

LIST OF ACRONYMS

BIOS	Biogeographic Information and Observation System
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
° F	Degrees Fahrenheit
FESA	Federal Endangered Species Act
MBTA	Migratory Bird Treaty Act
Michael Baker	Michael Baker International
MSHCP	Multiple Species Habitat Conservation Plan
NRCS	Natural Resources Conservation Service
Regional Board	Regional Water Quality Control Board
ROWD	Report of Waste Discharge
SBKR	San Bernardino Kangaroo Rat
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Section 1 Introduction

This report contains the findings of Michael Baker International's (Michael Baker) Habitat Assessment for the CapRock Warehouse Project (Project or project site) located in the City of Fontana, San Bernardino County, California. Michael Baker biologists Ashley M. Barton, Thomas C. Millington, and Travis J. McGill inventoried and evaluated the condition of the habitat within the project site on September 20, 2017.

The habitat assessment was conducted to characterize existing site conditions and assess the probability of occurrence of special-status[1] plant and wildlife species that could pose a constraint to implementation of the Project. This report provides a detailed assessment of the suitability of the on-site habitat to support burrowing owl (*Athene cunicularia*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR), coastal California gnatcatcher (*Polioptila californica californica*), Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), as well as several other special-status plant and wildlife species that were identified by the California Natural Diversity Database (CNDDB) and other electronic databases as potentially occurring in the vicinity of the project site.

1.1 PROJECT LOCATION

The project site is generally located north of Interstate 15 and west of Lytle Creek Wash on the southeastern foothills of the San Gabriel Mountains in the City of Fontana, San Bernardino County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Devore quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Sections 7 and 18 of Township 1 north, Range 5 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located northwest of Interstate 15, east of Sierra Avenue, and southeast of Lytle Creek Road (Exhibit 3, *Project Site*).

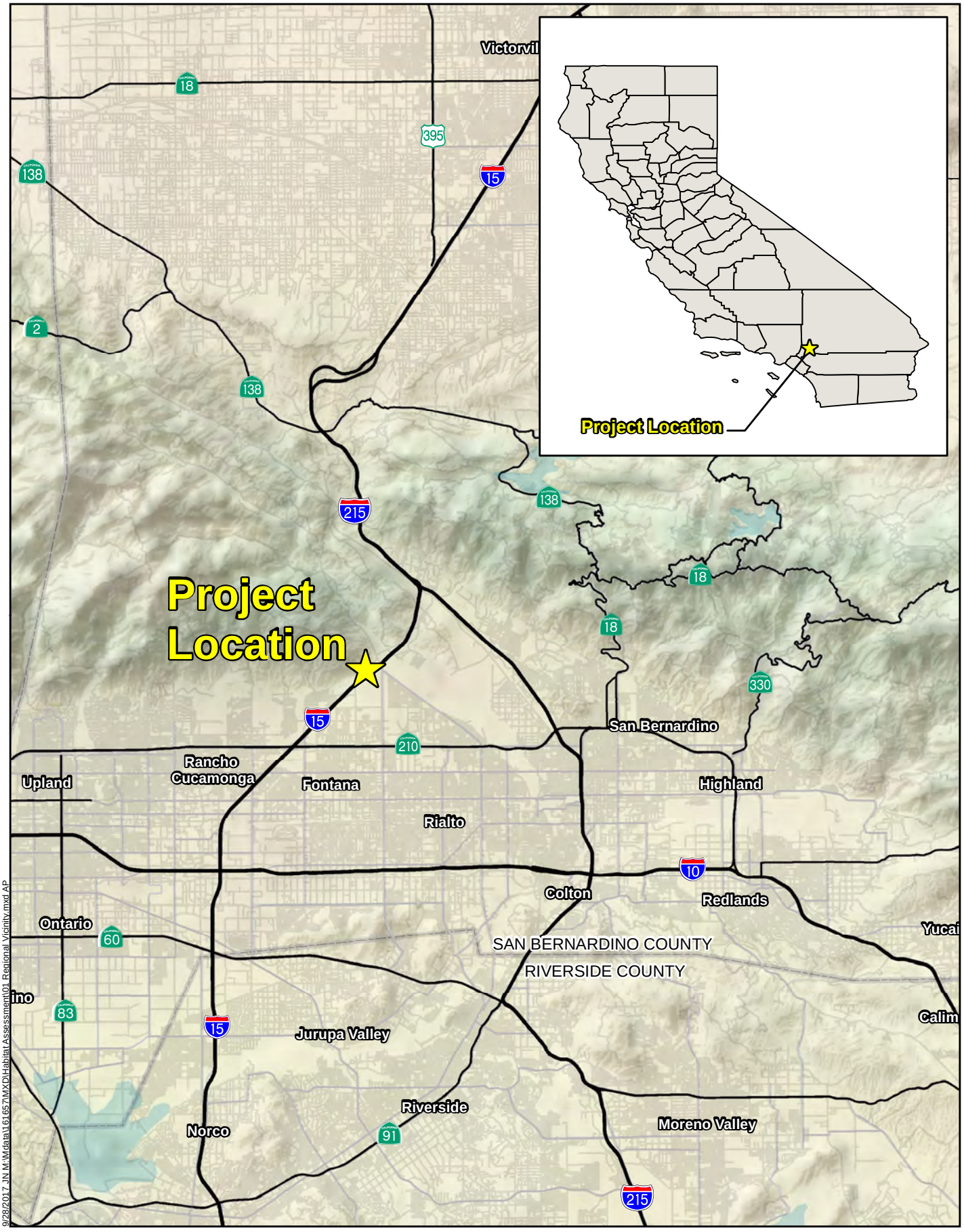
1.2 PROJECT DESCRIPTION

The project is located within the unincorporated San Bernardino County and will require annexation into the City of Fontana, as well as approval of a Sphere of Influence amendment and other entitlements as described below. The Project includes a warehouse development project (high cube), as well as the annexation of adjacent parcels (21), and portions of the right-of-way for Lytle Creek Road, Sierra Avenue and the Interstate 15 Freeway (Exhibit 4, *Depiction of Proposed Project*). The total annexation area is approximately 114 acres. Other components included:

- Warehouse site totals 1,175,720 square foot, features approximately 200 truck bays, and two (2) office spaces that totaling 30,000 square feet;

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally or State listed, proposed, or candidates; plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank; and wildlife species that are designated by the California Department of Fish and Wildlife (CDFW) as fully protected, species of special concern, or watch list species.

- Parcel map for warehouse site and adjacent annexed area;
- A sphere of influence amendment to include the area that is not currently within the City of Fontana's existing sphere of influence boundary;
- General plan land use designation; and
- Pre-zoning.



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Michael Baker INTERNATIONAL

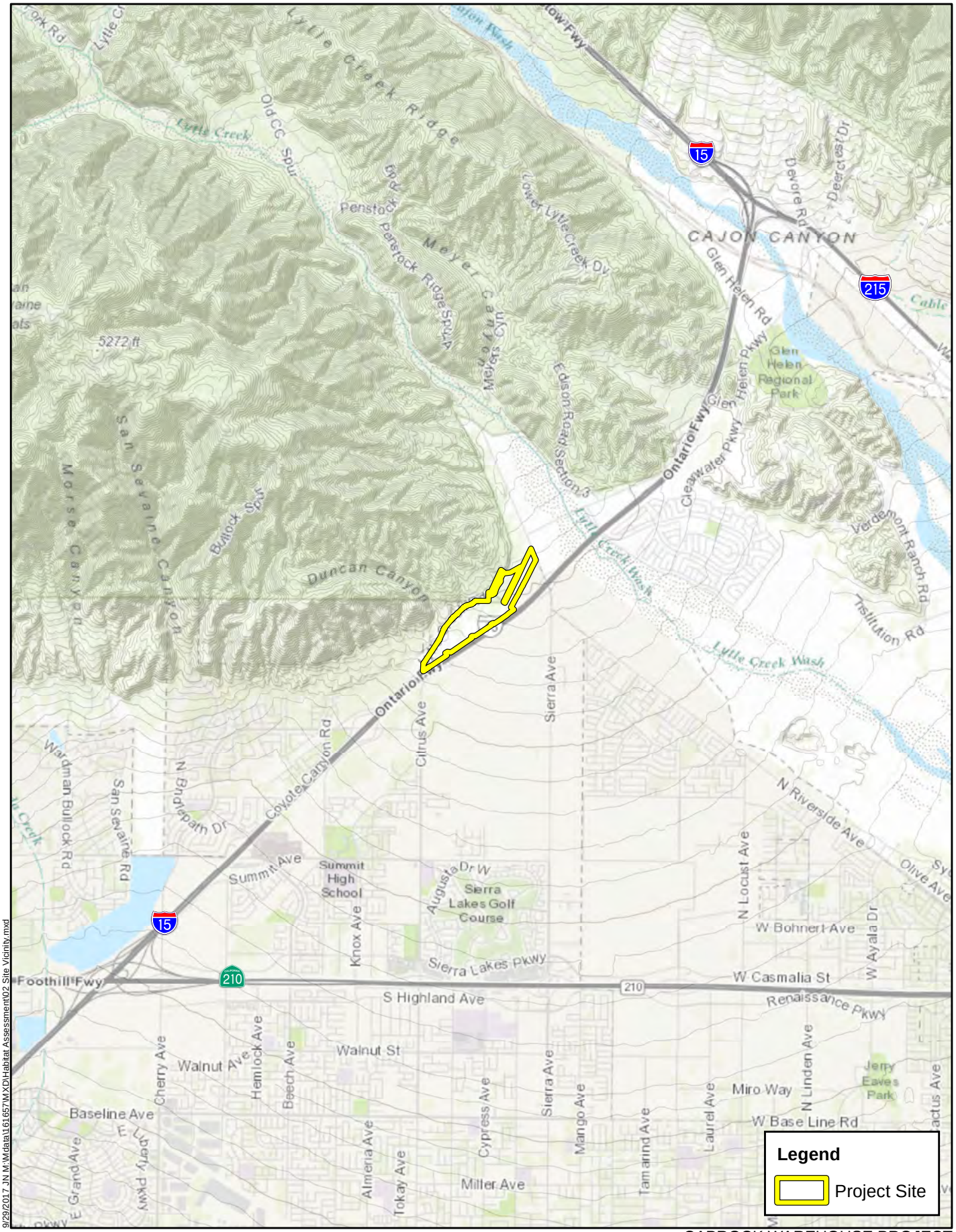
0 2.5 5 Miles

Source: ESRI Relief Map, National Highway Planning Network

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Regional Vicinity

Exhibit 1



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Michael Baker INTERNATIONAL

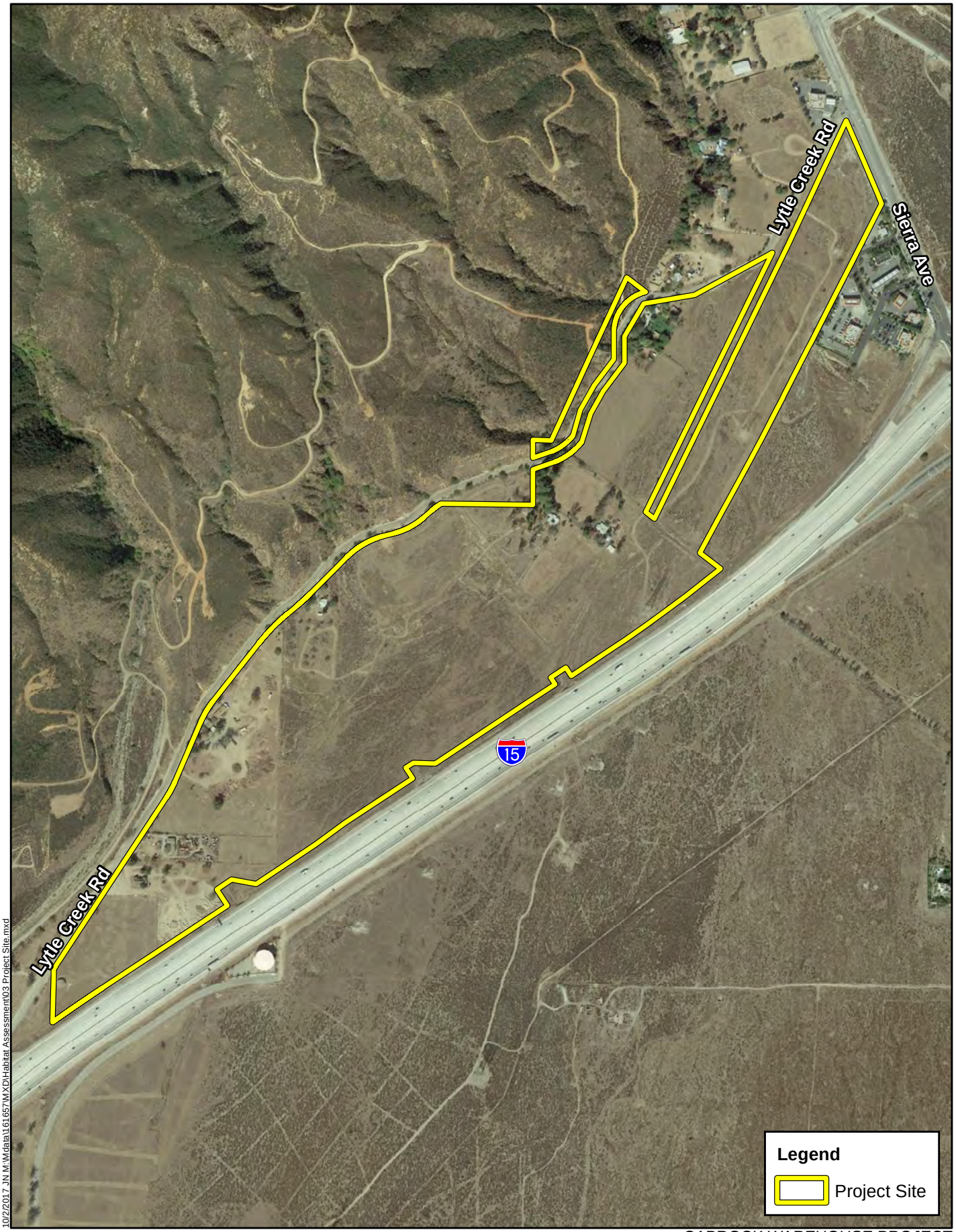
0 1 2 Miles

Source: ESRI USA Topographic Basemap, San Bernardino County, United States Geological Survey

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Site Vicinity

Exhibit 2



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Michael Baker INTERNATIONAL

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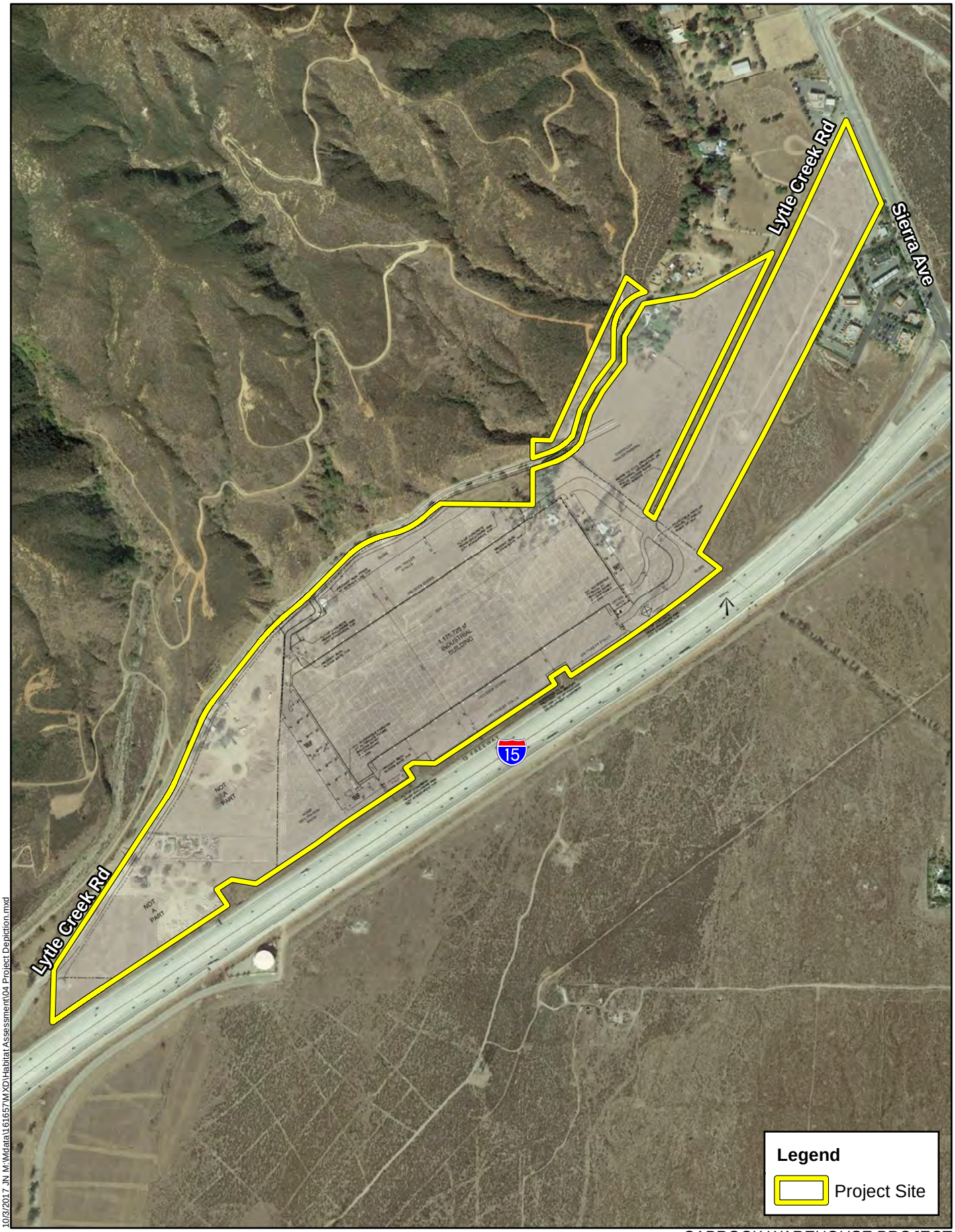
Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Project Site

Exhibit 3



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Michael Baker INTERNATIONAL

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Source: Google Imagery 2016, Douglas Franz Architects Inc.

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Project Depiction

Exhibit 4

Section 2 Methodology

Michael Baker conducted a thorough literature review and records search to determine which special-status plant and wildlife species have the potential to occur on or within the general vicinity of the project site. In addition, a general habitat assessment and field survey was conducted in order to document existing conditions on the project site and determine the potential for special-status plant and wildlife species to occur.

2.1 LITERATURE REVIEW

Prior to conducting the field survey, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the California Department of Fish and Wildlife's (CDFW) QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the U.S. Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred on the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1994 - 2016);
- North Fontana Conservation Program (previously refeed to as the North Fontana Interim Multiple Species Habitat Conservation Plan [MSHCP]);
- San Bernardino County General Plan;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. Additional recorded occurrences of those species that have been documented on or near the project site were derived from database queries. The CNDDB database was

used, in conjunction with ArcGIS software, to locate the occurrence records and determine the distance from the project site.

2.2 HABITAT ASSESSMENT

Michael Baker biologists Ashley M. Barton, Thomas C. Millington, and Travis J. McGill inventoried and evaluated the condition of the habitat within the project site on September 20, 2017. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field survey.

Special attention was given to any special-status habitats and/or undeveloped, natural areas, which have a higher potential to support special-status plant and wildlife species. Areas providing suitable habitat for burrowing owl were closely surveyed for signs of presence during the habitat assessment. Survey transects were oriented north to south and spaced at 10-meter (approximately 33 feet) intervals to ensure 100 percent visual coverage of all areas with the potential to provide suitable habitat for burrowing owls. Methods to detect the presence of burrowing owl included direct observation, aural detection, and signs of presence including pellets, white wash, feathers, or prey remains.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field survey and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

2.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field visit using the USDA NRCS Web Soil Survey for San Bernardino County Southwestern Part, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes and disturbances that have occurred on the project site.

2.4 PLANT COMMUNITIES

Plant communities were mapped using USGS 7.5-minute topographic maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW

(2010) and Holland (1986), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

2.5 PLANTS

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field, and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. In this report, scientific names are provided immediately following common names of plant species (first reference only).

2.6 WILDLIFE

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other sign were recorded in a field notebook. Field guides used to assist with identification of species during the field survey included The Sibley Guide to Birds (Sibley 2014) for birds, A Field Guide to Western Reptiles and Amphibians (Stebbins 2003) for herpetofauna, and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

2.7 JURISDICTIONAL AREAS

Aerial photography was reviewed prior to conducting the habitat assessment. The aerials were used to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may be considered riparian/riverine habitat and/or fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory authorities.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

San Bernardino County is characterized by cool winter temperatures and warm summer temperatures, with its rainfall occurring almost entirely in the winter. Relative to other areas in Southern California, winters are colder with chilly to cold morning temperatures common. Climatological data obtained for the City of Fontana indicates the annual precipitation averages 14.77 inches per year. Almost all of the precipitation occurs in the months between November and March, with hardly any occurring in July. The wettest month is March, with a monthly average total precipitation of 3.49 inches. The average maximum and minimum temperatures for the region are 80 and 53 degrees Fahrenheit (°F) respectively with July and August (monthly average 95° F) being the hottest months and December (monthly average 44°F) being the coldest. Temperatures during the site visit were in the low-70s (°F) with overcast skies.

3.2 TOPOGRAPHY AND SOILS

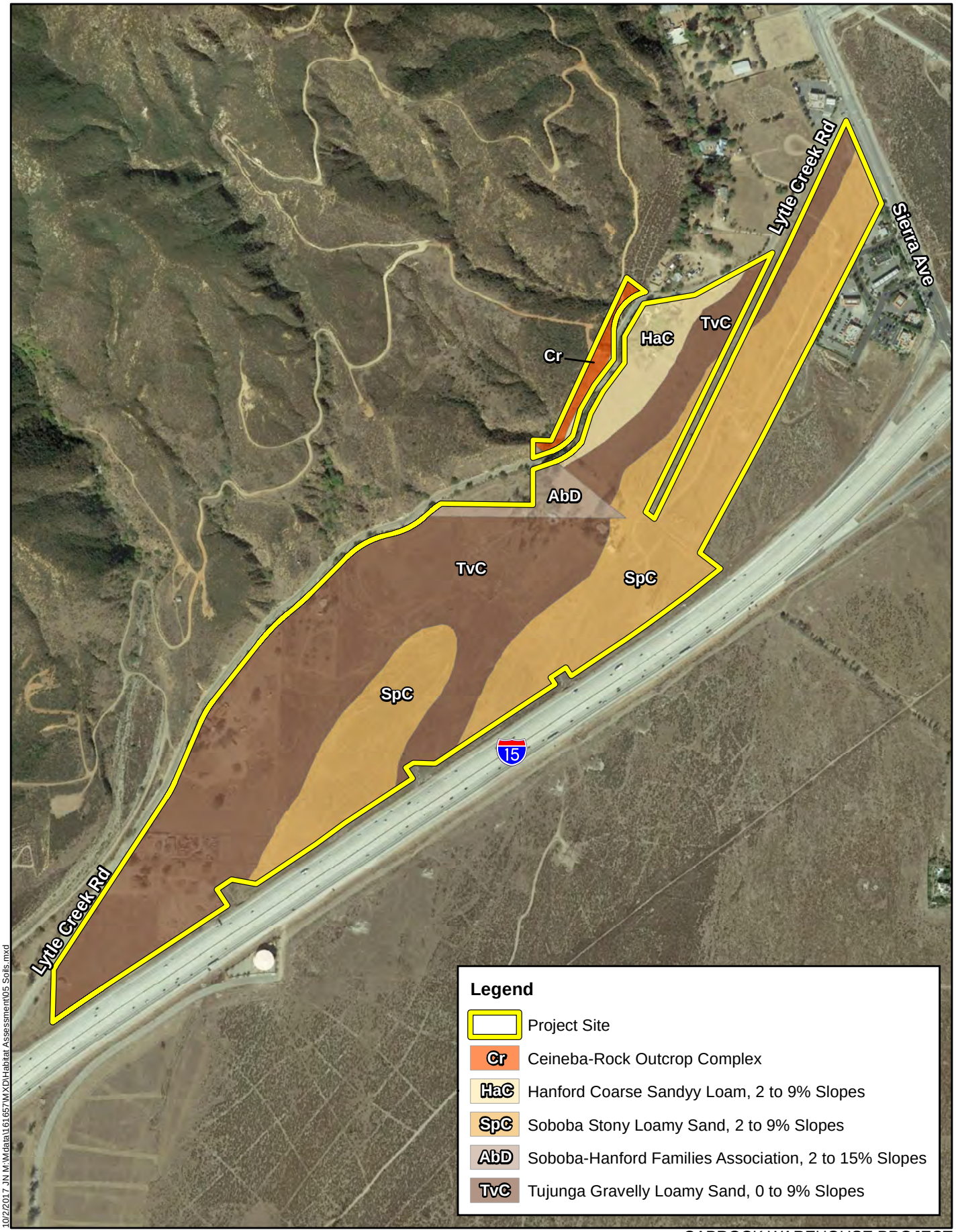
On-site surface elevation ranges from approximately 1,850 to 2,079 feet above mean sea level and generally slopes to the southwest. The project site is relatively flat with no areas of significant topographic relief. Based on the USDA NRCS Web Soil Survey, the project site is underlain by the following soil units (Exhibit 5, *Soils*).

- **Cieneba – Rock Outcrop Complex, 30 to 50 Percent Slopes, MLRA 20 (Cr):** The Cieneba-rock outcrop complex (30 to 50 percent slopes, MLRA 20) soil unit consists of somewhat excessively drained soils formed from residuum weathered from granite sources. It is found on mountain slopes and hillsides. Elevations are recorded at 500 to 5,500 feet above mean sea level (msl).

- **Hanford Coarse Sandy Loam, 2 to 9 Percent Slopes (HaC):** The Hanford coarse sandy loam (2 to 9 percent slopes) soil unit consists of well drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 150 to 900 feet above msl.

- **Soboba Stony Loamy Sand, 2 to 9 Percent Slopes (SpC):** The Soboba stony loamy sand (2 to 9 percent slopes) soil unit consists of excessively drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 960 to 3,690 feet above msl.

- **Tujunga Gravelly Loamy Sand, 0 to 9 Percent Slopes (TvC):** The Tujunga gravelly loamy sand (0 to 9 percent slopes) soil unit consists of somewhat excessively drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 10 to 1,500 feet abouve msl.



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Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Soils

Exhibit 5

3.3 SURROUNDING LAND USES

The project site is located at the southeastern base of the San Gabriel Mountains in southwestern San Bernardino County southwest of Lytle Creek. Vacant land, rural residential developments, and commercial land uses surround the project site to the north, south, east, and west. Interstate 15 runs along the southeastern boundary of the project site. Lytle Creek Road bisects the northwest portion of the project site and runs along the site's northwestern boundary. The San Bernardino National Forest is located northwest of the project site, north of Lytle Creek Road.

Section 4 Discussion

4.1 SITE CONDITIONS

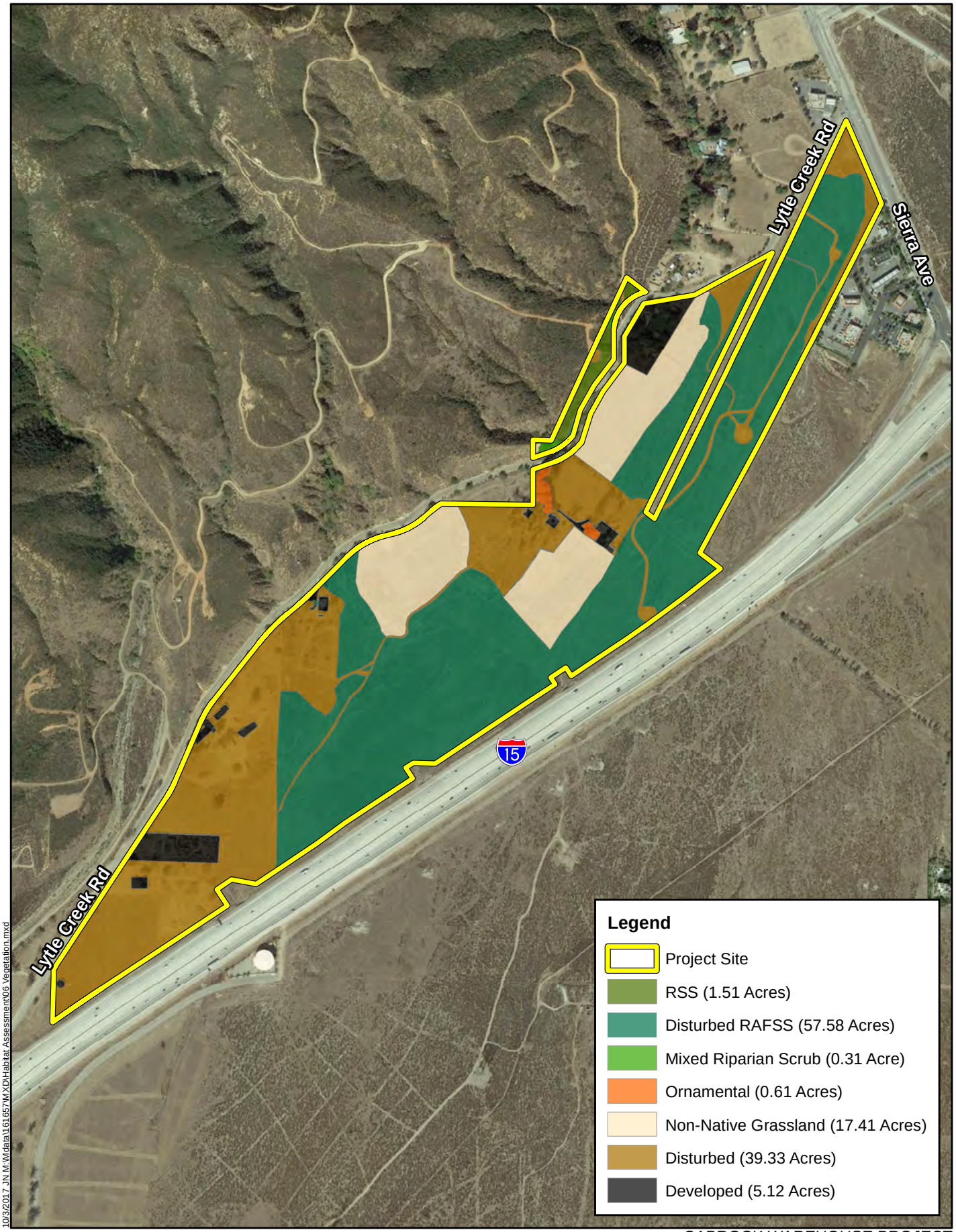
The majority of the project site consists of vacant parcels of undeveloped land located northwest of Interstate 15 at the southeastern base of the San Gabriel Mountains. Based on historical aerial photographs (Google Earth Pro, 1994-2016), the project site has been exposed to a variety of disturbances including clearing/disking activities, off road vehicle use, residential land uses, and illegal dumping. Seven (7) residential properties were observed along the western boundary of the project site, adjacent to Lytle Creek Road. Habitats within the northern half of the project site support less shrubs and are more open with >60% non-native grass (NNG) cover compared to habitats in the southern half of the project site which support more shrub cover with <30% NNG cover. A water tank can be found within the southern portion of the project site and transmission towers were observed adjacent to the project site's eastern boundary. Refer to Appendix A for representative photographs taken throughout the project site.

4.2 VEGETATION

Portions of the project site have been routinely maintained (i.e., cleared/disked) and subject to anthropogenic disturbances which has heavily disturbed the natural plant communities on-site. In addition, the project site has been cut off from the fluvial process of Lytle Creek from the development of Sierra Avenue and channelization of the Lytle Creek under Interstate 15. Five (5) plant communities were observed within the boundaries of the project site during the habitat assessment: disturbed RAFSS, mixed riparian scrub, non-native grassland, ornamental, and RSS (Exhibit 6, *Vegetation*). In addition, the project site contains land cover types that would be classified as disturbed and developed. These plant communities and land cover type are described in further detail below.

4.2.1 Disturbed Riversidian Alluvial Fan Sage Scrub (57.58 Acres)

RAFSS is considered a special-status plant community by CDFW and the CNPS. RAFSS is a shrubland habitat type that occurs in washes and on gently sloping alluvial fans. RAFSS is predominantly supports drought-deciduous soft-leaved shrubs, with significant cover of larger perennial species typically found in chaparral (Kirkpatrick and Hutchinson 1977). Scalebroom (*Lepidospartum squamatum*) is generally regarded as an indicator of RAFSS (Smith 1980; Hanes et al. 1989). In addition to scalebroom, woody shrubs such as chamise (*Adenostoma fasciculatum*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), and yerba santa (*Eriodictyon trichocalyx*) are present in RAFSS. Common subshrubs include deerweed (*Acmispon glaber*), matchweed (*Gutierrezia sarothrae*), and Douglas' nightshade (*Solanum douglasii*). The Holland (1986) classification system describes three sub classifications of RAFSS: pioneer, intermediate, and mature with their distribution typically based on differences in flooding frequency and intensity.



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Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Vegetation

Exhibit 6

The disturbed RAFSS plant community was observed in the northern and central portions of the project site. The project site has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek and flows exiting the San Gabriel Mountains due to the construction of the Interstate 15 freeway, Lytle Creek Road, Sierra Avenue, and developments in the surrounding area which has disrupted the natural flood regime within the area, resulting in poor quality RAFSS habitat on-site. This plant community is vegetated by scalebroom, California buckwheat, and non-native grasses (i.e. ripgut Brome [*Bromus diandrus*], red brome [*Bromus madritensis* ssp. *rubens*], Mediterranean grass [*Schismus barbatus*]). Other plant species observed within this plant community include chamise, hoary leaved ceanothus (*Ceanothus crassifolius*), and black elderberry (*Sambucus nigra*).

4.2.2 Riversidian Sage Scrub (1.51 Acres)

The RSS plant community can be found within the northwestern portion of the project site. This plant community was observed along the hillside located northwest of Lytle Creek Road and is dominated by California sagebrush, brittlebush (*Encelia farinosa*), and California buckwheat (*Eriogonum fasciculatum*). Other plant species observed within this plant community include deerweed (*Acmispon glaber*), chaparral yucca (*Hesperoyucca whipplei*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*).

4.2.3 Mixed Riparian Scrub (0.31 Acres)

The mixed riparian scrub plant community is located within the ephemeral drainage features in small patches in the canyons that exit the San Gabriel Mountains northwest of Lytle Creek Road. Western sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii*) dominate this plant community. Other species observed in this community include tree tobacco (*Nicotiana glauca*), California mugwort (*Artemisia douglasiana*), and castorbean (*Ricinus communis*).

4.2.4 Non-native Grassland (17.41 Acres)

The non-native grassland plant community can be found within the northern and central portions of the project site and are associated with the residential properties on-site that have been subject to extensive mowing and grading activities. This plant community is dominated by wild oat (*Avena fatua*), ripgut brome, red brome, downy brome grass (*Bromus tectorum*), and short podded mustard (*Hirschfeldia incana*).

4.2.5 Ornamental Vegetation (0.61 Acres)

Ornamental vegetation is associated with the residential properties on-site. Ornamental plant species associated with this plant community include eucalyptus (*Eucalyptus* sp.), China berry tree (*Melia azedarach*), olive (*Olea europaea*), and pine (*Pinus* sp.).

4.2.6 Disturbed (39.33 Acres)

Disturbed areas refer to unpaved or dirt areas that are routinely exposed to continuous anthropogenic disturbances and typically do not comprise a plant community. Surface soils within these areas are generally

devoid of vegetation or support non-native and ruderal/weedy plant species, and have been heavily disturbed/compacted from anthropogenic disturbances. Disturbed areas on-site generally encompass unimproved dirt access roads that traverse the project site and the land immediately adjacent to the rural residential properties on-site that are routinely disturbed or used for storage.

4.2.7 Developed (5.12 Acres)

Developed areas within the project site generally consist of paved, impervious surfaces and infrastructure. Developed areas within the boundaries of the project site include paved roads/driveways and infrastructure associated with the rural residential properties.

4.3 WILDLIFE

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

4.3.1 Fish

No fish were observed on the project site during the habitat assessment. The ephemeral drainage features located within the project site were dry during the habitat assessment and most likely do not support standing water for long periods of time that would be sufficient to support populations of fish. Therefore, no fish are expected to occur and are presumed absent from the project site.

4.3.2 Amphibians

No amphibians were observed within the project site during the habitat assessment. The ephemeral drainage features located within the boundaries of the project site were dry during the habitat assessment and most likely do not support standing water for long periods of time that would be sufficient to support populations of amphibians. However, amphibians may still be present under leaf litter or aestivating underneath the surface within the vicinity of the drainage features. When surface water is present, amphibians may be present. Amphibian species most likely to occur when water is present, or to aestivate in the area when water is not, include Baja California treefrog (*Pseudacris hypochondriaca*) and western toad (*Anaxyrus boreas*).

4.3.3 Reptiles

The project site and surrounding habitat has the potential to support a variety of reptilian species adapted to human disturbances. San Diego gopher snake (*Pituophis catenifer annectens*) was this only reptilian species observed during the habitat assessment. Other reptilian species that are expected to occur on-site include western side-blotched lizard (*Uta stansburiana elegans*), western fence lizard (*Sceloporus*

occidentalis), southern pacific rattlesnake (*Crotalus oreganus helleri*), and alligator lizard (*Elgaria multicarinata*).

4.3.4 Birds

The project site provides suitable foraging habitat for a variety of resident and migrant bird species. Bird species detected during the field survey included red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), American kestrel (*Falco sparverius*), California towhee (*Melozone crissalis*), northern mockingbird (*Mimus polyglottos*), American bushtit (*Psaltriparus minimus*), western meadowlark (*Sturnella neglecta*), Bewick's wren (*Thryomanes bewickii*).

4.3.5 Mammals

California ground squirrel (*Otospermophilus beecheyi*) and Audobon's cottontail (*Sylvilagus audubonii*) were the only mammalian species observed during the habitat assessment. However, the project site and surrounding habitat has the potential to support a variety of mammalian species adapted to human disturbances such as raccoon (*Procyon lotor*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), mule deer (*Odocoileus hemionus*) and striped skunk (*Mephitis mephitis*). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices) within the project site.

4.4 NESTING BIRDS

No active nests or birds displaying nesting behavior were observed during the field survey. The field survey was conducted late-September, after most birds have stopped nesting. The plant communities within the project site provide foraging and nesting habitat for a variety of year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The project site also has the potential to support birds that nest on the open ground, such as killdeer (*Charadrius vociferus*) and western meadowlarks (*Sturnella neglecta*). Additional nesting habitat is present within the shrubs and trees located throughout the site.

4.5 MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet, inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The San Bernardino County Land Use Plan Open Space Element depicts wildlife corridors within the Valley and Mountain Areas. According to the San Bernardino County Land Use Plan Open Space Element, the project site has not been identified as occurring within a Wildlife Corridor or Linkage. Although constrained by Interstate 15 Freeway to the southeast and Sierra Avenue to the east, the open and natural habitats within and surrounding the project site to the north and southwest allows wildlife to move through the region in search of food, shelter, or nesting habitat from the San Gabriel Mountains. Lytle Creek Wash is located directly northeast of the project site, across Sierra Avenue. The project site provides open space for wildlife species moving northwest from the wash into the San Gabriel Mountains, however, the current high levels of disturbance on the project site and the disturbances associated with Sierra Avenue, Interstate 15, and surrounding urban development adjacent to the project site, may limit wildlife use in this area. Implementation of the proposed project may have a temporary impact on wildlife movement within Lytle Creek and the San Gabriel Mountains, from construction activities (i.e., noise). However, implementation of the proposed project is not expected to have permanent impacts to wildlife movement in the region.

4.6 JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (Regional Board) regulates discharges to surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities under Section 1600 *et seq*. of the California Fish and Game Code.

Three (3) unnamed, ephemeral drainage features (D-1, D-2 and D-3) were observed within the boundaries of the project site. These drainage features exhibited evidence of an ordinary high water mark (OHWM); however, it was determined that all three drainages do not exhibit a surface hydrologic connection to downstream waters of the United States. Therefore, the drainages on-site are considered intrastate isolated waters with no apparent interstate or foreign commerce connection. As a result, all three drainages would not be considered jurisdictional under the Corps. An Approved Jurisdictional Determination (AJD) will need to be processed with the Corps to confirm that the on-site drainage features do not qualify as waters of the United States. Both the Regional Board and California Department of CDFW will assert jurisdiction over the three drainage features as isolated jurisdictional non-wetland waters of the State, and CDFW jurisdictional streambed, respectively. Any impacts to on-site jurisdictional areas will require the following regulatory approvals prior to project implementation: Regional Board Report of Waste Discharge (ROWD), and CDFW Section 1602 Streambed Alteration Agreement. A Delineation of State and Federal Jurisdictional Waters was prepared under a separate cover for this project site.

4.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDB Rarefind 5, the Quickview Tool in BIOS, and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Devore USGS 7.5-minute quadrangle. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified twenty-five (25) special-status plant species, twenty-nine (29) special-status wildlife species, and three (3) special-status plant communities as having the potential to occur within the Devore quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in *Table B-1: Potentially Occurring Special-Status Biological Resources*, provided in Appendix B. Refer to Table B-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

4.7.1 Special-Status Plants

Twenty-five (25) special-status plant species have been recorded in the CNDDB and CNPS in the Devore USGS 7.5-minute quadrangle (refer to Appendix B). No special-status plant species were observed on-site during the field survey. The majority of the project site has been exposed to a variety of disturbances including clearing/disking activities, off road vehicle use, and illegal dumping resulting in heavily disturbed natural plant communities. Based on the results of the field survey, it was determined that the project site has a moderate potential to support Plummer's mariposa-lily (*Calochortus plummerae*) and Parry's spineflower (*Chorizanthe parryi* var. *parryi*). All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. A focused special-status plant survey is recommended during the 2018 spring blooming period to determine the presence/absence of special-status plants on the project site. Due to regional significance, the potential occurrence of Santa Ana River woollystar, plummer's mariposa-lily, and Parry's spineflower are described in further detail below.

4.7.1.1 Santa Ana River Woollystar

The Santa Ana River woollystar is a perennial which grows upright to about 3 feet and can be found in dry, sandy soils in open areas on alluvial terraces. It is known only from the Santa Ana River channel, historically from the base of the San Bernardino Mountains downstream to Anaheim. Currently, it can be found mostly in the cities of Mentone and Redlands. Habitat types include both chaparral and alluvial scrub. It is a pioneer subspecies that colonizes washed sand deposits created by sporadic stream flow action. Periodic flooding, scouring, and sediment deposition is important to maintaining Santa Ana River

woollystar habitat. This species can be found at elevations ranging from 299 to 2,001 feet above mean sea level and has a blooming period from April to September.

The project site does support RSS and disturbed RAFSS habitat needed by Santa Ana River woollystar. However, the surrounding development and agricultural land uses have separated the project site from the Lytle Creek floodplain. As a result, the area is no longer subjected to the fluvial processes associated with the Lytle Creek wash system. Santa Ana River woollystar was not observed on the project site during the habitat assessment. Due to the high level of continual human disturbances on the project site and the sites separation from the Lytle Creek, Santa Ana River woollystar has a low potential for occur on the project site.

4.7.1.1 Plummer's Mariposa-lily

Plummer's mariposa-lily is a perennial herb that is endemic to southern California where it is found along the coast and inland hills. It grows in granitic and rocky soils within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valet and foothill grassland habitats. Plummer's mariposa-lily produces thin, branching stems and a few long curling leaves. The top of the stem consists of a lily bloom with long, pointed sepals and petals which may be up to 4 cm long. The petals are usually a pink, lavender, or white with a wide yellow band across the middle. Additionally, the petals are hairy inside and sometimes fringed with hairs. This species can be found at elevations ranging from 328 to 5,577 feet above mean sea level and has a blooming period from May to July.

The RSS and disturbed RAFSS habitats on-site have the potential to support Plummer's mariposa-lily. Additionally, this species has been recorded as occurring within the vicinity of the project site. The closest observations of Plummer's mariposa-lily were recorded within the Lytle Creek wash approximately 1.43 miles east of the project site (CNDDB 2006) and within the San Gabriel Mountains approximately 1 miles northwest of the project site (CNDDB 2004). Therefore, it was determined that Plummer's mariposa-lily has a moderate potential for occur on the project site.

4.7.1.1 Parry's Spineflower

Parry's spineflower is an annual known from the flats and foothills of the San Gabriel, San Bernardino, and San Jacinto Mountains within Los Angeles, San Bernardino, and Riverside counties. It has white flowers and three outer floral bracts that are long, widely spread, and terminate in a hook. Parry's spineflower occurs within sandy or rocky openings within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Within the San Gabriel, San Bernardino, and San Jacinto Mountains, this species occurs within the alluvial chaparral and scrub habitats. Parry's spineflower can be found at elevations ranging from 902 to 4,003 feet above mean sea level and blooms from April through June.

The RSS and disturbed RAFSS habitats on-site have the potential to support Parry's spineflower. These habitats support the sandy, alluvial habitat this species requires. Additionally, this species has been recorded as occurring within the vicinity of the project site. Parry's spineflower has been recorded as occurring

approximately 0.30 miles northeast of the project site within the Lytle Creek wash (CNDDB 2005). Additionally, this species was observed approximately 0.70 miles southeast of the project site to the east of Sierra Avenue (CNDDB 2012). Therefore, it was determined that Parry's spineflower has a moderate potential for occur on the project site.

4.7.2 Special-Status Wildlife

Twenty-nine (29) special-status wildlife species have been reported in the Devore USGS 7.5-minute quadrangle (refer to Appendix B). Loggerhead shrike (*Lanius ludovicianus*) was the only special-status wildlife species observed during the habitat assessment. Based on the results of the field survey, it was determined that the project site has a high potential to support Cooper's hawk (*Accipiter cooperii*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); and a moderate potential to support California glossy snake (*Arizona elegans occidentali*s), coastal whiptail (*Aspidoscelis tigris stejnegeri*), northern harrier (*Circus cyaneus*), and coast horned lizard (*Phrynosoma blainvillii*). All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. Due to regional significance, the potential occurrence of burrowing owl, SBKR, coastal California gnatcatcher, and Los Angeles pocket mouse is described in further detail below.

4.7.2.1 Burrowing Owl

The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

The project site is relatively flat and sparsely vegetated with low-growing plant species which provide open foraging habitat and a clear line-of-sight favored by burrowing owls. However, no burrowing owls or sign (i.e., pellets, feathers, castings, or white wash) was observed during the field survey. In addition, the project site does not provide suitable burrows (>4 inches in diameter) with the potential to provide roosting/nesting opportunities for burrowing owl. Therefore, it was determined that burrowing owl have a low potential to occur within the project site.

4.7.2.2 San Bernardino Kangaroo Rat

SBKR, a federally listed as endangered, is one of several kangaroo rat species in its range. The Dulzura, the Pacific kangaroo rat (*Dipodomys agilis*), and the Stephens' kangaroo rat (*Dipodomys stephensi*) occur in areas occupied by the SBKR, but these other species have a wider habitat range. The habitat of SBKR is described as being confined to pioneer and intermediate RAFSS habitats, with sandy soils deposited by fluvial (water) rather than Aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs.

SBKR is one of three subspecies of the Merriam's kangaroo rat. The Merriam's kangaroo rat is a widespread species that can be found from the inland valleys to the deserts. The subspecies known as the SBKR, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages. Most of the drainages have been historically altered as a result of flood control efforts and the resulting increased use of river resources, including mining, off-road vehicle uses and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species (USFWS, 1998a). Primary Constituent Elements (PCE's) are a physical or biological features essential to the conservation of a species for which its designated critical habitat is based on. Examples of PCE's include food, water, space for individual and population growth, cover or shelter, etc. The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for SBKR are:

1. River, creek, stream, and wash channels; alluvial fans, flood plains, flood benches and terraces; and historic braided channels that are subject to dynamic geomorphological and hydrological processes;

2. Alluvial sage scrub and associated vegetation such as coastal sage scrub and chamise chaparral with a moderately open canopy;

3. Soil series consisting of sand, sandy loam, or loam within its geographical range;

4. Upland areas proximal to flood plains containing suitable habitat (land adjacent to alluvial fan that provides Refugia); and

5. Moderate to low degree of human disturbances to habitat.

The disturbed RAFSS plant community on-site provides some shelter and has less than 50 percent canopy cover with patches of suitable soils for burrowing and foraging. However, the project site has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek and flows exiting the San Gabriel Mountains due to the construction of the Interstate 15 freeway, Lytle Creek Road, Sierra Avenue, and developments in the surrounding area. These activities have disrupted the natural flood regime within the area, resulting in poor quality SBKR habitat on-site. Further, the high degree of

anthropogenic disturbances the majority of the site has been subject to further reduces the suitability of the habitat to support SBKR.

Per the Action Plan for Implementing the North Fontana Conservation Program, SBKR have not been trapped within the North Fontana Conservation Program boundary despite numerous trapping studies conducted from 2002 to 2016. Therefore, it was determined that SBKR has a low potential to occur within the boundaries of the project site. However, since the project site is located within federally designated Critical Habitat for SBKR, the USFWS will likely request that a focused presence/absence trapping study be conducted prior to development of the project site to ensure no SBKR occur on-site.

4.7.2.3 Coastal California Gnatcatcher

California gnatcatcher is a federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation. California gnatcatchers breed between mid-February and the end of August, with peak activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of California gnatcatcher remaining. Declines are attributed to loss of sage scrub habitat due to development, as well as cowbird nest parasitism.

The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for California gnatcatcher are:

1. Dynamic and Successional sage scrub Habitats and Associated Vegetation (RAFSS, Coastal Sage-Chaparral Scrub, etc.) 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, and riparian areas, in proximity to sage scrub habitats that provide linkages to help with dispersal, foraging and nesting.

The RSS and disturbed RAFSS plant communities on-site have the potential to support coastal California gnatcatcher. Per the CNDDB, an unknown number of coastal California gnatcatcher were detected approximately 0.47 miles east of the mitigation site adjacent to the southwest side of Lytle Creek Wash (CNDDB 1991). However, per the Action Plan for Implementing the North Fontana Conservation Program, California gnatcatcher have not been observed during focused surveys conducted from 2002 to 2016 within north Fontana. Additionally, the project site is out of the elevation range for this species; coastal California gnatcatcher generally occurs below 1,500 feet inland. Therefore, it was determined that coastal California gnatcatcher has a low potential to occur within the boundaries of the project site. No focused surveys for California gnatcatcher are recommended.

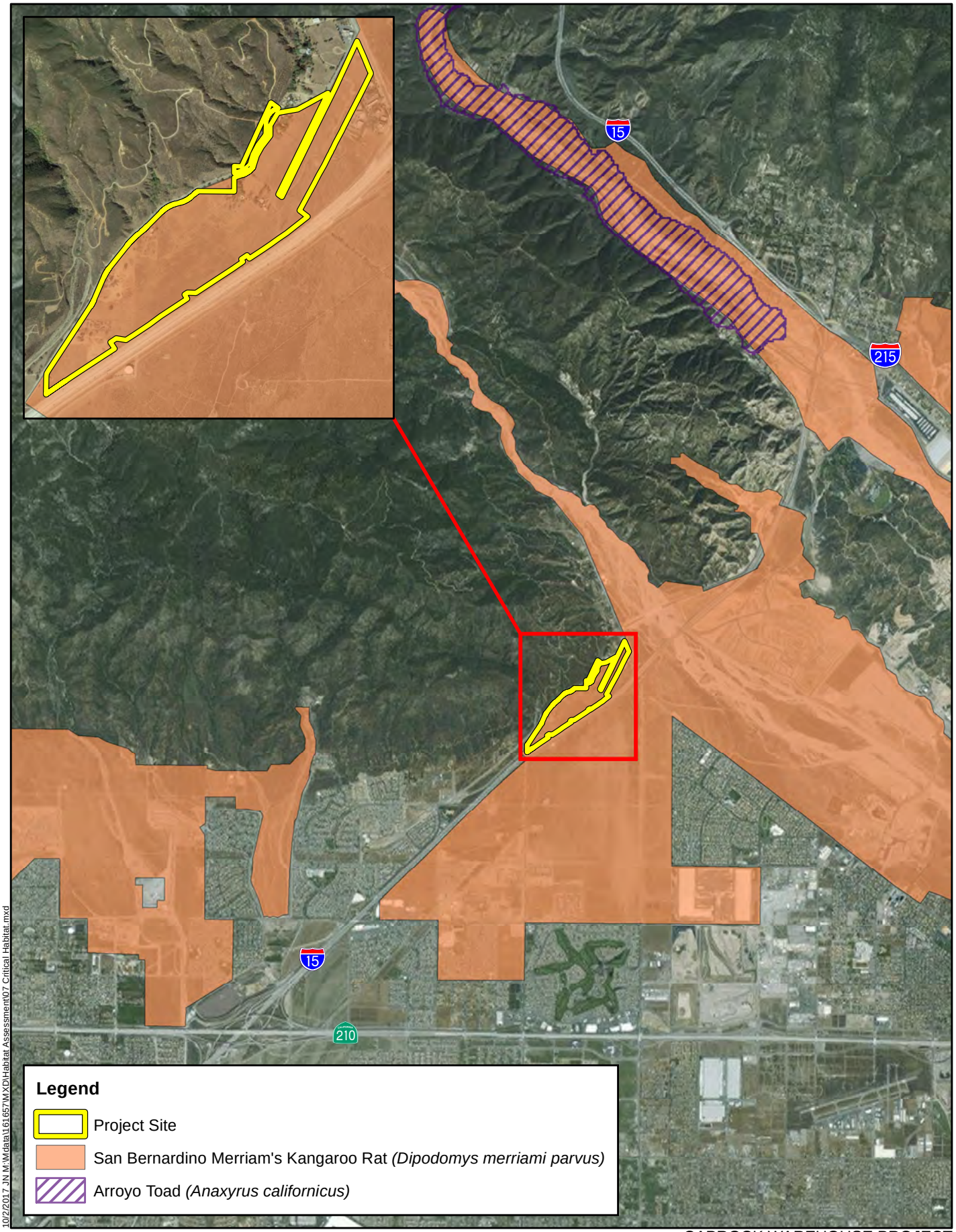
4.7.3 Special-Status Plant Communities

According to the CNDDB, three (3) special-status plant communities have been reported in the Devore USGS 7.5-minute quadrangle: RAFSS, Southern Riparian Forest, and Southern Sycamore Alder Riparian Woodland (refer to Appendix B). A disturbed RAFSS plant community was the only special-status plant community observed within the project site during the field survey. The project site has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek and flows exiting the San Gabriel Mountains due to the construction of the Interstate 15 freeway, Lytle Creek Road, Sierra Avenue, and developments in the surrounding area which has disrupted the natural flood regime within the area, resulting in poor quality RAFSS habitat on-site.

4.7.4 Critical Habitat

Under the federal Endangered Species Act (FESA), "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. In the event that a project may result in take or adverse modification to a species' designated Critical Habitat, a project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus. This may include projects that occur on federal lands, require federal permits (e.g., CWA Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for issuing funds or permits would be required to consult with the USFWS under the FESA.

In 2002, the USFWS designated four (4) Critical Habitat units for SBKR. The project site is located with federally designated Critical Habitat for San Bernardino kangaroo rat, Unit 2, Lytle Creek/Cajon Wash (Exhibit 7, *Critical Habitat*). Based on the results of the Delineation of State and Federal Waters, prepared under a separate cover, the three drainage features on-site do not exhibit a surface hydrologic connection to downstream waters of the United States and are not expected fall under the regulatory authority of the Corps. As a result, it is expected that the project will not require Section 404 permit for impacts to waters of the United States. Thus, the project does not have a federal nexus and a Section 7 consultation with the USFWS will not be required for the loss or adverse modification to Critical Habitat. However, if the Corps determines that the drainage features on-site fall within their jurisdictional authority and a CWA Section 404 will need to be obtained, a the Corps will be required to consult with the USFWS for the loss or adverse modification to Critical Habitat.



10/2/2017 JN M:\Mdata\161657\MXD\Habitat Assessment\07 Critical Habitat.mxd

Michael Baker INTERNATIONAL

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Source: Esri Imagery, US Fish and Wildlife Service

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

Critical Habitat

Exhibit 7

Section 5 North Fontana Interim MSHCP

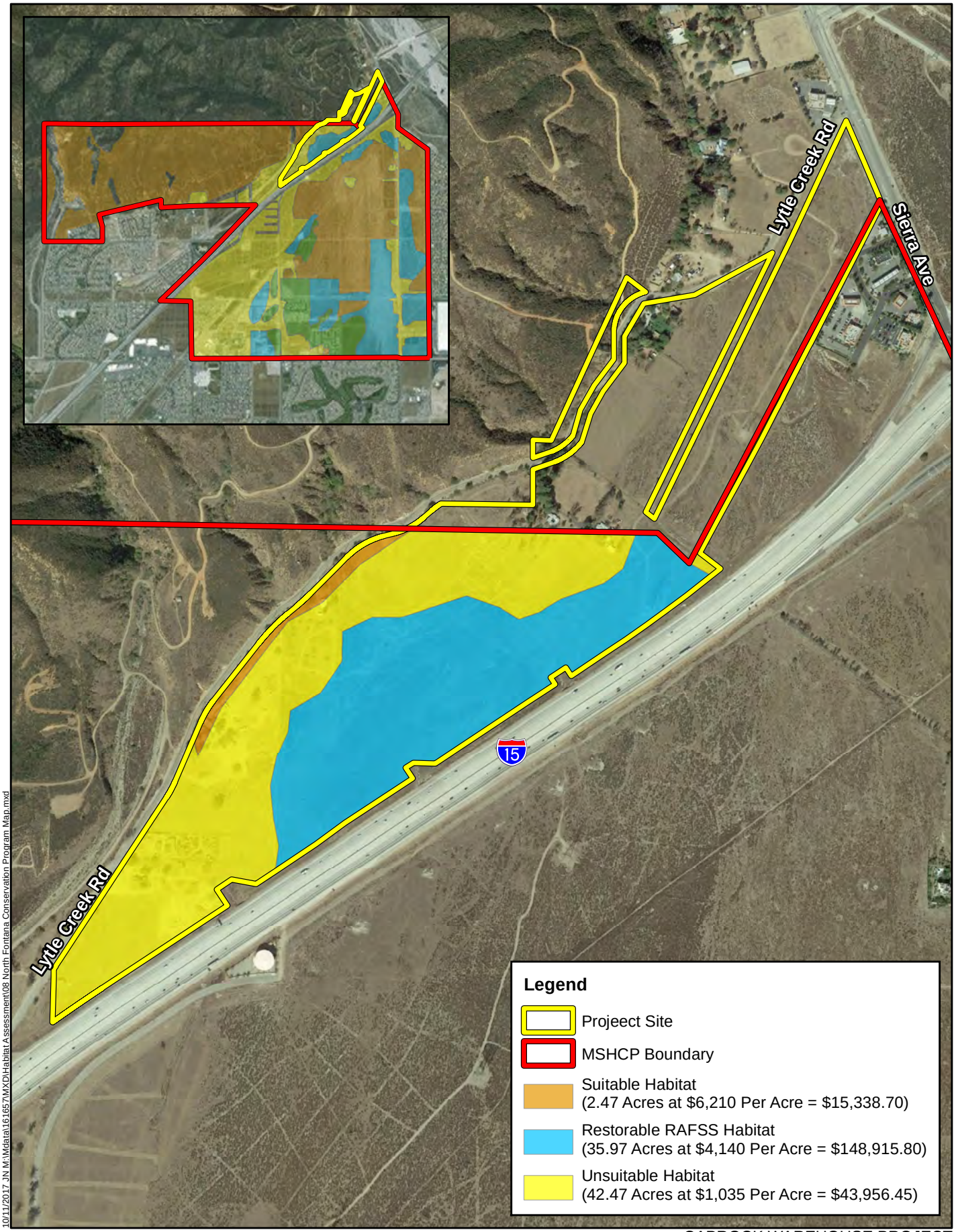
The North Fontana Conservation Program (previously referred to as the North Fontana Interim Multiple Species Habitat Conservation Plan) was prepared to address lands in north Fontana and the listed and special-status species that have the potential to occur on these lands. To adequately mitigate for the loss of sensitive habitats, as required by the California Environmental Quality Act (CEQA), a tiered development mitigation fee was created for new development in north Fontana. The mitigation fee is based on the quality of the habitat on the development site and a site's potential to support SBKR, coastal California gnatcatcher, or other special-status species occurring in the vicinity. The mitigation fee is charged for each acre of land proposed for development based on the habitat quality rating.

The southern portion of the project site is located within the boundaries of the North Fontana Conservation Program. The North Fontana Conservation Program mitigation fee areas (habitat quality ratings) were overlain over the project site boundaries in ArcGIS in order to calculate the acreage of impacts to the various habitat qualities occurring on the project site. From this, the mitigation fee for the proposed project was calculated. Based on the North Fontana Conservation Program, the project site is located within three (3) different habitat qualities (or mitigation fee types): "Suitable Habitat", "Restorable RAFSS Habitat", and "Unsuitable Habitat" (Exhibit 8, *North Fontana Conservation Program Fee Map*).

Approximately 2.47 acres of "Suitable Habitat" were identified within the southern portion of the project site. "Suitable Habitat" is mitigated in the North Fontana Conservation Program at a cost of $6,210 per acre totaling an estimated $15,338.70 of mitigation costs for the loss of "Suitable Habitat" within the project site. "Restorable RAFSS Habitat" is mitigated at a cost of $4,140 per acre in the North Fontana Conservation Program. Approximately 35.97 acres of "Restorable RAFSS Habitat" were identified equaling an estimated cost of $148,915.80 to mitigate for the loss of "Restorable RAFSS Habitat". Lastly, approximately 42.47 acres of "Unsuitable Habitat" were identified within the southern portion of the project site. "Unsuitable Habitat" is mitigated in the North Fontana Conservation Program at a cost of $1,035 per acres totaling an estimated $43,956.45 of mitigation costs for the loss of "Unsuitable Habitat". Per these estimated costs and acreages, development of the southern portion of the project site would result in a total of $208,210.95 in mitigation costs under the North Fontana Conservation Program. Refer to Table 1 below:

Table 2: North Fontana Conservation Program Habitat Qualities and Mitigation Fees

Habitat Qualities	Mitigation Fee (per acre)	On-Site Acreage	Total Mitigation Fee
Suitable Habitat	$6,210.00	2.47	$15,338.70
Restorable RAFSS Habitat	$4,140.00	35.97	$148,915.80
Unsuitable Habitat	$1,035.00	42.47	$43,956.45
	TOTALS	**80.91**	**$208,210.95**



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Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: Google Imagery 2016, Esri Imagery, San Bernardino County, City of Fontana

CAPROCK WAREHOUSE PROJECT
HABITAT ASSESSMENT

North Fontana Conservation Program Fee Map

Exhibit 8

Section 6 Conclusion and Recommendations

The majority of the project site consists of vacant parcels of undeveloped land located northwest of Interstate 15 at the southeastern base of the San Gabriel Mountains. Based on historical aerial photographs (Google Earth Pro, 1994-2017), the project site has been exposed to a variety of disturbances including clearing/disking activities, residential land uses, off road vehicle use, and illegal dumping. Five plant communities were observed within the boundaries of the project site during the habitat assessment: disturbed Riversidian alluvial fan sage scrub, Riversidian sage scrub, mixed riparian scrub, non-native grassland, and ornamental. In addition, the project site contains land cover types that would be classified as disturbed and developed.

No special-status plant species were observed on-site during the field survey. Based on the results of the field survey, it was determined that the project site has a moderate potential to support Plummer's mariposa-lily and Parry's spineflower. All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. Additionally, based on the field survey it was determined that the project site does not provide suitable habitat for Santa Ana River woollystar and this species has a low potential to occur within the boundaries of the project site. Additionally, it was determined special-status plant species identified in the California Natural Diversity Database or California Native Plant Society Electronic Inventory of Rare and Endangered Vascular Plants of California either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. A focused special-status plant survey is recommended during the 2018 spring blooming period to determine the presence/absence of special-status plants on the project site.

Loggerhead shrike was the only special-status wildlife species observed during the habitat assessment. Based on the results of the field survey, it was determined that the project site has a high potential to support Cooper's hawk and San Diego black-tailed jackrabbit; and a moderate potential to support California glossy snake, northern harrier, and coast horned lizard. All remaining special-status wildlife species identified in the CNDDB either have a low potential to occur or are presumed to be absent from the project site due to a lack of suitable habitat and known distributions. Even though it was determined SBKR has a low potential to occur within the boundaries of the project site, USFWS will likely reqquest that a focused presence/absence trapping study be conducted prior to development to ensure no SBKR occur on-site.

Three were observed within the boundaries of the project site. These drainage features were determined to not exhibit a surface hydrologic connection to downstream waters of the United States, and would not be considered jurisdictional under the Corps. An AJD will need to be processed with the Corps to confirm that the on-site drainage features do not qualify as waters of the United States. Both the Regional Board and California Department of CDFW will assert jurisdiction over the three drainage features as isolated jurisdictional non-wetland waters of the State, and CDFW jurisdictional streambed, respectively. Any

impacts to on-site jurisdictional areas will require the following regulatory approvals prior to project implementation: Regional Board ROWD, and CDFW Section 1602 Streambed Alteration Agreement.

The southern half of the project site is located within the boundary of the North Fontana Conservation Program. The southern half of the project site is located within three habitat qualities (or mitigation fee types): "Suitable Habitat", "Restorable RAFSS Habitat", and "Unsuitable Habitat". Impacts to these areas will result in a total mitigaiton fee of $208,210.95 under the North Fontana Conservation Program.

Pursuant to the Migratory Bird Treaty Act and California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds should be conducted within thirty (30) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur. As part of the nesting bird clearance survey, a pre-construction burrowing owl clearance survey shall be conducted within thirty days of the start of ground disturbing activities to ensure that burrowing owl remains absent from the project site.

Pursuant to California Fish and Game Code Section 3503, it is unlawful to destroy any bird's nest or any bird's eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks and owls) are protected under California Fish and Game Code Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. Consultation with CDFW might be required prior to the removal of any raptor nest on the project site, if found.

Section 7 References

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Appendix A Site Photographs

Photograph 1: Standing within the northern portion of the project site looking southwest.

Photograph 2: Standing within the northern portion of the project site looking north. Lytle Creek Wash can be seen in the distance, across Sierra Avenue.

Photograph 3: Photo of the mixed riparian scrub plant community located within the northwestern portion of the project site, north of Lytle Creek Road.

Photograph 4: Standing within the disturbed RAFSS plant community looking southeast across the northern portion of the project site.

Photograph 5: Standing within the central portion of the project site looking south.

Photograph 6: View of one of the residential properties located within the central portion of the project site.

Photograph 7: Looking southwest across the central portion of the project site.

Photograph 8: View of one of the residential properties located within the southern portion of the project site.

Photograph 9: Photo of the residential property located within the southern portion of the project site.

Photograph 10: Looking south across the southern portion of the project site.

Appendix B Potentially Occurring Special-Status Biological Resources

Table B – 1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests, but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	**High:** The project site provides suitable foraging habitat for this species.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Low:** The project site provides marginal foraging and habitat for this species, however, this site is out of the elevation range for this species.
Anniella stebbinsi southern California legless lizard	Fed: None CA: SSC	Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Aquila chrysaetos golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Low:** There is marginal foraging habitat on-site, however, there is no suitable nesting habitat on or within the vicinity of the mitigation site.
Arizona elegans occidentalis California glossy snake	Fed: None CA: SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats.	No	**Moderate:** Suitable habitat is present throughout the mitigation site. Per CNDDB, one adult was observed dead on a road approximately 0.13 miles west of the project site in 2013.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	**Moderate:** Suitable habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Athene cunicularia burrowing owl	Fed: None CA: SSC	Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	**Low:** There is suitable foraging habitat within the project site. However, the project site does not provide suitable burrows (>4 inches in diameter) for roosting/nesting opportunities. Additionally, no burrowing owls or sign (i.e., feathers, pellets, and scat) were observed during the 2017 habitat assessment.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: SSC	Found terrestrially in a wide variety of open habitats ranging from chaparral and grasslands to scrub forests and deserts. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil to dig burrows.	No	**Low:** Marginal habitat is present within the disturbed RAFSS habitat on the project site.
Chaetodipus fallax pallidus pallid San Diego pocket mouse	Fed: None CA: SSC	Common resident of sandy herbaceous areas, usually in association with rocks or course gravel in southwestern California. Occurs mainly in arid coastal and desert border areas. Habitats include coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland.	No	**Low:** Marginal habitat is present within the disturbed RAFSS habitats on the project site.
Circus cyaneus northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	**Moderate:** There is suitable foraging habitat within and adjacent to the project site, but no suitable nesting habitat.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: **END** CA: SSC	Prefer alluvial scrub/coastal sage scrub habitats on gravelly and sandy soils adjoining river and stream terraces, and on alluvial fans; and rarely occur in dense vegetation or rocky washes.	No	**Low:** Marginal habitat is present within the disturbed RAFSS habitats within the project site. SBKR have not been trapped during focused surveys conducted from 2002 to 2016 within north Fontana. Additionally, the project site has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek due to the construction of the Interstate 15 freeway, Lytle Creek Road, Sierra Avenue, and developments in the surrounding area. As a result, the natural flood regime and SBKR populations in the area have been cut off from the project site.
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole.	No	**Low:** Although there is marginal foraging habitat on-site, there is no suitable nesting habitat on or within the vicinity of the project site.
Icteria virens yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	Yes	**Present:** This species was observed foraging within the mitigation site during the 2017 field survey.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: SSC	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	No	**High:** Suitable habitat is present throughout the project site. Further, this species is known to occur within the general vicinity.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Microtus californicus mohavensis Mohave river vole	Fed: None CA: SSC	Found in moist habitats including meadows, freshwater marshes and irrigated pastures in the vicinity of the Mojave River. Suitable habitat it associated with ponds and irrigation canals along with the Mojave River proper. Alfalfa fields may also provide habitat.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: SSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Prefers rocky desert areas with high cliffs or rock outcrops/crevices for roosting.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Pandion haliaetus osprey	Fed: None CA: WL	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Uses large trees, snags, and dead-topped trees in open forest habitats for cover and nesting. Requires open, clear waters for foraging and uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Perognathus longimembris pacificus Pacific pocket mouse	Fed: **END** CA: SSC	Occurs on loose sandy soils that support sparse coastal sage scrub, grassland, and ruderal habitats.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: SSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g. fire, floods, roads, grazing, and fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Moderate:** Suitable habitat is present throughout the project site. Further, this species is known to occur within the general vicinity.
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It prefers habitat with more low-growing vegetation.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS plant communities, however, this species is generally known to occur at elevations below 1,500 feet inland. California gnatcatcher have not been observed during focused surveys conducted from 2002 to 2016 within north Fontana.
Rana muscosa southern mountain yellow-legged frog	Fed: **END** CA: **END** ; WL	Prefers high-altitude mountain streams, typically those with boulders in them. Always found in the water, on rocks, or within a foot or two of the water's edge.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Rhinichthys osculus* ssp. *3 Santa Ana speckled dace	Fed: None CA: SSC	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers, usually in areas with shallow cobble and gravel riffles. Requires permanent water flow with summer water temperatures between 17 and 20° Celsius.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: None CA: SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Requires friable soils for burrowing.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Setophaga petechia yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy riverine/riparian habitat that typically features dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically, it is associated with southern willow scrub, cottonwood-willow forest, mulefat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	**Presumed Absent:** No suitable habitat is present within the project site.
SPECIAL-STATUS PLANT SPECIES				
Ambrosia monogyra singlewhorl burrobrush	Fed: None CA: None CNPS: 2B.2	Found in sandy soils within chaparral and Sonoran desert scrub habitat. Found at elevations ranging from 33 to 1,640 feet above mean sea level (msl). Blooming period is from August to November.	No	**Presumed Absent:** The project site is out of this species elevation range.
Calochortus plummerae Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest habitats. Prefers rocky and sandy sites composed of granitic or alluvial material. Can be very common after a fire. Found at elevations ranging from 459 to 6,299 feet above msl. Blooming period ranges from May to July.	No	**Moderate:** Suitable habitat is present throughout the project site. Further this species has been recorded in the vicinity of the project site.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet above msl. Blooming period is from April to June.	No	**Moderate:** Suitable habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Chorizanthe xanti* var. *leucotheca white-bracted spineflower	Fed: None CA: None CNPS: 1B.2	Found in sandy or gravelly soils within coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 3,937 feet above msl. Blooming period is from April to June.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Cryptantha incana Tulare cryptantha	Fed: None CA: None CNPS: 1B.3	Occurs in lower montane coniferous forest (gravelly or rocky). Found at elevations ranging from 4,692 to 7,054 feet above msl. Blooming period is from June to August.	No	**Presumed Absent:** The project site is out of this species elevation range.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Dodecahema leptoceras slender-horned spineflower	Fed: **END** CA: **END** CNPS: 1B.1	Found in sandy soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 656 to 2,493 feet above msl. Blooming period is from April to June.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	Fed: **END** CA: **END** CNPS: 1B.1	Grows in sandy or gravelly soils within chaparral and coastal scrub habitat. Found at elevations ranging from 299 to 2,001 feet above msl. Blooming period is from April to September.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Galium jepsonii Jepson's bedstraw	Fed: None CA: None CNPS: 4.3	Found in granitic, rocky or gravelly soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,052 to 8,202 feet above msl. Blooming period is from July to August.	No	**Presumed Absent:** The project site is out of this species elevation range.
Galium johnstonii Johnston's bedstraw	Fed: None CA: None CNPS: 4.3	Preferred habitats include chaparral, riparian woodland, lower montane coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 4,003 to 7,546 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** The project site is out of this species elevation range.
Horkelia cuneata* var. *puberula mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Found at elevations ranging from 230 to 2,657 feet above msl. Blooming period is from February to September.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Juglans californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet above msl. Blooming period is from March to August.	Yes	**Present:** This species was observed during the 2017 habitat assessment.
Lilium humboldtii* ssp. *ocellatum ocellated humboldt lily	Fed: None CA: None CNPS: 4.2	Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet above msl. Blooming period is from March to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Lilium parryi lemon lily	Fed: None CA: None CNPS: 1B.2	Prefers lower montane coniferous forest, riparian forests, upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 4,003 to 9,006 feet above msl. Blooming period is from July to August.	No	**Presumed Absent:** The project site is out of this species elevation range.
Lycium parishii Parish's desert-thorn	Fed: None CA: None CNPS: 2B.3	Habitats include coastal scrub and Sonoran desert scrub. Found at elevations ranging from 443 to 3,281 feet above msl. Blooming period is from March to April.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Malacothamnus parishii Parish's bush-mallow	Fed: None CA: None CNPS: 1A	Occurs within chaparral and coastal scrub habitats. Found at elevations ranging from 1,001 to 1,493 feet above msl. Blooming period is from June to July.	No	**Low:** Marginal habitat is present within the RSS and disturbed RAFSS habitats within the project site.
Monardella saxicola rock monardella	Fed: None CA: None CNPS: 4.2	Found in rocky, usually serpentinite soils within closed-cone coniferous forest, chaparral, and lower montane coniferous forest habitats. Found at elevations ranging from 1,640 to 5,906 feet. Blooming period is from June to September.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Opuntia basilaris* var. *brachyclada short-joint beavertail	Fed: None CA: None CNPS: 1B.2	Habitats include chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands. Found at elevations ranging from 1,394 to 5,906 feet. Blooming period is from April to August.	No	**Presumed Absent:** No suitable habitat is present within the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Senecio astephanus San Gabriel ragwort	Fed: None CA: None CNPS: 4.3	Found on rocky slopes within coastal bluff scrub and chaparral habitats. Found at elevations ranging from 1,312 to 4,921 feet. Blooming period is from May to July.	No	**Presumed Absent:** No suitable habitat is present within the project site.
Streptanthus bernardinus Laguna Mountains jewelflower	Fed: None CA: None CNPS: 4.3	Associated with chaparral and lower montane coniferous forest. Found at elevations ranging from 2,198 to 8,202 feet. Blooming period is from May to August.	No	**Presumed Absent:** The project site is out of this species elevation range.
SPECIAL-STATUS PLANT COMMUNITIES				
Riversidian Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring, but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	Yes	**Present:** A disturbed version of this habitat type can be found within the boundaries of the project site.
Southern Riparian Forest	CDFW Sensitive Habitat	Typically, a younger successional stage of riparian forest, due to disturbance or more frequent flooding. Plant species include willow species, elderberry, oak species, sycamore, cottonwood, and smaller shrubs.	No	**Absent.**
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows also are often present. Poison-oak, mugwort, elderberry and wild raspberry may be present in the understory.	No	**Absent**

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
SSC- California Species of Concern
WL- Watch List
FP- California Fully Protected

California Native Plant Society (CNPS)
California Rare Plant Rank
1A - Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Appendix C Flora and Fauna Compendium

Table C – 1: Plant Species

Scientific Name	**Common Name**
Acmispon glaber	deerweed
Adenostoma fasciculatum	chamise
*Ambrosia artemisiifolia**	common ragweed
Ambrosia psilostachya	western ragweed
Artemisia californica	California sagebrush
Artemisia douglasiana	California mugwort
*Arundo donax**	giant reed
Asclepias eriocarpa	Indian milkweed
*Avena fatua**	wild oat
*Bromus diandrus**	ripgut brome
Bromus madritensis ssp. *rubens**	red brome
*Bromus tectorum**	downy brome grass
Ceanothus crassifolius	hoary leaved ceanothus
*Centaurea melitensis**	Napa start thistle
*Centaurea solstitialis**	yellow star thistle
Chenopodium californicum	pigweed
Corethrogyne filaginifolia	common sandaster
Croton californicus	California croton
Croton setiger	doveweed
Datura wrightii	jimsonweed
Encelia farinosa	brittlebush
Ericameria pinifolia	pinebush
Erigeron bonariensis	flax-leaved horseweed
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	slender buckwheat
*Erodium cicutarium**	red stemmed filaree
Eucalyptus sp.*	eucalyptus
Gutierrezia californica	matchweed
Helianthus annuus	common sunflower
Hesperoyucca whipplei	chaparral yucca
Heterotheca grandiflora	telegraph weed
*Hirschfeldia incana**	short podded mustard
Juglans californica	southern California walnut
Lepidospartum squamatum	scalebroom
*Malva parviflora**	cheeseweed mallow
*Marrubium vulgare**	horehound
*Melia azedarach**	China berry tree
*Nicotiana glauca**	tree tobacco
*Olea europaea**	olive
Opuntia littoralis	western prickly pear
*Pennisetum setaceum**	fountaingrass
Phacelia distans	common phacelia
Phacelia ramosissima	branching phacelia
Pinus sp.	pine
Platanus racemosa	western sycamore
Populus fremontii	Fremont cottonwood
Prunus ilicifolia	holly leaf cherry
*Ricinus communis**	castorbean
*Salsola tragus**	Russian thistle
Salvia apiana	white sage
Salvia mellifera	black sage
Sambucus nigra	black elderberry
*Schismus barbatus**	Mediterranean grass
*Schinus molle**	Peruvian pepper tree
Solanum xanti	chaparral nightshade
Stephanomeria exigua	small wirelettuce
Tetradymia comosa	cotton thorn
*Tribulus terrestris**	puncture vine

Scientific Name	**Common Name**
Verbesina encelioides	golden crownbeard

Table C – 2: Wildlife Species

Scientific Name	**Common Name**
Aves	**Birds**
Buteo jamaicensis	red-tailed hawk
Carpodacus mexicanus	house finch
Columba livia	rock dove
Corvus brachyrhynchos	American crow
Falco sparverius	American kestrel
Lanius ludovicianus	loggerhead shrike
Melozone crissalis	California towhee
Mimus polyglottos	northern mockingbird
Psaltriparus minimus	American bushtit
Sayornis saya	Say's phoebe
Spinus psaltria	lesser goldfinch
Sturnella neglecta	western meadowlark
Sturnus vulgaris	common starling
Thryomanes bewickii	Bewick's wren
Zenaida macroura	mourning dove
Mammalia	**Mammals**
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Audubon's cottontail
Reptilia	**Reptiles**
Pituophis catenifer annectens	San Diego gopher snake

*Non-native/invasive

Appendix C.3

California Gnatcatcher Surveys

I-15 Logistics Project

Draft Environmental Impact Report

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RESULTS OF 2018 BREEDING-SEASON CALIFORNIA GNATCATCHER SURVEYS

CapRock Warehouse Project

CITY OF FONTANA

SAN BERNARDINO COUNTY, CALIFORNIA

Mount Baldy, California, USGS 7.5-minute Topographic Quadrangle Map

in Sections 7 and 18, Township 1 North, Range 5 West

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949.632.2756

June 29, 2018

INTRODUCTION

This report presents the results of the 2018 breeding season protocol surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) ("CAGN") on the approximately 60 acres of suitable habitat within a proposed warehouse site in Northern Fontana, California ("site", Appendix A, Figures 1-3). The surveys were conducted by Kidd Biological, Inc. (KBI) following a habitat assessment that was conducted by Michael Baker International (hereafter "Baker"), where it was determined that the site supports potentially suitable CAGN habitat. Surveys were conducted in accordance with guidance from U.S. Fish and Wildlife Service (USFWS) CAGN survey protocol to cover breeding periods (USFWS 1997).

Breeding season protocol surveys for the CAGN were conducted by U.S. Fish and Wildlife Service (USFWS) permitted biologists (See Table 1) between March 23 and May 5, 2018. The required notification to conduct focused surveys was submitted by email to the permit coordinator at the Carlsbad U.S. Fish and Wildlife Service (USFWS) Office dated February 23, 2018 (Appendix B).

SITE LOCATION

The Fontana "CapRock Warehouse" project is located within the unincorporated San Bernardino County at the southern base of the San Gabriel Mountains, southeast of Mount Baldy. More specifically, the site is located southwest of the intersection of Lytle Creek Road and Sierra Avenue, just north of Interstate 15 (Ontario Freeway) (see Figure 1). The project site is located in Sections 7 and 18, Township 1 North, Range 5 West of the Mount Baldy, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see Figure 2). Approximately 60 acres was surveyed for the presence of CAGN.

Land use adjacent to the project site consists of open space associated with the San Bernardino National Forest to the north and in the immediate area vacant land parcels with a mix of rural residents. Commercial and residential properties are located more than .75 miles of the project site.

NATURAL HISTORY OF THE COASTAL CALIFORNIA GNATCATCHER

The CAGN is a federally threatened species. It is most commonly found in the sage scrub communities of coastal southern California. According to J. Atwood and J. Bolsinger (1992), 99% of all CAGN observations are in areas with elevations below 950 feet. There are a few reported occurrences of CAGN at 1,600 feet elevation (500 meters) (Davis and

McKernan, 1998). Elevation of this site is approximately 1,800 – 2,025 feet (540 – 645 meters) above mean sea level (MSL). Although, just above the known elevational range of the CAGN, the site is higher in elevation than what is typically associated with the 99% of all CAGN observations. Nonetheless, with drought conditions in the region and effects of climate change there is a possibility that CAGN may transition to higher elevations where conditions are more favorable (Pounds et al 1999, Moritz et al 2008, Chen et al, 2011).

CAGN are ground and shrub-foraging insectivores. They feed on small insects and other arthropods. A CAGN's territory is highly variable in size and seems to be correlated with distance from the coast, ranging from less than 1 ha to over 9 ha (Mock, 2004). In a 1998 study, biologist Patrick Mock concluded that CAGN in the inland region require a larger territory than those on the coast in order to meet the nutritional requirements needed for survival and breeding.

The main threat to the CAGN is habitat loss, fragmentation, and degradation of habitat from invasive plant species and drought. Urban and agricultural development, livestock grazing, invasion of exotic grasses, off-road vehicles, pesticides, and military training activities all contribute to the destruction of CAGN habitat. Once locally common, CAGN have experienced widespread habitat loss and have lost most of their former range. By 1997, it was estimated that no more than 2,900 pairs remained in the United States. Remaining patches of coastal sage scrub are highly fragmented, and the majority is privately owned, making species recovery a difficult task.

The regional observations of CAGN are shown in Figure 4: *CNDDB Documented CAGN Locations*. These locations were obtained from the California Department of Wildlife's (CDFW) Natural Diversity Data Base (CNDDB) (2018). Based on the information, several CAGN have been documented to the west and south of the site. All of these sightings are 15 or more years old and several of the occurrences are now considered to be "possibly extirpated" due to development.

PROJECT DESCRIPTION

The CapRock Warehouse includes a warehouse development project (high cube), as well as the annexation of adjacent parcels, and portions of the right-of-way for Lytle Creek Road, Sierra Avenue and the Interstate 15 Freeway. The total annexation area is approximately 114 acres, however only 60 of those acres contain moderately suitable habitat.

SURVEY AREA DESCRIPTION

TOPOGRAPHY

The CAGN survey area occurs at the base of the San Gabriel Mountains, southeast of Mount Baldy, just west of Lytle Creek, north of Interstate 15. The Cajon Pass is just to the west of the site. The area in general is an alluvial fan originating in the Cajon Pass/Lytle Creek. Ecologically, the site lies at the confluence of high desert and montane habitats with coastal influences.

VEGETATION COMMUNITIES/HABITAT TYPES

The approximately 122-acre project site contains approximately 60 acres of habitat that is considered suitable for CAGN. Of these areas, 57.58 acres of are classifiend as disturbed Riversidean alluvial fan sage scrub (RAFSS) with an additional 1.51 acres of Riversidean Sage Scrub (Figure 5). Other portions of the project site are comprised by grasslands, disturbed or developed areas or riparian vegetation.

A description of the vegetation community that defines the CAGN survey area is provided below. The descriptions were taken from a Habitat Assessment prepared by Michael Baker International (2017). Conditions on the site during the 2018 surveys were consistent with the habitat described in the 2017 report.

RIVERSIDEAN ALLUVIAL FAN SAGE SCRUB (RAFSS)(57.58 ACRES)

RAFSS is a scrub habitat that is found in washes and alluvial fans. The Inland Empire region, particularly near the Cajon Wash is dominated by this habitat. Scalebroom (*Lepidospartum squamatum*) is generally regarded as an indicator of RAFSS (Smith 1980; Hanes et al. 1989). In addition to scalebroom, woody shrubs such as chamise (*Adenostoma fasciculatum*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), and yerba santa (*Eriodictyon trichocalyx*) are present in RAFSS. The Holland (1986) classification system describes three sub classifications of RAFSS: pioneer, intermediate, and mature with their distribution typically based on differences in flooding frequency and intensity.

The proposed project site has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek and flows exiting the San Gabriel Mountains due to the construction of the Interstate 15 freeway, and other development in the area, resulting in poor quality RAFSS habitat on-site. This plant community is vegetated by

scalebroom, California buckwheat, and non-native grasses (i.e. ripgut Brome [*Bromus diandrus*], red brome [*Bromus madritensis* ssp. *rubens*], Mediterranean grass [*Schismus barbatus*]). Other plant species observed within this plant community include chamise, hoary leaved ceanothus (*Ceanothus crassifolius*), and black elderberry (*Sambucus nigra*).

The habitat in these areas is marginal for CAGN as there is a noticeable lack of sagebrush or other shrub species which seem to be favored by CAGN in the inland empire such as white sage, buckwheat and brittlebush (*Encelia farinosa*) (personal observation).

Riversidian Sage Scrub (1.51 Acres)

The RSS plant community can be found within the northwestern portion of the project site. This plant community was observed along the hillside located northwest of Lytle Creek Road and is dominated by California sagebrush, brittlebush (*Encelia farinosa*), and California buckwheat (*Eriogonum fasciculatum*). Other plant species observed within this plant community include deerweed (*Acmispon glaber*), chaparral yucca (*Hesperoyucca whipplei*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*).

The habitat in this area is more suitable for CAGN, however the elevation may preclude the CAGN from utilizing the area for breeding, however it may more likely be used as a natal dispersal corridor (Bailey and Mock 1998; Famolaro and Newman 1998; Galvin 1998) or during the non-breeding season when a pair's territory increases in size (Bontrager 1991).

Methodology

Prior to conducting protocol surveys, a literature review was conducted to obtain background information and resources pertinent to the survey effort. Data on previous observations of the target species that have been recorded in the vicinity of the project site were compiled from the CDFW California Natural Diversity Database (CNDDB), a sensitive species and plant community account database. The CNDDB Geographical Information Systems (GIS) database was also used to confirm and map the locations of CAGN recorded by the CNDDB in the area (Figure 4).

Protocol breeding season surveys for the coastal California gnatcatcher were conducted by permitted biologist Jason Berkley (TE-009015-4). Methods employed were in conformance with USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines, issued July 28, 1997 (USFWS 1997). A total of six surveys were performed one week apart, between March 23 and May 4, 2018, generally between 0600 hours and 1200

hours. The surveys were conducted within all suitable habitat, as discussed in Section 5, Survey Area and Figure 5.

The biologist slowly traversed the biological survey area, stopping at approximately 100-foot intervals to listen for CAGN. If no CAGN were detected within 5-10 minutes, the biologist made pishing sounds, and played an audio recording of CAGN vocalizations. The recording was played for several seconds at each interval, followed by a brief pause to listen for a response. If any CAGN individuals were detected, additional observations including sex, age, breeding status, and behavioral characteristics were documented, consistent with protocol requirements.

RESULTS

Breeding season surveys were conducted by the USFWS permitted biologists noted above, in accordance with USFWS guidelines. Only areas considered suitable CAGN habitat were surveyed by KBI biologists during breeding season surveys. It should be noted; however, that not all lands within the survey area supported 100% vegetative cover of suitable CAGN habitat. Table 1, below, summarizes the results of each survey.

No CAGN were detected during breeding season surveys conducted on the site. Brown-headed cowbirds (*Molothrus ater*), considered to be nest parasites for CAGNs, were not observed during the surveys.

Table 1. Survey Data

Survey	Surveyor	Date	Time		Temp (°F)	Cloud Cover (%)	Wind Speed (mph)	CAGN Detected
			Begin	End				
1	J. Berkley	3/23/18	0800	1100	56-60	100-50	0-3	No
2	J. Berkley	3/30/18	0730	1030	54-68	0	0	No
3	J. Berkley	4/6/18	0730	1030	52-63	50	0	No
4	J. Berkley	4/20/18	0730	1030	60-67	0	0-6	No
5	J. Berkley	4/27/18	0700	1000	57-64	100-70	0-3	No
6	J. Berkley	5/4/18	0700	1000	67-72	0	3-10	No

Additional Fauna Species

Avian activity during the protocol surveys was moderate, with a wide range of bird species observed or otherwise detected throughout the course of the surveys. Common bird species observed or otherwise detected during surveys include species commonly found in upland scrub habitats such as, but not limited to, house finch (*Haemorphous mexicanus*), lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), and red-tailed hawks (*Buteo jamicensis*). (Appendix B).

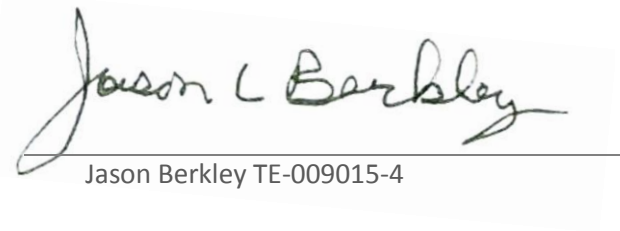
One sensitive species was detected during the surveys: southern California rufous crowned sparrow (*Aimophila ruficeps canescens*), a California Watch-List species, and loggerhead shrike (*Lanius ludovicianus*) a state species of concern (CDFW 2018). A complete list of avian species observed during the protocol surveys is provided in Appendix A, Fauna Compendium.

Conclusion

Coastal California gnatcatcher breeding season protocol surveys have been completed for the Fontana CapRock Warehouse Project in accordance with the USFWS presence/absence survey protocol and pursuant to the Federal ESA. No CAGN were observed during the protocol surveys and therefore CAGN are considered absent from the project site.

Brown-headed cowbirds (*Molothrus ater*) were not observed during the surveys.

CERTIFICATION: We hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: July 5, 2018 Signed: 

Jason Berkley TE-009015-4

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APPENDIX A- FIGURES

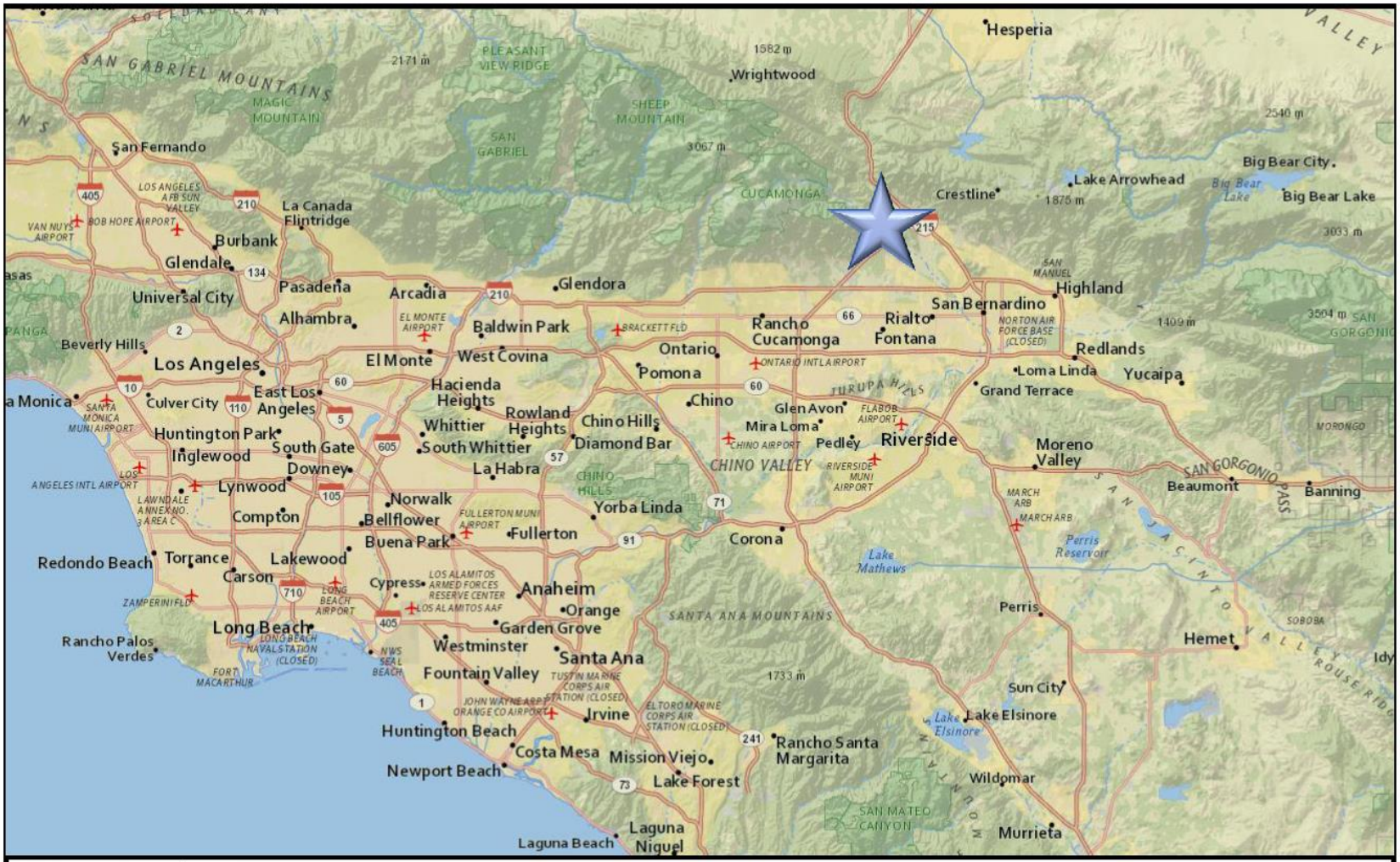

Figure 1 Regional Map

CapRock Warehouse Site, North Fontana 2018 Breeding Season CAGN Surveys

Sources: National Geographic, ESRI

Kidd BIOLOGICAL INC.

Figure 2

CapRock Warehouse Site, North Fontana 2018 Breeding Season CAGN Surveys

Google Earth Arial Image December 2017

Kidd BIOLOGICAL INC.

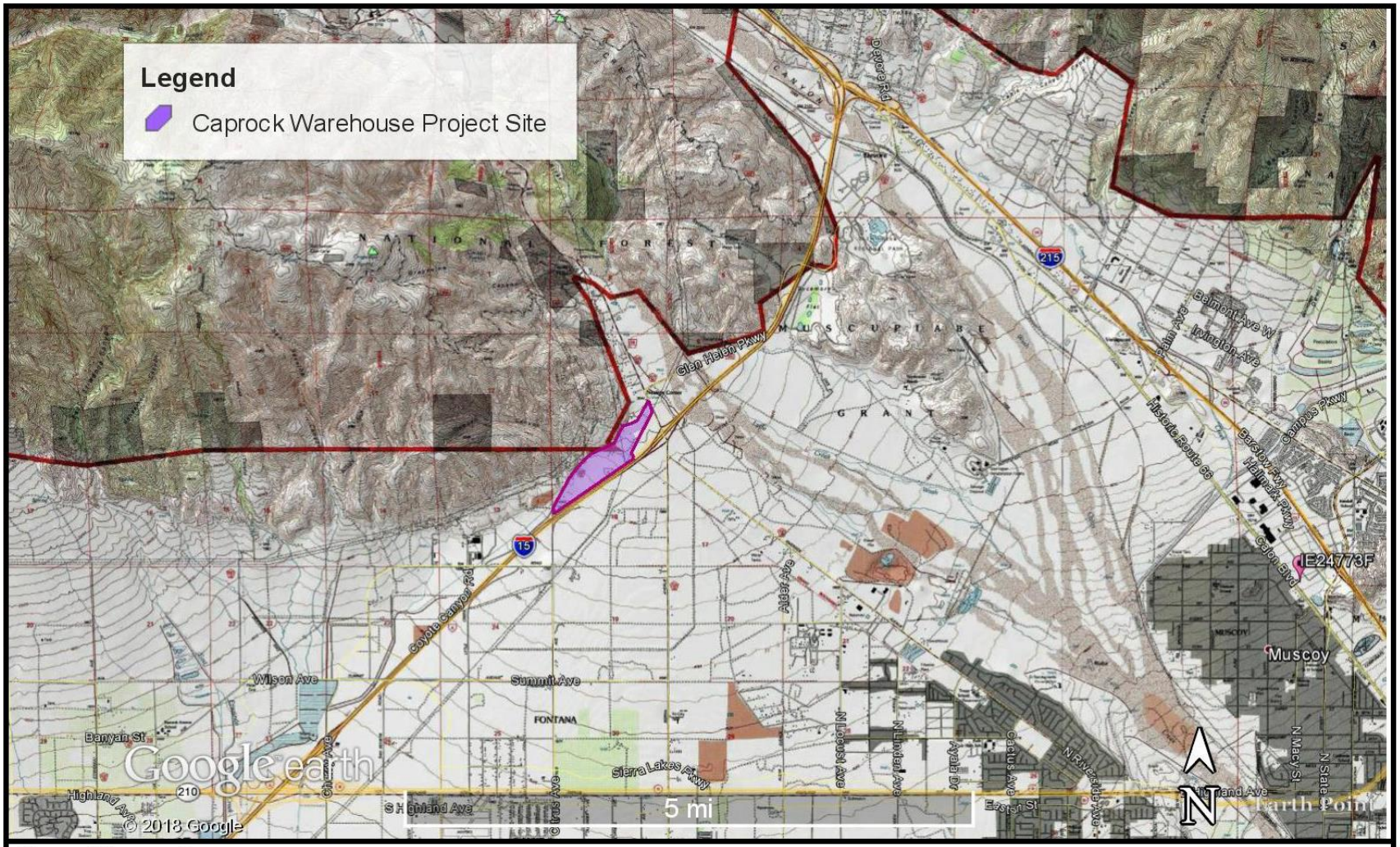

Figure 3 Survey Area

CapRock Warehouse Site, North Fontana 2018 Breeding Season CAGN Surveys

USGS Topographic Map, Mount Baldy, CA

Kidd BIOLOGICAL INC.

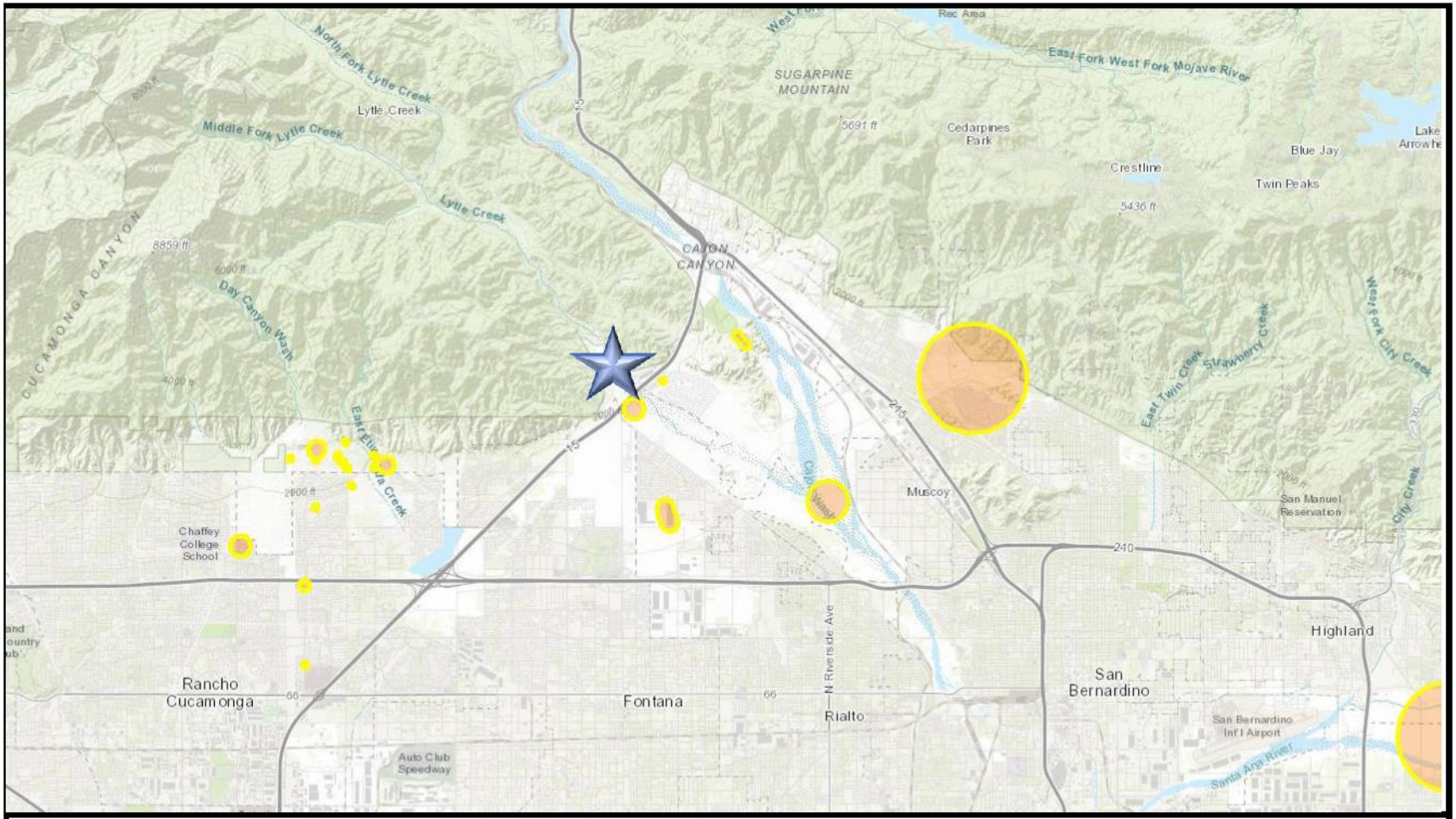

Figure 4. CNDDB Reported Occurrences of California Gnacatcher

CapRock Warehouse Site, North Fontana 2018 Breeding Season CAGN Surveys

CNDDB BIOS, California Department of Fish and Wildlife

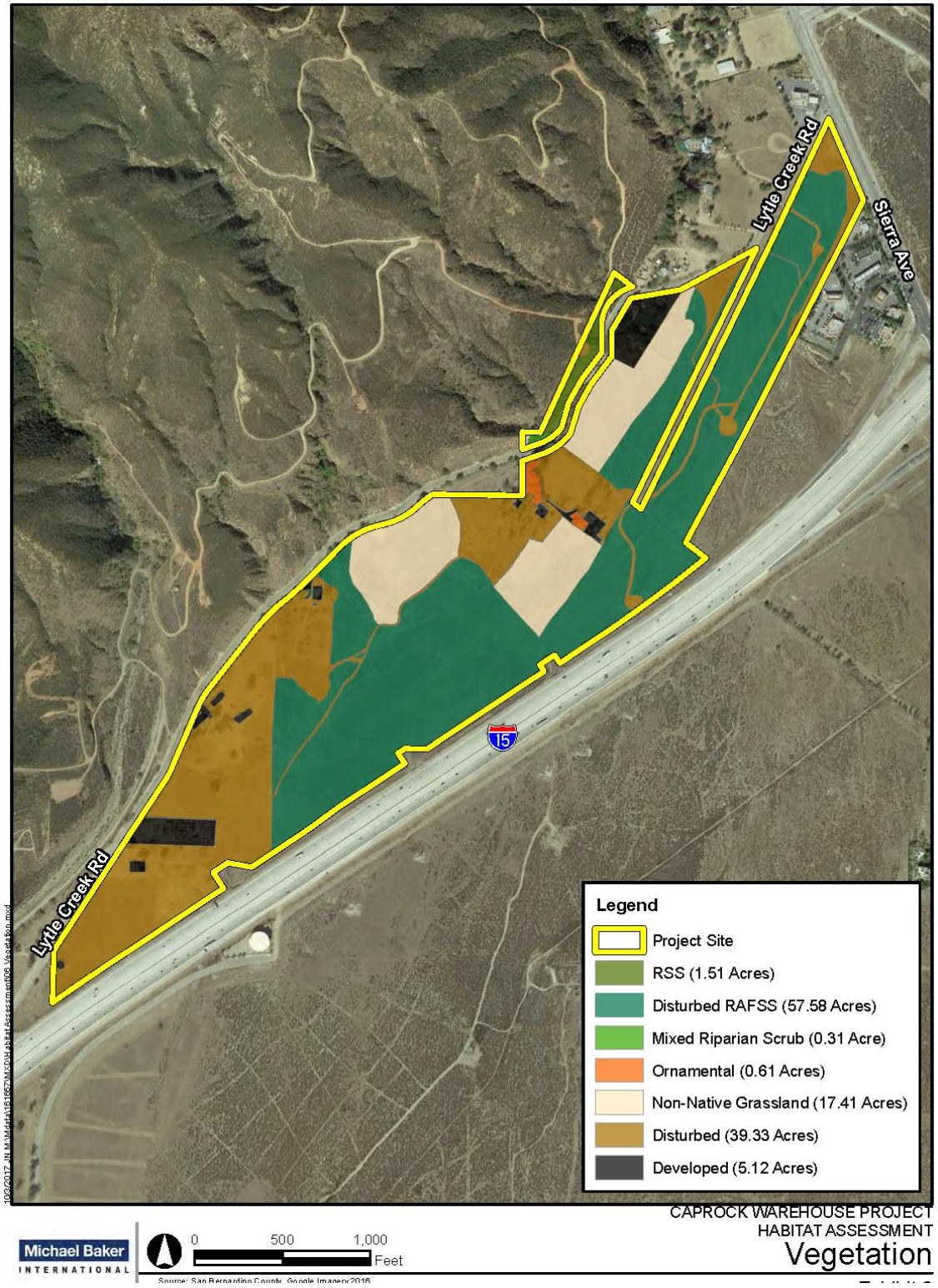

Figure 5. Onsite Vegetation

Source: Michael Baker International

APPENDIX B: USFWS 15-DAY NOTICE

February 22, 2018

Ms. Stacey Love
U.S. Fish and Wildlife Service
Carlsbad Field Office
2177 Salk Ave #250
Carlsbad, California 93003

Subject: **15-Day Notice to perform California Gnatcatcher presence/absence surveys (breeding season) for the "CapRock Warehouse" Project in the City of Fontana, California.**

Dear Stacey,

In order to determine if a proposed project in the City of Fontana will have an impact on the federally threatened California gnatcatcher (*Polioptila californica californica,* CAGN) we are proposing to conduct focused presence/absence surveys within the **breeding season**. The proposed project is to construct housing as well as modify and restore the drainage feature on the site.

The project is located within the unincorporated San Bernardino County and will require annexation into the City of Fontana. The Project includes a warehouse development project (high cube), as well as the annexation of adjacent parcels, and portions of the right-of-way for Lytle Creek Road, Sierra Avenue and the Interstate 15 Freeway. The total annexation area is approximately 114 acres, however only 60 of those acres contain moderately suitable habitat.
The project site sits at the base of the San Gabriel Mountains, north of Interstate 15, west of the interchange with Interstate 215. The project site is located in Sections 7 and 18, Township 1 North, Range 5 West of the Devore, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see Figure 1). Lytle Creek is situated just east of the project site with Sierra Avenue providing the eastern boundary (see Figure 2).

Surveys will be conducted by myself, Scott Thomas (TE-036550-5), Kelly Rios (TE 018909-5) and/or Jason Berkley (TE009015-4) of Kidd Biological, Inc. per U.S. Fish and Wildlife (USFWS) California gnatcatcher protocol guidelines. We expect to initiate the 6 surveys on March 15 and concluding surveys late April.

If you have any questions or comments regarding this letter, please contact me directly at (949)632-2756. We will await your response to initiate surveys.

Sincerely,

Nina Jimerson-Kidd

APPENDIX C: AVIAN COMPENDIUM

Family	Common Name	Scientific Name
Cathartidae	**New World Vultures**	
	Turkey Vulture	*Cathartes aura*
Columbidae	**Pigeons and Doves**	
*	Eurasian Collared-Dove	*Streptopelia decaocto*
Trochilidae	**Hummingbirds**	
	Anna's Hummingbird	*Calypte anna*
Accipitridae	**Hawks and allies**	
	Red-tailed Hawk	*Buteo jamaicensis*
Falconidae	**Falcons**	
	American Kestrel	*Falco sparverius*
Tyrannidae	**Tyrant Flycatchers**	
	Black Phoebe	*Sayornis nigricans*
	Say's Phoebe	*Sayornis saya*
	Cassin's Kingbird	*Tyrannus vociferans*
	Western Kingbird	*Tyrannus verticalis*
	Western wood-pewee	*Contopus sordidulus*
Laniidae	**Shrikes**	
§	Loggerhead shrike	*Lanius ludovicianus*
Corvidae	**Ravens and Jays**	
	American Crow	*Corvus brachyrhynchos*
	Common Raven	*Corvus corax*
Hirundinidae	**Swallows**	
	Barn swallow	*Hirundo rustica*
	Violet-green Swallow	*Tachycineta thalassina*
Turdidae	**Thrushes**	
	Western bluebird	*Sialia mexicana*
Polioptilidae	**Thrashers**	

	Sage Thrasher	*Oreoscoptes montanus*
	Northern Mockingbird	*Mimus polyglottos*
Sturndae	**Starlings and Allies**	
*	European starling	*Sturnus vulgaris*
Fringillidae	**Finches**	
	House Finch	*Haemorhous mexicanus*
	Lesser Goldfinch	*Spinus psaltria*
Emberizidae	**Buntings, finches and sparrows**	
§	California Rufous-crowned Sparrow	*Aimophila ruficeps canescens*
	California Towhee	*Melozone crissalis*
	Lark sparrow	*Chondestes grammacus*
	Lincoln sparrow	*Melospiza lincolnii*
	Savannah sparrow	*Passerculus sandwichensis*
	Song Sparrow	*Melospiza melodia*
	White-crowned sparrow	*Melospiza melodia*
Icteridae	**Blackbirds, Orioles and Allies**	
	Bullock's Oriole	*Icterus bullockii*
	Western Meadowlark	*Sturnella neglecta*
Parulidae	**Wood Warbles and Relatives**	
	Orange-crowned warbler	*Oreothlypis celata*
	Wilson’s warbler	*Cardellina pusilla*
	Yellow-rumped warbler	*Setophaga coronata*
	common yellowthroat	*Geothlypis trichas*

*Non-native species, §Sensitive Species

Appendix C.4

San Bernardino Kangaroo Rat Surveys

I-15 Logistics Project

Draft Environmental Impact Report

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SJM BIOLOGICAL CONSULTANTS

30 August 2018 SJMBC.983

Christine Donoghue
Michael Baker International
3536 Concours Street, Suite 100
Ontario, CA 91764

Subject: Results of a focused trapping survey for the federally endangered San Bernardino kangaroo rat at the I-15 Logistics Project Site, located in the City of Fontana, San Bernardino County, California

Dear Christine:

This letter report presents the results of a focused trapping survey for the San Bernardino kangaroo rat (SBKR; *Dipodomys merriami parvus*) conducted by SJM Biological Consultants, Inc (SJM), at the I-15 Logistics Project Site (project site), in the City of Fontana, San Bernardino County, California (Figures 1-3).

Project Location and Description

The project site is generally located adjacent to the northern edge of Interstate 15 (I-15) just northwest of the Sierra Avenue off-ramp in San Bernardino County, California (Figures 1 and 2). The site occurs within the northern portion of the Sphere of Influence of the City of Fontana, CA. It is bounded on the northeast by Sierra Avenue (beyond which lies Lytle Creek), and on the northwest by Lytle Creek Road) (Figure 3). I-15 forms the southeasterly property boundary (Figures 2 and 3). Most of the project site is located within Township 1 North, Range 5 West, Sections 7 and 18 of the United States Geological Survey (USGS) Devore 7.5-minute topographic quadrangle. The northern third of the project site can be found within the Rancho Muscupiabe Land Grant, which was not surveyed as part of the Public Land Survey System (PLSS). UTM (NAD 83) coordinates near the center of the survey area are 11S 459024.47E/3782028.17N, and the approximate elevation is 1965 feet (ft) above mean sea level (amsl).

The project proposed for the site is an approximately 1,175,720 square foot "high-cube" logistics warehouse located on approximately 85 acres of the overall site. The proposed warehouse includes two potential office spaces that are located at the northeast and southeast corners of the warehouse. Proposed truck ingress and egress will come from Sierra Avenue (Figure 4).

Figure 1 Regional vicinity map. Source: USGS 7.5′ Devore Quadrangle map.

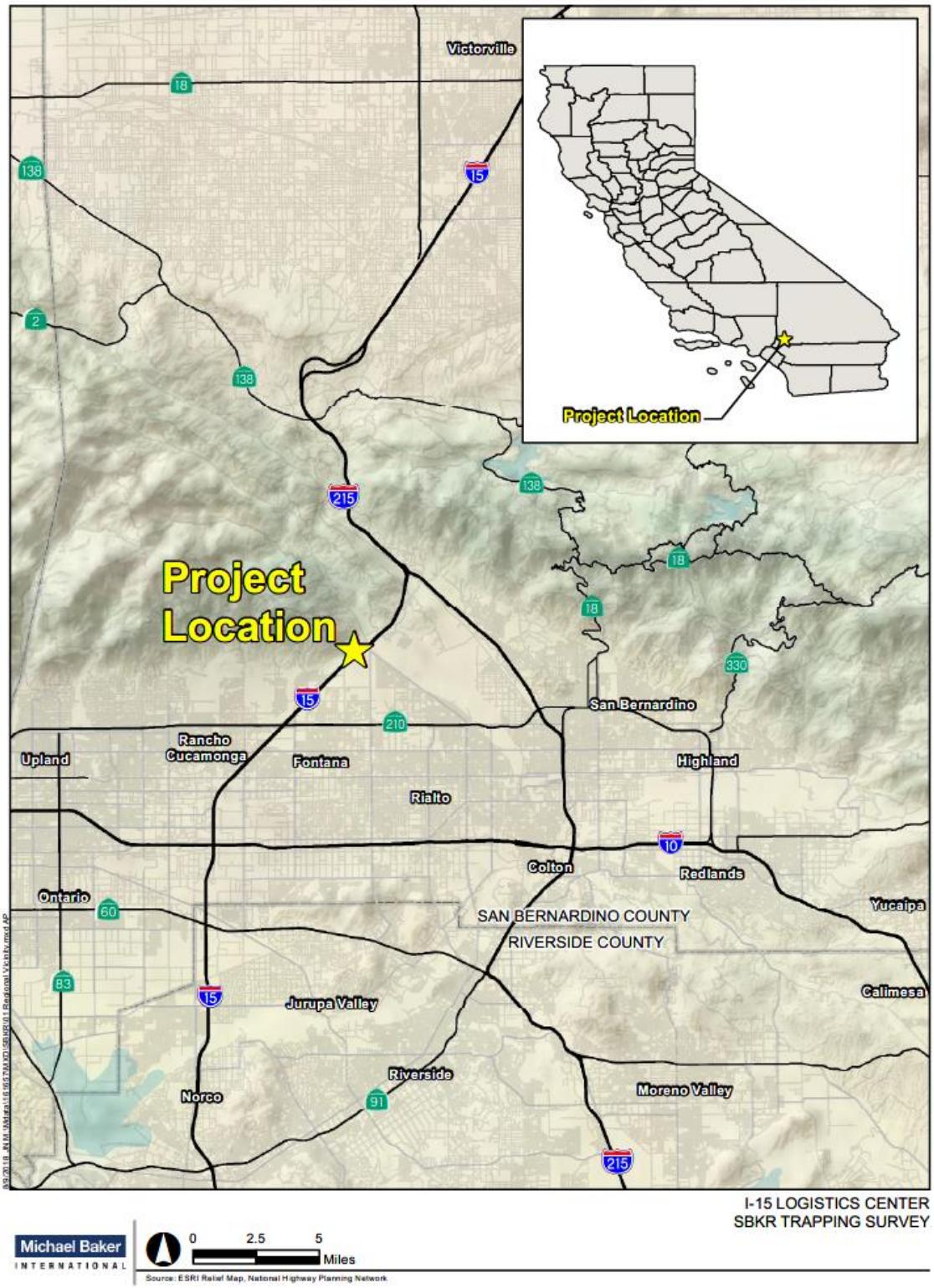


Figure 2. Project site location shown on the USGS 7.5′ Devore Quadrangle map.

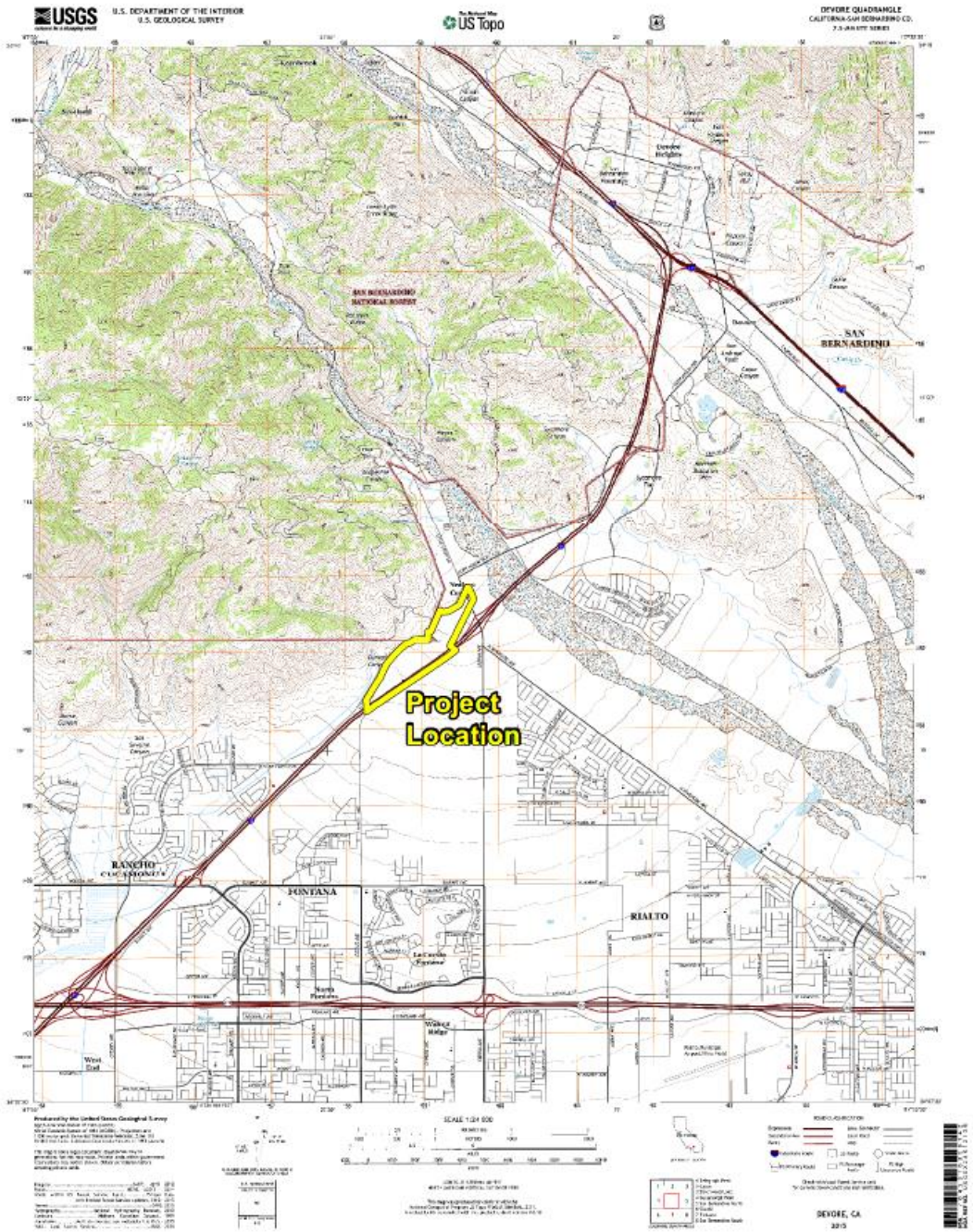


Figure 3 Site Location Map

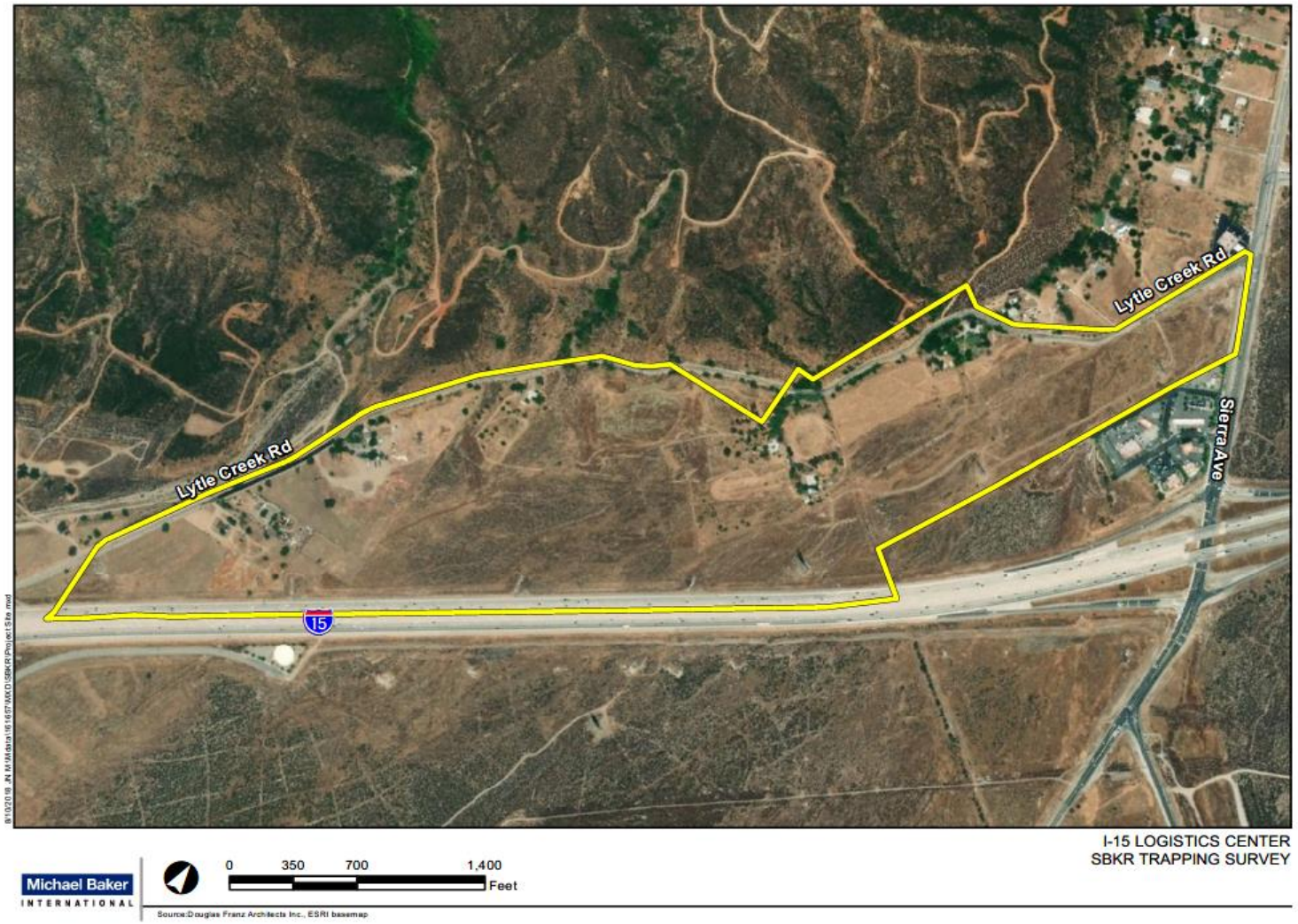


Figure 4. Depiction of the proposed project

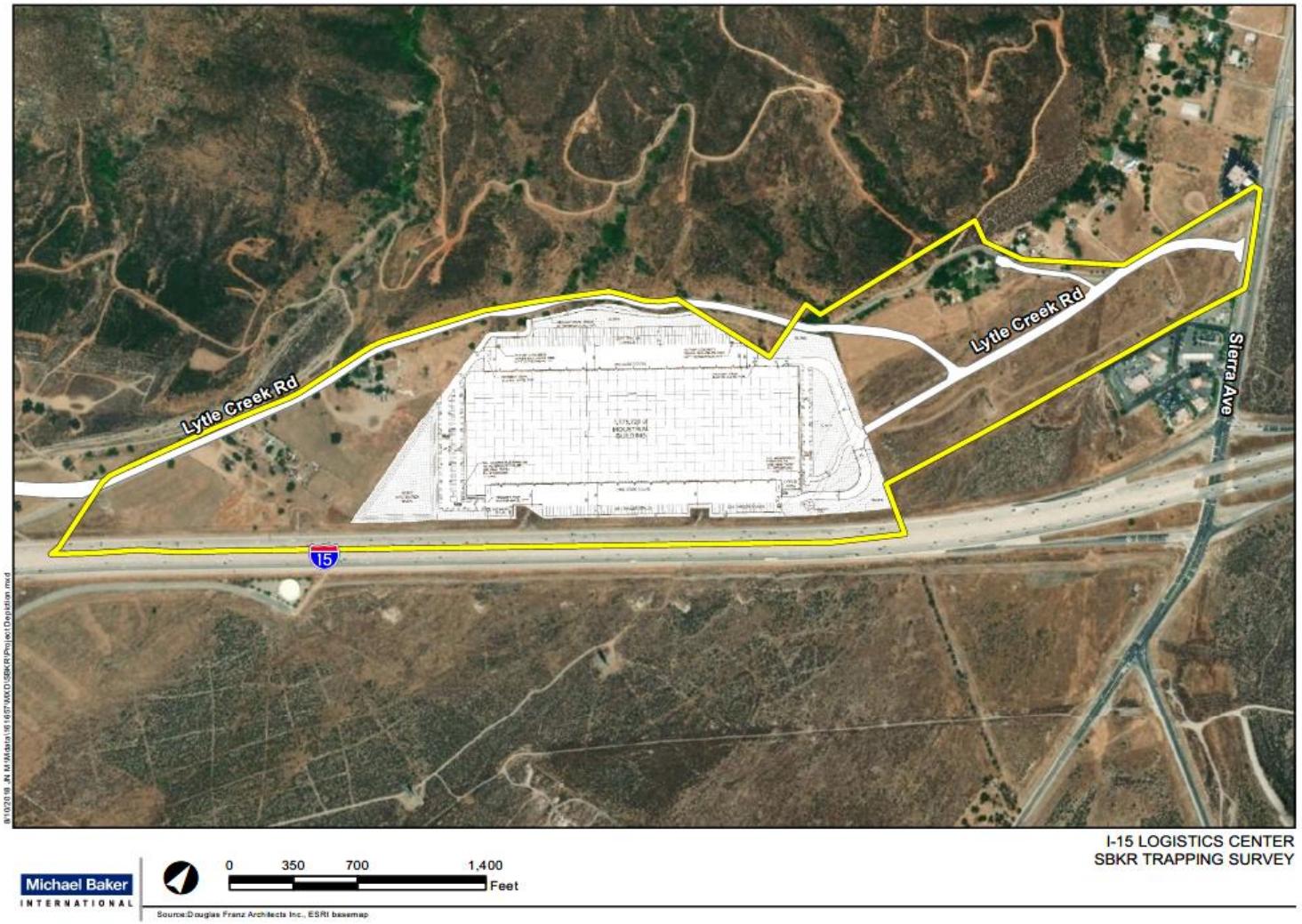
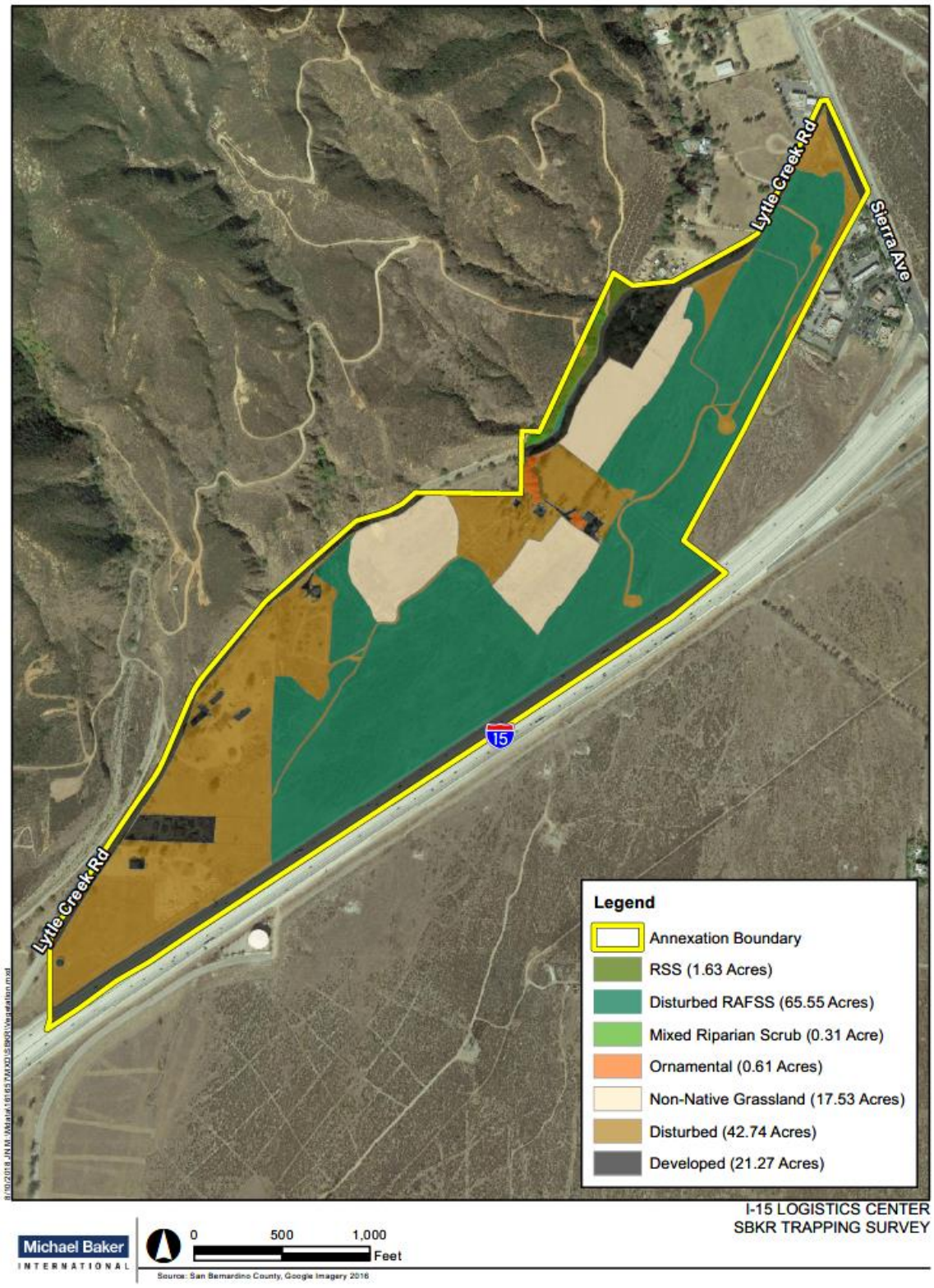


Figure 5. Vegetation on the project site



The property is largely level with a gentle southerly slope, and several small drainages are present across the site. Soils on the site consist of Tujunga gravelly loamy sands and Soboba stony loamy sands, which are generally suitable for SBKR. Extant primary habitat types include the following (Figure 5):

- Disturbed Riversidean Fan Sage Scrub (dominated by buckwheat and California sagebrush scrub)
- Non-native grassland
- Disturbed

Common plant species characterizing the site include (see Attachment B): California buckwheat, California sagebrush, chamise, various brome grasses, oats, cheat grass, Mediterranean grass, filaree, Russian thistle, tocalote and turkey mullein. Typical disturbances across the property include: rural residential lots with various buildings, large yards, corrals and cultivated or disked fields; crude dirt roads; power lines and poles; and dumping of trash.

Habitat conditions on the site are suboptimal for SBKR (see Background section below). Vegetation density is generally high in all areas, with dense grassland dominating most areas. Although soils on the property are fundamentally acceptable for SBKR, areas of deeper sandy soil are very uncommon. The property has been separated from the effects of periodic alluvial flooding from Lytle Creek for many decades, and the typical alluvial fan habitat conditions favored by this species are absent. Initial inspection of the site suggested that SBKR were absent and the non-endangered Dulzura kangaroo rat (*D. simulans*; DKR) was present. For example, prior trapping surveys in similar nearby habitats to the east of I-15 have only yielded DKR.

Primary land uses adjacent to the property include: rural residential developments to the west, Lytle Creek Wash and a commercial complex to the east, I-15 and undeveloped lands to the south, and the foothills of the San Gabriel Mountains to the West. Several populations of sensitive plant and wildlife species are known to occur in association with the Lytle Creek Wash and its associated open space areas. Sensitive small mammal species known to occur in the Lytle Creek Wash area in the general proximity of the Project Site include: SBKR; the California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC) Los Angeles pocket mouse (LAPM; *Perognathus longimembris brevinasus*), Bryant's woodrat (*Neotoma bryanti*), and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*).

San Bernardino Kangaroo Rat Background

The SBKR, a member of the rodent family Heteromyidae, is endemic to southwestern California. It is one of 19 subspecies of the Merriam's kangaroo rat (*Dipodomys merriami*), a species widely distributed throughout the western United States and northwestern Mexico. Populations of SBKR historically ranged throughout alluvial floodplains and some adjacent upland habitats of the San Bernardino Valley in San Bernardino County, as well as southward to Menifee and the San Jacinto Valley area of Riverside County.

Twenty-five separate SBKR locations were identified by McKernan (1997) in San Bernardino and Riverside counties, four of which (City Creek, Etiwanda, Reche Canyon and South Bloomington) supported only small remnant populations of the species. The Santa Ana River (SAR), Lytle and Cajon washes, and the San Jacinto River (SJR) support the largest extant concentrations of SBKR and suitable

habitat for this species (approximately 13,697 acres of potentially suitable habitat); however all but 3,215 occupied acres are currently more mature than the open, early successional habitat type preferred by SBKR (USFWS 1998; USFWS 2009).

SBKR prefer sparse vegetative cover and are primarily associated with Riversidean alluvial fan sage scrub (AFSS) habitats. The species typically occurs in large river-wash systems such as the SAR, SJR, Cajon Wash and Lytle Creek (Brylski et al. 1998; Dudek 2003). However, it has been found in stands of chaparral, in dense Riversidean alluvial fan sage scrub, in grasslands that are associated with Riversidean scrub, and even in a heavily disturbed former orange grove in Redlands, California (Montgomery 2015). Low elevation sandy terraces (also called benches) occurring at varying elevations adjacent to and both within and outside of main flood zones are an important aspect of SBKR habitat in natural alluvial systems. Such terraces, when located considerable distances from and at higher elevations outside of main flood channels, serve as refuges for SBKR during heavier flood events, and soft alluvial sandy soils allow SBKR to excavate burrows with ease (Brylski et al. 1998). The entire current project site occurs within United States Fish and Wildlife Service designated critical habitat for SBKR.

METHODS

Habitat Assessment

An initial habitat assessment for SBKR was conducted on the project site on May 4 and May 24, 2018, by USFWS permitted SBKR biologist Stephen J. Montgomery (TE745541-11, CDFW MOU) and assistant biologist Phillip Wasz. During the habitat assessment, the project site was evaluated for habitat conditions potentially suitable for SBKR, to determine if trapping of the site was warranted. All extant habitats were classified as potentially suitable/occupied versus unsuitable. Although the site exhibited very low potential for this species due to the absence of suitable alluvial habitats and abundance of very dense grasses, it is located within USFWS designated critical habitat for San Bernardino kangaroo rat. Thus, a detailed assessment was required to confirm presence/absence of SBKR. Locations exhibiting diagnostic kangaroo rat sign (burrows, tracks, scat, dust bathing sites) were marked with a global positioning system (GPS) receiver and flagged as potential trapping areas. It is noteworthy that the non-endangered DKR and similar agile kangaroo rat (*D. agilis; AKR*) are known to occur in the region of the project site, and sign of these two kangaroo rats can be very similar to that of SBKR. In addition, the DKR is known to coexist with and can occupy similar habitats as SBKR. Thus, the presence of kangaroo rat sign alone cannot be attributed to SBKR.

Focused Small Mammal Trapping Survey

Trapping was conducted by Ms. Dana McLaughlin, assisted by Phillip Wasz. Ms. Mclaughlin is a biologist permitted to trap and handle SBKR under the authority of a federal USFWS 10(a)(1)(A) endangered species permit (TE-43597A). Phillip Wasz holds an MOU to trap and handle various sensitive small mammal species, including but not limited to the giant kangaroo rat (*D. ingens*), short-nosed kangaroo rat (*D. nitratoides brevinasus*), LAPM, and Mohave ground squirrel (*Xerospermophilus mohavensis*). Mr. Wasz also holds a USFWS permit (TE012973-9.6) to trap/handle the federally endangered Giant kangaroo rat. He is in the process of applying for his own SBKR permit, which is currently under review by the USFWS.

Small mammal trapping in dense grassland is typically very inefficient because the likelihood of a rodent encountering a trap is greatly reduced by the density of the grass. Additionally, kangaroo rats

are primarily soil sifters that search for seeds within areas of sparser vegetation and bare soil. Due to these factors, and in an effort to maximize the efficiency of the trapping survey, the surveyors focused on placing traps in more open areas that contained patches of bare soil, including along dirt roads and trails (2-tracks), in patches of scrub with reduced between-shrub grass density, in small open narrow drainage channels, in disturbed areas with reduced plant cover, and in areas with a higher ratio of forbs (non-woody herbaceous plants) to grass. A higher ratio of forbs to grass results in more bare ground in the fall/winter seasons, as forbs dry out and disintegrate thereby exposing more open ground.

The overall strategy of the trapping survey was to sample numerous areas with obvious kangaroo rat sign and areas that in any way resembled SBKR habitat. Naturally, because of the large size of the property and extant habitat stands, some areas with kangaroo rat activity were not trapped. However, the distribution of trap lines and traps was extensive on the property, and the best available habitat areas were without question sampled. Traps were not set in scrub patches with high between-shrub grass density that obscured possible kangaroo rat burrows or sign. Traps also were not set within the boundaries of the existing developed residential parcels on the property. As mentioned, these residential parcels were heavily disturbed by disking and scraping, and contained various buildings, corrals, and other heavily disturbed ground making them unsuitable for SBKR. Although the trapping effort did not accomplish 100% coverage of the project site, which would have required an excessively costly trapping survey, enough coverage of the suitable habitats was achieved to assume that if SBKR were on the project site they would have been captured. It is highly unlikely that SBKR would be present within any small isolated untrapped patch of generally low-quality habitat that was not located near a higher quality habitat area that was trapped.

The focused small mammal trapping survey was conducted according to established protocols described within the permitted biologist's federal 10(a)(1)(A) endangered species recovery permit for SBKR. To achieve ample coverage of all the habitats on the project site the trapping was conducted over four separate sessions, with each session consisting of five consecutive nights of trapping. A total of 140-150 traps was set during each of the four sessions and trapping was conducted during suitable weather conditions. Traps were spaced approximately 10 meters apart, to achieve appropriate trap coverage within areas that exhibited any semblance of suitable SBKR habitat. Only 12-inch modified (front door shortened slightly) collapsible Sherman live-traps were used in this study. Traps were opened at dusk each day and baited with a bird seed mixture. Traps were then checked for captures and closed each morning near dawn. All captured animals were identified to species and released unharmed at the point of capture. Notes and photographs were taken to document habitat conditions where traps were placed. Weather conditions were recorded in the field during each trapping day.

RESULTS

Weather

Nighttime weather conditions during the four trapping sessions were generally mild and suitable for small mammal trapping, with nightly lows ranging in the 60's and 70's F and daytime highs in the 90's and 100's F, wind speeds ranging from 1-10 mph, and cloud cover ranging from clear to slightly cloudy.

Habitat Assessment

The project site consists of a variety of vegetation communities and land cover types (Figure 5). Six residences are located on the project site, four located in the southern half and two located in the

northern half of the property. As mentioned, the six residences contained a variety of structures, including houses and outbuildings.

The area around the residences was generally categorized as disturbed and included old corrals, disked and/or fallow fields, and one commercial firewood business. No residences were located in the extreme northern extent of the project site, but heavy disturbance occurs along the northern property border immediately adjacent to Sierra Avenue. In addition, the northern half of the project site contained three Southern California Edison towers and their associated access roads. The areas around the base of each of the towers and the access roads were graded and heavily compacted.

The vegetation within the undeveloped and undisturbed portions of the project site consists mainly of disturbed Riversidean alluvial fan sage scrub (RAFSS) intermixed with dense non-native grassland. The RAFSS vegetation on the project site consists of stands of California buckwheat (*Eriogonum fasciculatum*), California sagebrush and/or chamise (*Adenostoma fasciculatum*) varying considerably in area and density. Additionally, a few large areas of very dense non-native grassland occur within the middle of the project site. Large areas of non-native grassland also occur in association with the residences on site. Non-native grassland areas exhibited evidence of past disking and may have at one point been agricultural fields that have since become fallow.

High quality suitable habitat for SBKR is generally absent from the project site, and habitat conditions on the project site are generally of sub-optimal quality for this species. SBKR typically prefer relatively open stands of alluvial fan sage scrub vegetation with minimal grass cover and sandy alluvial soils. The predominance of disturbed Riversidean alluvial fan sage scrub intermixed with dense non-native grasses in the undeveloped parts of the property significantly limits areas of suitable open ground typical of high quality SBKR habitat. Nonetheless, the species has occasionally been found in disturbed lands near occupied undisturbed alluvial fan scrub habitats. Additionally, the project site occurs within USFWS designated critical habitat for SBKR, and SBKR are known to occur in the Lytle Creek wash system to the immediate east. The closest SBKR California Natural Diversity Database (CNDDB) records occur east of Sierra Avenue and both north and south of I-15 (Figure 6; CDFW 2018). Thus, there was some potential for the species to occur in the more open parts of the project site where substrate disturbances were relatively minor.

It was considered particularly important to thoroughly assess the entire property for its potential for SBKR, including areas of marginally suitable habitats, because the site occurs in USFWS designated critical habitat for SBKR (Figure 7). In addition, SBKR are known to occur in the Lytle Creek wash system to the immediate east, and kangaroo rat sign was observed on the project site,. Furthermore, because DKR are known to occur in the area, an extensive trapping was necessary to confirm the identity of the species responsible for the observed sign across the property. Representative photographs of the project site are found in Attachment A and lists of plant and animal species observed on the project site are found in Attachments B and Attachment C, respectively.

Focused Small Mammal Trapping Survey

A total of 2,950 trap-nights (one trap-night is one trap set for one night) yielded 911 animal captures belonging to nine rodent species, one rabbit species, and three reptile species (Table 1). No SBKR were captured. Captured species included: northwestern San Diego pocket mouse, Dulzura/agile kangaroo rat, California mouse (*P. californicus*), Baja mouse (*P. fraterculus*), deer mouse (*P. maniculatus*), western

Table 1. Trapping Survey Results

TRAP RESULTS - CAJON CREEK CONSERVATION MANAGEMENT AREA - NOVEMBER 2017									
Date Traps Checked	No. of Traps Set	Total Number of Individuals Captured for Each Species							
		SBKR	DKR	CHFA	PEMA	PEFR	SYAU	OTHER	OTHER
6/11/2018	150		29	2	4		2	UTST (1)	OTBE (1)
6/12/2018	150		31	1	4		1	PECA (1)	
6/13/2018	150		59	1	2				
6/14/2018	150		51	5	3			MUMU (1)	PECA (1)
6/15/2018	150		57	4	3			UTST (1)	
6/11/2018	150		57		1			ASTI (1)	
6/12/2018	150		56	1	4			OTBE (1)	
6/13/2018	150		60		4			PECA (1)	
6/14/2018	150		71		5			OTBE (1)	
6/15/2018	150		45		4			OTBE (3)	
7/24/2018	140		23	1	3	1		NEBR (1)	PLSK (1)
7/25/2018	140		27	4	8				
7/26/2018	140		27	7	3	1			
7/27/2018	140		24	8	6				
7/28/2018	140		28	6	5	1			
7/24/2018	150		21	3					
7/25/2018	150		18	3					
7/26/2018	150		25	5					
7/27/2018	150		29	7				OTBE (1)	
7/28/2018	150		27	6				REME (1)	

SBKR = San Bernardino kangaroo rat (*Dipodomys merriam parvus*)	ASTI = western whiptail (*Aspidoscelis tigris*)
DKR = Dulzura/agile kangaroo rat (*D. simulans/agilis*) - both species may have been captured in the study area - field differentiation of these species is difficult	OTBE = California ground squirrel (*Otospermophilus beecheyi*)
CHFA = Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	PECA = California mouse (*P. californicus*)
PEMA = deer mouse (*Peromyscus maniculatus*)	MUMA = house mouse (*Mus musculus*)
PEFR = Baja mouse (*P. franterculus*)	NEBR = Bryant's woodrat (*Neotoma bryanti*)
SYAU = Desert Cotton Tail (*Sylvilagus audubonii*)	PLSK = Skilton's skink (*Plestiodon skiltonianus skiltonianus*)
UTST = side-blotched lizard (*Uta stansburiana*)	REME = western harvest mouse (*Reithrodontomys megalotis*)

harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), Bryant's woodrat, California ground squirrel (*Otospermophilus beecheyi*), desert Cottontail (*Sylvilagus audubonii*), western whiptail (*Aspidoscelis tigris*), Skilton's skink (*Plestiodon skiltonianus skiltonianus*), and side-blotched lizard (*Uta stansburiana*). Dulzura/agile kangaroo rats, northwestern San Diego pocket mice, and deer mice represented the majority of captured rodents. The species captured during the survey are very common throughout San Bernardino County and are typically found in habitats resembling those found on the project site. Figure 8 shows the locations of all trap stations and all Dulzura/agile kangaroo rat capture points.

Discussion and Conclusions

The exclusive capture of DKR at all trapping locations scattered across the property in the best available habitat areas for SBKR is strong evidence of the absence of SBKR on the site. These results were expected, given the predominance of dense grassland habitat on the site, the long history of the property being outside of any typical alluvial flooding, and the various disturbances that have occurred on the site over many years. The potential for any future occupation of the site by this species is low. SBKR are not present on immediately adjacent lands to the west, north and east. Also, habitat conditions appear to be of low quality on the lands immediately to the south and to the southwest across Lytle Creek Road. Both southerly areas exhibit disturbed habitat conditions, with evidence of disking visible on aerial images of the land to the southwest across Lytle Creek Road.

Endangered/sensitive species surveys are formally valid for a period of one year from the date of the trapping. For this reason, the trapping survey may need to be updated if construction is delayed beyond one year from the date of the current trapping survey.

Because no SBKR were captured on the property, no impacts to this species are expected to result from construction of the project within the next year. Therefore, no avoidance, minimization, and/or mitigation measures for SBKR are recommended at this time.

Certification

Thank you for the opportunity to work on your project. If you have any questions regarding the contents of this letter report, please contact me at (858) 232-9602.

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

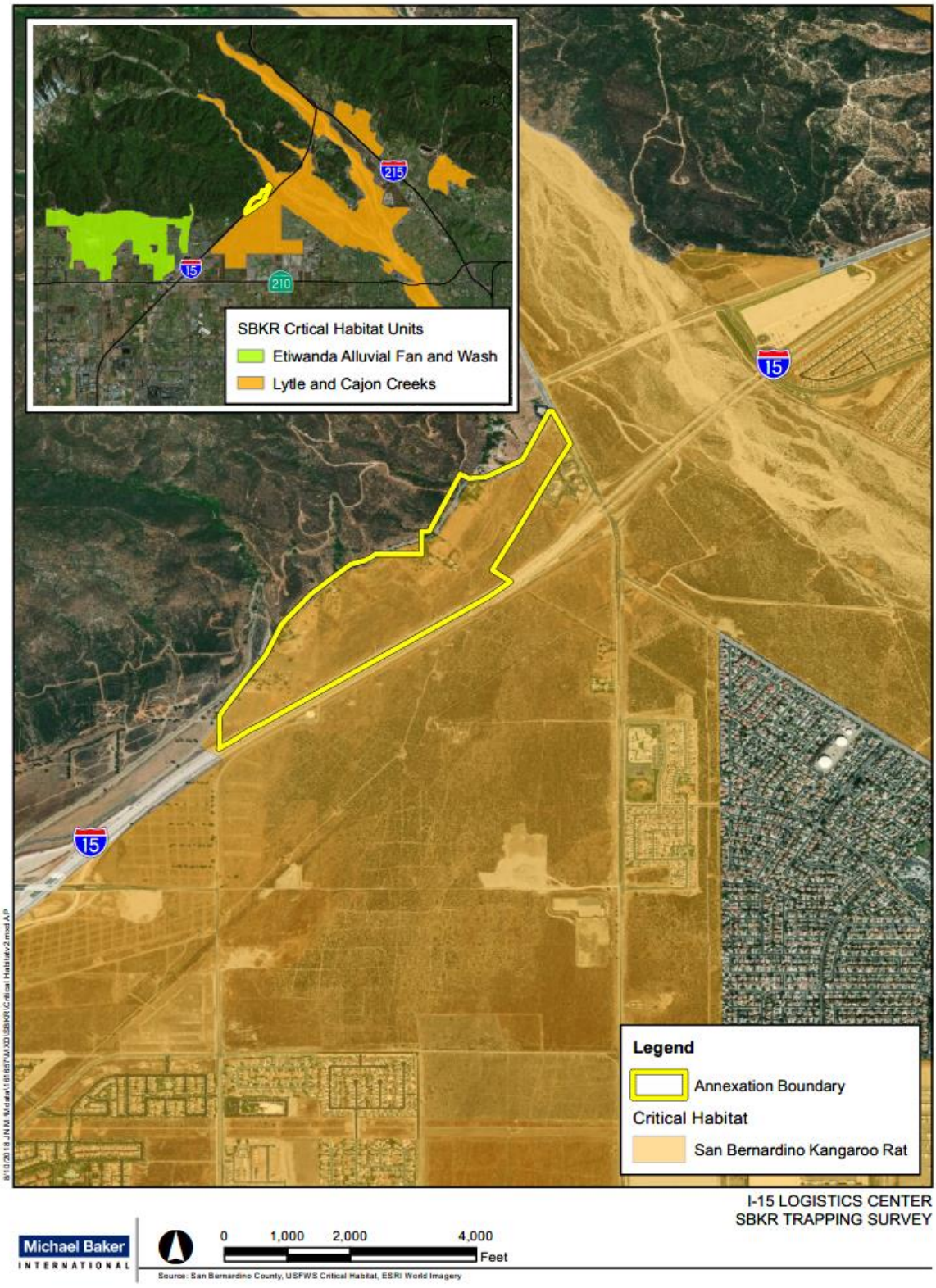
Sincerely,

SJM Biological Consultants, Inc.
Principal Wildlife Biologist
Permitted SBKR Biologist and MOU Holder

USFWS Permit TE745541-11

Figure 6. CNDDB SBKR occurrences near the project site

Figure 7. SBKR critical habitat near the project site



harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), Bryant's woodrat, California ground squirrel (*Otospermophilus beecheyi*), desert Cottontail (*Sylvilagus audubonii*), western whiptail (*Aspidoscelis tigris*), Skilton's skink (*Plestiodon skiltonianus skiltonianus*), and side-blotched lizard (*Uta stansburiana*). Dulzura/agile kangaroo rats, northwestern San Diego pocket mice, and deer mice represented the majority of captured rodents. The species captured during the survey are very common throughout San Bernardino County and are typically found in habitats resembling those found on the project site. Figure 8 shows the locations of all trap stations and all Dulzura/agile kangaroo rat capture points.

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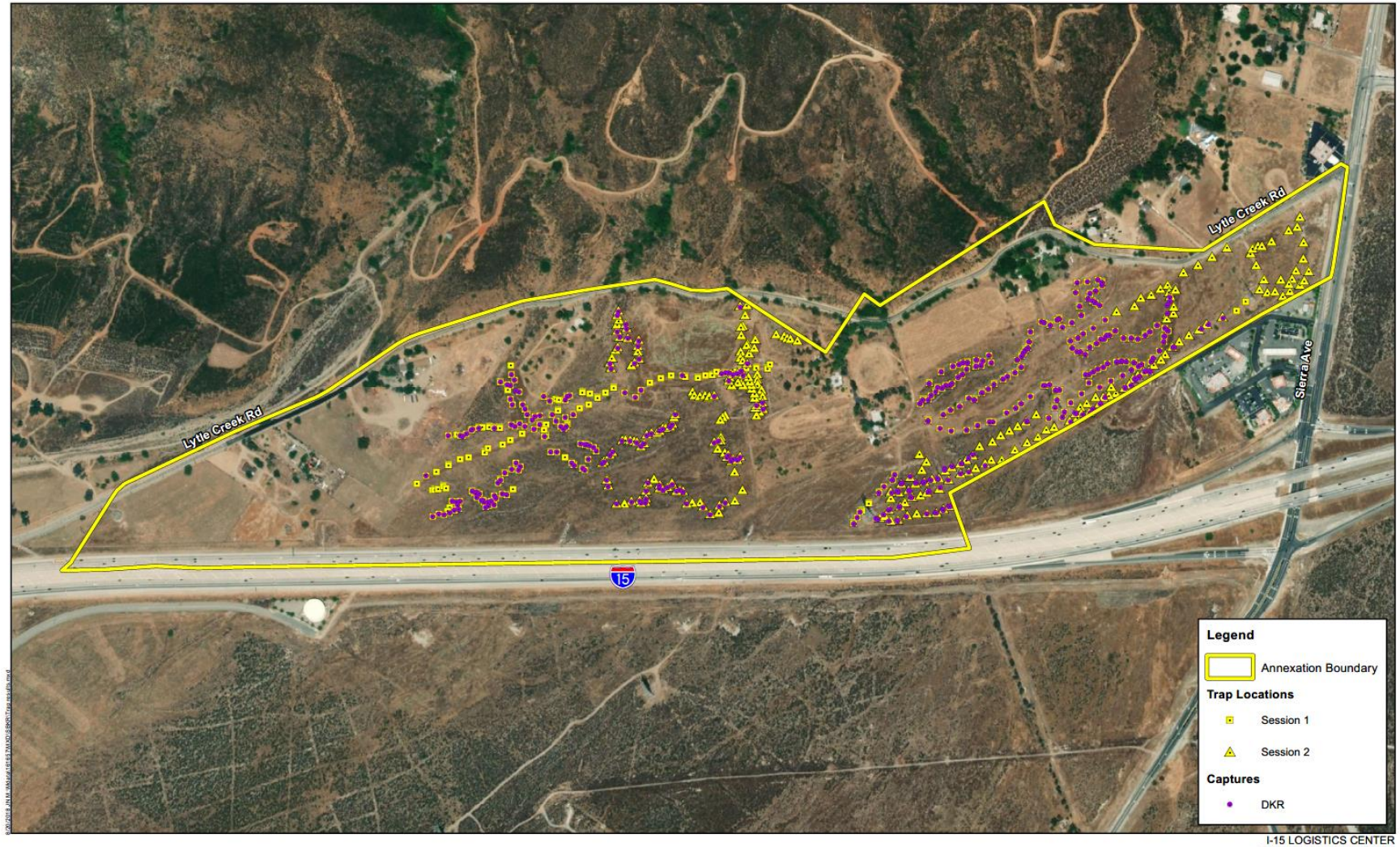
SJM Biological Consultants, Inc.
Principal Wildlife Biologist

Permitted SBKR Biologist and MOU Holder
USFWS Permit TE745541-11

Figure 8. Trap Locations and DKR Captures



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ATTACHMENT A

Representative Site Photographs

Photo 1: Riversidean alluvial fan sage scrub (RAFSS).

Photo 2: Suitable RAFSS habitat dominated by California sagebrush and California buckwheat with open ground.

Photo 3: Trap line place on open ground along old dirt road.

Photo 4: Dense RAFSS dominated by California sagebrush.

Photo 5: Dense RAFSS with chamise and non-native grasses.

Photo 6: Dense RAFSS with chamise and non-native grasses.

Photo 7: Unsuitable extremely dense non-native grassland.

Photo 8: RAFSS intermixed with dense non-native grass.

SCIENTIFIC NAME	COMMON NAME
Adenostoma fasciculatum	chamise
Amsinckia menziesii	small flowered fiddleneck
Artemisia californica	California sagebrush
Avena barbata	slender wild oat
Brassica nigra	black mustard
Bromus diandrus	rip-gut brome
Bromus madritensis rubens	red brome
Bromus tectorum	cheatgrass
Calochortus plummerae	Plummer's mariposa lily
Centaurea melitensis	tocalote
Croton californicus	California croton
Croton setiger	turkey mullien
Datura wrightii	jimsonweed
Eucalyptus sp.	gum tree species
Eriogonum fasciculatum	California buckwheat
Erodium cicutarium	red-stemmed fillaree
Heterotheca grandiflora	telegraph weed
Helianthus annus	sunflower species
Nicotiana glauca	tree tobacco
Oncosiphon piluliferum	stinknet
Opuntia sp.	prickly pear
Pinus sp.	unidentified pine trees
Salsola tragus	Russian thistle
Schinus mole	Peruvian pepper tree
Schismus barbatus	common Mediterranean grass
Sisymbrium irio	London rocket

Wildlife Species Compendium – Observed on or flying over project site

SCIENTIFIC NAME	COMMON NAME
Aspidoscelis tigris	western whiptail
Buteo jamaicensis	red-tailed hawk
Calypte anna	Anna's hummingbird
Canis latrans	coyote (scat)
Charadrius vociferus	killdeer
Chaetodipus fallax	northwestern San Diego pocket mouse
Corvus brachyrhynchos	American crow
Dipodomys simulans	Dulzura kangaroo rat
Dipodomys agilis	agile kangaroo rat
Falco sparverius	American kestrel
Haemorhous mexicanus	house finch
Lepus californicus	black-tailed jackrabbit
Melozone crissalis	California towhee
Mimus polyglottos	northern mockingbird
Mus musculus	house mouse*
Neotoma bryanti	Bryant's woodrat
Otospermophilus beecheyi	California ground squirrel
Peromyscus californicus	California mouse
Peromyscus fraterculus	Baja mouse
Peromyscus maniculatus	deer mouse
Plestiodon skiltonianus	Skilton's skink
Sayornis nigricans	black phoebe
Streptopelia decaocto	Eurasian collared dove*
Sturnus vulgaris	European starling*
Sylvilagus audubonii	desert cottontail
Uta stansburiana	side-blotched lizard
Zenaida macroura	mourning dove
Zonotrichia leucophrys	white-crowned sparrow

* Non-native species

Appendix C.5

Rare Plant Survey Report

I-15 Logistics Project

Draft Environmental Impact Report

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CAPROCK WAREHOUSE PROJECT

UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA

2018 RARE PLANT SURVEY REPORT

Prepared For:

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August 2018
JN: 161657

CAPROCK WAREHOUSE PROJECT

UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA

2018 RARE PLANT SURVEY REPORT

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Ashley Spencer
Biologist
Natural Resources

Dan Rosie
Senior Biologist
Natural Resources

August 2018
JN: 161657

Executive Summary

This report contains the results of Michael Baker International's (Michael Baker) 2018 rare plant surveys conducted for the CapRock Warehouse Project (Project or Survey Area) located in unincorporated San Bernardino County, California. Michael Baker biologists Ashley Spencer, Dan Rosie, Linda Nguyen, and Tom Millington conducted three (3) rare plant surveys on April 10, May 15, and June 12, 2018.

A total of one hundred and forty-eight (148) plant species were identified within the Survey Area, including two (2) special-status[1] plant species: Plummer's mariposa lily (*Calochortus plummerae*); and southern California black walnut (*Juglans californica*). Of these one hundred and forty-eight species, eighty-nine (89) (60%) are native and fifty-nine (59) (40%) are not native. No additional special-status plant species, including Parry's spineflower (*Chorizanthe parryi*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), or Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), were identified during the 2018 rare plant surveys. Refer to Appendix A for a complete list of plant species observed during the surveys.

Based on the results of the 2018 rare plant surveys, one population of southern California black walnut consisting of approximately ninety (90) individuals and one population of Plummer's mariposa lily consisting of approximately forty-six (46) individuals was observed within the Survey Area. The population of southern California black walnut is mainly associated with the rural residential properties located along the northwestern boundary of the Survey Area. The population of Plummer's mariposa lily occurs on granitic, rocky soils located within the disturbed Riversidian alluvial fan sage scrub (RAFSS) plant community found within the central portion of the Survey Area.

Direct impacts include the loss of RAFSS and Riversidian sage scrub (RSS) habitat and individuals of southern California black walnut and Plummer's mariposa lily that will occur from the proposed warehouse development. In total, there will be a permanent loss of 65.55 acres of disturbed RAFSS habitat and 1.63 acres of RSS habitat. In addition, approximately ninety southern California black walnut individuals and forty-six Plummer's mariposa lily individuals will be permanently impacted by the proposed Project.

[1] As used in this report, "special-status" refers to plant species that are Federally or State listed, proposed, or candidates; and plant species that have been designated a California Rare Plant Rank (CRPR) by the California Native Plant Society (CNPS).

Table of Contents

EXHIBITS

TABLES

APPENDIX

LIST OF ACRONYMS

BIOS	Biogeographic Information and Observation System
CCH	Consortium of California Herbaria
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
GIS	Geographic Information system
GPS	Global Positioning System
Michael Baker	Michael Baker International
NRCS	Natural Resources Conservation Service
RAFSS	Riversidian Alluvial Fan Sage Scrub
RSS	Riversidian Sage Scrub
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Section 1 Introduction

This report contains the results of Michael Baker International's (Michael Baker) 2018 rare plant survey conducted for the CapRock Warehouse Project (Project or Survey Area) located in unincorporated San Bernardino County, California. Michael Baker conducted three (3) separate site visits to coincide with the known blooming periods of special-status[2] plant species with a potential to occur on or within the general vicinity of the Survey Area.

1.1 PROJECT LOCATION

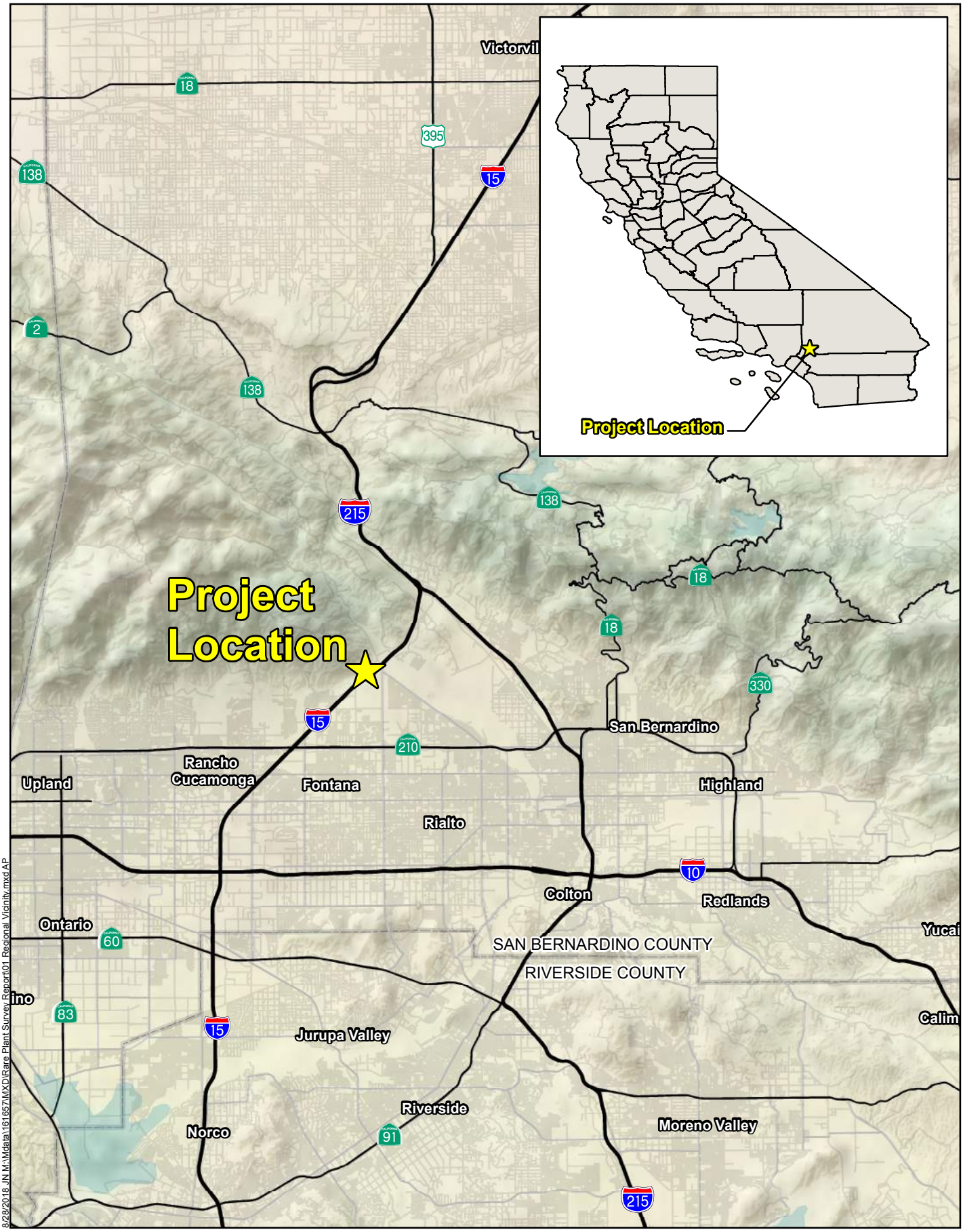
The Survey Area is located north of Interstate 15 and west of Lytle Creek Wash, on the southeastern foothills of the San Gabriel Mountains, immediately north of the City of Fontana, San Bernardino County, California (refer to Exhibit 1, *Regional Vicinity*). The Survey Area is depicted on the Devore quadrangle of the United States Geological Survey (USGS) 7.5-minute topographic map series in Sections 7 and 18 of Township 1 north, Range 5 west. Specifically, the Survey Area is located northwest of Interstate 15, east of Sierra Avenue, and southeast of Lytle Creek Road (refer to Exhibit 2, *Survey Area*).

1.2 PROJECT DESCRIPTION

The Project is located within unincorporated San Bernardino County and will require annexation into the City of Fontana, as well as approval of a Sphere of Influence amendment and other entitlements as described below. The proposed Project includes the development of a warehouse (high cube), as well as the annexation of twenty-one (21) adjacent parcels, and portions of the right-of-way for Lytle Creek Road, Sierra Avenue and the Interstate 15 Freeway (refer to Exhibit 3, *Project Depiction*). The total annexation area is approximately 114 acres. Other details and components include the following:

- Warehouse site totals 1,175,720 square feet; features approximately 200 truck bays and two (2) office spaces that total 30,000 square feet;
- Parcel map for warehouse site and adjacent annexed area;
- A Sphere of Influence amendment to include the area that is not currently within the City of Fontana's existing sphere of influence boundary;
- General plan land use designation/zoning; and
- Pre-zoning.

[2] As used in this report, "special-status" refers to plant species that are Federally or State listed, proposed, or candidates; and plant species that have been designated a California Rare Plant Rank (CRPR) by the California Native Plant Society (CNPS).



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Michael Baker INTERNATIONAL

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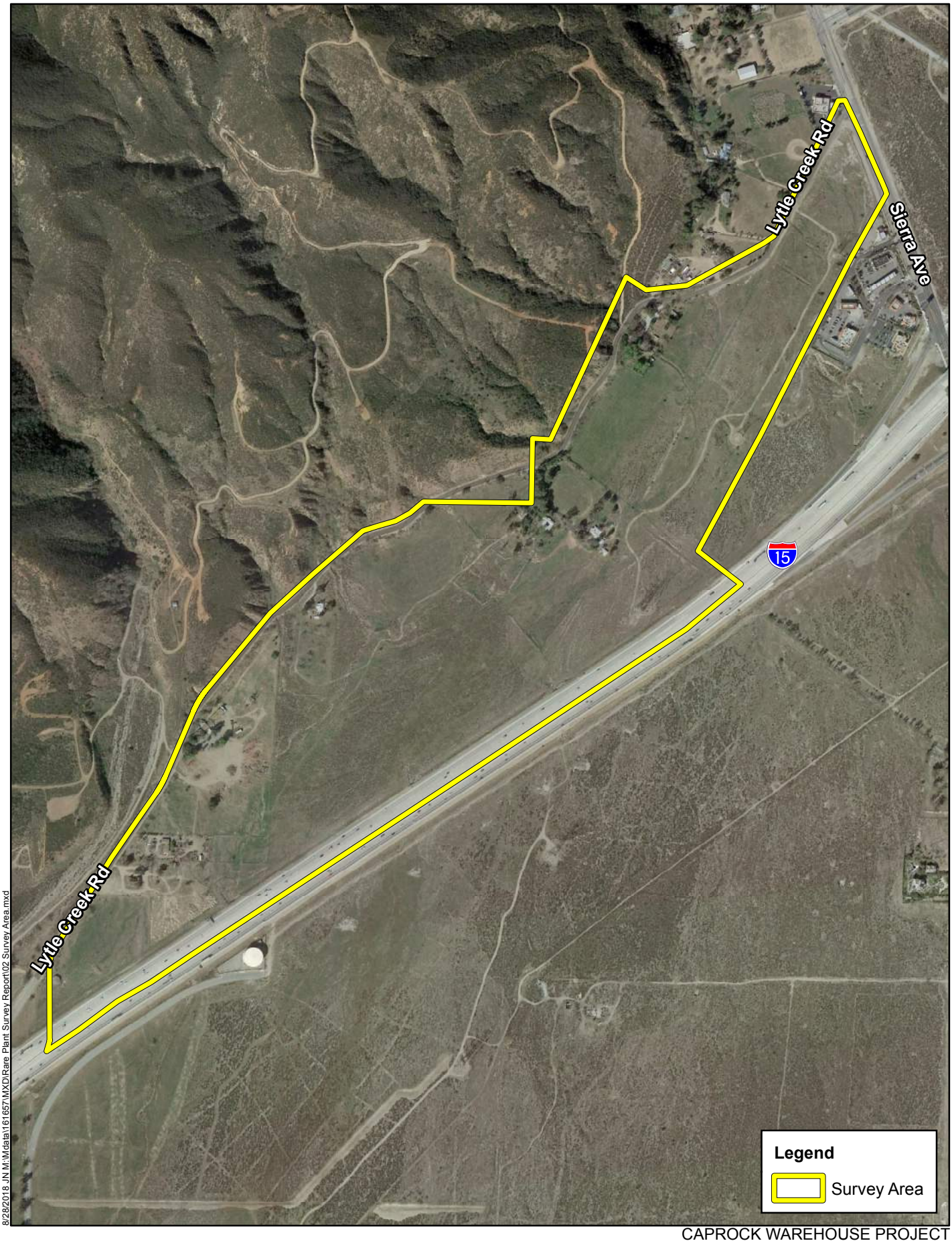
Source: ESRI Relief Map, National Highway Planning Network

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Regional Vicinity

Exhibit 1



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Michael Baker INTERNATIONAL

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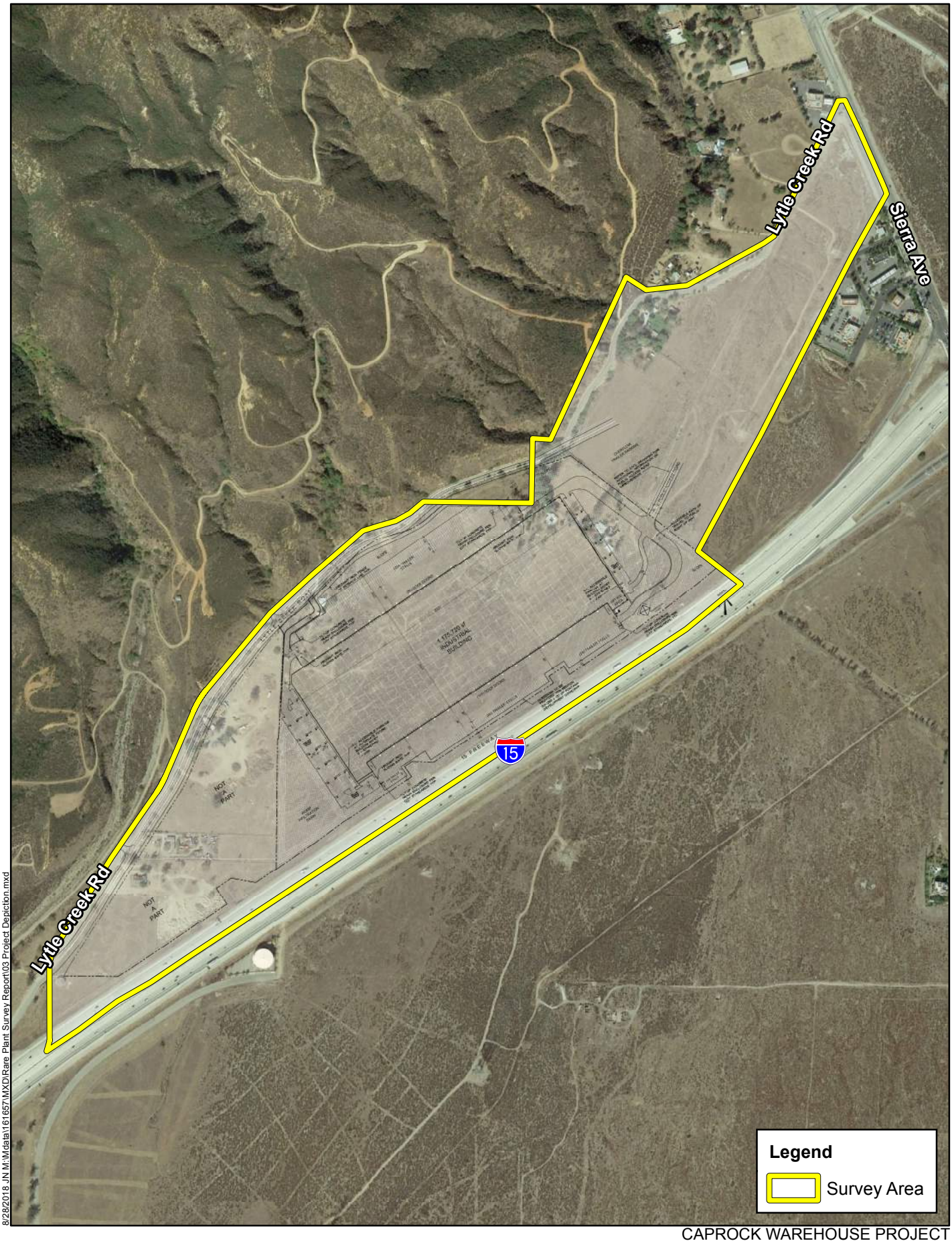
Source: San Bernardino County, Google Imagery 2018

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Survey Area

Exhibit 2



8/28/2018 JN M:\Mdata\161657\MXD\Rare Plant Survey Report\03 Project Depiction.mxd

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Source: Google Imagery 2016, Douglas Franz Architects Inc.

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Project Depiction

Exhibit 3

Section 2 Methodology

Michael Baker conducted a thorough literature review and records search to determine which special-status plant species have the potential to occur on or within the general vicinity of the Survey Area. In addition to the literature review, three (3) focused surveys were conducted to coincide with the blooming periods of rare plant species known to occur within the general vicinity, focusing on the presence/absence of Plummer's mariposa-lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), and southern California black walnut (*Juglans californica*).

2.1 LITERATURE REVIEW

Prior to conducting the surveys, a literature review and records search was conducted for special-status plant species potentially occurring on or within the vicinity of the Survey Area. Previously recorded occurrences of special-status plant species and their proximity to the Survey Area were determined through a query of the Consortium of California Herbaria (CCH), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 and QuickView Tool in the Biogeographic Information and Observation System (BIOS), the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of sensitive species published by CDFW, and the U.S. Fish and Wildlife Service (USFWS) species listings.

Previously prepared reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the Survey Area were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the Survey Area that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non- special-status biological resources, as well as the following resources:

- *Botanical Survey Guidelines* (CNPS 2001);
- *CapRock Warehouse Project: Habitat Assessment* (Michael Baker International 2017);
- Google Earth Pro historic aerial imagery (1994 - 2018);
- *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 1996);
- *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Communities and Natural Communities* (CDFW 2018);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey; and
- USFWS Critical Habitat designations for Threatened and Endangered Plant Species.

2.2 FOCUSED PLANT SURVEYS

Surveys were conducted at the time of year when plant species are both evident and identifiable. Three site visits were spaced throughout the growing season to accurately determine what plant species exist on-site

and capture the floristic diversity at a level necessary to determine if special-status plants are present. The timing and number of surveys was determined based on geographic location, the natural communities present, and the weather patterns of the region. Based on the special-status plant species known to occur within the general vicinity and the suitability of the on-site habitat to support those species, Michael Baker biologists conducted the 2018 rare plant surveys on April 10, May 15, and June 12 (refer to Table 1 below). These surveys were spaced to capture the appropriate phenotypic stage to ensure proper identification of all special-status plant species determined to have a low to moderate potential to occur within the Survey Area.

Table 1: Survey Dates, Time, and Surveyors

Survey Dates (2018)	Time (start/finish)	Surveyors
April 10	0800/1400	Ashley Spencer, Dan Rosie, Tom Millington
May 15	0600/1100	Ashley Spencer, Dan Rosie, Linda Nguyen
June 12	0600/1000	Ashley Spencer, Dan Rosie

All areas that may be directly and indirectly affected by the proposed Project were extensively surveyed on foot. Linear transects were walked throughout the Survey Area and spaced at 10-meter intervals to ensure maximum visual coverage and increase the likelihood of detecting special-status plant species known to occur within the general vicinity of the Survey Area. All plant species observed during the surveys were identified by visual characteristics and morphology in the field and recorded in a field notebook/iPad. Unusual and less familiar plants were photographed on-site and identified in the laboratory using taxonomical guides. Taxonomic nomenclature used in this study follows *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012), including updates through the Jepson eFlora (Jepson Flora Project 2018). In this report, scientific names are provided immediately following common names of plant species (first reference only). A hand-held Global Positioning System (GPS) device and standard field data sheets were used to record all populations of special-status plant species observed. Refer to Appendix A for a complete list of plant species observed during the surveys.

2.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to conducting the focused surveys using the USDA NRCS Web Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes and disturbances that have occurred within the Survey Area.

2.4 PLANT COMMUNITIES

Plant communities were mapped using USGS 7.5-minute topographic maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2010) and Holland (1986), delineated on an aerial photograph, and then digitized into Geographic Information System (GIS) software. The ArcView application was used to compute the area of each plant community in acres.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

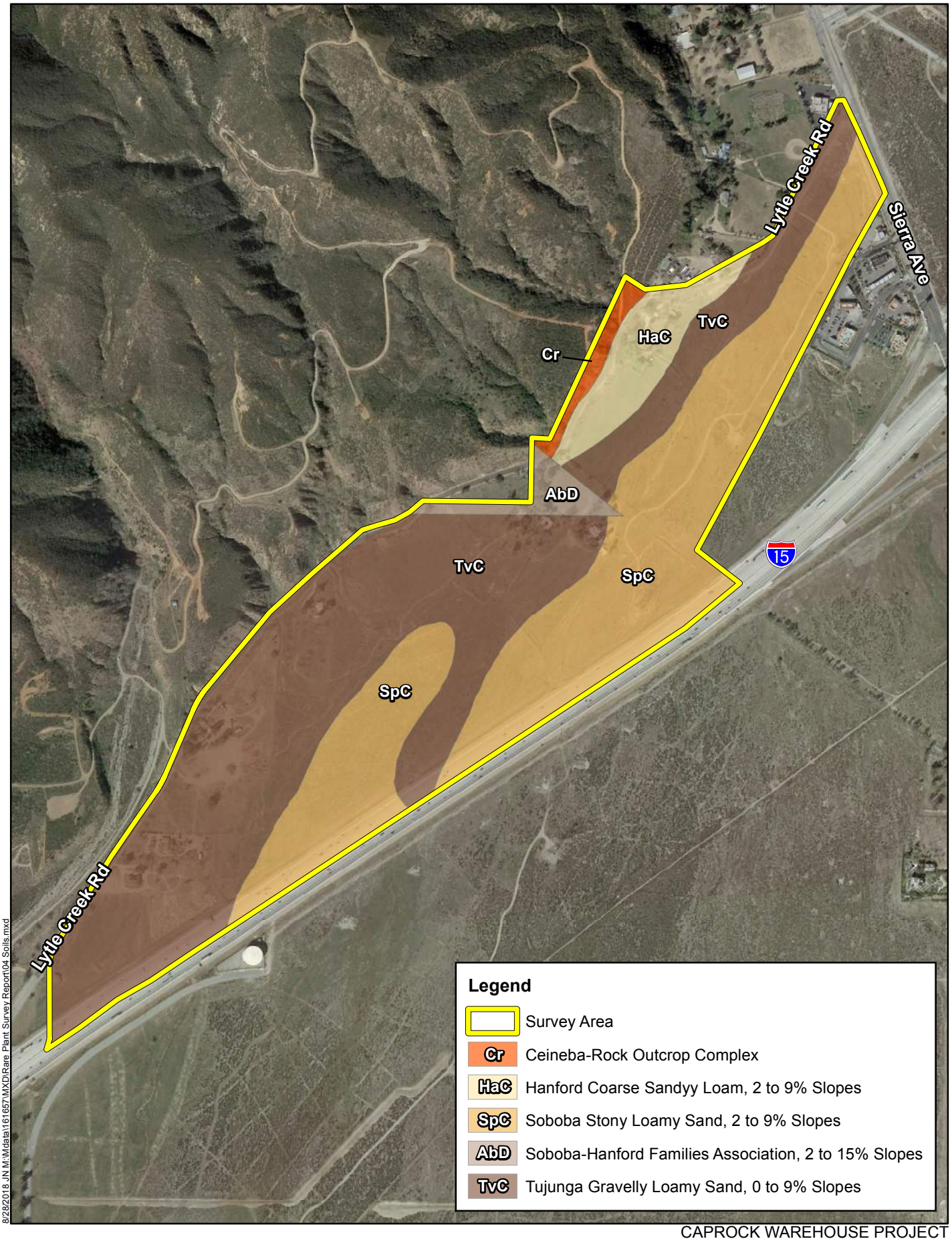
San Bernardino County is characterized by cool winter temperatures and warm summer temperatures, with its rainfall occurring almost entirely in the winter. Relative to other areas in Southern California, winters are colder with chilly to cold morning temperatures common. Climatological data obtained for the City of Fontana indicates the annual precipitation averages 14.77 inches per year. Almost all of the precipitation occurs in the months between November and March, with hardly any occurring in July. The wettest month is March, with a monthly average total precipitation of 3.49 inches. The average maximum and minimum temperatures for the region are 80 and 53 degrees Fahrenheit (°F) respectively with July and August (monthly average 95 °F) being the hottest months and December (monthly average 44 °F) being the coldest.

3.2 TOPOGRAPHY AND SOILS

Surface elevations within the Survey Area range from approximately 1,850 to 2,079 feet above mean sea level and generally slopes to the southwest. According to the U.S. Department of Agriculture and the Natural Resources Conservation Service Web Soil Survey, the Survey Area is underlain by the following soil units: Cieneba – Rock Outcrop Complex, 30 to 50 Percent Slopes, MLRA 20 (Cr); Hanford Coarse Sandy Loam, 2 to 9 Percent Slopes (HaC); Soboba Stony Loamy Sand, 2 to 9 Percent Slopes (SpC); Soboba – Hanford Families Association, 2 to 15 Percent Slopes (AbD); and Tujunga Gravelly Loamy Sand, 0 to 9 Percent Slopes (TvC) (refer to Exhibit 4, *Soils*). The Cr soil unit consists of somewhat excessively drained soils, found on mountain slopes and hillsides. HaC soils are found on alluvial fans and consist of well drained soils. The SpC soil unit consists of excessively drained soils formed from alluvium derived from granite sources. AbD soils are found on flood plains and consist of excessively drained soils formed from alluvium. The TvC soil unit consists of somewhat excessively drained soils formed from alluvium derived from granite sources.

3.3 SURROUNDING LAND USES

The Survey Area is located at the southeastern base of the San Gabriel Mountains in southwestern San Bernardino County, southwest of Lytle Creek. Vacant land, rural residential developments, and commercial land uses surround the project site to the north, south, east, and west. Interstate 15 runs along the southeastern boundary of the project site. Lytle Creek Road bisects the northwest portion of the project site and runs along the site's northwestern boundary. The San Bernardino National Forest is located northwest of the project site, north of Lytle Creek Road.



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Michael Baker INTERNATIONAL

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Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Soils

Exhibit 4

Section 4 Discussion

The Survey Area consists of vacant parcels of undeveloped land located northwest of Interstate 15 at the southeastern base of the San Gabriel Mountains. Based on historical aerial photographs (Google Earth Pro, 1994-2018), the Survey Area has been exposed to a variety of disturbances including clearing/disking activities, off road vehicle use, residential land uses, and illegal dumping. Seven (7) rural residential properties were observed along the western boundary of the Survey Area, adjacent to Lytle Creek Road. A water tank can be found within the southern portion of the Survey Area and transmission towers were observed adjacent to the Survey Area's eastern boundary. Refer to Appendix B for representative photographs taken throughout the Survey Area.

4.1 VEGETATION

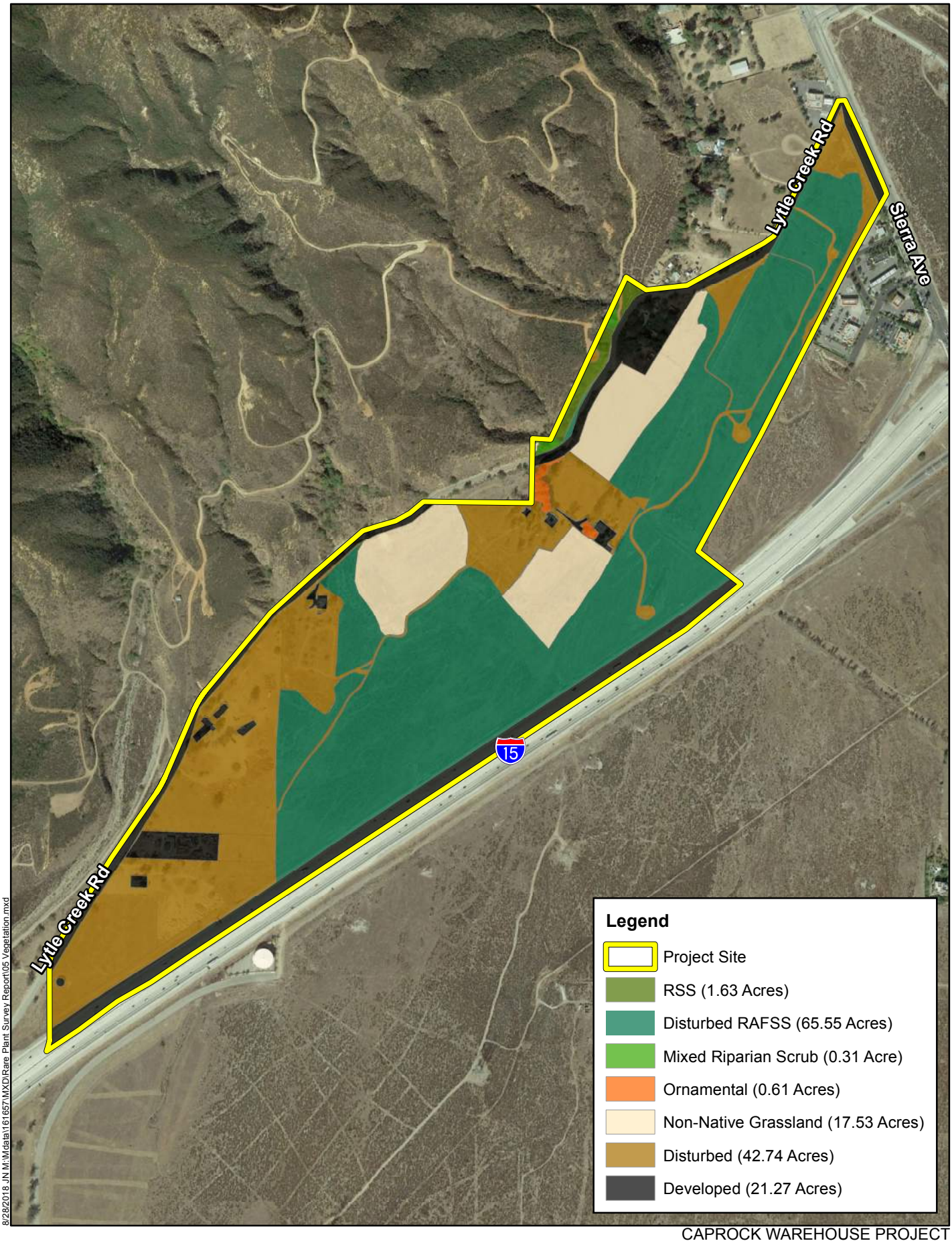
Five (5) plant communities occur within the boundaries of the Survey Area: disturbed Riversidian alluvial fan sage scrub (RAFSS), Riversidian sage scrub (RSS), mixed riparian scrub, non-native grassland, and ornamental (Exhibit 5, *Vegetation*). Non-vegetative land cover types within the Survey Area are best classified as disturbed and developed land.

4.1.1 Disturbed Riversidian Alluvial Fan Sage Scrub (65.55 Acres)

RAFSS is a State-Designated S-1.1 "very threatened" plant community that is restricted to intermittently or rarely-flooded, low-gradient alluvial deposits along streams, washes, and fans on the coastal slopes of the San Gabriel Mountains and San Bernardino Mountains in San Bernardino County. RAFSS is mainly composed of drought-decidous shrubs and evergreen woody shrubs, with a herbaceous/wildflower understory. Due to intense, periodic flooding and scour within Lytle Creek, a series of terraces are created above the active channel that exhibit different successional phases of vegetative growth: pioneer, intermediate, and mature. The phases are directly related to the intensity and amount of time between flood events and occur as a sequential gradation of terrace types with increasing distance from the active channel.

The Survey Area has been effectively cut off from the historic fluvial flow patterns and scouring regimes of Lytle Creek and flows exiting the San Gabriel Mountains due to the construction of the Interstate 15 freeway, Lytle Creek Road, Sierra Avenue, and developments in the surrounding area resulting in poor quality RAFSS habitat within the Survey Area. A disturbed RAFSS plant community was observed in the northern and central portions of the Survey Area and is sparsely vegetated with a variety of plant species indicative of intermediate RAFSS plant community. The intermediate RAFSS successional phase occurs in mid-elevated locations above the active floodplain and support a relatively dense mid-successional plant species.

Plant species occurring within the disturbed RAFSS plant community include scalebroom (*Lepidospartum squamatum*), California buckwheat (*Eriogonum fasciculatum*), interior goldenbush (*Ericameria linearifolia*), pine bush (*Ericameria pinifolia*), California sagebrush (*Artemisia californica*), coastal prickly pear (*Opuntia littoralis*), chaparral yucca (*Hesperoyucca whipplei*), deerweed (*Acmispon glaber*), and white sage (*Salvia apiana*). Additionally, approximately forty-six (46) Plummer's mariposa lily individuals were observed within the disturbed RAFSS plant community. This plant community also has an understory



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Michael Baker INTERNATIONAL

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Source: San Bernardino County, Google Imagery 2016

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Vegetation

Exhibit 5

comprised of non-native grasses and other herbaceous shrubs including common ripgut grass (*Bromus diandrus*), wild oat (*Avena fatua*), slender wild oat (*Avena barbata*), short-pod mustard (*Hirschfeldia incana*), and Russian thistle (*Salsola tragus*).

4.1.2 Riversidian Sage Scrub (1.63 Acres)

RSS is the driest, most inland collection of sage scrub or coastal scrub series, and ranges throughout southern California south into Baja California between approximately 1,500 and 4,500 feet above mean sea level. The RSS plant community can be found within the northwestern portion of the Survey Area, along the foothills of the San Gabriel Mountains. Specifically, this plant community was observed along the foothills located northwest of Lytle Creek Road and is dominated by California sagebrush, white sage, brittlebush (*Encelia farinosa*), and California buckwheat. Other plant species observed within this plant community include deerweed, sticky monkeyflower (*Diplacus aurantiacus*), big sagebrush *(Artemisia tridentata*), long steam buckwheat (*Eriogonum elongatum*), California croton (*Croton californicus*), chia sage (*Salvia columbariae*), and black sage (*Salvia mellifera*).

4.1.3 Mixed Riparian Scrub (0.31 Acres)

Mixed riparian scrub is located in small patches within the ephemeral drainage features located in the canyons that exit the San Gabriel Mountains, northwest of Lytle Creek Road. Dominant canopy species observed within this plant community includes Southern California black walnut (*Juglans californica*), western sycamore (*Platanus racemosa*), and arroyo willow (*Salix lasiolepis*). Understory plant species observed include California mugwort (*Artemisia douglasiana*), California wild rose (*Rosa californica*), poison oak (*Toxicodendron diversilobum*), Mexican fan palm (*Washingtonia robusta*), and castorbean (*Ricinus communis*).

4.1.4 Non-native Grassland (17.53 Acres)

The non-native grassland plant community can be found within the northern and central portions of the Survey Area and are mainly associated with the rural residential properties that have been subject to extensive mowing and grading activities. The non-native grassland is dominated by wild oat, slender wild oat, common ripgut grass, soft chess (*Bromus hordeaceus*), red brome (*B. rubens*), and cheat grass (*B. tectorum*).

4.1.5 Ornamental Vegetation (0.61 Acres)

Ornamental vegetation is associated with the rural residential properties located within the Survey Area, southeast of Lytle Creek Road. Ornamental plant species observed include eucalyptus (*Eucalyptus* sp.), Shamel ash (*Fraxinus uhdei*), oleander (*Nerium oleander*), olive (*Olea europaea*), and Athel tamarisk (*Tamarix aphylla*).

4.1.6 Disturbed (42.74 Acres)

Disturbed areas within the Survey Area do not comprise a natural plant community and instead consist of unpaved or dirt areas that are routinely exposed to anthropogenic disturbances. Surface soils within these areas are generally devoid of vegetation or support non-native and ruderal/weedy plant species and have

been heavily disturbed/compacted from anthropogenic disturbances (i.e., unimproved dirt access roads, illegal dumping, rural residential land uses).

4.1.7 Developed (21.27 Acres)

Developed areas within the Survey Area generally consist of paved, impervious surfaces and infrastructure including Lytle Creek Road and paved driveways and infrastructure associated with the rural residential properties (i.e., paved driveways, housing, water tanks).

4.2 SPEACIAL-STATUS PLANT SPECIES

The CCH, CNDDB RareFind 5, the QuickView Tool in BIOS, and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant species in the Devore USGS 7.5-minute quadrangle. The literature search identified nineteen (19) special-status plant species as having the potential to occur within the Devore quadrangle. Special-status plant species identified during the literature review are presented in *Table C-1: Potentially Occurring Special-Status Plant Species*, provided in Appendix C. The following sections provide a detailed assessment of the plant species that were determined to have potential to occur within the Survey Area.

4.2.1 Plummer's Mariposa-lily

Plummer's mariposa-lily is a California Rare Plant Rank (CRPR) List 4.2 perennial herb that is endemic to California. Often mistaken for a poppy, it is a member of the lily family (Liliaceae) and blooms from May to July. The inflorescence consists of two to six bell-shaped flowers with pale pink or rose petals with long yellow hairs on the inner face. The species occurs on rocky and sandy soils, typically of alluvial or granitic material, from 328 to 5,577 feet above mean sea level in chaparral, coastal scrub, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. It occurs from the south peninsular ranges to the north traverse ranges and is known from the following counties: Ventura; Los Angeles; Riverside; San Bernardino; and Ventura. The nearest recorded occurrence of Plummer's mariposa-lily is approximately 0.94-mile northwest of the Survey Area within the San Gabriel Mountains (CNDDB 2004). Michael Baker biologists determined this species had a moderate potential to occur within the Survey Area during the 2017 habitat assessment.

4.2.2 Parry's Spineflower

Parry's spineflower is a CRPR List 1B.1 plant species in the buckwheat family (Polygonaceae) that blooms from April to June. The species is a prostrate to spreading plant with white flowers that occurs in sandy soils from 902 to 4,003 feet above mean sea level in alluvial scrub, chaparral, and mixed grassland. Parry's spineflower is known from the flats and foothills of the San Gabriel, San Bernardino, and San Jacinto Mountains within Los Angeles, San Bernardino, and Riverside Counties of southern California. The nearest recorded occurrence of Parry's spineflower is approximately 0.25-mile northeast of the Survey Area within Lytle Creek wash (CNDDB 2005). Michael Baker biologists determined this species had a moderate potential to occur within the Survey Area during the 2017 habitat assessment.

4.2.3 White-bracted Spineflower

White-bracted spineflower is a CRPR List 1B.2 plant species in the buckwheat family (Polygonaceae) that blooms from April to June. It is endemic to southern California, where it is only known to occur from 984 to 3,937 feet above mean sea level on the eastern slopes of the San Jacinto Mountains in Riverside County and in the eastern San Bernardino Mountains in sandy to gravelly places in saltbush scrub, pinyon-juniper, and pine-oak woodland. White-bracted spineflower is generally erect in form, reaching up to 30 centimeters in height, and reddish in color and coated in thin to dense hairs with pink to red flowers. The inflorescence is thick and woolly, with each flower surrounded by six reddish, curly-haired bracts tipped with hooked awns. The nearest recorded occurrence of white-bracted spineflower is approximately 3.02 miles northeast of the Survey Area on an alluvial terrace east of Cajon Creek (CNDDB 1979). Michael Baker biologists determined this species had a low potential to occur within the Survey Area during the 2017 habitat assessment.

4.2.4 Santa Ana River Woollystar

The Santa Ana River woollystar is a Federally and State listed endangered plant species in the phlox family (Polemoniaceae) that blooms from April to September. It is also a CRPR List 1B.1 species. The entire plant is covered with woolly pubescence, giving it a silvery-white appearance and the flower consists of a blue to violet-blue inflorescence. The species occurs along the Santa Ana River and Lytle and Cajon Creek flood plains in open washes and early-successional alluvial fan scrub on open slopes above the active channels where flooding and scouring occur. Santa Ana River woollystar grows primarily on gravelly soils, rock mounds, and boulder fields from 299 to 2,001 feet above mean sea level. Associated plant species include California buckwheat, California croton, yerba santa (*Eriodictyon* sp.), and scalebroom. The nearest recorded occurrence of Santa Ana River woollystar is approximately 3.44 miles east of the Survey Area on an alluvial terrace within the Cajon Wash (CNDDB 2013). Michael Baker biologists determined this species had a low potential to occur within the Survey Area during the 2017 habitat assessment.

4.2.5 Southern California Black Walnut

Southern California black walnut is a small tree that is endemic to California with a CRPR of 4.2. It is generally found in the southern half of the State and can be either a large shrub with 1-5 trunks, or a small single-trunked tree. Southern California black walnut has a thick bark and large, pinnately compound leaves, with 11-19 lance-shaped leaflets, toothed margins, and no hair in the vein angles. Additionally, it has a small hard nut in a shallowly grooved thick shell that is difficult to remove. This species blooms from March to August and occurs in alluvial soils from 164 to 2,953 feet above mean sea level in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Southern California black walnut was observed by Michael Baker biologists within the Survey Area during the 2017 habitat assessment.

Section 5 Survey Results

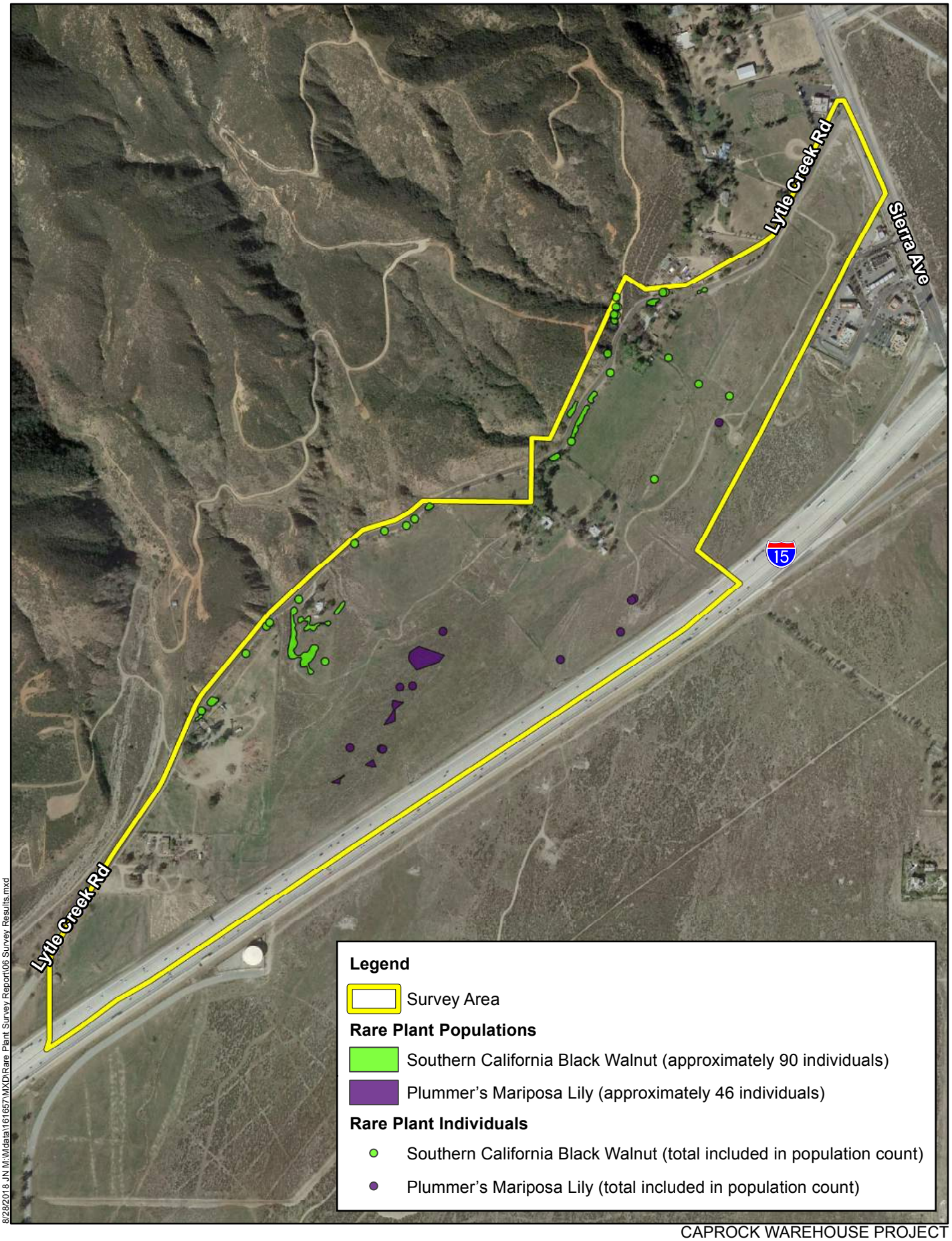
A total of one hundred and forty-eight (148) plant species were identified within the Survey Area, including two (2) special-status plant species: Plummer's mariposa lily and southern California black walnut. Of these one hundred and forty-eight species, eighty-nine (89) (60%) are native and fifty-nine (59) (40%) are not native. No additional special-status plant species, including Parry's spineflower, white-bracted spineflower, or Santa Ana River woollystar, were identified. Refer to Appendix A for a complete list of plant species observed during the three site visits.

One population consisting of approximately ninety (90) individuals of southern California black walnut were observed within the Survey Area during the April 10, May 15, and June 12, 2018 surveys (refer to Exhibit 6, *Survey Results*). Near center of this population is at 34.17959167 ° N, -117.4465611 ° W. Most individuals are associated with the rural residential properties located along the northwestern boundary of the Survey Area. Additionally, a number of southern California black walnut were observed within the mixed riparian scrub plant community and approximately four (4) individuals are within the northern portion of the Survey Area. Associated plant species include inland scrub oak (*Quercus berberidifolia*), California wild rose, and blue elderberry (*Sambucus nigra* ssp. *caerulea*). Refer to Appendix D for a copy of the CNDDB *California Native Species Field Survey Form*.

Additionally, one population of Plummer's mariposa lily was observed within the Survey Area on June 12, 2018. Approximately forty-six (46) individuals were observed within the central portion of the Survey Area (refer to Exhibit 6, *Survey Results*). Near center of this population is at 34.1772583 ° N, -117.4442278 ° W. This species occurs on granitic, rocky soils in a disturbed RAFSS plant community comprised of scalebroom, California buckwheat, pine bush, and California sagebrush. Refer to Appendix D for a copy of the CNDDB *California Native Species Field Survey Form* and photographs of Plummer's mariposa lily.

Table 2: Survey Results

Scientific Name **Common Name**	**Date(s) Observed**	**GPS Coordinates**	**Approximate Number of Individuals**	**Notes**
Juglans californica southern California black walnut	04/10/2018 05/15/2018 06/12/2018	34.1795917 ° N -117.4465611 ° W	90	Individuals are mainly associated with the rural residential properties located along the northwestern boundary of the Survey Area. Individuals are also located within the mixed riparian scrub plant community and within the northern portion of the Survey Area.
Calochortus plummerae Plummer's mariposa lily	06/12/2018	34.1772583 ° N -117.4442278 ° W	46	Occurs on rocky granitic soils in disturbed RAFSS habitat within the northern and central portions of the Survey Area. Associated plant species include scalebroom, California buckwheat, deerweed, and pine bush.



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Michael Baker INTERNATIONAL

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Source: San Bernardino County, Google Imagery 2018

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

Survey Results

Exhibit 6

Section 6 Conclusion and Recommendations

Based on the results of the 2018 rare plant surveys, one population of southern California black walnut consisting of approximately ninety individuals and one population of Plummer's mariposa lily consisting of approximately forty-six individuals was observed within the Survey Area. The population of southern California black walnut is associated with the rural residential properties located along the northwestern boundary of the Survey Area. Additionally, southern California black walnut individuals were observed within the mixed riparian scrub plant community and approximately four individuals are within the northern portion of the Survey Area. The population of Plummer's mariposa lily was observed within the central portion of the Survey Area on granitic, rocky soils in a disturbed RAFSS plant community.

6.1 PROJECT IMPACTS

Direct impacts include the loss of RAFSS and RSS habitat and individuals of southern California black walnut and Plummer's mariposa lily that will occur from the proposed warehouse development. In total, there will be a permanent loss of 65.55 acres of disturbed RAFSS habitat and 1.63 acres of RSS habitat. In addition, approximately seventy-five (75) southern California black walnut individuals and forty-six (46) Plummer's mariposa lily individuals will be permanently affected by the proposed Project.

The following measures are recommended to avoid or minimize impacts to special-status plants as a result of the project:

- Crews should avoid individuals of southern California black walnut and Plummer's mariposa lily. Prior to construction, a qualified biologist should flag all individuals of these species located within the project footprint for avoidance, if feasible.
- If avoidance is not feasible for constructability purposes, "take" of these individuals should be warranted considering that southern California black walnut and Plummer's mariposa lily are not listed for protection under the California or Federal Endangered Species Acts, rather they are CNPS List rare plant rank 4.2 species ("Plants of limited distribution - a Watch List; moderately threatened in California [20 – 80 percent occurrences threatened/moderate degree and immediacy of threat]"), thereby affording it no legal protection other than at the discretion of CDFW.

6.2 NORTH FONTANA CONSERVATION PROGRAM

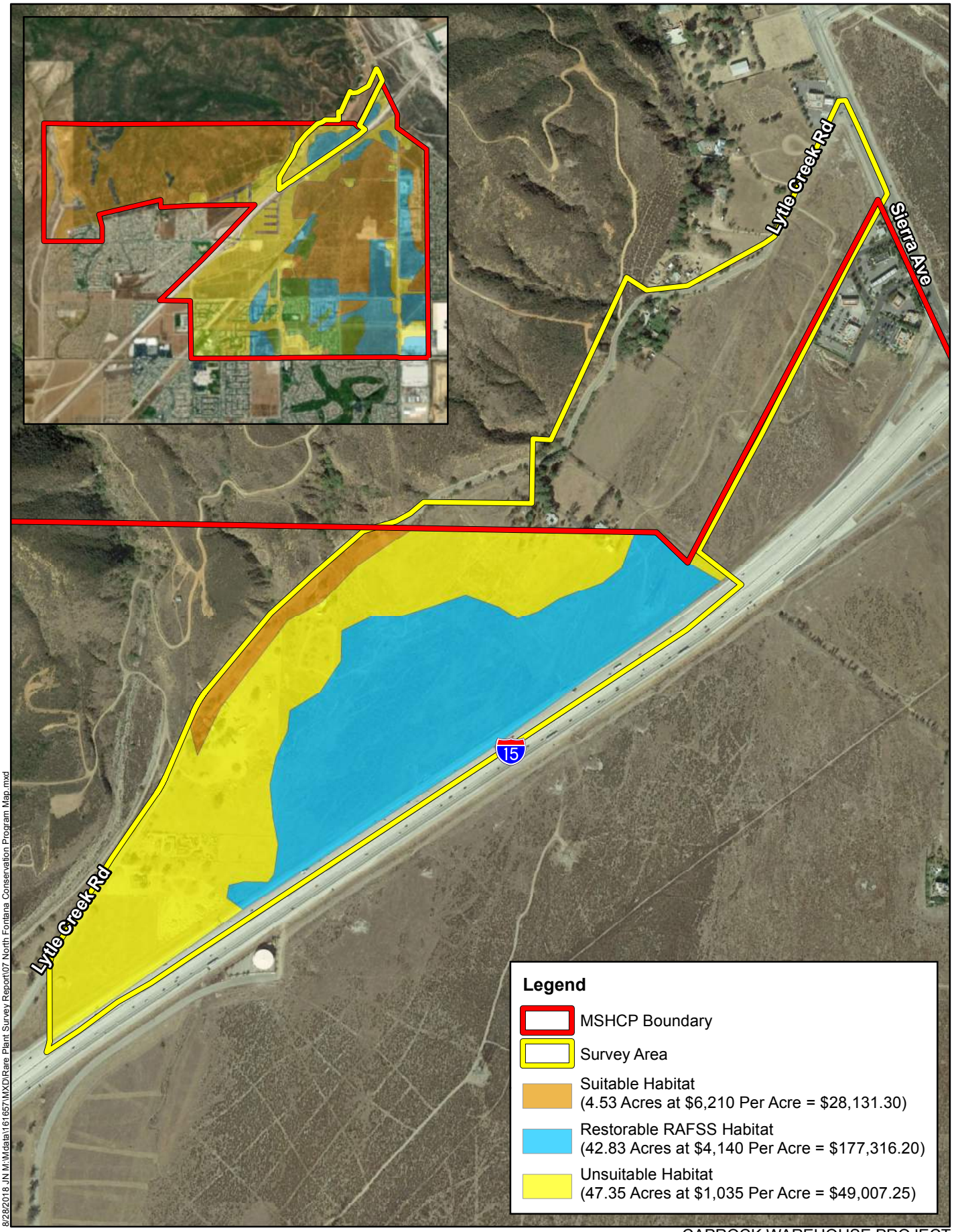
In recognition of the sensitivity of RAFSS and RSS plant communities that occur on the alluvial fans in north Fontana and the potential of special-status species to occur within these plant communities, the City of Fontana developed the North Fontana Conservation Program. To adequately mitigate for the loss of sensitive habitats, as required by the California Environmental Quality Act (CEQA), a tiered development mitigation fee was created for new development in north Fontana. The mitigation fee is charged for each acre of land proposed for development based on the habitat quality rating.

The southern and central portions of the Survey Area are located within the boundaries of the North Fontana Conservation Program. The North Fontana Conservation Program mitigation fee areas (habitat quality

ratings) were overlain over the Survey Area boundaries in ArcGIS to calculate the acreage of impacts to the various habitat qualities occurring within the Survey Area. Based on the North Fontana Conservation Program, the Survey Area is located within three (3) different habitat qualities (or mitigation fee types): "Suitable Habitat", "Restorable RAFSS Habitat", and "Unsuitable Habitat" (refer to Exhibit 7, *North Fontana Conservation Program Fee Map*). Impacts to these areas will result in a total mitigation fee of $254,454.75 under the North Fontana Conservation Program. Please refer to Table 3, *Habitat Quality Types and Mitigation Fees* below for an analysis of mitigation fees and costs of development of the proposed project within the North Fontana Conservation Program plan area.

Table 3: Habitat Quality Types and Mitigation Fees

Habitat Quality Type	Mitigation Fee (Per Acre)	On-site Acreage	Total Mitigation Fee
Suitable Habitat	$6,210.00	4.53	$28,131.30
Restorable RAFSS Habitat	$4,140.00	42.83	$177,316.20
Unsuitable Habitat	$1,035.00	47.35	$49,007.25
	TOTALS	**94.71**	**$254,454.75**



8/28/2018 JN M:\Mdata\161657\MXD\Rare Plant Survey Report\07 North Fontana Conservation Program Map.mxd

Michael Baker INTERNATIONAL

0 500 1,000 Feet

Source: Google Imagery 2016, Esri Imagery, San Bernardino County, City of Fontana

CAPROCK WAREHOUSE PROJECT
2018 RARE PLANT SURVEY REPORT

North Fontana Conservation Program Fee Map

Exhibit 7

Section 7 References

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Appendix A Floral Compendium

Table A – 1: Floral Compendium

Scientific Name	Common Name	Cal-IPC Rating**	CRPR***
Acmispon glaber	deerweed		
Acmispon strigosus	strigose lotus		
Acourtia microcephala	sacapellote		
Adenostoma fasciculatum	chamise		
*Ailanthus altissima**	tree of heaven	Moderate	
*Amaranthus albus**	pigweed		
Ambrosia acanthicarpa	annual bursage		
Ambrosia psilostachya	western ragweed		
Amsinckia intermedia	common fiddleneck		
Artemisia californica	California sagebrush		
Artemisia douglasiana	California mugwort		
Artemisia tridentata	big sagebrush		
*Arundo donax**	giant reed	Moderate	
Asclepias eriocarpa	woolypod milkweed		
*Avena barbata**	slender wild oat	Moderate	
*Avena fatua**	wild oat	Moderate	
Baccharis salicifolia	mule fat		
Baccharis sarothroides	desertbroom baccharis		
*Brassica tournefortii**	Saharan mustard	High	
Brickellia californica	California brickellbush		
*Bromus diandrus**	common ripgut grass	Moderate	
*Bromus hordeaceus**	soft chess	Limited	
*Bromus rubens**	red brome	High	
*Bromus tectorum**	cheat grass	High	
Calandrinia menziesii	red maids		
Calochortus plummerae	Plummer's mariposa lily		4.2
Calystegia macrostegia ssp. *arida*	island false bindweed		
*Carduus pycnocephalus**	Italian thistle	Moderate	
Ceanothus crassifolius	hoaryleaf ceanothus		
*Centaurea melitensis**	tocalote	Moderate	
*Chenopodium album**	lamb's quarters		
*Chenopodium murale**	nettle leaf goosefoot		
*Cirsium vulgare**	bull thistle	Moderate	
*Cistus incanus**	hairy rockrose		
*Convolvulus arvensis**	field bindweed		
Corethrogyne filaginifolia	common sandaster		
Crassula connata	sand pygmy weed		
Croton californicus	California croton		

Scientific Name	Common Name	Cal-IPC Rating**	CRPR***
Croton setiger	dove weed		
Cryptantha circumscissa	cushion cryptantha		
Cryptantha intermedia	common cryptantha		
Cuscuta californica	California dodder		
*Cynodon dactylon**	Bermuda grass	Moderate	
Datura wrightii	jimsonweed		
Dichelostemma capitatum	wild hyacinth		
Dimorphotheca sinuata *	African daisy		
Diplacus aurantiacus	sticky monkeyflower		
Emmenanthe penduliflora	whispering bells		
Encelia farinosa	brittlebush		
Ericameria linearifolia	interior goldenbush		
Ericameria pinifolia	pine bush		
*Erigeron bonariensis**	flax-leaved horseweed		
Erigeron canadensis	Canada horseweed		
Erigeron foliosus	leafy daisy		
Eriogonum elongatum	longstem buckwheat		
Eriogonum fasciculatum	California buckwheat		
Eriogonum gracile	slender buckwheat		
*Erodium botrys**	longbeak filaree		
*Erodium cicutarium**	redstem filaree	Limited	
*Erodium moschatum**	whitestem filaree		
Eschscholzia californica	California poppy		
Eucalyptus sp.*	eucalyptus		
Eucrypta chrysanthemifolia	spotted hideseed		
*Festuca myuros**	rattail fescue	Moderate	
*Fraxinus uhdei**	shamel ash		
Galium aparine	cleavers		
Galium nuttallii	climbing bedstraw		
Gilia angelensis	chaparral gilia		
Hazardia squarrosa	sawtooth goldenbush		
Helianthemum scoparium	peak rushrose		
Helianthus annuus	common sunflower		
Hesperoyucca whipplei	chaparral yucca		
Heteromeles arbutifolia	toyon		
Heterotheca grandiflora	telegraph weed		
*Hirschfeldia incana**	short-pod mustard	Moderate	
*Hordeum murinum**	foxtail barley	Moderate	
*Hypochaeris glabra**	smooth cat's ear	Limited	
Juglans californica	Southern California black walnut		4.2
Keckiella cordifolia	heartleaf keckiella		

Scientific Name	Common Name	Cal-IPC Rating**	CRPR***
*Lactuca serriola**	prickly lettuce		
*Lamarckia aurea**	goldentop grass		
Lepidium virginicum	wild pepper grass		
Lepidospartum squamatum	scalebroom		
*Logfia gallica**	narrowleaf cottonrose		
Lonicera subspicata var. *denudata*	southern honeysuckle		
Lupinus bicolor	miniature lupine		
Lupinus hirsutissimus	stinging lupine		
Lupinus sparsiflorus	Coulter's lupine		
Malacothamnus fasciculatus var. *fasciculatus*	chaparral bush mallow		
Malacothrix saxatilis var. *tenuifolia*	short leaved cliff aster		
*Malva parviflora**	cheeseweed		
Marah macrocarpa	wild cucumber		
*Marrubium vulgare**	horehound	Limited	
Matricaria discoidea	pineapple weed		
*Medicago polymorpha**	bur clover	Limited	
*Melilotus indicus**	yellow sweetclover		
*Nerium oleander**	oleander		
*Nicotiana glauca**	tree tobacco	Moderate	
*Olea europaea**	olive	Limited	
Opuntia littoralis	coast prickly pear		
*Oxalis pes-caprae**	Bermuda buttercup	Moderate	
*Parkinsonia aculeata**	Mexican palo verde		
Pectocarya linearis	sagebrush combseed		
Pellaea mucronata	bird's foot fern		
Phacelia distans	common phacelia		
Phacelia ramosissima	branching phacelia		
Pinus sp.	pine		
Platanus racemosa	western sycamore		
Prunus ilicifolia	holly leaf cherry		
Pseudognaphalium canescens	Wright's cudweed		
Quercus berberidifolia	inland scrub oak		
Rhamnus crocea	spiny redberry		
Rhus aromatica	skunk brush		
*Ricinus communis**	castor bean	Limited	
*Robinia pseudoacacia**	black locust	Limited	
Rosa californica	California wild rose		
Salix lasiolepis	arroyo willow		
*Salsola tragus**	Russian thistle	Limited	
Salvia apiana	white sage		
Salvia columbariae	chia sage		

Scientific Name	Common Name	Cal-IPC Rating**	CRPR***
Salvia mellifera	black sage		
Sambucus nigra ssp. *caerulea*	blue elderberry		
*Schismus barbatus**	Mediterranean grass	Limited	
*Schinus molle**	Peruvian pepper tree	Limited	
*Schinus terebinthifolius**	Brazilian pepper tree	Limited	
Selaginella bigelovii	Bigelow's moss fern		
*Senecio vulgaris**	common groundsel		
*Silene gallica**	common catchfly		
*Sisymbrium altissimum**	tall tumble mustard		
*Sisymbrium irio**	London rocket	Moderate	
Solanum americanum	American black nightshade		
Solanum douglasii	Douglas' nightshade		
*Sonchus oleraceus**	common sowthistle		
Stephanomeria virgata	rod wirelettuce		
Stipa lepida	foothill needle grass		
*Stipa miliacea**	smilo grass		
*Tamarix aphylla**	Athel tamarisk		
Tamarix ramosissima	saltcedar	High	
Taraxacum officinale	common dandelion		
Tetradymia comosa	cotton thorn		
Toxicodendron diversilobum	poison oak		
Typha latifolia	broadleaf cattail		
Ulmus parvifolia	Chinese elm		
*Urtica urens**	dwarf nettle		
*Verbesina encelioides**	golden crownbeard		
*Vicia villosa**	hairy vetch		
*Vinca major**	greater periwinkle	Moderate	
*Washingtonia robusta**	Mexican fan palm	Moderate	

* **Non-native species**

** **California Invasive Plant Council (Cal-IPC) Ratings**

High — These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate — These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited — These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

*** **California Rare Plant Rank (CRPR) / Threat Rank**

4.2 Plants of limited distribution – A watch list / Moderately threatened in California

Appendix B Site Photographs

Photograph 1: Standing within the northern portion of the Survey Area looking north. Photograph taken May 15, 2018.

Photograph 2: Looking south across the northern portion of the Survey Area. Interstate 15 can be seen in the distance. Photograph taken May 15, 2018.

Photograph 3: Photo of one of the rural residential properties located within the northern portion of the Survey Area. Photograph taken May 15, 2018.

Photograph 4: Standing within the disturbed RAFSS plant community looking northwest across the central portion of the Survey Area. Photograph taken May 15, 2018.

Photograph 5: Standing within the central portion of the Survey Area looking south at the disturbed RAFSS plant community. Photograph taken May 15, 2018.

Photograph 6: Looking south across the non-native grassland plant community located within the central portion of the Survey Area. Photograph taken May 15, 2018.

Photograph 7: Looking west across a disturbed area located within the southern portion of the Survey Area. Photograph taken May 15, 2018.

Photograph 8: Standing within the southernmost portion of the Survey Area looking south across a disturbed area. Photograph taken May 15, 2018.

Photograph 9: Standing adjacent to Lytle Creek Road looking west at the RSS plant community. Photograph taken May 15, 2018.

Photograph 10: Photograph of the mixed riparian scrub plant community located north of Lytle Creek Road within an ephemeral drainage that exits the San Gabriel Mountains. Photograph taken April 10, 2018

Appendix C Potentially Occurring Special-Status Plant Species

Table C – 1: Potentially Occurring Special-Status Plant Species

Scientific Name Common Name	**Status**	**Habitat Requirements**	**Observed Onsite**	**Potential to Occur**
SPECIAL-STATUS PLANT SPECIES				
Ambrosia monogyra singlewhorl burrobrush	Fed: None CA: None CNPS: 2B.2	Found in sandy soils within chaparral and Sonoran Desert scrub habitat. Found at elevations ranging from 33 to 1,640 feet above mean sea level (msl). Blooming period is from August to November.	No	**Presumed Absent** The survey area is out of this species elevation range. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Calochortus plummerae Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest habitats. Prefers rocky and sandy sites composed of granitic or alluvial material. Can be very common after a fire. Found at elevations ranging from 328 to 5,577 feet above msl. Blooming period ranges from May to July.	Yes	**Present:** Suitable habitat is present within the Survey Area. Further, approximately 46 individuals were observed within the Survey Area during the 2018 blooming season.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 902 to 4,003 feet above msl. Blooming period is from April to June.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Chorizanthe xanti* var. *leucotheca white-bracted spineflower	Fed: None CA: None CNPS: 1B.2	Found in sandy or gravelly soils within coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 3,937 feet above msl. Blooming period is from April to June.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Cryptantha incana Tulare cryptantha	Fed: None CA: None CNPS: 1B.3	Occurs in lower montane coniferous forest (gravelly or rocky). Found at elevations ranging from 4,692 to 7,054 feet above msl. Blooming period is from June to August.	No	**Presumed Absent:** The Survey Area is out of this species elevation range. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Dodecahema leptoceras slender-horned spineflower	Fed: END CA: END CNPS: 1B.1	Found in sandy soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 656 to 2,493 feet above msl. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat within the Survey Area. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	Fed: END CA: END CNPS: 1B.1	Grows in sandy or gravelly soils within chaparral and coastal scrub habitat. Found at elevations ranging from 299 to 2,001 feet above msl. Blooming period is from April to September.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Galium jepsonii Jepson's bedstraw	Fed: None CA: None CNPS: 4.3	Found in granitic, rocky or gravelly soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,052 to 8,202 feet above msl. Blooming period is from July to August.	No	**Presumed Absent:** The Survey Area is out of this species elevation range. Further, this species was not observed within Survey Area during the 2018 blooming season.

Scientific Name Common Name	**Status**	**Habitat Requirements**	**Observed Onsite**	**Potential to Occur**
Galium johnstonii Johnston's bedstraw	Fed: None CA: None CNPS: 4.3	Preferred habitats include chaparral, riparian woodland, lower montane coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 4,003 to 7,546 feet above msl. Blooming period is from June to July.	No	**Presumed Absent:** The Survey Area is out of this species elevation range. Further, this species was not observed within Survey Area during the 2018 blooming season.
Horkelia cuneata* var. *puberula mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Found at elevations ranging from 230 to 2,657 feet above msl. Blooming period is from February to September.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Juglans californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet above msl. Blooming period is from March to August.	Yes	**Present:** Suitable habitat is present within the Survey Area. Further, approximately 90 individuals were observed within the Survey Area during the 2018 blooming season.
Lilium humboldtii* ssp. *ocellatum ocellated humboldt lily	Fed: None CA: None CNPS: 4.2	Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet above msl. Blooming period is from March to August.	No	**Presumed Absent:** There is no suitable habitat within the Survey Area. Further, this species was not observed within Survey Area during the 2018 blooming season.
Lilium parryi lemon lily	Fed: None CA: None CNPS: 1B.2	Prefers lower montane coniferous forest, riparian forests, upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 4,003 to 9,006 feet above msl. Blooming period is from July to August.	No	**Presumed Absent:** The Survey Area is out of this species elevation range. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Lycium parishii Parish's desert-thorn	Fed: None CA: None CNPS: 2B.3	Habitats include coastal scrub and Sonoran Desert scrub. Found at elevations ranging from 443 to 3,281 feet above msl. Blooming period is from March to April.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Malacothamnus parishii Parish's bush-mallow	Fed: None CA: None CNPS: 1A	Occurs within chaparral and coastal scrub habitats. Found at elevations ranging from 1,001 to 1,493 feet above msl. Blooming period is from June to July.	No	**Low:** Suitable habitat is present within the RSS and disturbed RAFSS plant communities within the Survey Area. However, this species was not observed within the Survey Area during the 2018 blooming season.
Monardella saxicola rock monardella	Fed: None CA: None CNPS: 4.2	Found in rocky, usually serpentinite soils within closed-cone coniferous forest, chaparral, and lower montane coniferous forest habitats. Found at elevations ranging from 1,640 to 5,906 feet. Blooming period is from June to September.	No	**Presumed Absent:** There is no suitable habitat within the Survey Area. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Opuntia basilaris* var. *brachyclada short-joint beavertail	Fed: None CA: None CNPS: 1B.2	Habitats include chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands. Found at elevations ranging from 1,394 to 5,906 feet. Blooming period is from April to August.	No	**Presumed Absent:** There is no suitable habitat within the Survey Area. Further, this species was not observed within the Survey Area during the 2018 blooming season.

Scientific Name Common Name	**Status**	**Habitat Requirements**	**Observed Onsite**	**Potential to Occur**
Senecio astephanus San Gabriel ragwort	Fed: None CA: None CNPS: 4.3	Found on rocky slopes within coastal bluff scrub and chaparral habitats. Found at elevations ranging from 1,312 to 4,921 feet. Blooming period is from May to July.	No	**Presumed Absent:** There is no suitable habitat within the Survey Area. Further, this species was not observed within the Survey Area during the 2018 blooming season.
Streptanthus bernardinus Laguna Mountains jewelflower	Fed: None CA: None CNPS: 4.3	Associated with chaparral and lower montane coniferous forest. Found at elevations ranging from 2,198 to 8,202 feet. Blooming period is from May to August.	No	**Presumed Absent:** The Survey Area is out of this species elevation range. Further, this species was not observed within the Survey Area during the 2018 blooming season.
SPECIAL-STATUS PLANT COMMUNITIES				
Riversidian Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring, but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	Yes	**Present:** A disturbed version of this plant community can be found within the boundaries of the Survey Area (approximately 65.55 acres).
Southern Riparian Forest	CDFW Sensitive Habitat	Typically, a younger successional stage of riparian forest, due to disturbance or more frequent flooding. Plant species include willow species, elderberry, oak species, sycamore, cottonwood, and smaller shrubs.	No	**Absent**
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows also are often present. Poison-oak, mugwort, elderberry and wild raspberry may be present in the understory.	No	**Absent**

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered

California Native Plant Society (CNPS)
California Rare Plant Rank
1A - Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Appendix D CNDDB Data Forms

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

Date of Field Work (mm/dd/yyyy): 04/10/2018

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Juglans californica*

Common Name: southern California black walnut

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 90 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Ashley Spencer
Address: 5 Hutton Centre Drive
Suite 500
E-mail Address: ashley.spencer@mbakerintl.com
Phone: (909)-974-4962

Plant Information

Phenology:
100 % vegetative _____ % flowering _____ % fruiting

Animal Information

_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Located within and adjacent to the rural residential properties and a mixed riparian scrub plant community found along Lytle Creek Road. Indivduals also located approximatley 500 and 700 feet east of Lytle Creek Road.

County: San Bernardino Landowner / Mgr: City of Fontana

Quad Name: Devore Elevation: _____

T 1N R 5W Sec 7 , ___ 1/4 of ___ 1/4, Meridian: H( ) M( ) S( ) Source of Coordinates (GPS, topo. map & type): GPS

T 1N R 5W Sec 18 , ___ 1/4 of ___ 1/4, Meridian: H( ) M( ) S( ) GPS Make & Model: Garmin GPSMap 64

DATUM: **NAD27** ( ) **NAD83** (●) **WGS84** ( ) Horizontal Accuracy: 0 to 12 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 (●) ***OR*** Geographic (Latitude & Longitude) ( )

Coordinates: 34.1795917 ° N, -117.4465611 ° W (approximate center of population)

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Found within and adjacent to the rural residential land uses located along Lytle Creek Road. Also associated with the mixed riparian plant community found within an ephemeral drainage feature located within a canyon that exits the San Gabriel Mountains, northwest of Lytle Creek Road.

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent ( ) Good (●) Fair ( ) Poor

Immediate AND surrounding land use: rural residential properties, I-15, Lytle Creek Road, Sierra Avenue, San Gabriel Mountains

Visible disturbances: Rural residential land uses, weed abatement

Threats: Development, occurs in location of a future warehouse

Comments:

Determination: *(check one or more, and fill in blanks)*

- [ ] Keyed (cite reference): _____
- [ ] Compared with specimen housed at: _____
- [X] Compared with photo / drawing in: Calflora Database
- [X] By another person (name): Dan Rosie
- [ ] Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[ ]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? ( ) yes (●) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 06/12/2018

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Calochortus plummerae*

Common Name: Plummer's mariposa lily

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 46 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Ashley Spencer
Address: 5 Hutton Centre Drive
Suite 500
E-mail Address: ashley.spencer@mbakerintl.com
Phone: (909)-974-4962

Plant Information

Phenology:
100 % vegetative | 80 % flowering | _____ % fruiting

Animal Information

_____ # adults | _____ # juveniles | _____ # larvae | _____ # egg masses | _____ # unknown

[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Approximate center of the population is located approximatley 200 feet northwest of I-15 and 0.57 miles southwest of Sierra Avenue.

County: San Bernardino Landowner / Mgr: City of Fontana
Quad Name: Devore Elevation: _____
T 1N R 5W Sec 7 , ___ 1/4 of ___ 1/4, Meridian: H ( ) M ( ) S ( ) Source of Coordinates (GPS, topo. map & type): GPS
T 1N R 5W Sec 18 , ___ 1/4 of ___ 1/4, Meridian: H ( ) M ( ) S ( ) GPS Make & Model: Garmin GPSMap 64
DATUM: **NAD27** ( ) **NAD83** (●) **WGS84** ( ) Horizontal Accuracy: 0 to 12 feet meters/feet
Coordinate System: UTM Zone 10 ( ) UTM Zone 11 (●) ***OR*** Geographic (Latitude & Longitude) ( )
Coordinates: 34.1772583 ° N, -117.4442278 ° W (approximate center of population)

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Occurs on rocky granitic soils in disturbed Riversidian alluvial fan sage scrub approximatley 200 feet northwest of I-15 and 0.57 miles southwest of Sierra Avenue. Associated plant species include scalebroom (Lepidospartum squamatum), California buckwheat (Eriogonum fasciculatum), deer weed (Acmispon glaber), and pine bush (Ericameria pinifolia).

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent ( ) Good (●) Fair ( ) Poor
Immediate AND surrounding land use: rural residential properties, I-15, Lytle Creek Road, Sierra Avenue, San Gabriel Mountains
Visible disturbances: Rural residential land uses, weed abatement
Threats: Development, occurs in location of a future warehouse
Comments:

Determination: *(check one or more, and fill in blanks)*

[ ] Keyed (cite reference): _____
[ ] Compared with specimen housed at: _____
[X] Compared with photo / drawing in: Calflora Database
[X] By another person (name): Dan Rosie
[ ] Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[X]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Photograph 1: View of Plummer's mariposa lily located within the disturbed RAFSS habitat approximately 200 feet northwest of I-15 and 0.57 miles southwest of Sierra Avenue.

Photograph 2: General view of the disturbed RAFSS habitat where Plummer's mariposa lily was located. Dominate plant species observed include scalebroom, California buckwheat, deerweed, and pine bush.