

Appendix B: Biological Resources Assessment

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**Biological Resources Assessment
Ashley Way Logistics Center Project
City of Colton, San Bernardino County, California**

Prepared for:

City of Colton

Development Services

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Date: January 4, 2019

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SECTION 1: INTRODUCTION

At the request of the City of Colton, FirstCarbon Solutions (FCS) conducted a Biological Resources Assessment (BRA) to document the existing biological conditions and analyze any potential impacts to biological resources within the proposed project located in the City of Colton in San Bernardino County, California (Exhibit 1).

Analysis of the biological resources associated with the project site began with a thorough review of relevant literature followed by a field review to determine potential impacts to special-status species or other sensitive biological resources. The purpose of this assessment is to describe on-site vegetation communities, identify potential jurisdictional waters of the United States, and assess the potential for occurrence of special-status plant and wildlife species within the project site.

Based upon the literature review, the field review, and implementation of the proposed mitigation measures, no sensitive species or waters of the United States will be impacted by this project.

1.1 - Project Site Location and History

The project site is located in the City of Colton, San Bernardino County, California (Exhibit 1). The 11.19-acre site is located on a corner lot south of Ashley Way (Exhibit 2).

Regional access to the site is provided via Interstate 215 (I-215) (also known as the Barstow Freeway) via the Mount Vernon Avenue exit, which is located approximately 0.54 mile southwest of the project site and approximately 0.72 mile south of Interstate 10 (I-10).

The project area is vacant and undeveloped, and consists of 4 parcels (Assessor's Parcel Number [APN] 027-614-449, APN 027-614-448, APN 027-614-453, and APN 027-614-452) that make up a half-circle shaped lot approximately 11.19 acres or 487,636 square feet (Exhibit 3). The project area is relatively flat and slopes gently to the northwest. The site is located within a highly urbanized and industrial area of the City. According to historical aerial photographic research, the project site has been a vacant lot since 2002. Prior land use of the site was for agricultural purposes from the late 1930s to 1994 (historical aerials, 2018).

Surrounding land uses include industrial businesses and logistical warehouses to the north, public/institutional facilities (Kaiser Permanente Offices, Summit College, and Seventh Day Sabbath Church) to the northeast, single-family and multi-family residential uses to the east and south, and multi-family apartments and an RV dealership southwest of the project site.

Adjoining properties include the Ashley Furniture warehouse/HomeStore and Stoneledge Furniture warehouse to the north, I-215 to the east, an equipment rental agency (King Equipment) to the northeast, the Reche Canyon Channel to the south, and a mix of various businesses to the west.

1.2 - Project Description

The applicant is seeking a General Plan Amendment (GPA) and zone change from Commercial to Industrial to allow the construction of the warehouse building in the existing C-2 (General Commercial) zone.

The applicant proposes to construct a 220,185 square foot logistical center (also known as a distribution warehouse facility) on a 11.19-acre site that would consist of a 10,000 square foot office, two warehouses (one is 10,000 square feet maximum, and the other is more than 10,000 square feet), 156 parking stalls (consisting of a future employee lot with six Americans with Disabilities Act (ADA)-accessible spaces and a truck yard lot), and associated landscaping totaling 93,585 square feet (Exhibit 3). The building includes features to accommodate 28 semi-trucks to dock at high door positions, 33 trailer parking positions, and a mezzanine. The main front entrance is facing north toward Ashley Way with all truck docking activity occurring on the south side of the building.

Although the building is intended to be used as a warehouse distribution facility, the end user has not been identified at this time; therefore, specific details about the future operation of the warehouse facility is not currently available. Additionally, because the end user is not known at this time, the applicant has requested approval for future tenants to operate 24 hours per day/7 days per week depending on business/operational needs. Accordingly, the environmental evaluation will assume this 24/7 level of activity is part of the proposed project.



Source: Census 2000 Data, The CaSIL

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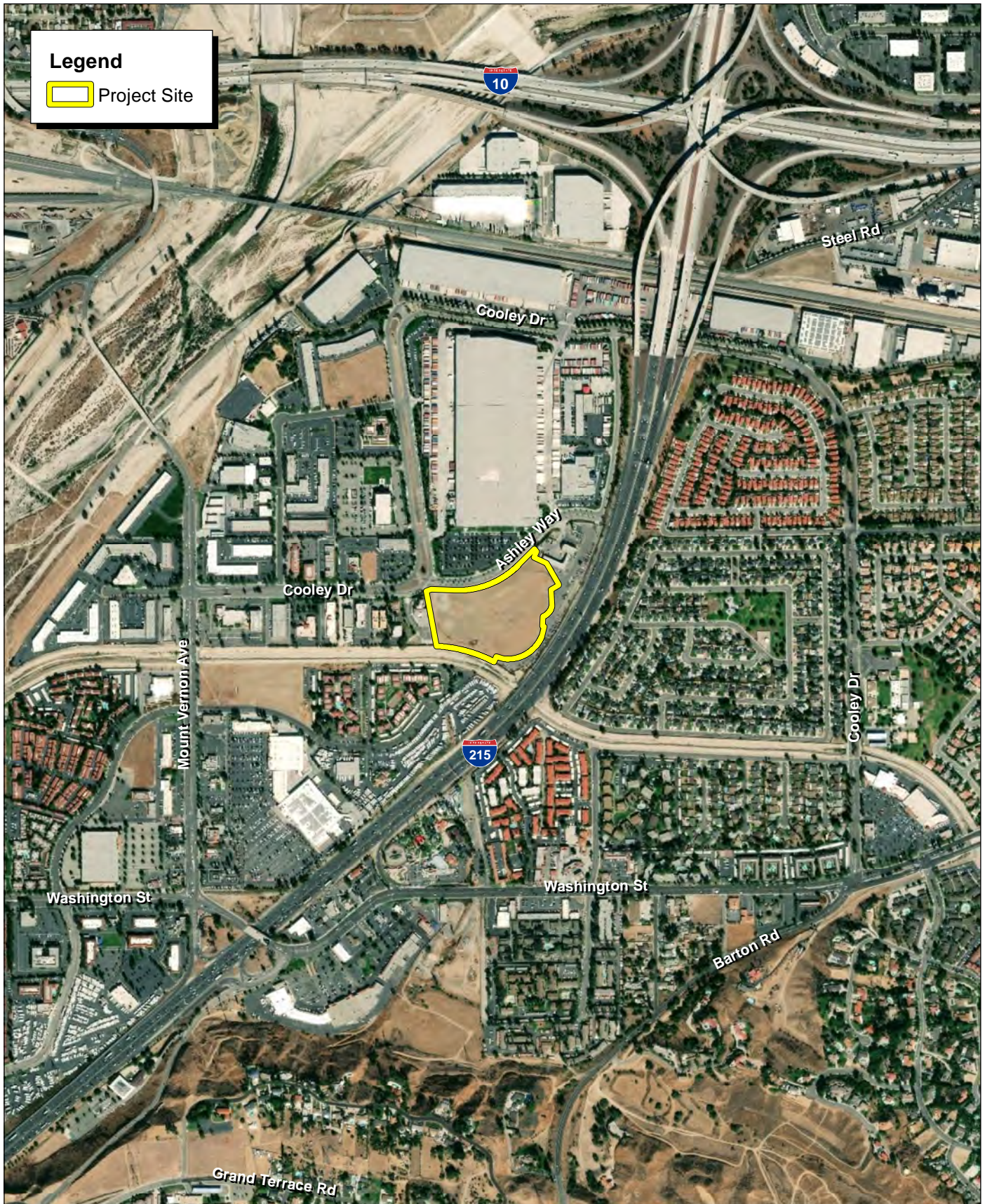
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Exhibit 1 Regional Location Map

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CITY OF COLTON
ASHLEY WAY LOGISTICS CENTER PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

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Source: ESRI Aerial Imagery.

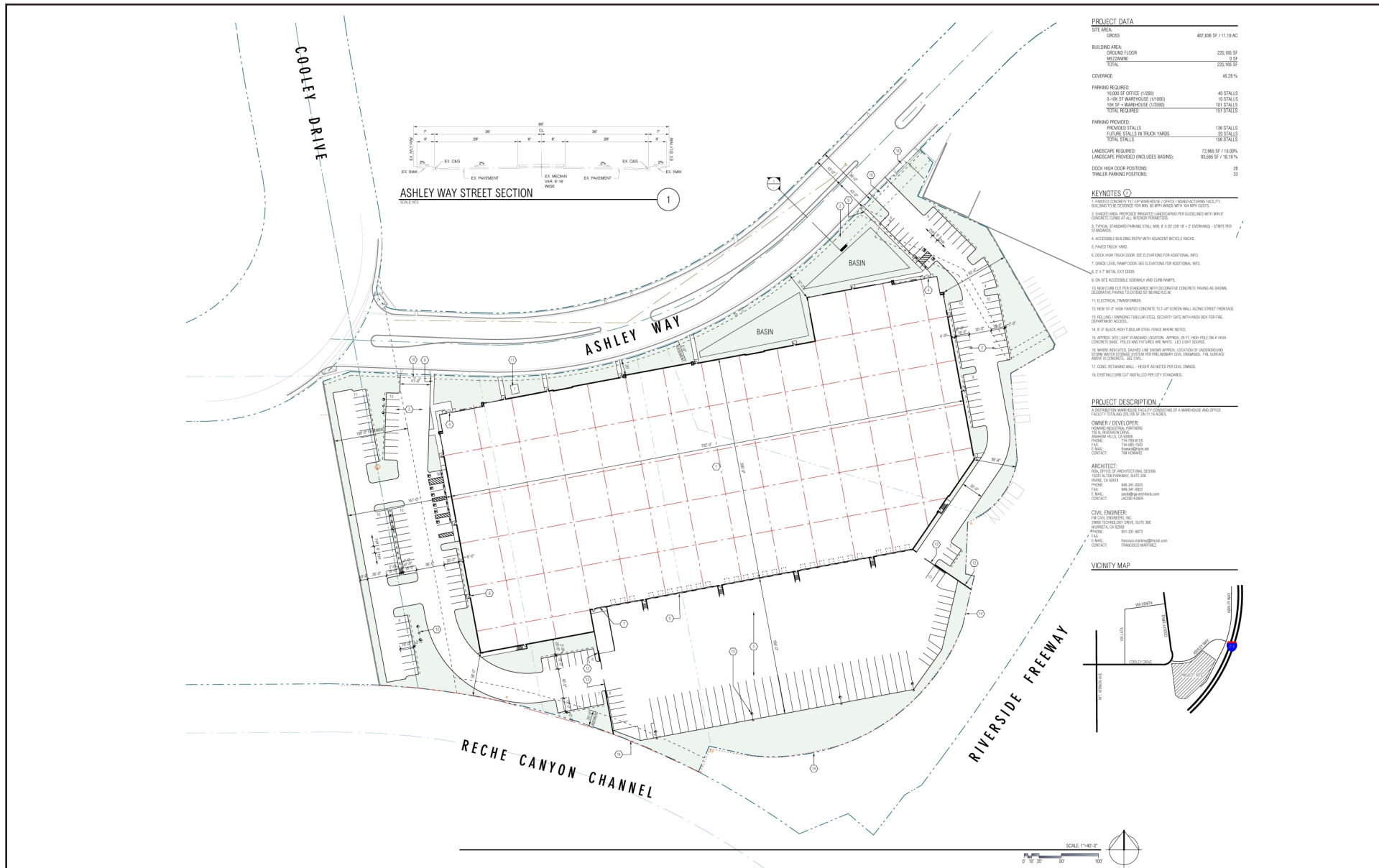
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Exhibit 2 Local Vicinity Map Aerial Base

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Source: RGA, August 2018.

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Exhibit 3 Proposed Site Plan

CITY OF COLTON
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BIOLOGICAL RESOURCES ASSESSMENT

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Federal Endangered Species Act (FESA). Section 9 of FESA protects listed species from “take,” which is broadly defined as actions taken to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” FESA protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process. Procedures for addressing impacts to federally listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the FESA for all terrestrial species. The first pathway is the Section 10(a) incidental take permit, which applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under FESA. The second pathway is Section 7 consultation, which applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the US and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the Fish and Game Code (FGC). All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC] § 703, et seq.) and California statute (FGC § 3503.5). The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are also afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, et seq.) and the Bald and Golden Eagle Protection Act (16 USC § 668–668d).

2.1.3 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States, if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the United States. Projects that result in impacts to less than 0.5 acre can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The USACE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Section 401

As stated in Section 401 of the CWA, “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following California Environmental Quality Act (CEQA) Guidelines serve as thresholds of significance for determining the potential impacts to the biological resources identified in this report:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW, formerly California Department of Fish and Game, when preparing CEQA documents. The purpose is to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (FGC § 2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy

would occur, and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Sections 2050 through 2098 of the FGC outline the protection provided to California’s rare, endangered, and threatened species. Section 2080 of the FGC prohibits the taking of plants and animals listed under the CESA. Section 2081 established an incidental take permit program for state-listed species. CDFW maintains a list of “candidate species,” which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, et seq.) prohibits the taking, possessing, or sale within the State of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. (Fish and Game Code Section 1913 exempts from “take” prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way.”) Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

CDFW also maintains lists of “Species of Special Concern” that serve as species “watch lists.” The CDFW has identified many Species of Special Concern. Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and thereby warrant specific protection measures.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society’s (CNPS’s) Lists 1A, 1B, and 2 would typically be considered under CEQA.

Sections 3500 to 5500 of the FGC outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Section 3503.5 of the FGC, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. “Take” of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from CDFW would be in the form of an Incidental Take Permit.

Section 1602 of the FGC requires any entity to notify CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” “River, stream, or lake” includes waters that are episodic and perennial; and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code § 13050(e)).

2.2.5 - California Department of Fish and Wildlife Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened. In addition to Species of Special Concern, the CDFW identifies animals that are tracked by the California Natural Diversity Database (CNDDB), but warrant no federal interest and no legal protection. These species are identified as California Special Animals.

2.2.6 - California Native Plant Society

The CNPS maintains a rank of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations

of CNPS ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed Extinct in California
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2:** Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- **Rank 3:** Plants about which we need more information—A Review List
- **Rank 4:** Plants of limited distribution—A Watch List

All plants appearing on CNPS List 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

2.2.7 - Adopted Habitat Conservation Plans

The City of Colton's General Plan (1987) does not have a Natural Communities Conservation Plan (NCCP); however, the City has adopted the "Draft West Valley Habitat Conservation Plan" for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*). The proposed project is not within the West Valley Habitat Conservation Plan. As such, this issue is not addressed in the Impact Analysis and Recommendations section of this document.

2.2.8 - Regional and Local

The City of Colton does not have a tree preservation policy or ordinance.

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SECTION 3: METHODS

3.1 - Literature Review

The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as the surrounding area.

3.1.1 - Existing Documentation

As part of the literature review, an FCS biologist examined existing environmental documentation for the project site and local vicinity. This documentation included biological studies for the area; literature pertaining to habitat requirements of special-status species potentially occurring in the vicinity of the site; and federal register listings, protocols, and species data provided by the USFWS and CDFW. These and other documents are listed in the references section of this report.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS biologist reviewed current United States Geological Survey (USGS) 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations (USGS, 1986). Aerial photographs provide a perspective of the most current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area (USDA, 1980). These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish if soil conditions on-site are suitable for any special-status plant species (Soil Survey Staff, 2015).

3.1.4 - Special-Status Species Database Search

An FCS biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the general project vicinity. The list was based on a search of the CDFW's CNDDB (CDFW, 2018), a special-status species and plant community account database, and the CNPS's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California database (CNPS, 2018) for the South San Bernardino California USGS 7.5-minute topographic quadrangle map.

The CNDDB Biogeographic Information and Observation System (BIOS 5; CDFW, 2018) database was used to determine the distance between known recorded occurrences of special-status species and the project site.

3.1.5 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, FCS's biologists reviewed USGS topographic maps and aerial photography to identify any potential natural drainage features and water bodies. In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to state and federal regulatory authority as "waters of the United States and/or State." A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities, to aid in determining if a formal delineation of waters of the United States or State is necessary.

3.2 - Field Survey

FCS Biologist, Vanessa Welsh, conducted the reconnaissance-level field survey on November 20, 2018. Weather conditions during the field survey were sunny, with partially cloudy skies and a temperature of 76 degrees Fahrenheit. There was no incident of rain within the past 10 days of the field survey.

The field survey was conducted on foot during daylight hours. The object of the survey was not to extensively search for every species potentially occurring within the project site but to ascertain general site conditions and identify potentially suitable habitat areas for any special-status plant and wildlife species that may be on-site as indicated by the literature review. The field survey also ground-truthed any special-status or unusual biological resources identified during the literature review. Special attention was paid to any potential sensitive habitats or areas on-site that could potentially support special-status floral and faunal species. Additional parameters of investigation included general habitat, presence of indicator species, soil conditions, slope, aspect, and hydrology.

3.2.1 - Vegetation

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified off-site with the use of taxonomical guides, such as Clarke et al. (2007), Hitchcock (1971), McAuley (1996), and Munz (1974). Taxonomic nomenclature used in this study follows Baldwin et al. (2012). Common plant names, when not available from Baldwin et al. (2012), were taken from other regionally specific references. Vegetation types and boundaries were noted on aerial photos and through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.0. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Habitat types were based on the classification system from *A Guide to Wildlife Habitats of California* (CDFW 1988). Vegetation community and land cover types used to help classify habitat types are based on Holland (1986) and Oberbauer (1996) and cross-referenced with CDFW's Natural Communities List (2010).

3.2.2 - Wildlife

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded in a field notebook. Notations were made regarding suitable habitat for those special-status species determined to potentially occur within the project site (CDFW, 2015). Appropriate field guides were used to assist with species identification during surveys, such as Peterson (2010), Reid (2006), and Stebbins (2003).

3.2.3 - Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the reconnaissance-level survey. However, the scope of the biological resources study did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Therefore, the focus of this study was to determine if the change of current land use of the project site may have significant impacts on the regional movement of wildlife. These conclusions are made based on the information compiled during the literature review, including aerial photographs, USGS topographic maps and resource maps for the vicinity, the field survey conducted, and professional knowledge of desired topography and resource requirements for wildlife potentially utilizing the project site and vicinity.

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SECTION 4: RESULTS

4.1 - Environmental Setting

The project site is located in the City of Colton on a vacant and previously undeveloped site. The site is located within a highly urbanized and industrial area of the City of Colton. The site is adjacent to I-215, which is located approximately 0.54 mile to the southwest, and approximately 0.72 mile south of the I-10.

According to historical aerial photographic research, the project site has been a vacant lot since 2002. Prior land use of the site was for agricultural purposes from the late 1930s to 1994 (historical aerials, 2018). The project site contains ruderal vegetation, ornamental tree species, and non-native grasses.

Surrounding land uses include industrial businesses and logistical warehouses to the north, public/institutional facilities (Kaiser Permanente Offices, Summit College, and Seventh Day Sabbath Church) to the northeast, single-family and multi-family residential uses to the east and south, and multi-family apartments and an RV dealership southwest of the project site.

There are no designated refuges or conservation areas within the project site or within the 500-foot buffer area.

4.1.1 - Topography

Most of the property drains near the west boundary from north-east to south-west, flows travel to a low spot but no outlet; however, a small area along the south and south east side drains towards a 36-inch riser pipe with 30-inch outlet pipe that is connected directly to the Reche Canyon Channel.

4.1.2 - Soils

The soils on-site are a combination of three soil types. The literature search identified that, the site made up of Hanford coarse sandy loam (HaD), San Emigdio Fine Sandy Loam (ScA), and San Emigdio Fine Sandy Loam (ScC) (Exhibit 4).

- Hanford coarse sandy loam has slopes of 9 to 15 percent and rapid permeability. This soil series consists of deep, well-drained soils formed from granitic sources, alluvial fans, and floodplains.
- The San Emigdio soil series have slopes of 0 to 15 percent and is formed on alluvial fans and floodplains. The Reche Canyon Channel is located to the south of the project site.

4.2 - Vegetation Communities

A search of the USFWS Critical Habitat Portal revealed that the project does not contain identified critical habitat for any federally listed species (USFWS, 2011). The project will have no impacts on any USFWS designated Critical Habitat, and there are no designated refuges within the project site boundaries.

4.2.1 - Ruderal/Developed/Disturbed Land

Ruderal/Developed/Disturbed Land is classified as areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association, but continues to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or shows signs of past or present animals usage that removes any capacity of providing viable natural habitat for uses other than dispersal. Examples of disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes, and/or experienced repeated use that prevents natural vegetation, recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home sites. Vegetation within this plant community varies based on the type and frequency of disturbance.

The dominant plant species observed within the project site include tumbleweed (*Amaranthus albus*), bristly oxtongue (*Helminthotheca echinoides*), mustard (*Brassica tournefortii*), cheeseweed (*Malva parviflora*), jimsonweed (*Datura wrightii*), foxtail barley (*Hordeum murinum*), foxtail brome (*Bromus madriensis* ssp. *rubens*), and ripgut brome (*Bromus diandrus*) among others, including Russian thistle (*Salsola* spp).

Because the site is considered disturbed, it offers little suitable habitat for both special-status wildlife and plants. Habitat quality for sensitive plants is considered to be extremely low. The 500-foot buffer area surrounding the project site is largely composed of paved roadways, commercial and retail development, and ornamental landscaping associated with surrounding development. The plant species found on-site are listed in Table 1, below.

Table 1: Plant Species Observed On Site

Dicots—Dicotyledons	
Sunflower Family	Asteraceae
Flax-leaved horseweed	<i>Erigeron bonariensis</i>
Mule fat	<i>Baccharis salicifolia</i>
Ragweed	<i>Ambrosia psilostachya</i>
Scalebroom	<i>Lepidospartum squamatum</i>
Tocalote	<i>Centaurea melitensis</i>
Western sunflower	<i>Helianthus annuus</i>
Mustard Family	Brassicaceae
Short-pod mustard	<i>Hirschfeldia incana</i>
Goosefoot Family	Chenopodiaceae
Russian thistle	<i>Salsola tragus</i>
Geranium Family	Geraniaceae
Big heron bill	<i>Erodium botrys</i>
Coastal heron's bill	<i>Erodium cicutarium</i>

Table 1 (cont.): Plant Species Observed On Site

Dicots—Dicotyledons	
Mallow Family	Malvaceae
Cheeseweed	<i>Malva parviflora</i>
Nightshade Family	Solanaceae
Jimsonweed	<i>Datura wrightii</i>
Tree tobacco	<i>Nicotiana glauca</i>
Monocots—Monocotyledons	
Palm Family	Areaceae
Mexican fan palm	<i>Washingtonia robusta</i>
Grass Family	Poaceae
Foxtail barley	<i>Hordeum murinum</i>
Foxtail brome	<i>Bromus madritensis</i> ssp. <i>rubens</i>
Mexican sprangletop	<i>Leptochloa fusca</i> ssp. <i>uninerva</i>
Ripgut brome	<i>Bromus diandrus</i>
Seaside barley	<i>Hordeum marinum</i>
Slim oat	<i>Avena barbata</i>

4.3 - Wildlife

The vegetation community and land cover types discussed above provide habitat for a limited number of local wildlife species. Wildlife activity was low during the field survey and consisted of avian species and two adult coyote. Avian species observed include the common raven (*Corvus corax*). The following are brief discussions of wildlife species observed within the project site during the field survey, separated into taxonomic groups. Each discussion contains representative examples of a particular taxonomic group either observed on-site or expected to occur.

4.3.1 - Reptiles

A side-blotched lizard (*Uta stansburiana*) was observed during the site visit.

4.3.2 - Birds

Species observed during the site visit include red-shouldered hawk (*Buteo lineatus*), horned lark (*Eremophila alpestris*), common raven (*Corvus corax*), lesser goldfinch (*Spinus psaltria*), western meadowlark (*Sturnella neglecta*), and Anna's hummingbird (*Calypte anna*).

4.3.3 - Mammals

A California ground squirrel (*Spermophilus beecheyi*) and two coyote (*Canis latrans*) were observed during the site visit.

4.4 - Trees

Mexican fan palm (*Washingtonia robusta*) is the only tree found on site. There are a variety of mature, ornamental trees located on properties directly adjacent to the site within the 500 foot buffer area. The Reche Canyon Channel is located to the south of the site and is devoid of water or vegetation.



Source: ESRI Aerial Imagery. USDA Soils Data, Southwest San Bernardino.

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Exhibit 4 Soils Map

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

The following section discusses the existing site conditions and potential for special-status biological resources to occur within the project site.

5.1 - Special-Status Plant Communities

Special-status plant communities are considered sensitive biological resources based on federal, State, or local laws regulating their development, limited distributions, and habitat requirements of special-status plant or wildlife species that occur within them. There are no special-status plant communities within the project boundaries.

5.2 - Special-Status Plant Species

The Special-status Plant Species Table (Appendix B) identified 19 special-status plant species that have been recorded to occur within Redlands topographic quadrangle (USGS, 1986), as recorded by the CNDDDB and CNPSEI (CDFW, 2018; CNPS, 2018) databases. The table also includes the species' status, required habitat, and potential to occur within the project site. Based on field observations by the FCS biologist in conjunction with the habitat quality, vegetation, and soils present on-site, FCS was able to conclude that all special-status plant species have been determined unlikely to occur on-site and have a very low potential to occur in the future. This finding is predominantly due to existing disturbance on site, as well as a lack of riparian and aquatic features on site. Thus, no special-status plant species are included in the impact analysis and recommendation section of this document.

5.3 - Special-Status Wildlife Species

The Special-status Wildlife Species Table (Appendix B) identified 27 federal and State listed threatened and/or endangered wildlife species, and State Species of Special Concern that have been recorded in the CNDDDB (CDFW, 2018) as occurring within the South San Bernardino topographic quadrangle (USGS, 1986)(Exhibit 5). The table also includes the species' status, required habitat, and potential to occur within the project site. With the exception of the burrowing owl (*Athene cunicularia*) and Swainson's hawk (*Buteo swainsoni*), all other special-status wildlife species have been determined unlikely to occur on-site primarily based on the site visit by FCS, the absence of suitable habitat and existing disturbance that has occurred throughout the project site. All listed species have also been included in the table to justify their exclusion from further discussion.

5.4 - Nesting Birds

The project site does not have mature trees or shrubs that would provide nesting habitat, nor is it likely to provide nesting habitat for common ground nesting birds protected under the MBTA, and other special-status birds. Therefore, the potential for impacts to occur to resident and migratory species during project construction is unlikely. However, the ornamental trees within the 500-foot buffer area located on the adjacent lots provide suitable nesting habitat for species of birds protected under the MBTA as well as species listed as California Species of Special Concern.

5.5 - Wildlife Movement Corridors

The project site is fenced or walled on the east, west, and northern boundaries. No wildlife movement corridors are present on-site or in the surrounding area. The urban context of the project site coupled with the dense surrounding development precludes significant wildlife movement corridors.

5.6 - Trees

As previously mentioned, the only tree on site is a Mexican fan palm. There are varieties of mature, ornamental trees located on properties directly adjacent to the site within the 500 foot buffer area.

5.7 - Jurisdictional Waters and Wetlands

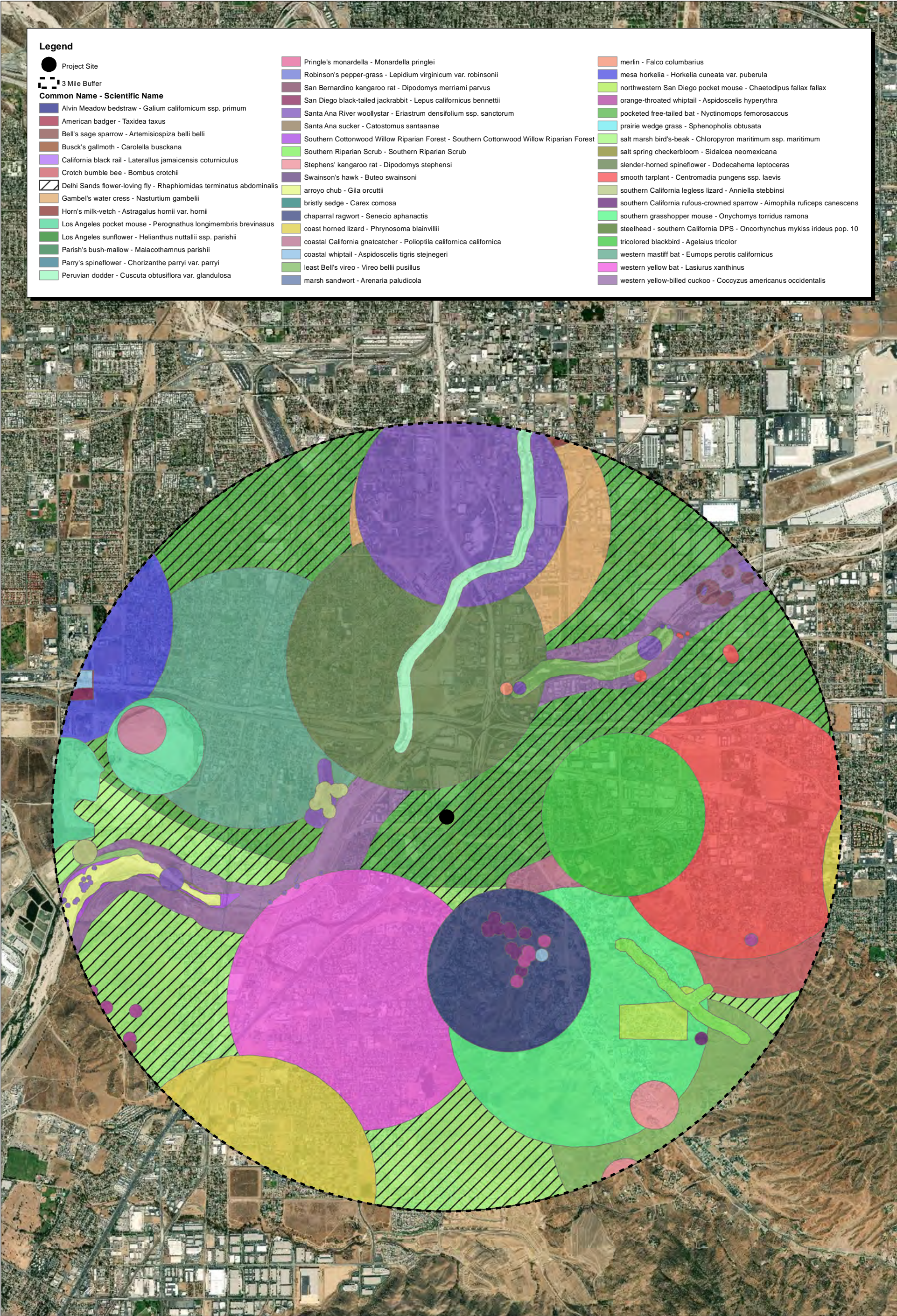
An assessment of potentially jurisdictional features was conducted as part of the literature review and field survey. According to the National Wetland Inventory blue line map, there are riverine features located within the site's 500-foot buffer area (Exhibit 6). The Reche Canyon Channel is the blue line feature located to the south of the site. The Reche Canyon Channel is devoid of water or vegetation and appears to be under construction. Off-site nuisance flows from King's Equipment Rental parking lot currently enter and drain into the property at the north-east corner.

According to FEMA Flood Insurance Rate Map (FIRM) number 06071C8691J, and map revised September 2, 2016, the site is located within designated "Floodway Areas in ZONE X," and adjacent to Reche Canyon, which lays along the southern boundary and designated as Zone "A."

No wetlands or other hydrological features that meet criteria as waters of the United States were observed within the proposed project site. An area with apparent urban runoff water from the adjacent equipment rental facility is located on the northern end of the site. Therefore, the project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA.

5.8 - Habitat Conservation Plan

The project site does not fall within any Habitat Conservation Plan, regional or local, and will not have to follow any rules or regulations of any other Habitat Conservation Plan. As such, this issue is not addressed in the Impact Analysis and Recommendations section of this document.



Source: ESRI Aerial Imagery. California Department of Fish and Wildlife CNDDB GIS Data, January 2019.

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Source: ESRI Aerial Imagery. National Wetland Inventory Data, December 2017.

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Exhibit 6 USFWS National Wetlands Inventory Map

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BIOLOGICAL RESOURCES ASSESSMENT

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SECTION 6: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential impacts to special-status biological resources resulting from the proposed project and recommends mitigation measures, where appropriate, to minimize those impacts to a level of “less than significant” under CEQA.

6.1 - Special-Status Wildlife Species

The project site and survey area contains marginally suitable habitat for two special-status wildlife species and unsuitable habitat for the remaining species listed. To reduce potential impacts to the burrowing owl and Swainson’s hawk, the following mitigation measures are recommended:

6.1.1 - Burrowing Owl

The burrowing owl is a California State Species of Special Concern. This species typically utilizes ground squirrel burrows and other animals (e.g. badgers, prairie dog, and kangaroo rat). Suitable roosting and breeding habitat (open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation, grazing and agricultural lands) is present in the proposed project area. Since the project site shows evidence of ground squirrels and ground squirrel burrows, there is potential for burrowing owl to nest on the project site. This species would represent a seasonal constraint to development since burrowing owls would need to be relocated from the property following accepted protocols if found on the site. If the site were to support nesting owls, then areas supporting nesting owls would have to be avoided until the completion of the nesting season (approximately August 31st). To ensure there are no negative impacts to burrowing owls, it is recommended that the project applicant abides by the following steps:

- No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified biologist to conduct a preconstruction survey on the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features, and evaluate use by owls in accordance with CDFW survey guidelines.
- On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership need not be surveyed. The survey shall take place near the sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. During the breeding season (February 1–August 31), surveys shall document whether burrowing owls are nesting on or directly adjacent to disturbance areas.
- During the non-breeding season (September 1–January 31), surveys shall document whether burrowing owls are using habitat on or directly adjacent to any disturbance area. Survey results will be valid only for the season during which the survey is conducted.
- If burrowing owls are not discovered, further mitigation is not required. If burrowing owls are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls:

- Avoidance shall include establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone.

If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

6.1.2 - Swainson's Hawk

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring is required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

6.2 - Nesting Birds

Suitable habitat for raptors and other birds protected by the MBTA occurs within and adjacent to the project site. Most native, breeding birds are protected under Section 3503 of the FGC, and raptors specifically are protected under Section 3503.5 of the FGC. Additionally, both Section 3513 of the FGC and the federal MBTA prohibit the killing, possession, or trading of migratory birds. Section 3800 of the FGC prohibits the taking of nongame birds and fully protected species.

Most raptors nest in mature, large coniferous or deciduous trees and use twigs and branches as nesting material. Smaller raptors may nest in cavities in anthropogenic structures and trees. The nesting period for raptors generally occurs between February 15 and August 31.

Potential impacts could occur to resident and migratory species during project construction, which would render the project site temporarily unsuitable for birds due to the noise, vibrations, and increased activity levels associated with various construction activities. These activities could potentially subject birds to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual birds by displacing them into adjacent territories belonging to other individuals.

Construction activities that occur during the nesting season may disturb nesting sites for birds protected by the MBTA and FGC. No action is necessary if no active nests are found, or if construction will occur during the non-breeding season (generally September 1 through February 14).

Implementation of the following avoidance and minimization measures would reduce impacts to raptors and other nesting birds:

- To prevent impacts to MBTA-protected birds, nesting raptors, and their nests, removal of trees will be limited to only those necessary to construct the proposed project.
- If any tree removal is necessary, then it will occur outside the nesting season between September 1 and February 14. If trees cannot be removed outside the nesting season, pre-construction surveys will be conducted prior to tree removal to verify the absence of active nests.
- If an active nest is located during pre-construction surveys, USFWS and/or CDFW (as appropriate) shall be notified regarding the status of the nest. Construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the agencies deem disturbance potential to be minimal. Restrictions may include the establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.

A qualified biologist will delineate the buffer using Environmentally Sensitive Area fencing, pin flags, and/or yellow caution tape. The buffer zone will be maintained around the active nest site(s) until the young have fledged and are foraging independently.

SECTION 7: CERTIFICATION

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

Date: 01/04/2019

Signed:



Vanessa Welsh, Biologist
FirstCarbon Solutions
650 E. Hospitality Lane, Suite 125
San Bernardino, CA 92408

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Appendix A: Site Photographs

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View looking across site to the southwest toward I-215 across site from northern project site boundary.



View across project site from southwestern corner toward warehouse buildings on Ashley Way.



View across project site from eastern project boundary toward western project boundary. Mature coyote can be seen standing on project site.



View across project site from southern project boundary looking west.

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Appendix B:
Sensitive Species Tables

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B.1 - Special-status Plant Species Table

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Table B1: Special-status Plant Species Potentially Occurring within the Project Site

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS ¹	CDFW ²	CNPS ³			
Marsh sandwort <i>Arenaria paludicola</i>	FE	SE	1B.1	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3–170 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of marshes and swamps on site.	No
Alvin Meadow bedstraw <i>Galium californicum</i> ssp. <i>primum</i>	—	—	1B.2	Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. Granitic, sandy soils. 1460–1830 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of chaparral and coniferous forest on site.	No
Bristly sedge <i>Carex comosa</i>	—	—	2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -5–1620 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of marshes and swamps on site.	No
Chaparral ragwort <i>Senecio aphanactis</i>	—	—	2B.2	Dicot annual herb found in chaparral, cismontane woodland, and coastal scrub habitat. Prefers drying alkaline flats. Bloom period: January–April. 15–800m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of chaparral and woodland habitat on site.	No
Mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	—	—	1B.1	Dicot perennial herb found in chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Bloom period: February–July 70–810m.	Unlikely to Occur: No suitable habitat is present within the project site. No woodland or scrub habitat on site.	No
Horn’s milk-vetch <i>Astragalus hornii</i> var. <i>hornii</i>	—	—	1B.1	Meadows and seeps, playas. Lake margins, alkaline sites. 75–350 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of meadows and seeps on site.	No
Salt marsh bird’s-beak <i>Chloropyron maritimum</i> ssp. <i>Maritimum</i>	FE	SE	1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0–10 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of marshes and swamps on site.	No
Slender-horned spineflower <i>Dodecahema leptoceras</i>	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200–765 meters.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of sandy soil and washes within the project boundaries.	No

Table B1 (cont.): Special-status Plant Species Potentially Occurring within the Project Site

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS ¹	CDFW ²	CNPS ³			
Santa Ana River woollystar <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	FE	SE	1B.1	Dicot perennial herb found in chaparral and coastal scrub habitat. Prefers sandy soils on river floodplains or terraced fluvial deposits. Bloom period: May–September 180–700m.	Unlikely to Occur: No suitable habitat is present within the project site. No rivers or coastal scrub habitat present on site	No
Gambel's water cress <i>Nasturtium gambelii</i>	FE	ST	1B.1	Dicot perennial herb found in marshes and swamps. Prefers freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. Blooming period: April–October 5–330m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of marshes and swamps on site.	No
Parish's desert-thorn <i>Lycium parishii</i>	—	—	2B.3	Coastal scrub, Creosote Bush Scrub, Sonoran desert scrub. 135–1000 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of coastal scrub habitat on site.	No
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	—	—	1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90–1220 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of coastal scrub and chaparral habitat on site.	No
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	—	—	2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15–280 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of marshes and swamps on site.	No
Prairie wedge grass <i>Sphenopholis obtusata</i>	—	—	2B.2	Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. 15–2625 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of woodlands, meadows, and seeps on site.	No
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	—	—	4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4–1435 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of coastal scrub habitat on site.	No

Table B1 (cont.): Special-status Plant Species Potentially Occurring within the Project Site

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS ¹	CDFW ²	CNPS ³			
Salt spring checkerbloom <i>Sidalcea neomexicana</i>	—	—	2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 3–2380 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of chaparral and coastal scrub habitat onsite.	No
San Bernardino aster <i>Symphotrichum defoliatum</i>	—	—	1B.1	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3–2045 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of meadows and seeps on site.	No
Smooth tarplant <i>Centromadia pungens</i> ssp. <i>laevis</i>	—	—	1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5–1170 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of valley and foothill grassland on site.	No
Nevin’s barberry <i>Berberis nevinii</i>	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290–1575 m.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of chaparral and coastal scrub habitat on site.	No
Code Designations						
¹ Federal Status: 2018 USFWS Listing				² State Status: 2018 CDFW Listing		
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed				SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CR = Rare in California. — = Not state listed		
³ Habitat description: Habitat description adapted from CNDDB (CDFW 2018a).						

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B.2 - Special-status Wildlife Species Table

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Table B2: Special-status Wildlife Species Potentially Occurring within the Project Site

Scientific Name Common Name	USFWS ¹	CDFW ²	Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
Birds					
Tricolored blackbird <i>Agelaius tricolor</i>	—	SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of riparian features on or near the project site.	No
Swainson's hawk <i>Buteo swainsoni</i>	MBTA	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Potential to Occur: Marginal foraging or nesting habitat may be present within the Project.	Yes
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT MBTA	SE	Nests in riparian forest along the broad lower flood-bottoms of larger river systems. Found in riparian jungles of willow, often mixed with cottonwoods; understory consists of blackberry, nettles, and wild grape.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of riparian forest on site.	No
California black rail <i>Laterallus jamaicensis coturniculus</i>	— MBTA	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Unlikely to Occur: No suitable habitat is present within the project. Lack of water or wet meadows on site.	No
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT	SSC	An obligate, permanent resident of coastal sage scrub below 2500 ft. in southern California. Requires low, coastal sage scrub in arid washes, on mesas, and slopes. Not all areas classified as coastal sage scrub are occupied.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of coastal sage scrub on site.	No
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE	SE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of riparian areas on site.	No
Burrowing owl <i>Athene cunicularia</i>	MBTA	SSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Potential to Occur: Suitable nesting habitat is present within the project site.	Yes

Table B2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project Site

Scientific Name Common Name	USFWS ¹	CDFW ²	Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
Fish					
Santa Ana sucker <i>Catostomus santaanae</i>	FT	—	Endemic to Los Angeles basin south coastal streams. Are habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Unlikely to Occur: No suitable habitat is present within the Project. No water on site.	No
steelhead—southern California DPS <i>Oncorhynchus mykiss</i>	FE	—	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	Unlikely to Occur: No suitable habitat is present within the Project. No water on site.	No
Arroyo chub <i>Gila orcuttii</i>	—	SSC	Found in streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave, and San Diego river basins. Requires slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Unlikely to Occur: No suitable habitat is present within the Project. No water on site.	No
Reptiles					
California glossy snake <i>Arizona elegans occidentalis</i>	—	SSC	Generalist reported from a range of scrub and grassland habitats. Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of scrub and grassland habitat on site.	No
Coast horned lizard <i>Phrynosoma blainvillii</i>	—	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of sandy washes.	No
Coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	—	SSC	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Unlikely to Occur: No suitable habitat is present within the project site. No woodland or riparian areas on site.	No

Table B2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project Site

Scientific Name Common Name	USFWS ¹	CDFW ²	Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
Red-diamond rattlesnake <i>Crotalus ruber</i>	—	SSC	Found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas with dense vegetation. Requires rodent burrows, cracks in rocks, or surface cover objects. Often found in disturbed areas.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of chaparral and woodland habitat on site.	No
San Diego banded gecko <i>Coleonyx variegatus abbotti</i>	—	SSC	Coastal & cismontane Southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of rocky outcrops on site.	No
Mammals					
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	FE	ST	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Unlikely to Occur: While species of brome and other ruderal grasses are on site, the high level of disturbance at and surrounding the site preclude species presence.	No
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	—	SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of fine, sandy soils on site.	No
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	FE	SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Unlikely to Occur: No suitable habitat is present within the project site. Lack of scrub vegetation on site and absence of flood plains.	No
American badger <i>Taxidea taxus</i>	—	SSC	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires sufficient food sources (rodents), friable soils, and open, uncultivated ground. Digs large burrows.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of forests or shrub habitat on site.	No
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	—	SSC	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of coastal scrub on site.	No
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	—	SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of woodland habitat on site.	No

Table B2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project Site

Scientific Name Common Name	USFWS ¹	CDFW ²	Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	—	SSC	Intermediate canopy stages of shrub habitats, open shrub, herbaceous tree, and herbaceous edges.	Unlikely to Occur: No suitable habitat is present within the project site. Lack of suitable canopy stages of shrub habitats.	No
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	—	SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of scrub cover and suitable soil for nesting.	No
Western mastiff bat <i>Eumops perotis californicus</i>	—	SSC	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of suitable roosting habitat on or nearby the project site.	No
Western yellow bat <i>Lasiurus xanthinus</i>	—	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of suitable roosting habitat on or nearby the project site.	No
Insects					
Delhi Sands flower-loving fly <i>Rhaphiomidas terminatus abdominalis</i>	FE	SE	Found only in areas of the Delhi Sands formation in southwestern San Bernardino & northwestern Riverside counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation. Oviposition req. shade.	Unlikely to Occur: Lack of suitable habitat and disturbance at site preclude presence. Lack of fine, sandy soils on site.	No

Table B2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project Site

Scientific Name Common Name	USFWS ¹	CDFW ²	Habitat Description ⁴	Potential to Occur and Rationale	Included in Impact Analysis
Code Designations					
¹ Federal Status: 2018 USFWS Listing				² State Status: 2018 CDFW Listing	
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed				SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CR = Rare in California. — = Not state listed	
³ Habitat description: Habitat description adapted from CNDDB (CDFW 2018a).					

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Appendix C: Literature Review

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C.1 - CNDDB Inventory Results

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Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (San Bernardino South (3411713))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Alvin Meadow bedstraw <i>Galium californicum ssp. primum</i>	PDRUB0N0E6	None	None	G5T2	S2	1B.2
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
arroyo chub <i>Gila orcuttii</i>	AFCJB13120	None	None	G2	S2	SSC
Bell's sage sparrow <i>Artemisiospiza belli belli</i>	ABPBX97021	None	None	G5T2T3	S3	WL
bristly sedge <i>Carex comosa</i>	PMCYP032Y0	None	None	G5	S2	2B.1
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
Busck's gallmoth <i>Carolella busckana</i>	IILEM2X090	None	None	G1G3	SH	
California black rail <i>Laterallus jamaicensis coturniculus</i>	ABNME03041	None	Threatened	G3G4T1	S1	FP
California glossy snake <i>Arizona elegans occidentalis</i>	ARADB01017	None	None	G5T2	S2	SSC
chaparral ragwort <i>Senecio aphanactis</i>	PDAST8H060	None	None	G3	S2	2B.2
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S3S4	SSC
coastal California gnatcatcher <i>Polioptila californica californica</i>	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	ARACJ02143	None	None	G5T5	S3	SSC
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	None	G3G4	S1S2	
Delhi Sands flower-loving fly <i>Rhaphiomidas terminatus abdominalis</i>	IIDIP05021	Endangered	None	G1T1	S1	
Gambel's water cress <i>Nasturtium gambelii</i>	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Horn's milk-vetch <i>Astragalus hornii var. hornii</i>	PDFAB0F421	None	None	G4G5T1T2	S1	1B.1
least Bell's vireo <i>Vireo bellii pusillus</i>	ABPBW01114	Endangered	Endangered	G5T2	S2	
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Los Angeles sunflower <i>Helianthus nuttallii ssp. parishii</i>	PDAST4N102	None	None	G5TH	SH	1A



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
marsh sandwort <i>Arenaria paludicola</i>	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
merlin <i>Falco columbarius</i>	ABNKD06030	None	None	G5	S3S4	WL
mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	PDROS0W045	None	None	G4T1	S1	1B.1
northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	AMAFD05031	None	None	G5T3T4	S3S4	SSC
orange-throated whiptail <i>Aspidoscelis hyperythra</i>	ARACJ02060	None	None	G5	S2S3	WL
Parish's bush-mallow <i>Malacothamnus parishii</i>	PDMAL0Q0C0	None	None	GXQ	SX	1A
Parish's desert-thorn <i>Lycium parishii</i>	PDSOL0G0D0	None	None	G3?	S1	2B.3
Parish's gooseberry <i>Ribes divaricatum</i> var. <i>parishii</i>	PDGRO020F3	None	None	G5TX	SX	1A
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	PDPGN040J2	None	None	G3T2	S2	1B.1
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	PDCUS01111	None	None	G5T4T5	SH	2B.2
pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	AMACD04010	None	None	G4	S3	SSC
prairie wedge grass <i>Sphenopholis obtusata</i>	PMPOA5T030	None	None	G5	S2	2B.2
Pringle's monardella <i>Monardella pringlei</i>	PDLAM180J0	None	None	GX	SX	1A
red-diamond rattlesnake <i>Crotalus ruber</i>	ARADE02090	None	None	G4	S3	SSC
Riversidian Alluvial Fan Sage Scrub <i>Riversidian Alluvial Fan Sage Scrub</i>	CTT32720CA	None	None	G1	S1.1	
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	PDBRA1M114	None	None	G5T3	S3	4.3
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
salt spring checkerbloom <i>Sidalcea neomexicana</i>	PDMAL110J0	None	None	G4	S2	2B.2
San Bernardino aster <i>Symphyotrichum defoliatum</i>	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	AMAFD03143	Endangered	None	G5T1	S1	SSC
San Diego banded gecko <i>Coleonyx variegatus abbotti</i>	ARACD01031	None	None	G5T3T4	S1S2	SSC



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	AMAE03051	None	None	G5T3T4	S3S4	SSC
Santa Ana River woollystar <i>Eriastrum densifolium ssp. sanctorum</i>	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Santa Ana sucker <i>Catostomus santaanae</i>	AFCJC02190	Threatened	None	G1	S1	
slender-horned spineflower <i>Dodecahema leptoceras</i>	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
smooth tarplant <i>Centromadia pungens ssp. laevis</i>	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	ABPBX91091	None	None	G5T3	S3	WL
Southern Cottonwood Willow Riparian Forest <i>Southern Cottonwood Willow Riparian Forest</i>	CTT61330CA	None	None	G3	S3.2	
southern grasshopper mouse <i>Onychomys torridus ramona</i>	AMAFF06022	None	None	G5T3	S3	SSC
Southern Riparian Scrub <i>Southern Riparian Scrub</i>	CTT63300CA	None	None	G3	S3.2	
steelhead - southern California DPS <i>Oncorhynchus mykiss irideus pop. 10</i>	AFCHA0209J	Endangered	None	G5T1Q	S1	
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	AMAFD03100	Endangered	Threatened	G2	S2	
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
western mastiff bat <i>Eumops perotis californicus</i>	AMACD02011	None	None	G5T4	S3S4	SSC
western yellow bat <i>Lasiurus xanthinus</i>	AMACC05070	None	None	G5	S3	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	

Record Count: 57

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C.2 - CNPS Inventory Results

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Plant List

Inventory of Rare and Endangered Plants

6 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1B, 2B], FESA = Endangered, CESA is one of [Endangered, Threatened], Found in Quads 3411724, 3411723, 3411722, 3411714, 3411713, 3411712, 3311784 3311783 and 3311782;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	1B.1	S1	G1
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	1B.1	S1	G1
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct (Nov)	1B.2	S1	G4?T1
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	1B.1	S1	G4T1
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1

Suggested Citation

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Questions and Comments

rareplants@cnps.org

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C.3 - Soil Search Results


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Soil Map—San Bernardino County Southwestern Part, California





MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California

Survey Area Data: Version 10, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 5, 2015—Jan 18, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HaD	Hanford coarse sandy loam, 9 to 15 percent slopes	0.5	4.5%
ScA	San Emigdio fine sandy loam, 0 to 2 percent slopes	1.6	14.7%
ScC	San Emigdio fine sandy loam, 2 to 9 percent slopes	8.8	80.8%
Totals for Area of Interest		10.9	100.0%

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