

Biological Resources Technical Report

Colton Community Soccer Park Project in Colton, San Bernardino County, California

Prepared for

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1.0 INTRODUCTION

This Biological Technical Report has been prepared to support California Environmental Quality Act (CEQA) documentation for the Colton Community Soccer Park Project (herein referred to as the “project site”). This information has been reported in accordance with accepted scientific and technical standards that are consistent with the requirements of the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

1.1 PROJECT LOCATION AND PHYSICAL ENVIRONMENTAL SETTING

The project site is located within the City of Colton within San Bernardino County, California (Exhibit 1). It is located on the U.S. Geological Survey’s (USGS’) San Bernardino South 7.5-minute quadrangle map (Exhibit 2). Elevations on the project site range from 910 to 940 feet above mean sea level (msl). The project site is approximately 58 acres and is located in undeveloped areas adjacent to the Santa Ana River. The project site is generally bounded by residential uses to the north and northwest, transportation (Burlington Northern Santa Fe Railway) and industrial uses to the southwest, and open space containing the Santa Ana River and the Santa Ana River Trail to the east and south.

Soil types in the project site generally consist of Psamments, fluvents, and frequently-flooded soils, and Tujunga gravelly loamy sand (USDA NRCS 2019) (Exhibit 3).

1.1.1 Regional Environmental Setting

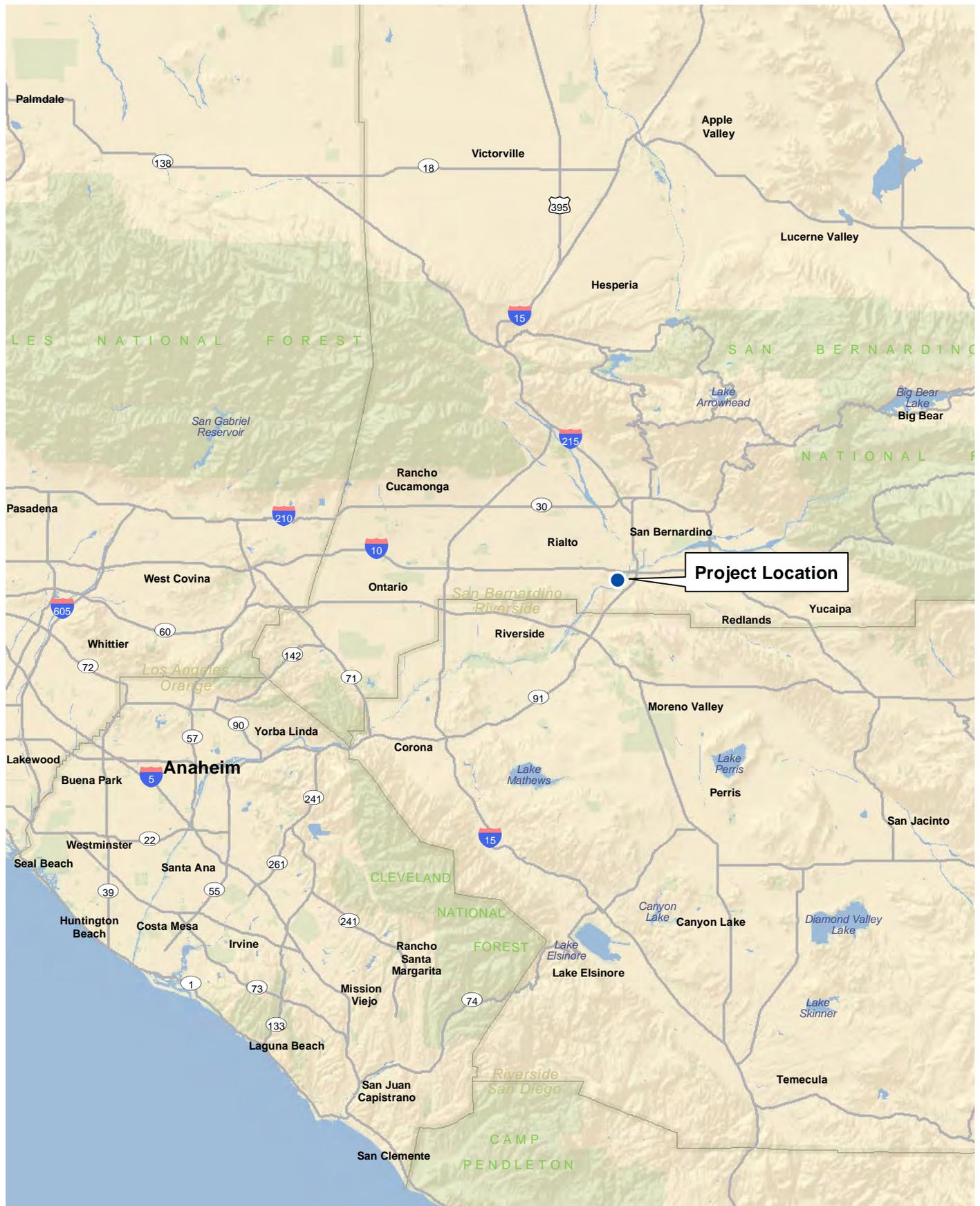
The proposed project is located within the floodplain of the Santa Ana River. The Santa Ana River is the largest stream system in southern California, beginning in the San Bernardino Mountains and flows over 100 miles to the Pacific Ocean near Huntington Beach. The Santa Ana River floodplain generally contains a mosaic of riparian communities including willow and cottonwood forests, southern willow scrub, mulefat scrub, Riversidean sage scrub, sandy riverwash, and freshwater aquatic habitats. The Santa Ana River is a regionally significant biological resource to Orange, Riverside, and southern San Bernardino counties.

The region experiences a Mediterranean climate characterized by mild, rainy winters and hot, dry summers. The most distinguishing characteristic of a Mediterranean climate is its seasonal precipitation. In Southern California, precipitation is characterized by brief, intense storms between November and April. It is not unusual for a majority of the annual precipitation to fall during a few storms over a short span of time. Rainfall patterns in the region are subject to extreme variations from year to year and longer-term wet and dry cycles.

1.2 PROJECT DESCRIPTION AND BACKGROUND

The proposed project involves the construction of a community soccer park located within the City of Colton on multiple City-owned parcels totaling approximately 58 acres (Exhibit 4). The proposed project includes development of 8 lighted, synthetic turf regulation size soccer fields to accommodate soccer leagues and tournaments for “Under Age 5 (U5) and Under Age 18 (U18) on approximately 21.4 acres (project site). The additional 36.6 acres of the City-owned property would not be developed as part of the proposed project. The community soccer park portion of the property would include approximately 300 parking stalls, rest room facilities, a concession building, breezeway with seating, children’s play areas, multipurpose trails, field and parking lot lighting, security fencing, retaining walls, and shaded spectator seating.

The main surface parking lot would be located on the former Guyaux Landfill.

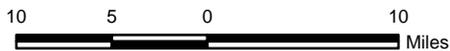


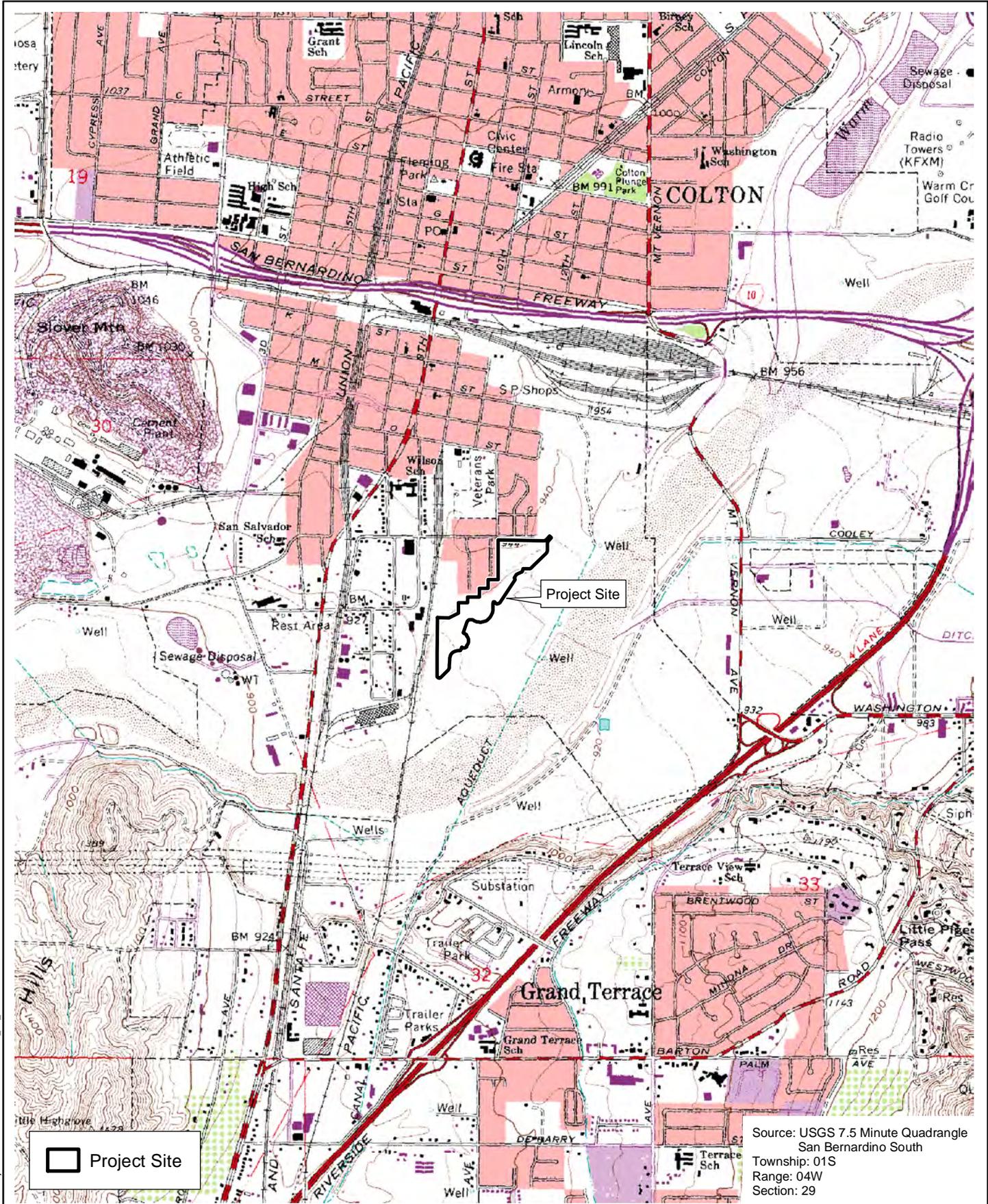
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Regional Location

Colton Community Soccer Park Project

Exhibit 1





 Project Site

Source: USGS 7.5 Minute Quadrangle
 San Bernardino South
 Township: 01S
 Range: 04W
 Section: 29

Local Vicinity

Colton Community Soccer Park Project

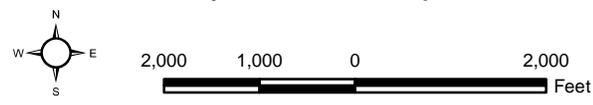
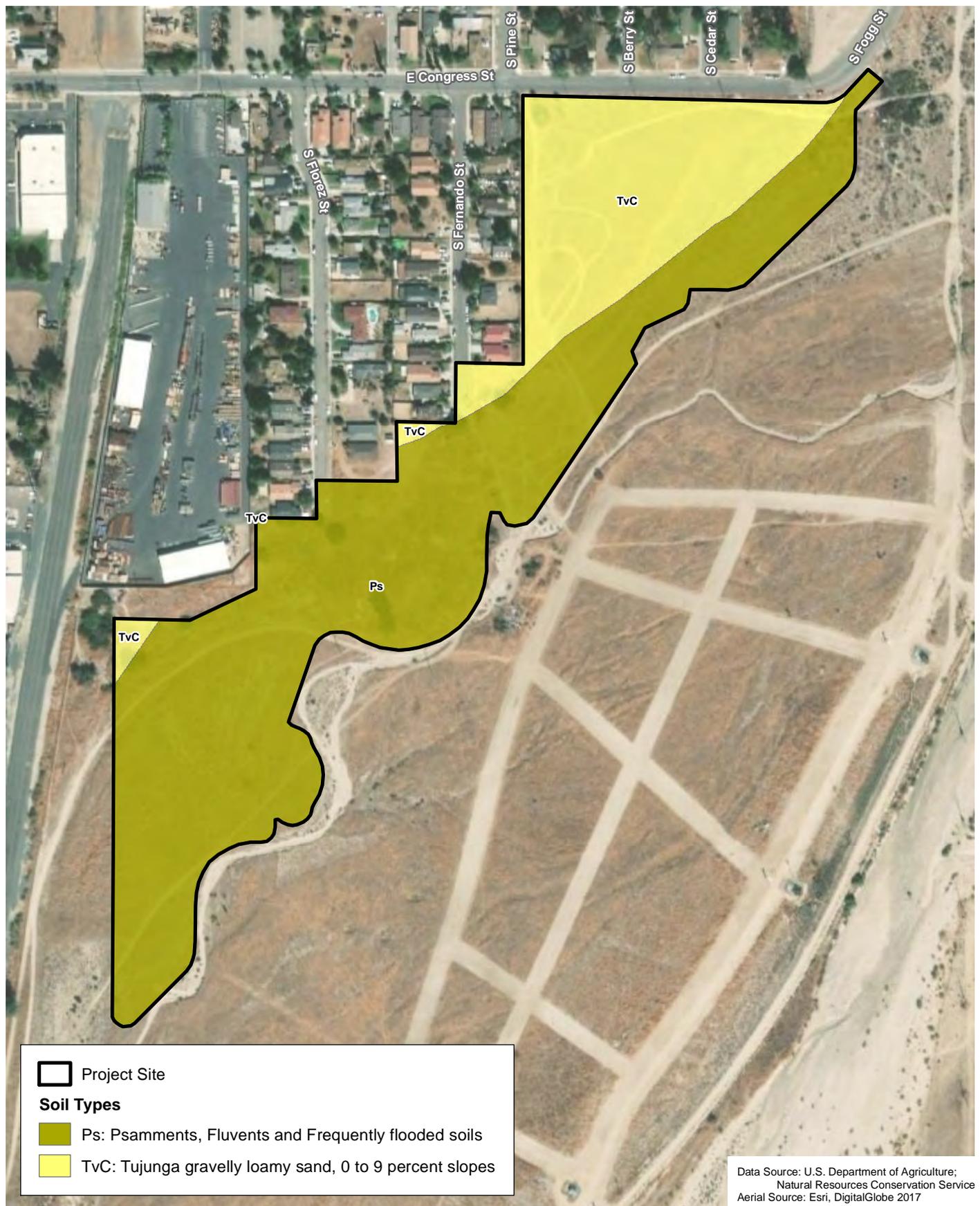


Exhibit 2



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Project Site

Soil Types

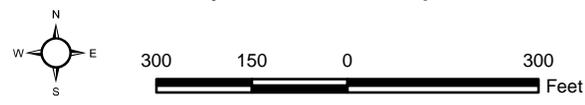
- Ps: Psamments, Fluvents and Frequently flooded soils
- TvC: Tujunga gravelly loamy sand, 0 to 9 percent slopes

Data Source: U.S. Department of Agriculture;
Natural Resources Conservation Service
Aerial Source: Esri, DigitalGlobe 2017

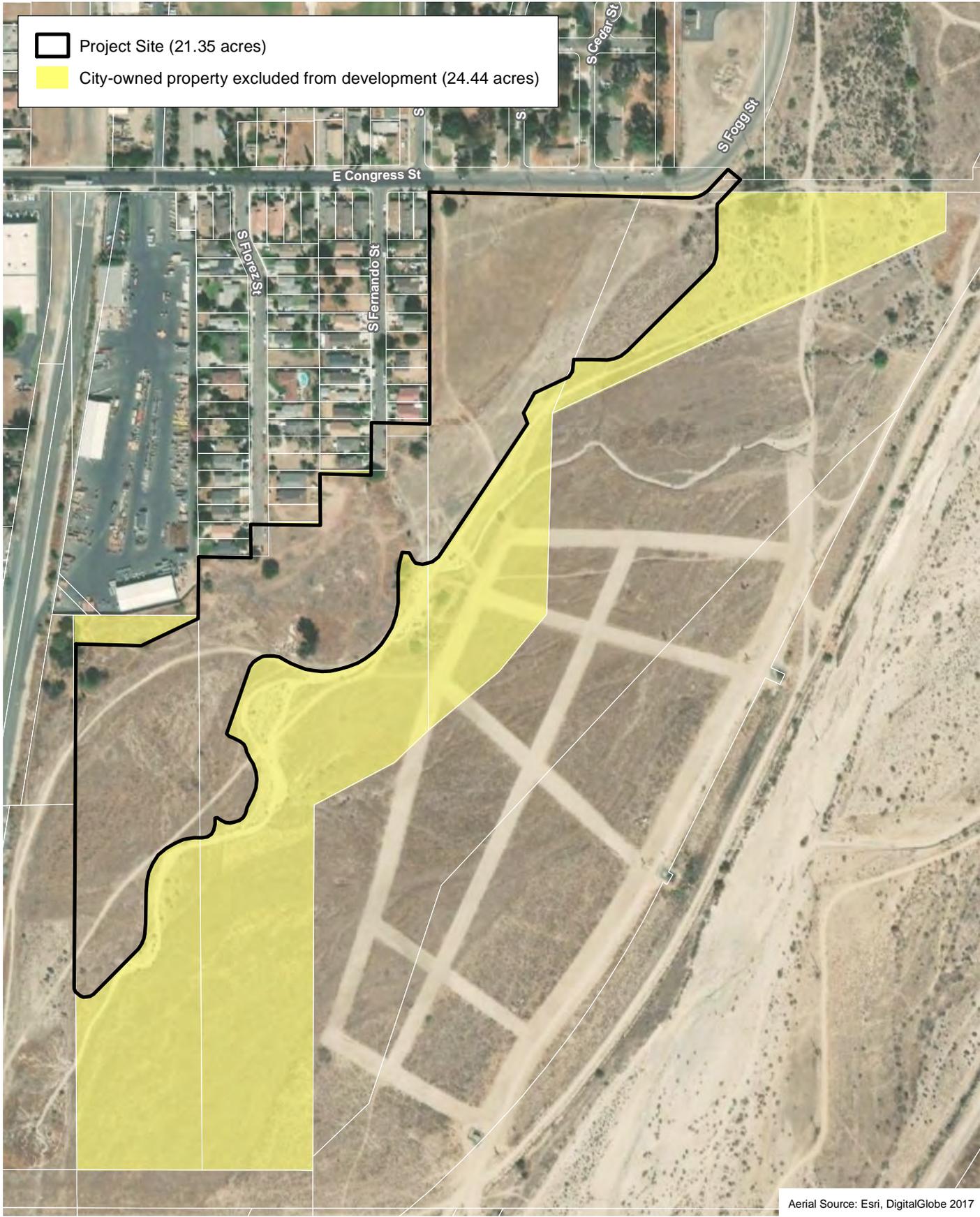
Soil Types

Colton Community Soccer Park Project

Exhibit 3



Project Site (21.35 acres)
 City-owned property excluded from development (24.44 acres)



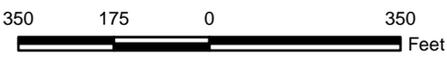
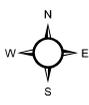
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Aerial Source: Esri, DigitalGlobe 2017

Area Proposed for Development

Colton Community Soccer Park Project

Exhibit 4



Detention basins are proposed on the eastern edge park near the Santa Ana River and in the southwest portion of the project site located south of South Florez Street.

Vehicles would access the site from East Congress Street and the south end of South Florez Street. Pedestrians could access the project site from each of these locations and at the south end of South Fernando Street.

1.3 REGULATORY SETTING

1.3.1 Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and animals that the USFWS has listed as “Endangered” or “Threatened.” A federally listed species is protected from unauthorized “take,” which is defined in the FESA as acts to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” (16 USC Sections 1532[19] and 1538[a]). In this definition, “harm” includes “any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife” (50 *Code of Federal Regulations* [CFR], Title 50, Section 17.3). Unless performed for scientific or conservation purposes with the permission of the USFWS, take of listed species is only permissible if the USFWS issues an Incidental Take Permit (ITP). When issuing an ITP, all federal agencies, including the USFWS, must ensure that their activities are “not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species” (16 USC 1536[a]). Enforcement of the FESA is administered by the USFWS.

The FESA also provides for designation of Critical Habitat: specific areas within the geographical range occupied by a species where physical or biological features “essential to the conservation of the species” are found and “which may require special management considerations or protection” (16 USC 1538[5][A]). Critical Habitat may also include areas outside the current geographical area occupied by the species that are essential for the conservation of the species.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires consultation with the USFWS and the fish and wildlife agencies of States where the “waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified” by any agency under a federal permit or license. Consultation is to be undertaken for the purpose of “preventing loss of and damage to wildlife resources.”

Sections 404 and 401 of the Clean Water Act of 1972

Section 404 of the Clean Water Act (CWA) (33 USC 1251 et seq.) regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) is the designated regulatory agency responsible for administering the 404 permit program and for making jurisdictional determinations. This permitting authority applies to all waters of the United States where the material has the effect of (1) replacing any portion of waters of the United States with dry land or (2) changing the bottom elevation of any portion of waters of the United States. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in waters of the United States. Dredge and fill activities are typically associated with development projects; water

resource-related projects; infrastructure development; and wetland conversion to farming, forestry, or urban development.

Under Section 401 of the CWA, an activity requiring a USACE Section 404 permit must obtain a State Water Quality Certification (or waiver thereof) to ensure that the activity will not violate established State water quality standards. The State Water Resources Control Board (SWRCB), in conjunction with the nine California Regional Water Quality Control Boards (RWQCBs), is responsible for administering the Section 401 water quality certification program.

Under Section 401 of the federal CWA, an activity involving discharge into a water body must obtain a federal permit and a State Water Quality Certification to ensure that the activity will not violate established water quality standards. The USEPA is the federal regulatory agency responsible for implementing the CWA. However, it is the SWRCB, in conjunction with the nine RWQCBs, who essentially has been delegated the responsibility of administering the water quality certification (Section 401) program.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703–711), as amended in 1972, makes it unlawful at any time, by any means or in any manner, unless permitted by regulations, to “pursue; hunt; take; capture; kill; attempt to take, capture, or kill; possess; offer for sale; sell; offer to barter; barter; offer to purchase; purchase; deliver for shipment; ship; export; import; cause to be shipped, exported or imported; deliver for transportation; transport or cause to be transported; carry or cause to be carried; or receive for shipment, transportation, carriage, or export, any migratory bird; any part, nest, or eggs of any such bird; or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. . . .” (16 USC 703).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. This regulation seeks to protect migratory birds and active nests. The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 CFR 10.13), as updated by the 1983 American Ornithologists’ Union (AOU) Checklist and published supplements by the USFWS.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: *Accipitridae* (kites, hawks, and eagles); *Cathartidae* (New World vultures); *Falconidae* (falcons and caracaras); *Pandionidae* (ospreys); *Strigidae* (typical owls); and *Tytonidae* (barn owls). The provisions of the 1972 amendment to the MBTA protect all species and subspecies of these families.

On December 22, 2017, the Department of the Interior Office of the Solicitor released Memorandum M-37050 stating that the MBTA’s “taking” or “killing of migratory birds applies only to deliberate acts such as hunting intended to take a migratory bird. This administration will not seek criminal penalties against companies and individuals who incidentally take migratory birds through otherwise lawful activities. This reverses the previous administration’s interpretation, which issued Memorandum M-37041 stating that the MBTA applied to both intentional and incidental take. However, because of the court’s split interpretation on the MBTA, it is recommended that companies continue to implement Best Management Practices (BMPs) to mitigate impacts on migratory birds (Perkins Coie 2018; USDOJ 2017).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act and strengthened other enforcement measures. A 1978 amendment authorizes the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations.

A 1994 Memorandum from President William Clinton to the heads of Executive Agencies and Departments establishes the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

1.3.2 State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (13 *Public Resources Code* Sections 21000 et seq.) is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. The CEQA Guidelines (14 *California Code of Regulations* [CCR] Chapter 3) are the regulations that explain and interpret the law for both public agencies and private development required to administer CEQA.

With regards to plants and animals, Section 15380 of the CEQA Guidelines independently defines “Endangered” and “Rare” species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, Endangered species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while Rare species are defined as those that (1) have such low numbers that they could become Endangered if their environment worsens or (2) are likely to become endangered within the foreseeable future (i.e., “threatened” as used in the FESA). In addition, a Lead Agency can consider a non-listed species (e.g., species with a California Rare Plant Rank [CRPR], California Species of Special Concern, or species of Local Concern) to be treated as if it were Endangered, Rare, or Threatened for the purposes of CEQA if the species can be shown to meet the criteria in the definition of “Rare” or “Endangered” in the project region.

The CEQA Guidelines designates certain “trustee agencies” that have jurisdiction by law over natural resources affected by a project which are held in trust for the people of California. The CDFW is the trustee responsible for conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. Trustee agencies are generally required to be notified of CEQA documents relevant to their jurisdiction, whether or not these agencies have actual permitting authority or approval power over aspects of the underlying project. The CDFW shall provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities and shall make recommendations regarding those resources held in trust for the people of California (*California Fish and Game Code* §1802).

California Endangered Species Act

The State of California implements the CESA which is enforced by the CDFW. While the provisions of the CESA are similar to the FESA, CDFW maintains a list of California Threatened and Endangered species, independent of the FESA Threatened and Endangered species list. It also lists species that are considered Rare and Candidates for listing, which also receive protection. The California list of Endangered and Threatened species is contained in Title 14, Sections 670.2 (plants) and 670.5 (animals) of the *California Code of Regulations*.

State-listed Threatened and Endangered species are protected under provisions of the CESA. Activities that may result in take of individuals (defined in CESA as acts to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by the CDFW. While habitat degradation or modification is not included in the definition of take under CESA, the CDFW has interpreted take to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

If it is determined that the take would not jeopardize the continued existence of the species, an ITP can be issued by CDFW per Section 2081 of the *California Code of Regulations*. If a State-listed species is also federally listed, and the USFWS has issued an ITP that satisfies CDFW’s requirements, CDFW may issue a consistency finding in accordance with Section 2080.1 of the *California Fish and Game Code*.

California Fish and Game Code

The CDFW administers the *California Fish and Game Code*. Particular sections of the Code are applicable to natural resource management.

Native Plant Protection

Sections 1900–1913 of the *California Fish and Game Code* were developed to preserve, protect, and enhance Endangered and Rare plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use that would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

Unlawful Take or Destruction of Nests or Eggs

These sections duplicate federal protection under the MBTA. Section 3503 of the *California Fish and Game Code* makes it unlawful to take, possess, or destroy any bird’s nest or any bird’s eggs. Further, any birds in the orders *Falconiformes* or *Strigiformes* (birds of prey, such as hawks, eagles, and owls) and their nests and eggs are protected under Section 3503.5 of the *California Fish and Game Code*. Section 3513 of the *California Fish and Game Code* prohibits the take and possession of any migratory nongame bird, as designated in the MBTA.

California Fully Protected Species

The State of California created the “Fully Protected” classification in an effort to identify and provide additional protection to those animals that are rare or that face possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the CESA/FESA; however, some have not been formally listed.

Various sections of the *California Fish and Game Code* provide lists of Fully Protected reptile and amphibian (§ 5050), bird (§ 3511), and mammal (§ 4700) species that may not be taken or possessed at any time, except as provided in Sections 2081.7, 2081.9, or 2835. The CDFW is unable to authorize the issuance of permits or licenses to take these species, except for necessary scientific research.

California Fish and Game Code (Sections 1600 through 1616)

California Fish and Game Code Sections 1600 et seq. establish a 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.

California Fish and Game Code Section 1602 requires any person, State, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

- substantially obstruct or divert the natural flow of a river, stream, or lake
- substantially change or use any material from the bed, channel, or bank of a river, stream, or lake
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake

Section 1602 of the *California Fish and Game Code* applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Lake or Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs may require permits (known as "Waste Discharge Requirements" or WDRs) for the fill or alteration of the waters of the State. The term "waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (*California Water Code*, Section 13050[e]). The SWRCB and RWQCB have interpreted their authority to require WDRs to extend to any proposal to fill or alter waters of the State, even if those same waters are not under USACE jurisdiction. Pursuant to this authority, the State and Regional Boards may require the submission of a "report of waste discharge" under Section 13260, which is treated as an application for WDRs.

The Porter-Cologne Water Quality Control Act charges the SWRCB and the nine RWQCBs statewide with protecting water quality throughout California. Typically, the SWRCB and RWQCB act in concert with the USACE under Section 401 of the CWA in relation to permitting fill of federally jurisdictional waters. SWRCB and the RWQCBs may require permits (WDRs) for the fill or alteration of the waters of the State.

1.3.3 Regional

Santa Ana River Parkway and Open Space Plan

Over the last few decades, public and private agencies, nongovernmental organizations, and community members have worked to develop visions for the river corridor as a natural and recreational resource. Collaborative efforts have generally focused on the development of the Santa Ana River Trail and have spurred momentum for regional visioning and coordination for the broader corridor. In 2014, the California State Legislature created the Santa Ana River Conservancy Program (SARCON) within the State Coastal Conservancy to address the following resource and recreational goals of the Santa Ana River region (Chapter 4.6 of Division 21, California Public Resources Code (PRC), Sections 31170-31179, referred to in this Plan as “PRC Sections 31770 et seq.”):

- Open space and trails;
- Wildlife habitat and species restoration, enhancement, and protection;
- Wetland restoration and protection;
- Agricultural land restoration and protection;
- Protection and maintenance of the quality of the waters in the Santa Ana River for all beneficial uses;
- Natural floodwater conveyance; and
- Public access to, enjoyment of, and enhancement of recreational and educational experiences in a manner consistent with the protection of land and natural resources and economic resources in the area.

Under this legislation, SARCON was charged with creating an advisory group and developing a Santa Ana River Parkway & Open Space Plan (SARP&OSP) to guide the future development and management of the Santa Ana River Parkway, defined as the lands within 0.5-mile of the main stem of the Santa Ana River. Under PRC Section 31174(b), the Plan is required, at a minimum, to do all of the following: (1) determine the policies and priorities for conserving the Santa Ana River and its watershed; (2) identify underused, existing public open spaces and recommend ways to provide better public use and enjoyment in those areas; and (3) identify and prioritize additional low-impact recreational and open-space needs, including additional or upgraded facilities and parks that may be necessary or desirable. The creation of SARCON and development of the SARP&OSP establishes a framework for expanding the reach of the collaborative efforts within the Santa Ana River to resource protection and enhancement, as well as education, recreation, and public recreational access.

The project site is located within the Santa Ana River Parkway, as defined by the SARP&OSP. With respect to biological resources, the project site is located within an area identified as “Poor” to “Fair” per the habitat analysis in the SARP&OSP (Placeworks 2018).

Upper Santa Ana River Habitat Conservation Plan

The Upper Santa Ana River Habitat Conservation Plan (Upper SAR HCP), currently being prepared by the San Bernardino Valley Municipal Water District and 11 other member agencies, has not yet been issued for public review. The Upper SAR HCP is a collaborative effort among 11 public agencies of the Santa Ana River Watershed, in partnership with USFWS, CDFW. The purpose of the Upper SAR HCP is primarily to enable the water resource agencies located in Riverside and San Bernardino counties to continue to provide and maintain a secure source of

water for the residents and businesses in the watershed, and to conserve and maintain natural rivers and streams that provide habitat for a diversity of unique and rare species in the watershed. The protection of these habitats and the riverine systems they depend upon also provides recreational opportunities for activities such as hiking, fishing, and wildlife viewing. The Upper SAR HCP will specify how species and their habitats will be protected and managed in the future and will provide the ITPs needed by the water resource agencies under FESA/CESA to maintain, operate, and improve regional water resource infrastructure. The HCP is anticipated to cover 22 special-status plant and wildlife species. The Draft Upper SAR HCP is anticipated to be released in mid-2019. The City of Colton is not a participating entity; however, projects cannot conflict with an approved HCP per CEQA requirements.

2.0 SURVEY METHODS

This section describes the methods used to conduct a literature review; perform general and focused biological surveys; and assess the potential the project site and vicinity to support special status species.

2.1 LITERATURE REVIEW

A literature review was performed to identify special status plants, wildlife, and habitats known to occur (or that historically occurred) in the vicinity of the project site. These searches included review of the CDFW's California Natural Diversity Database (CNDDDB) (CDFW 2019) for the project site and a 10-mile radius around the site. A review of the USGS' San Bernardino South, San Bernardino North, Devore, Harrison Mountain, Fontana, Redlands, Riverside East, Riverside West, and Sunnymead 7.5-minute quadrangles in the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019) was also conducted. A review of FESA critical habitat documents was used to identify any portions of the project site occurring within proposed or designated critical habitat. Additionally, all previous biological documentation for the project site and immediate vicinity were reviewed and the results are incorporated into this report. These documents include:

- The Rodent Habitat Assessment by Dr. Jeff Froke (Froke 2016a);
- The mapping results of Santa Ana River Woollystar by Dr. Jeff Froke (Froke 2016b);
- The Jurisdictional Delineation for the Colton Sports Park by Glenn Lukos Associates, Inc. (West 2017);
- The Habitat Assessment for the Riverside North Aquifer Storage and Recovery Project by RBF Consulting (RBF 2015);
- The Small Mammal Habitat Assessment for the Colton Sports Park Project by Envira (Envira 2017).
- The Rare Plant Habitat Suitability Report for the Soil Safe Project by Aspen Environmental Group (Aspen 2010);
- The Habitat Assessment for the Soil Safe Project by RBF Consulting (RBF 2010);
- The 2009 Biological Constraints Assessment for the Soil Safe Project by PBS&J (PBS&J 2009); and
- The Focused SBKR Trapping Survey Report for the Soil Safe Project by Tom Dodson and Associates (Dodson 2009).

2.2 VEGETATION MAPPING AND GENERAL BIOLOGICAL SURVEYS

A general biological survey was conducted by Senior Biologist Steve Norton and Senior Botanist Allison Rudalevige on April 4, 2019 to evaluate the potential of habitats to support special status plant and wildlife species. Vegetation was mapped in the field by Ms. Rudalevige on an aerial photograph at a scale of 1 inch equals 200 feet (1"=200'). Nomenclature for vegetation types generally matches those from the online edition of *A Manual of California Vegetation* (CNPS 2019). Photographs of each vegetation type observed onsite are included in Appendix A.

Plant species were identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012), Hickman (1993), and Munz (1974). Nomenclature of plant taxa conform to the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2019b) for special status species and the Jepson eFlora (Jepson Flora Project 2019) for all other taxa; ornamental species

not listed in the Jepson eFlora are named based on the *Sunset Western Garden Book* (Brenzel 2007). A list of plant species observed is included as Appendix B-1.

Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic sign, including scat, footprints, burrows, and trails. Nomenclature of wildlife taxa conform to the *Special Animals List* (CDFW 2018a) for special status species; nomenclature for non-special status wildlife generally follows Crother (2012) for amphibians and reptiles, American Ornithologists' Union (2019) for birds, and the Smithsonian National Museum of Natural History (2011) for mammals. All species observed were recorded in field notes. A list of wildlife species observed is included as Appendix B-2.

2.3 FOCUSED BIOLOGICAL SURVEYS

In 2019, Psomas conducted focused surveys for burrowing owl (*Athene cunicularia*) and an updated mapping effort for Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*).

2.3.1 Santa Ana River Woollystar

Focused floristic surveys to update the mapped locations of the Santa Ana River woollystar were conducted on the project site and within a 50-foot buffer. Focused surveys were conducted on April 4 and May 14, 2019, during the blooming period of the Santa Ana River woollystar. A known population of the species located in the northeastern portion of the project site was used as a reference population for determining the 2019 blooming period. Psomas Senior Botanist Allison Rudalevige and Psomas Senior Biologist Steve Norton walked transects in suitable habitat searching for the species. All locations were mapped using high accuracy global positioning system (GPS) technology and information on the number of individuals observed, habitat type, associated plant species, and phenology was recorded. No voucher specimens were collected because this is a known occurrence.

All plant species observed were recorded in field notes and are included in Appendix B-1. Any other special status plant species incidentally observed would have been recorded and mapped. The absence of other special status plant species observed does not preclude the species' from occurring on the project site; the survey timing and surveyed habitat areas for this effort were specific to Santa Ana River woollystar.

2.3.2 Burrowing Owl

Psomas Biologists Steve Norton and Allison Rudalevige conducted focused surveys for burrowing owl in all potentially suitable habitat on the project site and within 500-feet of the project site. The survey methods followed the 2012 CDFW Staff Report on Burrowing Owl Mitigation for surveys conducted during the breeding season (CDFG 2012). Per CDFW guidelines, the first survey visit was conducted between February 15 and April 15; two surveys were conducted between April 15 and June 15; and one survey was conducted between June 15 and July 15. Surveys were conducted by Mr. Norton and Ms. Rudalevige on April 4, April 24, May 14, and June 26, 2019 (Table 1). The weather conditions during the surveys were suitable for bird activity and consisted of clear skies and mild temperatures (i.e., 52 to 79 degrees Fahrenheit) with calm conditions (i.e., 0- to 4-mile-per-hour winds) (Table 1).

**TABLE 1
BURROWING OWL FOCUSED SURVEY DATES**

Date	Surveying Biologist	Survey Times	Weather conditions		
			Temperature (F)	Wind Speed (MPH)	Visibility
April 4, 2019	Steve Norton, Allison Rudalevige	7:00 AM – 9:50 AM	52–55	0–1	Clear
April 24, 2019	Steve Norton	7:00 AM – 9:30 AM	66–79	1–2	Clear
May 14, 2019	Steve Norton, Allison Rudalevige	7:00 AM – 9:00 AM	60–69	1–3	Clear
June 26, 2019	Steve Norton	6:00 AM – 8:30 AM	66–67	1-4	Clear

F – Degrees Fahrenheit; MPH – Miles per hour;

Biologists walked all suitable habitat (i.e., undeveloped areas) within the project site and a 500-foot buffer to achieve 100 percent visual coverage. The surveys were generally conducted between morning civil twilight and 10:00 AM. Any natural or man-made cavities large enough to allow a burrowing owl to enter were inspected for evidence of occupation and mapped. Evidence of occupation may include prey remains, cast pellets, white wash, feathers, and observations of owls adjacent to burrows. Binoculars were used to inspect holes; crevices; and potential perches such as rocks, fence posts, and other elevated structures for the presence of owls. Any active burrows and/or burrowing owl sightings were mapped on an aerial photograph and recorded with GPS units. All wildlife observed were recorded in field notes and are listed in Appendix B-2.

2.4 REGULATORY SURVEYS

2.4.1 Jurisdictional Assessment

Jurisdictional resources considered for this report include waters of the United States under the regulatory authority of the USACE; waters of the State under the regulatory authority of the RWQCB; and the bed, bank, and channel of all lakes, rivers, and/or streams (and associated riparian vegetation), under the regulatory authority of the CDFW.

Non-wetland waters of the United States are assessed based on the limits of the ordinary high-water mark (OHWM), which can be determined by a number of factors, including the presence of a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; and the presence of litter and debris. The RWQCB shares USACE jurisdiction unless isolated conditions are present. Water resources lacking connectivity to a Traditional Navigable Water¹ (TNW), whether by definition or through a significant nexus analysis, are considered isolated. If isolated waters are present, the RWQCB takes jurisdiction using the USACE's definition of the OHWM and/or the three-parameter wetlands method pursuant to the 1987 Wetlands Manual. Isolated conditions were assessed prior to the field assessment using aerial imagery from Google Earth and the National Hydrography Dataset (USGS 2017). Note that the USACE does not require continuous surface connectivity to establish jurisdiction; waters are considered a tributary even if there is a natural or constructed break along the connection to a TNW. Therefore, drainage channels disrupted by roads in the jurisdictional survey area may still be considered under the jurisdiction of the USACE and/or the RWQCB. Swales and erosional features are not considered jurisdictional (USACE 2007).

¹ Traditional Navigable Waters are all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

A jurisdictional resources assessment was conducted concurrently with vegetation mapping and general surveys to identify areas potentially regulated by the USACE, the RWQCB, and the CDFW. Psomas Senior Biologists Steve Norton and Allison Rudalevige assessed the drainage features on and immediately adjacent to the project site on April 4, 2019.

Prior to the jurisdictional assessment, the following documents were reviewed to identify areas that may fall under agency jurisdiction: the jurisdictional delineation conducted by Glen Lukos Associates, Inc. for a previous version of the project (West 2017); USGS' San Bernardino South 7.5-minute topographic quadrangles; color aerial photography and elevation data provided by Google Earth; the Web Soil Survey for San Bernardino County, California (USDA NRCS 2019); and the National Hydric Soils List (USDA NRCS 2019). During the field surveys, potentially jurisdictional areas were recorded on a 1-inch equals 100-foot scale aerial photograph and recorded using a GPS unit with sub-meter accuracy.

3.0 EXISTING BIOLOGICAL RESOURCES

This section describes the biological resources that occur or potentially occur on the project site or within nearby off-site areas associated with the proposed project.

3.1 VEGETATION TYPES AND OTHER AREAS

Five vegetation types and one other area occur on the project site (Table 2, Exhibit 5). A description of each vegetation type/other area is found below.

**TABLE 2
VEGETATION TYPES AND OTHER AREAS**

Vegetation Types	On-Site Total (acres)
California walnut grove	0.07
Eucalyptus – tree of heaven – black locust grove	0.16
Disturbed yerba santa scrub	0.35
Herbaceous semi-natural alliance	7.03
Non-native forb – grassland	13.05
Disturbed	0.69
Total	21.35

3.1.1 California Walnut Grove

California walnut grove occurs in an isolated stand in the center of the project site. This vegetation type consists of mature and sapling Southern California black walnut (*Juglans californica*) with a dense understory of non-native herbaceous weeds, including red brome (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), London rocket (*Sisymbrium irio*), black mustard (*Brassica nigra*), and redstem filaree (*Erodium cicutarium*). This vegetation type is consistent with the *Juglans californica* Woodland Alliance (CNPS 2019); this Alliance is considered sensitive by CDFW (2018b).

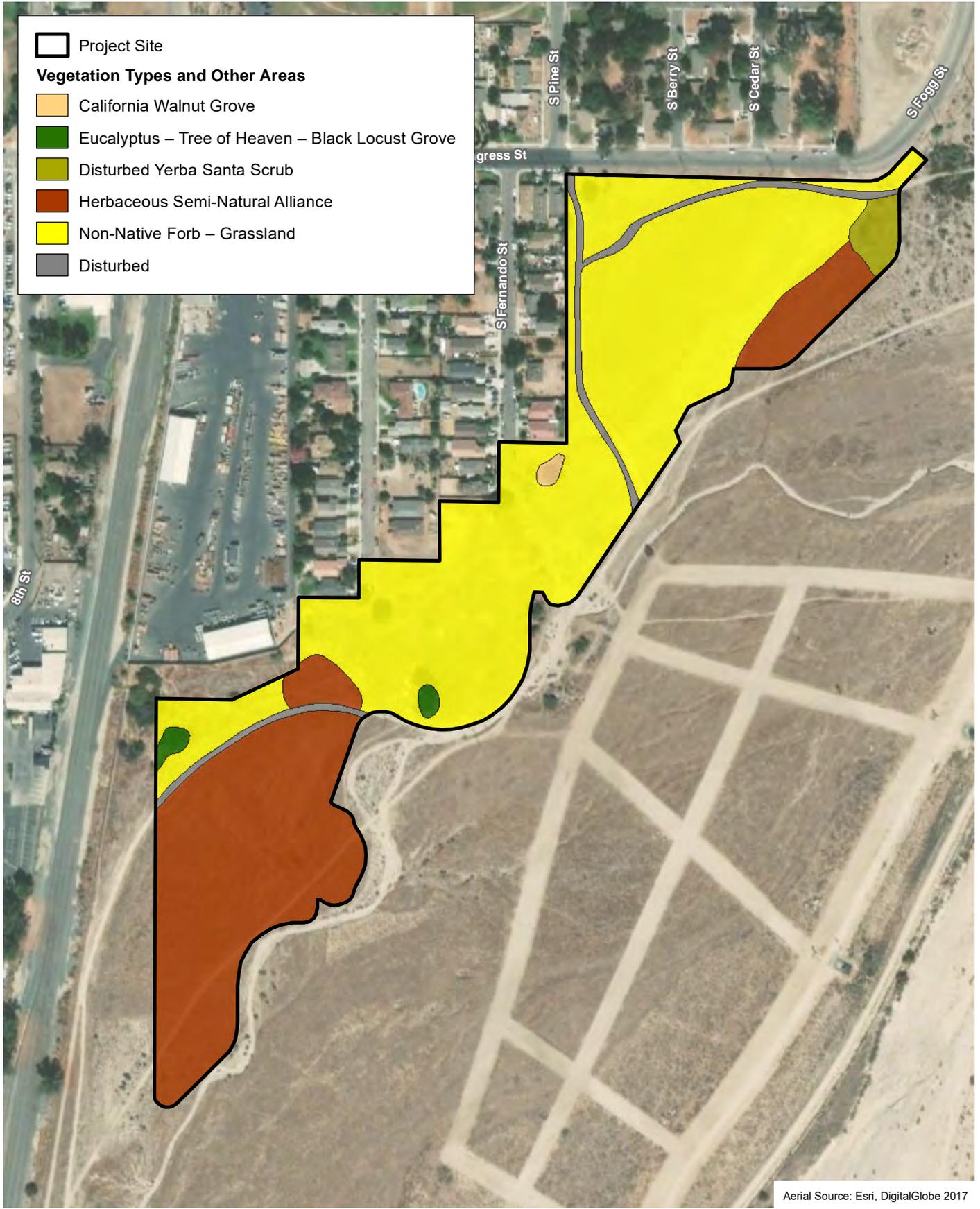
3.1.2 Eucalyptus – Tree of Heaven – Black Locust Grove

Eucalyptus – tree of heaven – black locust grove occurs in isolated stands in the center and on the western end of the project site. One stand consists of a mature gum tree (*Eucalyptus* sp.) and the other consists of mature and sapling tree of heaven (*Ailanthus altissima*). These trees are surrounded by non-native weeds such as red brome, wall barley (*Hordeum murinum*), and redstem filaree. This vegetation type is consistent with the *Eucalyptus* ssp. – *Ailanthus altissima* – *Robinia pseudoacacia* Woodland Semi-natural Alliance (CNPS 2019); this Alliance is not considered sensitive by CDFW (2018b).

3.1.3 Disturbed Yerba Santa Scrub

Disturbed yerba santa scrub is located in the northeastern corner of the project site. It is located in the floodplain upstream from the herbaceous semi-natural alliance vegetation type. The vegetation type is dominated by an open canopy of hairy yerba santa (*Eriodictyon trichocalyx* var. *trichocalyx*), but is degraded by the presence of non-native, weedy species such as Sahara mustard (*Brassica tournefortii*), redstem filaree, and barbed Mediterranean grass (*Schismus*

 Project Site
Vegetation Types and Other Areas
 California Walnut Grove
 Eucalyptus – Tree of Heaven – Black Locust Grove
 Disturbed Yerba Santa Scrub
 Herbaceous Semi-Natural Alliance
 Non-Native Forb – Grassland
 Disturbed

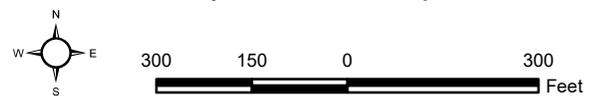


Aerial Source: Esri, DigitalGlobe 2017

Vegetation Types and Other Areas

Colton Community Soccer Park Project

Exhibit 5



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barbatus). This area contains trash and other debris. There is no named Alliance dominated by hairy yerba santa; however, it is a part of the *Lepidospartum squamatum* – *Eriodictyon trichocalyx* – *Hesperoyucca whipplei* Association (CNPS 2019); this Association is considered sensitive by CDFW (2018b).

3.1.4 Herbaceous Semi-Natural Alliance

The herbaceous semi-natural alliance is located in the lower elevations of the project site on the northeastern and southern portions. This vegetation type is characterized by the presence of low-growing, scattered, native herbs such as California croton (*Croton californica*), yellow pincushion (*Chaenactis glabriuscula*), cryptantha (*Cryptantha* sp.), common fiddleneck (*Amsinckia intermedia*), narrow-toothed pectocarya (*Pectocarya linearis* ssp. *ferocula*), and an annual buckwheat (*Eriogonum* sp.). A small amount of California buckwheat (*Eriogonum fasciculatum*) is also present. This vegetation type is degraded by an abundance of non-native, weedy species such as Sahara mustard, redstem filaree, red brome, and barbed Mediterranean grass. There is no Alliance or Association characterized by California croton or other native herbs on an alluvial terrace; however, this vegetation type contains species included in the *Bromus rubens* – *Erodium cicutarium* – *Chaenactis* spp. Association listed by CNPS (2019). This association is not considered sensitive by CDFW (2018b).

3.1.5 Non-Native Forb – Grassland

Non-native forb – grassland occurs throughout the central and northern portions of the project site. It is mostly located on elevated terraces and the associated slopes, but it also occurs in heavily disturbed lower terraces below the slopes. Generally, the vegetation type is dominated by a mix of non-native, weedy herbs and grasses. The vegetation on the elevated terraces and slopes contains a slightly different species composition than the ruderal/non-native grassland on the remainder of the project site. The higher terraced areas and associated slopes are dominated by a dense cover of non-native species including cheeseweed (*Malva parviflora*), Sahara mustard, wall barley, and riggut brome. The lower terraces closer to the drainage are more open with the vegetation having a lower stature and being predominantly comprised of redstem filaree, red brome, black mustard, and native weedy species including common fiddleneck and pygmy-weed (*Crassula connata*). The non-native forb – grassland onsite has a composition similar to various semi-natural herbaceous Alliances/Associations, including the *Bromus (diandrus, hordeaceus)* - *Brachypodium distachyon* Herbaceous Semi-natural Alliance and the *Brassica tournefortii* - *Malcolmia Africana* Provisional Herbaceous Semi-natural Alliance (CNPS 2019); these alliances are not considered sensitive by CDFW (2018b).

3.1.6 Disturbed

Disturbed areas consist of dirt roads and unvegetated trails; these areas contain less than one percent vegetation cover. These areas are not considered sensitive by CDFW (2018b).

3.2 WILDLIFE

The project site is comprised primarily of open habitats and provides suitable habitat for several wildlife species. Common wildlife species observed or expected to occur in the project site are discussed below.

3.2.1 Fish

No portion of the project site supports perennial or intermittent water and there are no ponded areas. Water flow on the project site is ephemeral; above-ground water is only present during storm events. Therefore, no suitable habitat for fish species is present on the project site.

3.2.2 Amphibians

Amphibians require moisture for at least a portion of their life cycle and most require standing or flowing water for reproduction. Some species are able to survive in dry areas by aestivating (i.e., remaining beneath the soil in burrows or under logs and leaf litter and emerging only when temperatures are low and humidity is high). Many of these species' habitats are associated with water and they emerge to breed once the rainy season begins. Soil moisture conditions can remain high throughout the year in some habitat types depending on factors such as the amount of vegetation cover, elevation, and slope aspect.

No amphibian species were detected during any of the field surveys. Amphibian surveys expected to occur include the western toad (*Anaxyrus boreas*).

3.2.3 Reptiles

Reptilian diversity and abundance typically vary with vegetation type and character. Many species prefer only one or two vegetation types; however, most species will forage in a variety of habitats. Most species occurring in open areas use rodent burrows for cover, protection from predators, and refuge during extreme weather conditions.

The only reptile species observed on the project site was the side-blotched lizard (*Uta stansburiana*). Other reptile species that may occur in all vegetation types on the project site include western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinata*), San Diego gopher snake (*Pituophis catenifer annectens*), red racer (*Masticophis flagellum piceus*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*).

3.2.4 Birds

A variety of bird species are expected to be residents on the project site, using the habitats throughout the year. Other species are present only during certain seasons. For example, the white-crowned sparrow (*Zonotrichia leucophrys*) is expected to occur on the project site during the winter season and then migrate north in the spring to breed during the summer. Common bird species observed during the surveys include mourning dove (*Zenaidura macroura*), greater roadrunner (*Geococcyx californianus*), killdeer (*Charadrius vociferus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), Cassin's kingbird (*Tyrannus vociferans*), California scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), Bewick's wren (*Thryomanes bewickii*), cliff swallow (*Petrochelidon pyrrhonota*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), Bullock's oriole (*Icterus bullockii*), California towhee (*Melospiza crissalis*), lark sparrow (*Chondestes grammacus*), savannah sparrow (*Passerculus sandwichensis*), white-crowned sparrow, and yellow-rumped warbler (*Setophaga coronata*). Raptors observed on the project site include red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), and great horned owl (*Bubo virginianus*). The red-tailed hawk, red-shouldered hawk, and American kestrel may nest on the project site. An active great horned owl nest was observed in a eucalyptus tree west of the project site.

3.2.5 Mammals

Small mammals or their sign observed in during the surveys include California ground squirrel (*Otospermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). Other common small mammals that may occur on the project site include cactus mouse (*Peromyscus eremicus*), and deer mouse (*Peromyscus maniculatus*). Pocket mouse (*Chaetodipus* sp.) burrows were also

observed onsite during the surveys. Medium to large-sized mammals observed include black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*). Bat species expected to forage across the project site include canyon bat (*Parastrellus hesperus*), western mastiff bat (*Eumops perotis californicus*), and Mexican free-tailed bat (*Tadarida brasiliensis*).

3.2.6 Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing routes for wildlife to escape from fire, predators and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources (Noss 1983; Fahrig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (e.g., foraging for food or water, defending territories or searching for mates, breeding areas, or cover). A number of terms such as “wildlife corridor”, “travel route”, “habitat linkage”, and “wildlife crossing” have been used in various wildlife movement studies to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and to facilitate the discussion on wildlife movement in this analysis, these terms are defined as follows:

- **Travel Route** – a landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and to provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and it provides a relatively direct link between target habitat areas.
- **Wildlife Corridor** – a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bound by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and to facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat linkages” or “landscape linkages”) can provide both transitory and resident habitat for a variety of species.
- **Wildlife Crossing** – a small, narrow area, relatively short in length and generally constricted in nature that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are man-made and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent

“choke points” along a movement corridor, which may impede wildlife movement and increase the risk of predation.

It is important to note that, in a large open space area where there are few or no man-made or naturally occurring physical constraints to wildlife movement, wildlife corridors (as defined above) may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and to provide a variety of travel routes (e.g., canyons, ridgelines, trails, riverbeds, and others), wildlife will use these “local” routes while searching for food, water, shelter, and mates and will not need to cross into other large open space areas. Based on their size, location, vegetative composition and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water and cover, particularly for small- and medium-sized animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles (such as roads and highways), the remaining landscape features or travel routes that connect the larger open space areas become corridors as long as they provide adequate space, cover, food and water, and do not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement.

In general, animals discussed within the context of movement corridors typically include larger, more mobile species (such as mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), mountain lion (*Puma concolor*), fox [*Urocyon* sp.], and coyote). Most of these species have relatively large home ranges through which they move to find adequate food, water, and breeding and wintering habitat. It is assumed that corridors that serve larger, more vagile species (those that can move freely, such as birds) also serve as corridors for many smaller, less mobile species, such as reptiles, amphibians, and rodents (generally discussed within the context of local movement). For smaller species, these local movements are compared to “stepping stones” as individuals move between populations; this facilitated gene flow on the regional scale.

The availability of open space corridors is generally considered less important for bird species. Most bird species are believed to fly in more or less direct paths to desired locations; however, some habitat-specific species may not move great distances from their preferred habitat types and are believed to be less inclined to travel across unsuitable areas.

Ideally, an open space corridor should encompass a heterogeneous mix of vegetation types to accommodate the ecological requirements of a wide variety of resident species in any particular region. Most species typically prefer adequate vegetation cover during movement, which can serve as both a food source and as protection from weather and predators. Drainages, riparian areas, and forested canyon bottoms typically serve as natural movement corridors because these features provide cover, food, and often water for a variety of species. Very few species will move across large expanses of open habitat (i.e., lacking vegetation cover) unless it is the only option available to them. For some species, landscape linkages must be able to support animals for sustained periods, not just for travel. Smaller or less mobile animals (such as rodents and reptiles) require long periods to traverse a corridor, so the corridor must contain adequate food and cover for survival.

The Santa Ana River extends from the San Bernardino Mountains to the Pacific Ocean and is considered a regional wildlife movement corridor. The project site is also located approximately 0.5-mile downstream from the confluence of Cajon Wash with the Santa Ana River; Cajon Wash provides a corridor through the San Bernardino Mountains. The width of the Santa Ana River and the adjacent, vegetated floodplains narrows and widens throughout Riverside and San Bernardino Counties; the project site is located in a wider portion of the river with undeveloped terraces adjacent to the Santa Ana River floodplain.

3.3 SPECIAL STATUS BIOLOGICAL RESOURCES

The following section addresses special status biological resources reported from the region. These resources include plant and wildlife species that have been afforded special status and/or are recognized by federal and State resource agencies, as well as private conservation organizations. In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss. This list includes species reported by the CNDDDB, and CNPS and is supplemented with species from the author's experience that could occur based on the presence of suitable habitat. In addition, special status biological resources include vegetation types and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs. Sources used to determine the special status of biological resources are listed below.

- **Habitats** – CNDDDB (CDFW 2019) and CDFW's *California Natural Communities List* (CDFW 2018b).
- **Plants** – Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019); CNDDDB (CDFW 2019); various USFWS *Federal Register* notices regarding listing status of plant species; CDFW's *Special Vascular Plants, Bryophytes and Lichens List* (CDFW 2019b).
- **Wildlife** – CNDDDB (CDFW 2019); various USFWS *Federal Register* notices regarding listing status of wildlife species; and CDFW's *List of Special Animals* (CDFW 2018a).

3.3.1 Special Status Vegetation Types

In addition to providing an inventory of special status plant and wildlife species, the CNDDDB also provides an inventory of vegetation types that are considered special status by the State and federal resource agencies, academic institutions, and various conservation groups (such as the CNPS). Determination of the level of imperilment is based on the NatureServe Heritage Program Status Ranks that rank both species and vegetation types on a global (**G**) and statewide (**S**) basis according to their rarity; trend in population size or area; and recognized threats (e.g., proposed developments, habitat degradation, and non-native species invasion). The ranks are scaled from 1 to 5. NatureServe considers **G1 or S1** communities to be critically imperiled and at a very high risk of extinction or elimination due to extreme rarity, very steep declines, or other factors; **G2 or S2** communities to be imperiled and at high risk of extinction or elimination due to very restricted range, very few populations or occurrences, steep declines, or other factors; **G3 or S3** communities to be vulnerable and at moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors; **G4 or S4** communities to be apparently secure and uncommon but not rare with some cause for long-term concern due to declines or other factors; and **G5 or S5** communities to be secure (Faber-Langendoen et al. 2009).

All vegetation alliances² that have State ranks of S1 to S3 are considered to be highly imperiled. Currently, association ranks are not provided, but associations ranked as S3 or rarer are noted. Two of the vegetation types on the project site are considered special status: California walnut grove and disturbed yerba santa scrub (Table 3).

² A vegetation alliance is "a classification unit of vegetation, containing one or more associations and defined by one or more diagnostic species, often of high cover, in the uppermost layer or the layer with the highest canopy cover" (Sawyer et al. 2009).

**TABLE 3
VEGETATION TYPES THREAT RANKINGS**

Vegetation Types	Threat Ranking
California walnut grove	G3, S3
Eucalyptus – tree of heaven – black locust grove	–
Disturbed yerba santa scrub	G3, S3
Herbaceous semi-natural alliance	–
Non-native forb – grassland	–

3.3.2 Definitions of Special Status Biological Resources

A federally Endangered species is one facing extinction throughout all or a significant portion of its geographic range. A federally Threatened species is one likely to become Endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally Threatened or Endangered species within a project impact area generally imposes severe constraints on development, particularly if a project would result in “take” of the species or its habitat. The FESA defines the term “take” as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm, in this sense, can include any disturbance of habitats used by the species during any portion of its life history.

Proposed species or Candidate species are those officially proposed by the USFWS for addition to the federal Threatened and Endangered species list. Because proposed species may soon be listed as Threatened or Endangered, the presence of a Proposed or Candidate species may impose constraints on development if they are listed prior to project implementation, particularly if the project would result in “take” of the species or its habitat.

The State of California considers an Endangered species as one whose prospects of survival and reproduction are in immediate jeopardy; a Threatened species as one present in such small numbers throughout its range that it is likely to become an Endangered species in the near future in the absence of special protection or management; and a Rare species as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. Rare species applies only to California native plants; these species are treated as State-listed species. State-listed Threatened and Endangered species are fully protected against take unless an Incidental Take Permit is obtained from the resource agencies. The presence of any State-listed Rare, Threatened, or Endangered species generally imposes constraints on project development, particularly if the project would result in “take” of the species or its habitat.

California Species of Special Concern is an informal designation used by the CDFW for some declining wildlife species that are not yet State Candidates. This designation does not provide legal protection but signifies that these species are being tracked by CDFW.

Species that are California Fully Protected and Protected include those protected by special legislation for various reasons, such as the mountain lion and white-tailed kite (*Elanus leucurus*). Fully Protected species may not be taken or possessed at any time. California Protected species may not be taken or possessed at any time except under special permit from CDFW issued pursuant to the *California Code of Regulations* (Title 14, Sections 650, 670.7) or Section 2081 of the *California Fish and Game Code*.

The California Rare Plant Rank (CRPR), formerly known as CNPS List, is a ranking system by the Rare Plant Status Review group³ and managed by the CNPS and the CDFW. A CRPR summarizes information on the distribution, rarity, and endangerment of California's vascular plants. Plants with a CRPR of 1A are presumed extinct in California because they have not been seen in the wild for many years. Plants with a CRPR of 1B are rare, threatened, or endangered throughout their range. Plants with a CRPR of 2A are presumed extirpated from California but are more common elsewhere. Plants with a CRPR of 2B are considered rare, threatened, or endangered in California, but are more common elsewhere. Plants with a CRPR of 3 require more information before they can be assigned to another rank or rejected; this is a "review" list. Plants with a CRPR of 4 are of limited distribution or infrequent throughout a broader area in California; this is a "watch" list. The Threat Rank is an extension added onto the CRPR to designate the level of endangerment by a 1 to 3 ranking. An extension of .1 is assigned to plants that are considered to be "seriously threatened" in California (i.e., over 80 percent of the occurrences are threatened or having a high degree and immediacy of threat). Extension .2 indicates the plant is "fairly threatened" in California (i.e., between 20 and 80 percent of the occurrences are threatened or have a moderate degree and immediacy of threat). Extension .3 is assigned to plants that are considered "not very threatened" in California (i.e., less than 20 percent of occurrences are threatened or have a low degree and immediacy of threat or no current threats known). The absence of a threat code extension indicates plants lacking any threat information.

3.3.3 Special Status Plant Species

Many special status plant species have been reported from the project region (i.e., within 10 miles of the project site, Table 4). Note that species are grouped alphabetically according to their scientific name. This list includes species reported by the CNDDB and CNPS, supplemented with species from the project Biologist's experience that either occur nearby or could occur based on the presence of suitable habitat. Two species were observed during the 2019 focused Santa Ana River woollystar surveys (Table 4, Exhibit 6).

³ A group of over 300 botanical experts from the government, academia, non-governmental organizations, and the private sector.

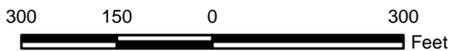
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Special Status Plant Locations

Colton Community Soccer Park Project

Exhibit 6



**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	–	–	1B.1	Chaparral, coastal scrub, desert dunes	Not expected to occur; outside current known range.
<i>Ambrosia monogyra</i>	singlewhorl burrobrush	–	–	2B.2	Chaparral, Sonoran desert scrub, washes, dry riverbeds	Low potential to occur; suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types; records in the region are historic.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE	–	1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools	Not expected to occur; outside current known range.
<i>Arenaria paludicola</i>	marsh sandwort	FE	SE	1B.1	Marshes and swamps (freshwater or brackish)	Not expected to occur; no suitable habitat.
<i>Artemisia palmeri</i>	San Diego sagewort	–	–	4.2	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland	Not expected to occur; outside current known range.
<i>Asplenium vesperinum</i>	western spleenwort	–	–	4.2	Chaparral, cismontane woodland, coastal scrub	Not expected to occur; no suitable habitat.
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch	–	–	1B.1	Meadows and seeps, playas	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Astragalus insularis</i> var. <i>harwoodii</i>	Harwood's milk-vetch	–	–	2B.2	Desert dunes, Mohavean desert scrub	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Berberis nevini</i>	Nevin's barberry	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub	Not expected to occur; this species is visible year-round and would have been observed if present.
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT	SE	1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools	Not expected to occur; no suitable habitat.
<i>Calochortus catalinae</i>	Catalina mariposa lily	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	Not expected to occur; no suitable habitat.
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa lily	–	–	1B.2	Chaparral, lower montane coniferous forest, meadows and seeps	Not expected to occur; no suitable habitat.

**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland	Not expected to occur; no suitable habitat.
<i>Carex comosa</i>	bristly sedge	–	–	2B.1	Coastal prairie, marshes and swamps (lake margins), valley and foothill grassland	Not expected to occur; outside current known range.
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's-clover	–	–	1B.2	Chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland, upper montane coniferous forest	Not expected to occur; outside current known range.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	–	–	1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland, waterway banks and beds, disturbed sites	Moderate potential to occur; suitable habitat on the project site.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	FE	SE	1B.2	Coastal dunes, marshes and swamps (coastal salt)	Not expected to occur; no suitable habitat.
<i>Chorizanthe leptotheca</i>	Peninsular spineflower	–	–	4.2	Valley and foothill grassland, vernal pools (alkaline)	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	–	–	1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	Low potential to occur; marginally suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	–	–	1B.2	Coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland	Not expected to occur; outside current known range.
<i>Convolvulus simulans</i>	small-flowered morning-glory	–	–	4.2	Clay or serpentine soils in chaparral (openings), coastal scrub, valley and foothill grassland	Not expected to occur; no suitable habitat; outside current known range.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	–	–	2B.2	Marshes and swamps (freshwater)	Not expected to occur; no suitable habitat; outside current known range.
<i>Cylindropuntia californica</i> var. <i>californica</i>	snake cholla	–	–	1B.1	Chaparral, coastal scrub	Not expected to occur; no suitable habitat; species is visible year-round and would have been observed if present.

**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Deinandra paniculata</i>	paniculate tarplant	–	–	4.2	Coastal scrub, valley and foothill grassland, vernal pools, disturbed areas	Moderate potential to occur; suitable habitat on the project site.
<i>Dodecahema leptoceras</i>	slender-horned spineflower	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan)	Low potential to occur; suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types but not observed during focused Santa Ana River woollystar survey.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	FE	SE	1B.1	Chaparral, coastal scrub (alluvial fan)	Observed on the project site. Twenty-nine individuals occur onsite.
<i>Euphorbia abramsiana</i>	Abrams' spurge	–	–	2B.2	Mojavean desert scrub, Sonoran desert scrub	Not expected to occur; no suitable habitat; outside current known range.
<i>Fimbristylis thermalis</i>	hot springs fimbristylis	–	–	2B.2	Meadows and seeps (alkaline, near hot springs)	Not expected to occur; no suitable habitat; outside current known range.
<i>Frasera neglecta</i>	pine green-gentian	–	–	4.3	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest	Not expected to occur; no suitable habitat; outside current known range.
<i>Galium californicum</i> ssp. <i>primum</i>	Alvin Meadow bedstraw	–	–	1B.2	Chaparral, lower montane coniferous forest	Not expected to occur; no suitable habitat; outside current known range.
<i>Galium johnstonii</i>	Johnston's bedstraw	–	–	4.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland	Not expected to occur; no suitable habitat; outside current known range.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	–	–	1A	Marshes and swamps (coastal salt and freshwater)	Not expected to occur; no suitable habitat; considered extirpated.
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	–	–	1B.1	Chaparral (maritime), cismontane woodland, coastal scrub	Low potential to occur; marginally suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types.
<i>Imperata brevifolia</i>	California satintail	–	–	2B.1	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), riparian scrub, streambanks, floodplains	Low potential to occur; marginally suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types.
<i>Juglans californica</i>	Southern California black walnut	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland	Observed on the project site. Thirteen saplings and one felled tree observed onsite.

**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Juncus duranii</i>	Duran's rush	–	–	4.3	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest	Not expected to occur; no suitable habitat.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	–	–	1B.1	Marshes and swamps (coastal salt), playas, vernal pools	Not expected to occur; no suitable habitat; outside current known range.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	–	–	4.3	Chaparral, coastal scrub	Moderate potential to occur; suitable habitat on the project site.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	ocellated Humboldt lily	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland	Not expected to occur; no suitable habitat; outside current known range.
<i>Lilium parryi</i>	lemon lily	–	–	1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest	Not expected to occur; no suitable habitat; outside current known range.
<i>Lycium parishii</i>	Parish's desert-thorn	–	–	2B.3	Coastal scrub, Sonoran desert scrub	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Malacothamnus parishii</i>	Parish's bush-mallow	–	–	1A	Chaparral, coastal scrub	Not expected to occur; no suitable habitat; considered extirpated.
<i>Monardella pringlei</i>	Pringle's monardella	–	–	1A	Coastal scrub (sandy)	Not expected to occur; no suitable habitat; considered extirpated.
<i>Monardella saxicola</i>	rock monardella	–	–	4.2	Closed-cone coniferous forest, chaparral, lower montane coniferous forest	Not expected to occur; no suitable habitat; outside current known range.
<i>Muhlenbergia californica</i>	California muhly	–	–	4.3	Chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mouse-tail	–	–	3.1	Valley and foothill grassland, vernal pools (alkaline)	Not expected to occur; no suitable habitat; outside current known range.
<i>Nasturtium gambelii</i>	Gambel's water cress	FE	ST	1B.1	Marshes and swamps (freshwater or brackish)	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	–	–	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland	Not expected to occur; no suitable habitat; outside current known range.
<i>Panicum hirticaule</i> ssp. <i>hirticaule</i>	roughstalk witch grass	–	–	2B.1	Desert dunes, Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub	Not expected to occur; no suitable habitat; outside current known range.

**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Phacelia stellaris</i>	Brand's star phacelia	–	–	1B.1	Coastal dunes, coastal scrub	Low potential to occur; marginally suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types.
<i>Pickeringia montana</i> var. <i>tomentosa</i>	woolly chaparral-pea	–	–	4.3	Chaparral	Not expected to occur; no suitable habitat; outside current known range.
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	–	–	1A	Riparian woodland	Not expected to occur; no suitable habitat; considered extirpated.
<i>Romneya coulteri</i>	Coulter's matilija poppy	–	–	4.2	Chaparral, coastal scrub	Not expected to occur; no suitable habitat; species is visible year-round and would have been observed if present.
<i>Schoenus nigricans</i>	black bog-rush	–	–	2B.2	Marshes and swamps (often alkaline)	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Senecio aphanactis</i>	chaparral ragwort	–	–	2B.2	Chaparral, cismontane woodland, coastal scrub	Not expected to occur; no suitable habitat.
<i>Senecio astephanus</i>	San Gabriel ragwort	–	–	4.3	Coastal bluff scrub, chaparral	Not expected to occur; no suitable habitat.
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	–	–	2B.2	Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas	Not expected to occur; no suitable habitat; records in the region are historic.
<i>Sphenopholis obtusata</i>	prairie wedge grass	–	–	2B.2	Cismontane woodland, meadows and seeps, streambanks	Low potential to occur; suitable habitat in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types; records in the region are historic.
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	–	–	4.3	Chaparral, lower montane coniferous forest	Not expected to occur; no suitable habitat; outside current known range.
<i>Streptanthus campestris</i>	southern jewelflower	–	–	1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland	Not expected to occur; no suitable habitat; outside current known range.
<i>Symphotrichum defoliatum</i>	San Bernardino aster	–	–	1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic), disturbed areas	Low potential to occur; marginally suitable habitat on the project site; records in the region are historic.

**TABLE 4
SPECIAL STATUS PLANT SPECIES REPORTED TO OCCUR IN THE PROJECT AREA**

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat	Potential to Occur
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Sonoran maiden fern	–	–	2B.2	Meadows and seeps (seeps and streams)	Not expected to occur; no suitable habitat; outside current known range.
<p>USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank</p> <p>Federal (USFWS) State (CDFW) FE Endangered SE Endangered FT Threatened ST Threatened</p> <p>CRPR 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 3 Plants about which we need more information - review list 4 Plants of limited distribution - watch list</p> <p>CRPR Threat Code Extension None Plants lacking any threat information .1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat) .2 Moderately threatened in California (20–80% of occurrences threatened; moderate degree and immediacy of threat) .3 Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)</p>						

3.3.4 Special Status Wildlife

Many special status wildlife species have been reported from the project region (i.e., within 10 miles of the project site, Table 5). This list includes species reported by the CNDDDB, supplemented with species from the project Biologist's experience that either occur nearby or could occur based on the presence of suitable habitat.

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence
Invertebrates				
<i>Rhaphiomidas terminatus abdominalis</i> Delhi sands flower-loving fly	Habitat is limited to areas that include Delhi fine sand, an aeolian (wind-deposited) soil type. Typically found in habitat with a variety of native shrubby plants including California buckwheat, California croton, deerweed (<i>Acmispon glaber</i>), and telegraph weed (<i>Heterotheca grandiflora</i>).	FE	–	Not expected to occur; no suitable habitat (Delhi fine sands/ aeolian sand). The sandy soils located on the project site are alluvial rather than the aeolian required by the species.
<i>Euphydryas editha quino</i> Quino checkerspot	Found in southwestern Riverside and north-central San Diego counties. Occurs in patchy shrub or small tree landscapes with openings of several feet between large plants, or a landscape of open swales alternating with dense patches of shrubs; habitat often called scrublands.	FE	–	Not expected to occur; outside of species range.
Fish				
<i>Gila orcuttii</i> arroyo chub	Occurs in coastal freshwater streams and rivers with sustained flows and emergent vegetation with substrates consisting primarily of sand or mud.	–	SSC	Not expected to occur; no suitable habitat (no water).
<i>Rhinichthys osculus</i> ssp. 3 Santa Ana speckled dace	Occurs in perennial streams with riffle habitats in clean, rocky-bottomed streams and rivers.	–	SSC	Not expected to occur; no suitable habitat (no water).
<i>Catostomus santaanae</i> Santa Ana sucker	Occurs in shallow streams with flows that run from slow to swift. Stream substrates consist of boulders, gravel, and cobble.	FT	–	Not expected to occur; no suitable habitat (no water) .
<i>Oncorhynchus mykiss irideus</i> pop. 10 steelhead – southern California DPS	Occurs perennial streams and rivers that connect to the ocean.	FE	–	Not expected to occur; no suitable habitat (no water) .
Amphibians				
<i>Rana muscosa</i> Southern Mountain yellow-legged frog	Occurs in small, isolated populations in the San Gabriel, San Bernardino, and San Jacinto Mountains in narrow, rock-walled rivers, perennial creeks, and permanent plunge pools with intermittent creeks and pools in montane riparian and/or chaparral between 1,200 and 7,500 feet above msl.	FE	SE	Not expected to occur; no suitable habitat (no water); outside of elevational range.
<i>Spea hammondi</i> western spadefoot	Occurs in a wide range of habitats; lowlands to foothills, grasslands, open chaparral, pine-oak woodlands. It prefers shortgrass plains, sandy or gravelly soil (e.g., alkali flats, washes, alluvial fans). It is fossorial and breeds in temporary rain pools and slow-moving streams (e.g., areas flooded by intermittent streams).	–	SSC	Not expected to occur; no suitable habitat on or in the greater vicinity of the site (no breeding pools).

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence
Reptiles				
<i>Phrynosoma blainvillii</i> coast horned lizard	Occurs in scrubland, grassland, coniferous forests, and broadleaf woodland vegetation types.	–	SSC	Observed; suitable habitat; observed on the project site during previous survey efforts (Dodson 2009).
<i>Aspidoscelis tigris stejnegeri</i> San Diegan tiger whiptail	Occurs in hot and dry areas with sparse foliage and open areas. Found in forests, woodland, chaparral, and riparian areas.	–	SSC	May occur; suitable habitat; not observed during previous or current surveys.
<i>Anniella</i> sp. California legless lizard	Requires areas with loose sandy soil, moisture, warmth, and plant cover, including leaf litter. Occurs in coastal dune, valley-foothill, chaparral, and coastal scrub types at elevations between sea level and approximately 6,000 feet.	–	SSC	Expected to occur; suitable habitat; recently observed immediately adjacent to the project site (CNDDDB 2019).
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	Occurs in coastal and cismontane southern California south of interior Ventura County, although absent from the coast. Uncommon in coastal scrub and chaparral, most often occurring in granite or rocky outcrops in these habitats.	–	SSC	Not expected to occur; no suitable habitat.
<i>Crotalus ruber</i> red-diamond rattlesnake	Occurs from the desert, through dense chaparral in the foothills to warm inland mesas and valleys to the ocean shore. Most commonly associated with heavy brush with large rocks or boulders.	–	SSC	Limited potential to occur; marginally suitable habitat.
<i>Arizona elegans occidentalis</i> California glossy snake	Occurs most commonly in desert habitats but also occurs in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grass, elevation from below sea level to 7,000 feet. Prefers open sandy areas with scattered brush, but also found in rocky areas.	–	SSC	May occur; suitable habitat; previously recorded within 5 miles (CNDDDB 2019).
<i>Charina umbratica</i> southern rubber boa	Inhabits oak-conifer and mixed-conifer forests at elevations between approximately 5,000 to 8,200 feet above msl where rocks and logs or other debris provide shelter.	–	ST	Not expected to occur; outside elevational range.
<i>Thamnophis hammondi</i> two-striped garter snake	Occurs in wetlands, freshwater marsh, and riparian habitats with perennial water.	–	SSC	Not expected to occur; no suitable habitat (no water or riparian habitats).

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence
Birds				
<i>Buteo swainsoni</i> Swainson's hawk	Forages in savanna, open pine-oak woodland, and agricultural lands with scattered trees.	–	ST	Not expected to occur for nesting; outside current range for nesting; may occur for foraging as a migrant.
<i>Laterallus jamaicensis coturniculus</i> California black rail	Occurs most commonly in tidal emergent wetlands dominated by pickleweed (<i>Salicornia</i> spp.), or in brackish marshes supporting bulrushes (<i>Scirpus</i> or <i>Schoenoplectus</i> spp.) in association with pickleweed. In freshwater, usually found in bulrushes, cattails (<i>Typha</i> spp.), and saltgrass (<i>Distichlis spicata</i>)	–	ST/FP	Not expected to occur; no suitable habitat; outside current range.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo (nesting)	Uncommon to rare summer resident of valley foothill and desert riparian habitats in scattered locations in California. Requires broad areas of old-growth riparian habitats dominated by willows (<i>Salix</i> spp.) and cottonwoods (<i>Populus</i> spp.) with dense understory vegetation.	FT	SE	Not expected to occur; no suitable habitat.
<i>Athene cunicularia</i> burrowing owl	Occurs in grasslands and prefers flat to low, rolling hills in treeless terrain. Nests in burrows, typically in open habitats, most often along banks and roadsides.	–	SSC	Not expected to occur; not observed during 2019 focused surveys; suitable habitat.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	Occurs in riparian habitats along rivers, streams, or other wetlands where dense growth of willows, mule fat (<i>Baccharis salicifolia</i>), arrow-weed (<i>Pluchea sericea</i>), tamarisk (<i>Tamarix</i> sp.), or other plants are present, often with a scattered overstory of cottonwood	FE	SE	Not expected to occur; no suitable habitat (riparian woodland). Project site is within designated Critical Habitat, Santa Ana Management Unit [middle segment], which is designated as a migratory corridor for the species (USFWS 2013).
<i>Poliioptila californica californica</i> coastal California gnatcatcher	In California, this species is an obligate resident of several distinct sub-associations of the coastal sage scrub vegetation type. The gnatcatcher has been recorded from sea level to approximately 3,000 feet above msl (USFWS 2003); however, greater than 90 percent of gnatcatcher records are from between sea level and 820 feet above msl along the coast and between sea level and 1,800 feet above msl inland (Atwood and Bolsinger 1992).	FT	SSC	Not expected to occur; no suitable habitat.
<i>Lanius ludovicianus</i> loggerhead shrike (nesting)	Occurs in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground.	–	SSC	May occur; suitable habitat.
<i>Vireo bellii pusillus</i> least Bell's vireo (nesting)	Riparian habitats dominated by willows with dense understory vegetation between sea level and 1,500 feet above msl.	FE	SE	Not expected to occur; no suitable habitat.
<i>Setophaga petechia</i> yellow warbler	Riparian habitats dominated by willows with dense understory vegetation between sea level and 9,000 feet above msl.	–	SSC	Not expected to occur; no suitable habitat.

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence
<i>Icteria virens</i> yellow-breasted chat	For nesting, this species requires dense, brushy tangles near water and riparian woodlands that support a thick understory.	–	SSC	Not expected to occur; no suitable habitat.
<i>Agelaius tricolor</i> tricolored blackbird (nesting)	This colonial nesting species prefers to breed in freshwater marshes dominated by cattails and bulrushes, with willows and nettles (<i>Urtica</i> spp.) also common. The introduced mustards (<i>Brassica</i> spp.), blackberries (<i>Rubus</i> spp.), thistles (<i>Cirsium</i> spp.), and mallows (<i>Malva</i> spp.) have also been used for several decades.	–	ST, SSC	Not expected to occur; no suitable habitat.
Mammals				
<i>Antrozous pallidus</i> pallid bat	Occurs in grasslands, shrublands, and woodlands and in open habitats with rocky areas or man-made structures for roosting. Species can also roost in caves and trees. Species typically forages in rural or undeveloped, natural areas and is mostly absent in urban and suburban areas.	–	SSC	Limited potential to occur; marginally suitable foraging habitat; marginally suitable roosting habitat in large ornamental trees onsite and in vicinity.
<i>Lasiurus xanthinus</i> western yellow bat	Tree-roosting species most commonly found roosting in groves of palm trees with skirts of dead fronds. Also documented roosting in large cottonwood trees. Found in the arid environment of the southwestern U.S., the Mexican Plateau, and coastal western Mexico.	–	SSC	May occur; marginally suitable roosting habitat (trees); previously recorded within 5 miles (CNDDDB 2019).
<i>Eumops perotis californicus</i> western mastiff bat	Occurs in many open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, palm oases, chaparral, desert scrub, and urban areas. Typically forages in open areas with high cliffs and roosts in crevices on cliff faces and occasionally in man-made structures with at least 15 feet of unobstructed space below roost.	–	SSC	May occur for foraging; suitable foraging habitat; not expected to occur for roosting; no suitable roosting habitat.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	Occurs in Riverside, San Diego, and Imperial counties. Rare in California but more common in Mexico. Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Typically forages in open areas with high cliffs and roosts in crevices on cliff faces and occasionally in man-made structures with at least 15 feet of unobstructed space below roost.	–	SSC	May occur for foraging; suitable foraging habitat; not expected to occur for roosting; no suitable roosting habitat.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Occurs in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats.	–	SSC	Observed; suitable habitat; observed during 2019 focused surveys.

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence
<i>Taxidea taxus</i> American badger	Most abundant in the drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. When inactive, occupies underground burrow.	–	SSC	May occur; suitable habitat; recorded within 5 miles (CNDDDB 2019).
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	Found in southern deserts. Preferred habitats include desert riparian, desert scrub, desert wash, coastal scrub, and sagebrush. Elevations range from sea level to 5,600 ft.	–	SSC	Observed; suitable habitat; previously observed on the project site during trapping survey (Dodson 2009).
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	Common to abundant in Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats. Also found in a variety of other habitats. Most abundant in rocky areas with Joshua trees. Elevational range from sea level to 8,500 ft. Northern and elevational distribution may be limited by temperature.	–	SSC	Limited potential to occur; marginally suitable habitat .
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 4,600-foot elevation. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	–	SSC	Observed; suitable habitat; previously observed on the project site during trapping survey (Dodson 2009).
<i>Onychomys torridus</i> southern grasshopper mouse	Common in arid desert habitats of the Mojave Desert and southern Central Valley of California. Alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert habitats, including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats.	–	SSC	Observed; suitable habitat; previously observed on the project site during trapping survey (Dodson 2009).
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	Occurs primarily in annual and perennial grassland habitats but may occur in coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas. Preferred perennials are buckwheat and chamise (<i>Adenostoma fasciculatum</i>); preferred annuals are brome grass (<i>Bromus</i> spp.) and filaree (<i>Erodium</i> spp.).	FE	ST	Limited potential to occur; marginally suitable habitat; project site is located at the northern limit of the species' range.

**TABLE 5
SPECIAL STATUS WILDLIFE SPECIES REPORTED FROM THE PROJECT AREA**

Species	General Habitat/Range Description	USFWS	CDFW	Potential for Occurrence												
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	Primarily occurs in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidean upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidean alluvial fan sage scrub habitats. Tends to avoid rocky substrates; prefers sandy loam substrates for digging of shallow burrows.	FE	SSC	Limited potential to occur; marginally suitable habitat; previous trapping surveys on the project site determined the species to be absent (Dodson 2009).												
<p>USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; USFS: U.S. Forest Service; msl: mean sea level</p> <p>Status Definitions</p> <table> <tr> <td>Federal (USFWS) Status</td> <td>State (CDFW) Status</td> </tr> <tr> <td>FE Endangered</td> <td>SE Endangered</td> </tr> <tr> <td>FT Threatened</td> <td>ST Threatened</td> </tr> <tr> <td>FC Candidate</td> <td>SCE Candidate Endangered</td> </tr> <tr> <td></td> <td>SSC Species of Special Concern</td> </tr> <tr> <td></td> <td>FP California Fully Protected</td> </tr> </table> <p>Notes: Scientific and common names for wildlife species follow the most current list of Special Animals (April 2019) available from the CDFW (https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals).</p>					Federal (USFWS) Status	State (CDFW) Status	FE Endangered	SE Endangered	FT Threatened	ST Threatened	FC Candidate	SCE Candidate Endangered		SSC Species of Special Concern		FP California Fully Protected
Federal (USFWS) Status	State (CDFW) Status															
FE Endangered	SE Endangered															
FT Threatened	ST Threatened															
FC Candidate	SCE Candidate Endangered															
	SSC Species of Special Concern															
	FP California Fully Protected															

3.3.5 Critical Habitat

The project site is located within federally-designated Critical Habitat for southwestern willow flycatcher (Exhibit 7). The project site is specifically located in the middle segment of the Santa Ana Management Unit. One of the goals for this section of Critical Habitat is gene connectivity, i.e. maintaining an open corridor to connect the occupied habitats across the Santa Ana River. The project site does not support any of the primary constituent elements necessary for habitat suitable for the southwestern willow flycatcher and the species is not expected to utilize the project site for nesting or foraging.

3.3.6 Jurisdictional Resources

Riparian habitats are often under the jurisdiction of the USACE, the RWQCB, and/or the CDFW due to their association with wetlands, “waters of the U.S.”, or streambeds. However, it should be noted that the riparian habitats described above are not equivalent to delineated areas subject to the jurisdiction of the USACE, RWQCB, and/or CDFW. Only the portion of these habitats associated within a discernible streambed and/or adjacent wetlands that meet certain criteria are within the jurisdiction of these regulatory agencies. Similarly, upland vegetation types (e.g., non-native grassland/ruderal) or disturbed and developed areas may be within the jurisdiction of these agencies if they occur within a discernible streambed.

The project site is located on a historic floodplain of the Santa Ana River. The project site is hydrologically separated from the river by an earthen flood control berm or levee. During the 2019 jurisdictional assessment conducted by Psomas, two jurisdictional features were identified (Exhibit 8).

Feature 1 is located along the southwestern boundary of the project site. It originates along the western boundary of the project site and then flows along a dirt road until it connects to an upland swale south of the project site and terminates without further connection to the Santa Ana River. Feature 1 appears to be an isolated water; therefore, it is likely under RWQCB jurisdiction but not USACE jurisdiction. It is also likely jurisdictional pursuant to Section 1602 of the *California Fish and Game Code*. Feature 1 is within a portion of the project site.

Feature 2 is located along the eastern boundary of the project site. It originates northeast of the project site and flows along the southeastern boundary of the project site. It continues and connects with the Santa Ana River, which is a Traditional Navigable Water, south of the project site. The 2017 Jurisdictional Delineation identified Feature 2 as a “water of the U.S.” (West 2017). It is also jurisdictional pursuant to Section 1602 of the *California Fish and Game Code*. Feature 2 is immediately adjacent to the project site boundaries and now partially extends onto the project site.

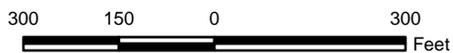
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Critical Habitat

Colton Community Soccer Park Project

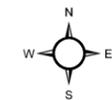
Exhibit 7



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-  Project Boundary
-  Jurisdictional Feature
-  Jurisdictional Feature Centerline



Aerial Source: Esri, DigitalGlobe 2018

Jurisdictional Features Exhibit 8
Colton Community Soccer Park Project



(Rev: 07/03/2019 MMD) R:\Projects\COL\3COL020100\Graphics\Biotechlex_Juris_Features.pdf

4.0 **PROJECT IMPACTS**

4.1 **INTRODUCTION**

This section presents a general impact analysis of the project. The determination of impacts in this analysis is based on a comparison of maps depicting project boundaries and maps of biological resources on the project site and in the vicinity (Exhibit 6). Impacts on biological resources can be permanent or temporary. Temporary impact areas may provide construction access for equipment, staging of equipment, stockpiles of soil, and be subject to minor soil disturbance

Both direct and indirect impacts on biological resources have been evaluated. Direct impacts are those that involve the initial loss of habitats due to grading, construction, and construction-related activities. Indirect impacts are those that would be related to impacts on the adjacent remaining habitat due to construction activities (e.g., noise, dust) or operation of the project (e.g., human activity, operational noise, indirect lighting).

Biological impacts associated with the project were evaluated with respect to the following special status biological issues:

- Federally or State-listed Endangered or Threatened plant or wildlife species;
- Non-listed species that meet the criteria in the definition of “Rare” or “Endangered” in the CEQA Guidelines (i.e., 14 *California Code of Regulations*, Section 15380)⁴;
- Species designated as California Species of Special Concern;
- Streambeds, wetlands, and their associated vegetation;
- Habitats suitable to support a federally or State-listed Endangered or Threatened plant or wildlife species;
- Habitats, other than wetlands, considered special status by regulatory agencies (e.g., the USFWS, the CDFW) or resource conservation organizations;
- Other species or issues of concern to regulatory agencies or conservation organizations.

The actual and potential occurrence of these resources on the project site was correlated with the significance criteria listed in the next section to determine whether project impacts on these resources would be considered significant.

4.2 **SIGNIFICANCE CRITERIA**

The environmental impacts relative to biological resources are assessed using impact significance criteria that mirror the policy contained in CEQA, Section 21001(c) of the *California Public Resources Code*. Accordingly, the State Legislature has established it to be the policy of the State to:

“Prevent the elimination of fish or wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and

⁴ Section 15380 of the CEQA Guidelines indicates that a lead agency can consider a non-listed species (e.g., CNPS List 1B plants) to be Endangered, Rare, or Threatened if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered in determining if a non-listed species meets the definitions for Rare and Endangered according to Section 15380 of the CEQA Guidelines.

preserve for future generations representations of all plant and animal communities...”

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to Section 15064.7, Thresholds of Significance, of the State CEQA Guidelines, each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A significant threshold is a quantitative, qualitative, or performance level of a particular environmental effect. The agency would normally determine an impact to be “significant” if it exceeds the threshold. In the development of significance thresholds for impacts to biological resources, CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and Appendix G, Environmental Checklist Form, of the State CEQA Guidelines. Appendix G of the CEQA Guidelines is more specific in addressing biological resources and encompasses a broader range of resources to be considered, including candidate, sensitive, or special status species; riparian habitat or other sensitive natural vegetation types; federally protected wetlands; fish and wildlife movement corridors; local policies or ordinances protecting biological resources; and adopted habitat conservation plans. These factors are considered through the checklist of questions answered during the Initial Study process used to determine appropriate environmental documentation for a project (i.e., Negative Declaration, Mitigated Negative Declaration, or EIR). Because these questions are derived from standards in other laws, regulations, and commonly used thresholds, it is reasonable to use these standards as a basis for defining significance thresholds in an EIR. For each of the thresholds identified below, the section of CEQA upon which the threshold was derived has been provided. For the purpose of this analysis, impacts to biological resources are considered significant (before considering offsetting mitigation measures) if one or more of the following conditions would result from implementation of the proposed project if it would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (CEQA Guidelines, Appendix G, IV[a]).⁵*
2. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (CEQA Guidelines, Appendix G, IV[b]).*
3. *Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (CEQA Guidelines, Appendix G, IV[c]).*
4. *Interfere substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (CEQA Guidelines, Appendix G, IV[d]).*
5. *Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (CEQA Guidelines, Appendix G, IV[f]).*

⁵ Endangered and threatened species as used in this threshold are those listed by the USFWS and/or CDFW as Threatened or Endangered. Section 15380 of the State CEQA Guidelines indicates that a lead agency can consider a non-listed species (e.g., CNPS List 1B plants) to be Endangered, Rare, or Threatened for the purposes of CEQA if the species can be shown to meet the criteria in the definition of “Rare” or “Endangered”. For the purposes of this discussion, the current scientific knowledge of the population size and distribution for each special status species was considered in determining whether a non-listed species met the definitions for Rare and Endangered according to Section 15380 of the State CEQA Guidelines.

An evaluation of whether an impact on biological resources would result in a “substantial adverse effect” must consider both the resource itself and how that resource fits into a regional context. Analysis of impacts is based on the project impact relative to the amount of the resource within the project region. For the proposed project, the project region includes ten miles upstream and ten miles downstream of the Santa Ana River.

For the purposes of the impact analysis, “substantial adverse effect” is defined as the loss or harm of a magnitude which, based on current scientific data and knowledge, would (1) substantially diminish population numbers of a species or distribution of a habitat type within the region or (2) eliminate the functions and values of a biological resource in the region.

4.3 DIRECT IMPACTS

The direct impacts for the proposed project would include the impacts from grading and construction proposed project.

4.3.1 Vegetation Type Impacts

The proposed project would impact California walnut grove, eucalyptus – tree of heaven – black locust grove, disturbed yerba santa scrub, herbaceous semi-natural alliance, non-native forb – grassland, and disturbed (Table 6, Exhibit 5).

**TABLE 6
IMPACTS TO VEGETATION TYPES**

Vegetation Types	Threat Ranking	Amount (Acres)
California walnut grove	G3, S3	0.07
Eucalyptus – tree of heaven – black locust grove	–	0.16
Disturbed yerba santa scrub	G3, S3	0.35
Herbaceous semi-natural alliance	–	7.03
Non-native forb – grassland	–	13.05
Disturbed	–	0.69
	Grand Total	21.35

California Walnut Grove

A total of 0.07 acres of California walnut grove would be impacted by the proposed project. While mapped to follow the current nomenclature for the dominant canopy in this area, this small polygon is made up of only a few trees. The understory is heavily disturbed and comprised of non-native ruderal plant species. Impacts to the California walnut grove would be considered less than significant due to the small size of this stand and its degraded nature. Therefore, no mitigation would be required.

Eucalyptus–Tree of Heaven–Black Locust

A total of 0.16 acres of eucalyptus – tree of heaven – black locust grove would be impacted by the proposed project. The removal of ornamental vegetation is considered a beneficial impact of the project, especially the removal of tree of heaven, because it would remove the seed source of non-native invasive species that could invade the adjacent Santa Ana River. Therefore, no mitigation would be required.

Disturbed Yerba Santa Scrub

A total of 0.35 acres of disturbed yerba santa scrub would be impacted by the proposed project. The minimal loss of this vegetation type would be considered less than significant in relation to the total amount of these vegetation types available in the project region. Additionally, the vegetation in this area is heavily invaded by non-native ruderal plant species. Therefore, no mitigation would be required. Indirect effects related to the spread of invasive non-native plant species are discussed below in Section 4.4.4.

Herbaceous Semi-Natural Alliance

A total of 7.03 acres of herbaceous semi-natural alliance would be impacted by the proposed project. The loss of this vegetation type would be considered less than significant in relation to the total amount of these vegetation types available in the project region. Therefore, no mitigation would be required.

Non-Native Forb–Grassland

A total of 13.05 acres of non-native forb–grassland would be impacted by the proposed project. These areas are of limited biological value, especially due to the high density of ruderal species. Therefore, impacts on non-native forb–grassland would be considered less than significant and no mitigation would be required.

Disturbed

A total of 0.69 acres of disturbed areas would be impacted by the proposed project. Disturbed areas are existing dirt roads or unvegetated areas that consist of compacted soils where previous disturbance has occurred. These areas are of limited biological value. Therefore, impacts on disturbed areas would be considered less than significant and no mitigation would be required.

Jurisdictional Resources

The proposed project would impact a total of 0.12 acres of waters under the jurisdiction of RWQCB, including 0.03 acres of non-wetland waters of the U.S. under the jurisdiction of the USACE (Exhibit 8, Table 7). The Project would impact a total of 0.12 acres of waters of the State under the jurisdiction of CDFW. Jurisdictional resources are protected by Sections 401 and 404 of the CWA and by the *California Fish and Game Code* (Sections 1600 through 1616). Impacts on jurisdictional resources would be significant and would require permitting with each of the resource agencies. Implementation of Mitigation Measures (MMs) 1, 2, and 3 would reduce this impact to less than significant.

**TABLE 7
SUMMARY OF JURISDICTIONAL IMPACTS**

Jurisdictional Resources	Feature 1 Permanent Impacts (acres)	Feature 2 Permanent Impacts (acres)	Total (acres)
Total USACE Jurisdiction	0.00	0.03	0.03
Total RWQCB Jurisdiction	0.08	0.03	0.12
Total CDFW Jurisdiction	0.08	0.03	0.12

4.3.2 Wildlife

To assess impacts on wildlife, the total impact on particular vegetation types that provide habitat for wildlife was assessed. The following discussion of wildlife impacts focuses on the common species occurring in the project site.

General Habitat and Wildlife Loss

Native and non-native vegetation provide nesting, foraging, roosting, and denning opportunities for a variety of wildlife species. The proposed project would permanently impact approximately 21.35 acres of undeveloped habitat. Removing or altering habitat on the project site would likely result in the loss of small mammals, reptiles, amphibians, and other slow-moving wildlife that live in the project's direct impact area. More mobile wildlife species that are now using the project site would be forced to move into the remaining areas of open space, which would consequently increase competition for available resources in those areas. This situation would result in the loss of individuals that cannot successfully compete. The loss of native and non-native habitat on the project site would not be expected to reduce populations of common wildlife species below self-sustaining levels in the project region. Therefore, this impact would be considered adverse but less than significant, and no mitigation would be required.

The loss of foraging habitat for raptor and bat species would contribute to the ongoing regional and local loss of foraging habitat. Although impacts on foraging habitat would be considered adverse, they would not be expected to appreciably affect the overall population of these species given the amount of suitable foraging habitat in the study area and Project region. Therefore, impacts on foraging habitat for these species would be considered adverse but less than significant and no mitigation would be required.

Several common bird species have the potential to nest in the vegetation or on the ground. The loss of an active migratory bird nest, including nests of common species, would be considered a violation of the Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5, and 3513 of *California Fish and Game Code*. The MBTA and *California Fish and Game Code* prohibits the taking of migratory birds, nests, and eggs. MMs 4 and 5 have been included to ensure active nests would be avoided.

Wildlife Movement and Habitat Fragmentation

The Santa Ana River extends from the San Bernardino Mountains to the Pacific Ocean and is a regional wildlife movement corridor. The width of the Santa Ana River floodplain and the adjacent habitat buffer narrows and widens throughout San Bernardino, Riverside, and Orange counties. The project site is located in a habitat buffer adjacent to the Santa Ana River floodplain; it is also located immediately adjacent to existing development. Development of the proposed project would reduce the width of the vegetated floodplain by 600 feet at its widest; however, the reduced width would still be approximately 1,800 feet (i.e., the width between the development south of the Santa Ana River Trail and the intersection of East Congress Street and South Fogg Street). This is a 15 percent reduction in width; however, it would still exceed the width of the vegetated floodplain approximately 0.5-mile upstream from the project site, which is approximately 1,100 feet wide (i.e., the approximate distance between Mount Vernon Road and the industrial development south of the Santa Ana River Bike Trail). Although the habitat available for wildlife movement would reduce, the impact would be considered less than significant because the corridor would remain wide. Indirect effects on the corridor are discussed below in Section 4.4.

4.3.3 Special Status Biological Resource Impacts

Implementation of the project would result in impacts on special status plant and wildlife species that occur on the project site and vicinity. Potential impacts on special status species were evaluated by determining the impacts on habitat that the species are expected to occupy or based on the results of focused surveys.

Special Status Plants

Previous focused plant surveys identified Santa Ana River woollystar immediately adjacent to the project (Froke 2016). In 2019, Psomas conducted a focused survey to map the current extent of the Santa Ana River woollystar population on the project site (Exhibit 6). A total of 29 individuals were observed in two locations during the 2019 surveys. The proposed project would not impact the Santa Ana River woollystar populations (Exhibit 6). Therefore, there would be no direct impact and no mitigation would be required. Indirect impacts are discussed below under Section 4.4.

One State and federally listed Endangered plant species, slender-horned spineflower (*Dodecahema leptoceras*), has potential to occur on the project site in the disturbed yerba santa scrub and herbaceous semi-natural alliance vegetation types. Although this species was not incidentally observed during the Santa Ana River woollystar surveys, these surveys were not focused on the detection of spineflower and slender-horned spineflower populations were not monitored to determine the optimal survey timing based on blooming period. Therefore, in the absence of focused surveys to determine its presence or absence, it could be present on the project site. Any impact on this species would be considered significant. Implementation of MM 6 would reduce impacts to less than significant.

Eight CRPR 1B and 2B species have potential to occur on the project site. The project site contains suitable habitat for smooth tarplant (*Centromadia pungens* ssp. *laevis*), and marginally suitable habitat for San Bernardino aster (*Symphotrichum defoliatum*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), California satintail (*Imperata brevifolia*), singlewhorl burrobrush (*Ambrosia monogyra*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Brand's star phacelia (*Phacelia stellaris*), and prairie wedge grass (*Sphenopholis obtusata*). Although these species were not incidentally observed during the Santa Ana River woollystar surveys, these surveys were not focused on the detection of these eight special status plant species and populations were not monitored to determine the optimal survey timing based on blooming period. Therefore, in the absence of focused surveys to determine their presence or absence, these eight CRPR 1B and 2B species could be present on the project site. Impacts to these plant species would be potentially significant depending on the number of individuals that would be impacted compared with the number of individuals in the project region. Implementation of MM 6 would reduce impacts to less than significant.

Southern California black walnut, a CRPR 4 species, is known to occur on the project site (Exhibit 5). A total of 13 saplings and one felled mature tree were observed during the 2019 surveys; all the individuals would be impacted by the proposed project. Although the loss of CRPR 4 species would be considered adverse, the impact would be considered less than significant because of the limited number of individuals compared to the number that occur throughout southern California.

Two other CRPR 4 species have potential to occur on the project site: paniculate tarplant (*Deinandra paniculate*) and Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*). Although these species were not incidentally observed during the Santa Ana River woollystar surveys, these surveys were not focused on the detection of these two special status plant species and populations were not monitored to determine the optimal survey timing based on blooming period. Therefore, in the absence of focused surveys to determine their presence or

absence, these two CRPR 4 species could be present on the project site. While impacts on either of these species would be considered adverse, the impact would be considered less than significant due to the relative abundance throughout southern California. Therefore, no mitigation would be required.

Special Status Wildlife

Invertebrates

Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) and Quino checkerspot (*Euphydryas editha quino*) are not expected to occur on the project site due to lack of suitable habitat. Therefore, there would be no impact on these species and no mitigation would be required.

Fish

Arroyo chub (*Gila orcuttii*), Santa Ana speckled dace (*Rhinichthys osculus* ssp. 3), Santa Ana sucker (*Catostomus santaanae*), and steelhead (*Oncorhynchus mykiss irideus* pop. 10) are not expected to occur on the project site due to lack of suitable habitat. Therefore, there would be no impact on these species and no mitigation would be required.

Amphibians

Southern Mountain yellow-legged frog (*Rana muscosa*) and western spadefoot (*Spea hammondi*) are not expected to occur on the project site due to lack of suitable habitat. Therefore, there would be no impact on these species and no mitigation would be required.

Reptiles

Coast horned lizard (*Phrynosoma blainvillii*) has been observed on the project site. The project would impact 20.43 acres of habitat for this species (disturbed yerba santa scrub, herbaceous semi-natural alliance, and non-native forb - grassland) and may result in direct mortality of individuals occurring within the impact area. Although the loss of coast horned lizard would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for this species throughout its range. Therefore, no mitigation would be required.

California legless lizard (*Anniella* sp.) has a high potential to occur on the project site because it was recently recorded immediately adjacent to the project site. Three additional California Species of Special Concern may occur or have a limited potential to occur on the project site: San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), red-diamond rattlesnake (*Crotalus ruber*), and California glossy snake (*Arizona elegans occidentalis*). The project would impact 20.43 acres of habitat for these species (disturbed yerba santa scrub, herbaceous semi-natural alliance, and non-native forb - grassland) and may result in direct mortality of individuals occurring within the impact area. Although the loss of these species would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for these species throughout their range. Therefore, no mitigation would be required.

Southern rubber boa (*Charina umbratica*) is not expected to occur on the project site because it is outside of its elevational range. Therefore, there would be no impact on this species and no mitigation would be required.

Birds

Swainson's hawk (*Buteo swainsoni*), California black rail (*Laterallus jamaicensis coturniculus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), yellow warbler (*Setophaga petechia*), yellow-breasted chat (*Icteria virens*), and tricolored blackbird (*Agelaius tricolor*) are not expected to occur on the project site due to lack of suitable habitat (although some may pass through the project site as migrants). Therefore, there would be no impact on these species and no mitigation would be required.

The project site contains suitable habitat for burrowing owl. A protocol-level focused survey for burrowing owl was conducted on the project site (including a buffer of 500 feet around the project site) in 2019; no burrowing owl were observed during the survey. Therefore, burrowing owl is not expected to occur on the project site for breeding. Therefore, no impact on this species is anticipated. However, burrowing owl move seasonally and to comply with the 2012 CDFW Staff Report on Burrowing Owl Mitigation, an additional pre-construction survey would be required to ensure the species continues to be absent from the project site. MM 5 would ensure that impacts on burrowing owl are less than significant.

The project site contains suitable habitat for loggerhead shrike (*Lanius ludovicianus*) and it may occur. The project would impact 20.43 acres of habitat for this species (disturbed yerba santa scrub, herbaceous semi-natural alliance, and non-native forb - grassland) and could impact nests if vegetation removal occurs during the breeding season. Although the loss of habitat for this species would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for this species throughout its range. Active nests of this species are protected by the MBTA and *California Fish and Game Code*; the loss of an active nest would be considered a significant. Implementation of MMs 4 and 5 would reduce this impact to a less than significant level.

Southwestern Willow Flycatcher Critical Habitat

The project site is located within federally-designated Critical Habitat for southwestern willow flycatcher (Exhibit 7). The project site does not support the primary constituent elements specified for southwestern willow flycatcher. As discussed above, the southwestern willow flycatcher is not expected to utilize the project site for foraging or nesting. The project site is, however, in the Santa Ana River wildlife corridor which connects habitats and various populations of southwestern willow flycatcher. The proposed project is not anticipated to restrict transit of the species in this portion the Santa Ana River and, therefore, is not likely to adversely affect the gene connectivity function of this Critical Habitat.

Mammals

Two State and/or federally-listed mammal species, Stephens' kangaroo rat (*Dipodomys stephensi*) and San Bernardino kangaroo rat (*Dipodomys merriami parvus*), have a limited potential to occur on the project site. Previous trapping surveys determined the species to be absent, however, the surveys were conducted in 2009 and the results are no longer valid. Any impact on these species would be considered significant. Implementation of MM 7 would reduce potential impacts to less than significant.

Three California Species of Special Concern were trapped in the immediate vicinity of the project site during previous surveys in 2009: Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), southern grasshopper mouse (*Onychomys torridus*), and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). San Diego desert woodrat (*Neotoma lepida intermedia*) also has a limited potential to occur. The project would impact 7.38 acres of habitat for these

species (disturbed yerba santa scrub and herbaceous semi-natural alliance) and may result in direct mortality of individuals occurring within the impact area. Although the loss of northwestern San Diego pocket mouse and San Diego desert woodrat would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for these species throughout their range. Therefore, no mitigation would be required for San Diego pocket mouse and San Diego desert woodrat. Los Angeles pocket mouse and southern grasshopper mouse are more limited in their distribution and the existing populations are more vulnerable to significant losses. Therefore, impacts to Los Angeles pocket mouse and southern grasshopper mouse would be considered significant. Implementation of MM 7 would reduce potential impacts to less than significant.

San Diego black-tailed jackrabbit was observed on the project site during the current surveys. American badger (*Taxidea taxus*) may also occur on the project site. The project would impact 20.66 acres of habitat for these species (California walnut grove, eucalyptus – tree of heaven – black locust grove, disturbed yerba santa scrub, herbaceous semi-natural alliance, and non-native forb - grassland). Although the loss of habitat for these species would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for these species throughout their range. Therefore, no mitigation would be required.

Pallid bat (*Antrozous pallidus*), western yellow bat (*Lasiurus xanthinus*), western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*) may occur or have a limited potential to occur on the project site for foraging. The western yellow bat and pallid bat also have potential to temporarily roost in trees on the project site. The project would impact 20.66 acres of foraging habitat for these species (California walnut grove, eucalyptus – tree of heaven – black locus grove, disturbed yerba santa scrub, herbaceous semi-natural alliance, and non-native forb - grassland) and 0.23 acres of marginal roosting habitat for the pallid bat and western yellow bat (California walnut grove and eucalyptus – tree of heaven – black locus grove). Although the loss of habitat for these species would be adverse, the impact would be considered less than significant because of the limited amount of habitat lost compared to the habitat available for these species throughout their range. The potential tree roosting habitat located onsite is poor quality and is not expected to contain a maternity roost or other significant roost for bats. Therefore, no mitigation would be required.

4.3.4 Habitat Conservation Plan/Natural Community Conservation Plan

The project site is not located within an approved habitat conservation plan (HCP) or natural community conservation plan (NCCP).

The project site is located within the boundaries of the Upper Santa Ana River HCP in preparation; however, the draft is not yet available for review.

4.4 INDIRECT IMPACTS

Indirect impacts are those related to disturbance by construction (such as noise, dust, and urban pollutants), long-term use of the project site, and the project's operational effect on adjacent habitat areas. The indirect impact discussion below includes a general assessment of the potential indirect effects (noise, increased dust and urban pollutants, night lighting, and human activity) of the construction and operation of the proposed project.

4.4.1 Noise Impacts

The project site is located adjacent to existing industrial and residential development; therefore, existing ambient noise levels are moderately high. Noise levels on the project site would increase over present levels during construction of the project. Additionally, during project implementation, noise levels from human activity would be higher during peak hours of use. Increased noise impacts have the potential to disrupt foraging, nesting, roosting, and/or denning activities for a variety of wildlife species occurring adjacent to the project site. However, the increase in noise would be expected to occur primarily during the daytime or early evening; nighttime noise levels would be expected to remain quiet. Wildlife movement for mammals occurs primarily at night; thus, movement of these species would be minimally interrupted. The increase in ambient noise would be considered adverse but less than significant because similar habitat is present in the immediate vicinity where the animals may disperse. Therefore, no mitigation would be required.

4.4.2 Increased Dust and Urban Pollutants

Grading and other construction activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs within or immediately adjacent to project site. The respiratory function of the plants in these areas could be impaired if dust accumulation is excessive. With implementation of standard fugitive dust abatement measures, this impact is expected to be less than significant. Therefore, no mitigation would be required.

During construction and operation, excess silt, petroleum, or chemicals on the soil surface from the project site could be washed into drainages during storms and may affect areas downstream of the project site. Adverse effects on water quality could indirectly impact species that use riparian areas within the watershed by affecting the food web interactions (e.g., abundance of insects or other prey) or through biomagnification (i.e., the buildup of pesticides to toxic levels in higher trophic levels). This impact is potentially significant. Implementation of MM 2 would reduce any potential impact to less than significant levels.

4.4.3 Night Lighting

Night lighting may impact the behavioral patterns of nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife adjacent to night lighting. Of greatest concern is the effect on small, ground-dwelling animals that use the darkness to hide from predators and/or owls, which are specialized night foragers. Due to the nature of the Project, it is expected to include substantial night lighting of the area immediately adjacent to the Project site. These additional light sources may negatively affect wildlife in the surrounding open space, including effects on regional wildlife movement along the Santa Ana River. This impact is potentially significant. Implementation of MM 8, which requires that spillover of night light be limited to the extent practicable, would reduce this impact to a less than significant level.

4.4.4 Invasive Plant Species

Landscaping that includes the installation of non-native, invasive plant species (e.g., species listed in the California Invasive Plant Council's [Cal-IPC's] invasive plant inventory) can be detrimental to surrounding native habitat. Invasive species have the potential to spread into the surrounding natural open space and displace native species, hybridize with native species (thereby impacting the genetic integrity of the native species), alter biological communities, or alter ecosystem processes (e.g., salt cedar [*Tamarix* sp.] affects hydrology). This could degrade the quality of the adjacent vegetation, including vegetation communities that provide suitable habitat for Threatened or Endangered species. If landscaping is included as part of the proposed project, this could be a potentially significant impact on adjacent habitat. Implementation of MM 9

would prohibit the use of non-native, invasive plant species in landscaping associated with the proposed project. This measure would reduce this potential impact to a less than significant level.

Non-native invasive species are present on the project site and would be removed by the proposed project (e.g., tree of heaven), which would be a beneficial impact of the project. However, the physical disturbance related to the removal of these species could spread the seeds to adjacent areas. Construction equipment can also introduce non-native weed seeds to the area if equipment is not properly cleaned. Additionally, construction activities create disturbance, which in turn provides a place for non-native weedy species to spread. Weeds from the construction may then spread to adjacent habitat areas, which would degrade habitat quality for native species. In addition to the negative effects on habitat quality, non-native weeds can also increase the potential for large fires to spread. This impact would be considered potentially significant. MM 10 would require use of Best Management Practices associated with prevention of the spread of weed seeds to reduce this potential impact to a less than significant level.

4.4.5 Human Activity

The project site is located adjacent to existing residential and industrial development; thus, human activity adjacent currently exists adjacent to the project site. The proposed project is anticipated to increase the human activity on the project site during construction and during peak hours of park operation during the daytime and early evening. While the increased human activity should be limited to the project site, the increase in activity may lead to increased unauthorized access into adjacent habitat areas. Increased human activity on and adjacent to the project site could deter wildlife from using habitat adjacent to the project site. Increased pedestrian traffic in the adjacent habitat could also result in trampling special status plant species and burrows of special status wildlife species, including State and federally listed species or California Species of Special Concern. Any impact on State and/or federally listed species would be considered significant. Implementation of MM 11 would educate the public of the presence of special status species and discourage off-site, pedestrian traffic from leaving established trails and potentially trampling biological resources. Implementation of MM 11 would reduce the impact to less than significant.

Increased human activity can also result in increased food waste and trash onsite. Unless property contained and frequently removed from the site, increased food waste and trash can attract more urban-tolerant wildlife (such as coyotes) to the project site which could significantly impact special status small mammal species (such as Los Angeles pocket mouse, southern grasshopper mouse, northwestern San Diego pocket mouse, and San Diego desert woodrat). Increased populations of coyote, for example, would increase predation on the special status small mammals. Implementation of MM 12 would reduce the impact to less than significant.

5.0 MITIGATION MEASURES

Strategies to mitigate each impact to a less than significant level are identified and described below.

5.1 MM 1 – BEST MANAGEMENT PRACTICES

During construction and project implementation, the City shall incorporate Best Management Practices (BMPs), including applicable measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged by proposed project activities does not adversely affect habitats adjacent to the project site. In particular, BMPs shall be designed to minimize the runoff of toxins, chemicals, petroleum products, or other elements that might degrade water quality in adjacent habitat areas. Additionally, BMPs shall be used to minimize erosion.

During construction, the construction contractor shall designate an area for vehicle maintenance that is not within or adjacent to jurisdictional areas. Fueling and maintenance of equipment shall take place within the vehicle maintenance area. Fueling and maintenance shall occur over impervious ground surfaces in existing developed areas or plastic covering shall be placed over the ground in undeveloped areas to prevent spillage or leakage onto the ground surface. Any spilled hazardous materials shall be immediately cleaned up and hazardous materials shall be disposed of in the appropriate manner (i.e. disposal at a hazardous waste facility). Contractor equipment shall be checked for leaks each day prior to operation and repaired as necessary.

5.2 MM 2 – PROJECT LIMITS

All project limits shall be staked, flagged, and/or fenced to clearly delineate the boundaries of the project construction area. No construction activities (including staging, stockpiling, or access) shall occur in unpaved areas outside of the identified project limits.

5.3 MM 3 – JURISDICTIONAL PERMITS

If possible, the project should be redesigned to avoid or minimize impacts on features identified as jurisdictional under the Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and US Army Corps of Engineers (USACE). If any of the features identified as jurisdictional cannot be avoided, the City shall obtain permits from the respective agencies prior to the initiation of construction activities. These permits include USACE Section 404 permit, RWQCB Report of Waste Discharge, and CDFW Section 1602 Notification of Lake or Streambed Alteration. Because Threatened and/or Endangered species are known to occur in adjacent habitat areas (i.e., Santa Ana River woollystar), the Section 404 permit would involve a Section 7 Consultation between the USACE and U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act. It is recommended that the City, schedule a pre-application meeting with the USACE, RWQCB, CDFW, and USFWS to discuss the proposed project, existing biological and jurisdictional resources, proposed impacts to jurisdictional resources, proposed avoidance and minimization measures, and the proposed compensatory mitigation program.

The City shall implement and comply with all measures required by the jurisdictional permits. Mitigation for the loss of jurisdictional resources shall be negotiated with the resource agencies (USACE, CDFW, and the RWQCB) during the regulatory permitting process. Potential mitigation options shall include one or both of the following: (1) payment to a resource agency-approved mitigation bank or regional riparian enhancement program (e.g., invasive vegetation or wildlife species removal); and/or (2) establishment of riparian habitat (on site or off site) at a ratio of no

less than 1:1, determined through consultation with the above-listed resource agencies. This will ensure no net loss of jurisdictional resources and that mitigation areas shall be equivalent or higher quality habitat value than those impacted.

If in-lieu mitigation fees are required, prior to the initiation of any construction-related activities, the City shall pay the in-lieu mitigation fee to a mitigation bank/enhancement program for the replacement of impacted jurisdictional resources. If a riparian habitat establishment program is required, the City shall (1) develop a habitat mitigation and monitoring plan (HMMP) in conformance with the USACE 2015 Guidelines; (2) submit the HMMP to the resource agencies for review; and (3) obtain resource agency approval of the HMMP, prior to the initiation of any construction-related activities. The HMMP shall be prepared by a qualified Restoration Ecologist and shall be implemented by a qualified Restoration Contractor (as defined below) under the supervision of the Restoration Ecologist. The City shall be responsible for implementing the HMMP and ensuring that the mitigation program achieves the approved performance criteria. The City shall implement the HMMP per its specified requirements, materials, methods, and performance criteria. The HMMP shall include the following items:

- **Responsibilities and Qualifications.** The responsibilities and qualifications of the City, ecological specialists, and restoration (landscape) contracting personnel who will implement the plan shall be specified. At a minimum, the HMMP shall specify that the ecological specialists and contractors have performed successful installation and long-term monitoring and maintenance of southern California native habitat mitigation/restoration programs, implemented under USACE, CDFW, and RWQCB permit conditions. A successful program shall be defined as one that has been signed off on by the resource agencies.
- **Performance Criteria.** Mitigation performance criteria to be specified in the HMMP shall conform to the resource agency permit conditions. The HMMP shall state that the use of the mitigation site by special status plant or wildlife species, though not a requirement for site success, would be regarded by the resource agencies as a significant factor in considering eligibility for program sign-off.
- **Site Selection.** The mitigation site(s) shall be determined in coordination with the City and the resource agencies. The site(s) shall be in dedicated open space areas and shall be contiguous with other natural open space areas. The soils, hydrology/hydraulics, and other physical characteristics of the potential mitigation sites shall be analyzed to ensure that proper conditions exist for the establishment of riparian habitat.
- **Seed Materials Procurement.** At least one year prior to mitigation implementation, the Project Applicant or its consultants/contractors shall initiate collection of the native seed materials specified in the HMMP. All seed mixes shall be of local origin; i.e., collected within 20 miles, and within the same watershed, as the selected restoration/enhancement site(s), to ensure genetic integrity. No seed materials of unknown or non-local geographic origin shall be used. Seed collection shall be prioritized per habitat area, in the following order: (a) project impact areas (highest priority); (b) other on-site habitat areas; and (c) off-site habitat areas (lowest priority), assuming availability of seed species in multiple locations.
- **Wildlife Surveys and Protection.** The HMMP shall specify any wildlife surveys (i.e., nesting bird surveys, focused/protocol surveys for special status species and biological monitoring that are required to avoid adverse impacts to wildlife species during the performance of mitigation site preparation, installation, or maintenance tasks. The HMMP shall also describe potential restrictions on these tasks due to sensitive wildlife conditions on the mitigation site (e.g., suspension of these tasks during the nesting bird season, as defined in project permits).

- **Site Preparation and Plant Materials Installation.** Mitigation site preparation shall include all of the following: (a) protection of existing native species and habitats (including compliance with seasonal restrictions, if any); (b) installation of protective fencing and/or signage (as needed); (c) initial trash and weed removal (outside the nesting bird season) and methods; (d) soil treatments, as needed (i.e., imprinting, de-compacting); (e) installation of erosion-control measures (i.e., fully natural/bio-degradable [not 'photo-degradable' plastic mesh] fiber roll); (f) application of salvaged native plant materials (i.e., coarse woody debris), as available and supervised by a biological monitor; (g) temporary irrigation installation; (h) a minimum one-year preliminary weed abatement program (prior to the installation of native plant and seed materials)—including specification of approved herbicides; (i) planting of container plant and cutting species; and (j) seed mix application.
- **Schedule.** An implementation schedule shall be developed that includes planting and seeding to occur in the fall and winter (i.e., between November 1 and January 31) and the frequency of long-term maintenance and monitoring activities (including the dates of annual quantitative surveys, as described below) for five years or until the mitigation program achieves the approved performance criteria.
- **Maintenance Program.** The Maintenance Program shall include (a) protection of existing native species and habitats (including compliance with seasonal restrictions, if any); (b) maintenance of protective fencing and/or signage; (c) trash and weed removal—including specification of approved herbicides; (d) maintenance of erosion-control measures; (e) inspection/repairs of irrigation components; (f) replacement of dead container plant and cuttings (as needed); (g) application of remedial seed mixes (as needed); (h) herbivory control; and (i) removal of all non-vegetative materials (i.e., fencing, signage, irrigation components) upon project completion. The mitigation site shall be maintained for a period of five years to ensure successful riparian habitat establishment within the restored/enhanced sites; however, the Project Applicant may request to be released from maintenance requirements by the resource agencies prior to five years if the mitigation program has achieved all performance criteria.
- **Monitoring Program.** The Monitoring Program shall include (a) qualitative monitoring (i.e., general habitat conditions, photo-documentation from established photo stations); (b) quantitative monitoring (in conformance with the USACE 2015 Guidelines); (c) annual monitoring reports, which shall be submitted to the City and the resource agencies for five years or until project completion; and (d) wildlife surveys and monitoring as described above. The annual monitoring reports shall include a detailed discussion of mitigation site performance (e.g., measured vegetation coverage and diversity) and compliance with required performance criteria, a discussion of wildlife species' use of the restored and/or enhanced habitat area(s), and a list of proposed remedial measures to address noncompliance with any performance criteria. The site shall be monitored for five years or until the City has been released from maintenance requirements by the resource agencies.
- **Long-term preservation.** Long-term preservation of the mitigation site(s) shall be outlined in the HMMP to ensure that the mitigation sites are not impacted by future development. The appropriate real estate agreement to ensure long-term preservation shall be enacted prior to implementation of the mitigation program.

5.4 MM 4 – NESTING BIRDS

To the extent possible, the City shall schedule all vegetation removal and grading activities during the non-breeding season (i.e., September 1 to January 31) to avoid impacts on active nests for common and special status birds. If project timing requires that vegetation clearing or grading occur between February 1 and August 31, the City shall retain a qualified Biologist (one with

experience conducting nesting bird surveys) to conduct a pre-construction survey for nesting birds and raptors. A pre-construction survey shall be conducted by a qualified Biologist within 72 hours prior to vegetation clearing or the initiation of work during the breeding season. The pre-construction nesting bird survey area shall include the project site (i.e., disturbance footprint) plus a 250-foot buffer to search for nesting birds and a 500-foot buffer to search for nesting raptors. If no active nests are found, no further mitigation would be required.

If an active nest is observed during the survey, the Biologist shall delineate an appropriate buffer to protect the nest. A protective buffer zone (25 feet to 500 feet for nesting birds, 300 feet to 500 feet for nesting raptors) shall be used to protect nesting birds and nesting raptors. The size of the buffer shall be established at the discretion of the Biologist based on site topography, existing disturbance, status of the species, sensitivity of the individuals (established by observing the individuals at the nest), and the type of construction activity. No construction activities shall be allowed in the designated buffer until the Biologist determines that nesting activity has ended. Encroachment into the buffer area around a known nest will only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction may proceed within the buffer once the Biologist determines that nesting activity has ceased (i.e., fledglings have left the nest or the nest has failed). The designated buffer will be clearly marked in the field and will be mapped as Environmentally Sensitive Areas (ESAs) on construction plans.

5.5 MM 5 – BURROWING OWL

The City shall retain a qualified Biologist (one meeting the requirements described in the CDFG Staff Report for Burrowing Owl) to conduct a pre-construction survey for burrowing owl prior to any ground disturbing activities. A pre-construction survey consistent with the 2012 California Department of Fish and Game Staff Report for Burrowing Owl (CDFG 2012) shall be conducted by a qualified Biologist between 14 and 30 days prior to initiating ground disturbing activities. The survey area shall include the Project site and a 500-foot buffer. If no active nests are found, no further mitigation would be required.

If an active burrow is observed outside the breeding season (September 1 to January 31) and it cannot be avoided, the burrowing owl shall be passively excluded from the burrow following methods described in the CDFG Staff Report for Burrowing Owl (CDFG 2012). One-way doors shall be used to exclude owls from the burrows; doors shall be left in place for at least 48 hours. Once the burrow is determined to be unoccupied, as verified by site monitoring and scoping by a Biologist, the burrow shall be closed by the qualified Biologist who shall excavate the burrow using hand tools. Prior to excluding an owl from an active burrow, a receptor burrow survey shall be conducted to confirm that at least two potentially suitable unoccupied burrows are within approximately 688 feet prior to installation of the one-way door. If two natural receptor burrows are not located, one artificial burrow shall be created for every burrow that would be closed.

If an active burrow is observed outside the breeding season (September 1 to January 31) and it can be avoided, the Biologist shall determine an appropriate protective buffer for the burrow based on CDFW guidelines. The buffer shall range from 160 feet to 1,640 feet depending on the level of impact and the time of year (Table 8). The designated buffer will be clearly marked in the field and will be mapped on construction plans. If a buffer of less than 160 feet is needed, the City shall contact CDFW to determine whether a reduced buffer can be accommodated.

If an active burrow is observed during the breeding season (February 1 to August 31), the active burrow shall be protected until nesting activity has ended (i.e., all young have fledged from the burrow). The Biologist shall determine the appropriate protective buffer for the burrow based on CDFW guidelines. The buffer shall range from 650 to 1,640 feet depending on the level of impact and the time of year (Table 8). The designated buffer will be clearly marked in the field and will be mapped as an ESA on construction plans. If a buffer of less than 650 feet is needed, the City

shall contact CDFW to determine whether a reduced buffer can be accommodated. Construction shall be allowed to proceed when the qualified Biologist has determined that all fledglings have left the nest.

**TABLE 8
BURROWING OWL PROTECTIVE BUFFER SIZES**

	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting sites	April 1 to August 15	656 feet (200 meters)	1,640 feet (500 meters)	1,640 feet (500 meters)
Nesting sites	August 16 to October 15	656 feet (200 meters)	656 feet (200 meters)	1,640 feet (500 meters)
Nesting sites	October 16 to March 31	164 feet (50 meters)	328 feet (100 meters)	1,640 feet (500 meters)

Upon completion of the pre-construction burrowing owl survey, a Letter Report shall be prepared and submitted to the City and CDFW documenting the results of the survey within two weeks of completion of the survey effort. If an active burrow is observed, the Letter Report shall include a description of the protective buffer that has been designated and a summary of any additional correspondence with the CDFW.

If time lapses of greater than 30 days occur during construction in a particular portion of the work area, an additional survey shall be conducted by a qualified Biologist within 24 hours prior to vegetation clearing and/or ground disturbance in that area. If any new burrowing owl burrows are observed, the conditions above shall be applied.

5.6 MM 6 – SPECIAL STATUS PLANT SPECIES

Santa Ana River Woollystar. To the extent possible, the project shall be redesigned to avoid Santa Ana River woollystar populations. If project design changes and take of individuals cannot be avoided, the City of Colton shall obtain take authorization from the listing agencies before impacting the species (FESA Consultation with the USFWS and CESA Section 2080 from the CDFW). Consultation with the listing agencies shall determine the appropriate conservation measure(s) to mitigate for impacts on the species. The mitigation may include collecting seed from individuals in the impact area and planting them within a mitigation site with the appropriate microhabitat for this species and/or paying a fee to a mitigation bank (e.g. Lytle Creek Conservation Bank) and/or a qualified Plant Science Program (e.g., Rancho Santa Ana Botanic Garden or University of California, Riverside) to conduct germination or other research studies on the species. The City shall retain a qualified Biologist to prepare a detailed Special Status Plant Species Conservation Plan for approval by the USFWS and the CDFW. The conservation plan shall include the following topics: (1) responsibilities and qualifications of the personnel to implement and supervise the plan; (2) conservation site selection criteria; (3) site preparation and planting implementation; (4) implementation schedule; (5) maintenance plan/guidelines; (6) monitoring plan; (7) long-term preservation. The City shall implement the Plan as approved.

Slender-horned Spineflower. The City shall retain a qualified Biologist (one with experience conducting botanical surveys) to conduct a focused survey for the species. The survey shall be performed during the target species' peak blooming period in accordance with the most current protocols approved by the CDFW and the CNPS. If focused surveys determine that the species is not present in the project impact area, then no future measures are necessary.

If the species is present and take of individuals cannot be avoided, then the City shall obtain take authorization from the listing agencies before impacting the species (FESA Consultation with the USFWS and CESA Section 2080 from the CDFW). Consultation with the listing agencies shall determine the appropriate conservation measure(s) to mitigate for impacts on the species. The mitigation may include collecting seed from individuals in the impact area and planting them within a mitigation site with the appropriate microhabitat for this species and/or paying a fee to a mitigation bank and/or a qualified Plant Science Program (e.g., Rancho Santa Ana Botanic Garden or University of California, Riverside) to conduct germination or other research studies on the species. The City shall retain a qualified Biologist to prepare a detailed Special Status Plant Species Conservation Plan for approval by the USFWS and the CDFW. The conservation plan shall include the following topics: (1) responsibilities and qualifications of the personnel to implement and supervise the plan; (2) mitigation site selection criteria; (3) site preparation and planting implementation; (4) implementation schedule; (5) maintenance plan/guidelines; (6) monitoring plan; (7) long-term preservation. The City shall implement the Plan as approved.

CRPR 1 and 2 Species. The City shall retain a qualified Biologist (one with experience conducting botanical surveys) to conduct a focused survey for the species. The survey shall be performed during the target species' peak blooming periods in accordance with the most current protocols approved by the CDFW and the CNPS. If focused surveys determine that the species are not present in the project impact area, then no future measures are necessary. If the species are present and the necessary take of individuals would be greater than ten percent of species' population within a one-mile radius of the project site, then compensatory mitigation shall be required. Mitigation may include collection of seed from individuals in the impact area and planting them within a mitigation site with the appropriate microhabitat for this species. If project timing requires that ground disturbance of potentially suitable habitat be performed prior to the species' peak blooming period and focused surveys cannot be performed, then the species shall be presumed present in the impact area. The City shall retain a qualified Biologist to prepare a detailed Special Status Plant Species Conservation Plan for approval by CDFW. The conservation plan shall include the following topics: (1) responsibilities and qualifications of the personnel to implement and supervise the plan, (2) mitigation site selection criteria, (3) site preparation and planting implementation, (4) implementation schedule, (5) maintenance plan/guidelines, (6) monitoring plan, (7) long-term preservation. The City shall implement the Plan as approved.

5.7 MM 7 – SMALL MAMMAL TRAPPING

The City shall retain a qualified Biologist that holds valid State and federal permits to conduct live-trapping surveys for San Bernardino kangaroo rat and other special status small mammals. Live trapping shall be conducted by the Biologist in accordance with approved USFWS survey protocol for the species. If the survey results determine special status small mammal species are absent from the project site, then no further mitigation is necessary.

If San Bernardino Kangaroo rat is determined to be present and take of occupied habitat cannot be avoided, the City shall obtain take authorization through FESA consultation with the USFWS before impacting the species. In the unlikely event that Stephens' kangaroo rat is determined to be present and the species cannot be avoided, the City shall obtain take authorization from the listing agencies before impacting the species (FESA Consultation with the USFWS and CESA Section 2080 from the CDFW). Consultation with the listing agency(ies) shall determine the appropriate conservation measures to mitigate for impacts on the species. The mitigation may include paying a fee to a mitigation bank (e.g. Lytle Creek Conservation Bank). The City shall retain a qualified Biologist to prepare a detailed Conservation Plan for approval by the requisite agency(ies). The conservation plan shall include the following topics: (1) responsibilities and qualifications of the personnel to implement and supervise the plan, (2) mitigation site selection

criteria, (3) site preparation and planting implementation, (4) implementation schedule, (5) maintenance plan/guidelines, (6) monitoring plan, (7) long-term preservation. The City shall implement the Plan as approved.

If Los Angeles pocket mouse and southern grasshopper mouse are determined to be present, the City shall mitigate for the impact to the affected species. The mitigation may include paying a fee to a mitigation bank (e.g. Lytle Creek Conservation Bank). The City shall retain a qualified Biologist to prepare a detailed Conservation Plan for approval by CDFW. The conservation plan shall include the following topics: (1) responsibilities and qualifications of the personnel to implement and supervise the plan, (2) mitigation site selection criteria, (3) site preparation and planting implementation, (4) implementation schedule, (5) maintenance plan/guidelines, (6) monitoring plan, (7) long-term preservation. The City shall implement the Plan as approved.

5.8 MM 8 – NIGHT LIGHTING.

The City shall ensure that night lighting shall be directed away from all offsite areas and that shielding shall be incorporated in the final project design to minimize spillover of night lighting into adjacent naturally vegetated areas to the greatest extent practicable. Lighting installed adjacent to open space areas shall direct light downward and away from adjacent habitat areas. All lighting plans and light-shielding designs shall be reviewed and approved by the City engineer prior to installation of any lighting infrastructure. Onsite fences and walls shall be designed to block vehicles lights from illuminating adjacent open space areas.

5.9 MM 9 – LANDSCAPING.

The City shall retain a qualified Biologist (one with botanical expertise) to review and approve the final landscaping plan to ensure that the project does not include planting invasive species that would potentially degrade the quality of the surrounding naturally vegetated areas. The Biologist shall review the proposed plant pallet to ensure that it does not contain any invasive plant species (i.e., those on the California Invasive Plant Council's [Cal-IPC's] Invasive Plant Inventory rated as Moderate or High). If any plants are deleted from the proposed landscaping plan, the Biologist shall recommend suitable substitute plant species. Landscaping installed on the project site shall include only species on the approved plant palette.

It is recommended that the landscaping plan include Southern California black walnut trees as existing walnuts would be impacted by the proposed project. If possible, walnut seeds should be collected from the project site and grown at a local nursery until the landscaping is installed; this would conserve the local genetics of this CRPR 4 species.

5.10 MM 10 – PREVENTION OF THE SPREAD OF WEED SEEDS.

The introduction of invasive plant species shall be minimized to the extent possible. Construction vehicles shall be washed prior to delivery to the project site to minimize weed seeds entering the construction area via vehicles. Track-clean or other methods of vehicle cleaning shall be used by the construction contractor to prevent weed seeds from entering/exiting the project site on vehicles. Additionally, wattles used for erosion control shall be certified as weed-free.

Existing invasive plant species (e.g., tree-of-heaven) located on the project site that would be removed during construction shall be removed using best management practices that contain and properly dispose of the species' seeds.

5.11 MM 11 – SENSITIVE BIOLOGICAL RESOURCE SIGNAGE AND FENCING

Upon project completion, the City shall install signs along the eastern boundary of the project site educating park patrons of the presence of Santa Ana River woollystar. The signs will discuss the importance of preserving rare plant species, the threats facing the species' survival, and how to avoid further impacts to the species in the vicinity. The final language on the signs shall be approved by a qualified Biologist (one with botanical expertise). The signs shall be installed along at locations appropriate to deter pedestrians from trampling native vegetation east of the project site. The project site shall also be fenced along its eastern perimeter to deter human entry or activities in the adjacent vegetated and river wash areas.

5.12 MM 12 – TRASH MAINTENANCE

Covered trash receptacles shall be provided near the parking areas and adjacent to the concession and restroom buildings. The trash receptacles shall be designed and installed to prevent wildlife and wind events from blowing trash from the receptacles. All trash receptacles shall be emptied regularly by the City or its designee. If trash accumulation exceeds the capacity of the onsite receptacles, the City shall immediately address the problem by adding a sufficient number of receptacles and/or sufficiently increase trash removal visits.

6.0 REFERENCES

- American Ornithologists' Union (AOU). 2019. *Check-list of North American Birds* (7th ed., as revised through 59th Supplement). Washington, D.C.: AOU. <http://checklist.aou.org/taxa/>.
- Aspen Environmental Group (Aspen). 2010 (October 21). *Re: Rare Plant Habitat Suitability, Soil Safe Project Site, Colton, California*. Upland, CA: Aspen.
- Baldwin, B.G., D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (Eds.). 2012. *The Jepson Manual: Vascular Plants of California* (Second ed.). Berkeley, CA: University of California Press.
- Bennett, A.F. 1990. Habitat Corridors and the Conservation of Small Mammals in the Fragmented Forest Environment. *Landscape Ecology* 4:109–122. New York, NY: International Association for Landscape Ecology.
- Brenzel, K.N. (Ed.), 2007. *Sunset Western Garden Book* (Eighth ed.). Menlo Park, CA: Sunset Publishing Corporation.
- California Department of Fish and Wildlife (CDFW). 2019a. California Natural Diversity Database. Records of Occurrence within a 10-mile radius around the site. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2019b (March). *Special Vascular Plants, Bryophytes, and Lichens List*. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2018a (November). *Special Animals*. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2018b (October 15). *California Natural Communities List*. Natural Communities List Arranged Alphabetically by Life Form (PDF). Sacramento, CA: CDFW Biogeographic Data Branch. <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive-natural-communities>.
- . 2018c (March). *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Sacramento, CA: CDFW, Natural Heritage Division.
- California Department of Fish and Game (CDFG) 2012 (March 7). *Staff Report on Burrowing Owl Mitigation*. Sacramento, CA: CDFG.
- . 2010. *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base*. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2002. *California Wildlife Habitat Relationships Database System*. Sacramento, CA: CDFG, Natural Heritage Division.
- . 1991. *California Wildlife Habitat Relationships Database System*. Sacramento, California: Natural Heritage Division.
- California Native Plant Society (CNPS). 2019 (May 1), date accessed). A Manual of California Vegetation, Online Edition. Sacramento, CA: CNPS. <http://www.cnps.org/cnps/vegetation/>.

- _____. 2019. (accessed April 1). Taxonomic Inventory of Rare and Endangered Vascular Plants of California (online edition, v8-02. Records of Occurrence for the USGS San Bernardino South, San Bernardino North, Devore, Harrison Mountain, Fontana, Redlands, Riverside East, Riverside West, and Sunnymead 7.5-minute quadrangles Sacramento, CA: CNPS. <http://www.rareplants.cnps.org/>.
- _____. 2001. CNPS Botanical Survey Guidelines. Sacramento, CA: http://www.cnps.org/cnps/rareplants/pdf/cnps_survey_guidelines.pdf
- Crother, B.I. 2012. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding. *SSAR Herpetological Circular* 39:1–92. Shoreview, MN: SSAR. https://ssarherps.org/wp-content/uploads/2014/07/HC_39_7thEd.pdf.
- [Dodson] Tom Dodson & Associates. 2009 (June). *Focused San Bernardino Kangaroo Rat (Dipodomys merriami parvus) Survey Report for Parcels 20, 21 and 23 of the Soil Safe Project, Located in the City of Colton, San Bernardino County, California*. San Bernardino, CA: Dodson.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1). Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.
- Envira. 2017 (April 20). *San Bernardino Kangaroo Rat and Los Angeles Pocket Mouse Phase One Assessment*. Ramona, CA: Envira.
- Faber-Langendoen, D., L. Master, J. Nichols, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, and B. Young. 2009. *NatureServe Conservation Status Assessments: Methodology for Assigning Ranks*. Arlington, VA: NatureServe. http://www.natureserve.org/publications/ConsStatusAssess_RankMethodology.pdf.
- Farhig, L. and G. Merriam. 1985. Habitat Patch Connectivity and Population Survival. *Ecology* 66:1792–1768. Washington, D.C.: The Ecological Society of America.
- Froke, J.B. 2016a (November 29). *Colton's Proposed Community Soccer Site as Rodent Habitat*. Califauna.
- _____. 2016b (May 12). *Diagram of Santa Ana River Woolly Star*. Colton, CA: Froke.
- Garrett, K. and J. Dunn. 1981. *Birds of Southern California: Status and Distribution*. Los Angeles, CA: Los Angeles Audubon Society.
- Hall, E.R. 1981. *The Mammals of North America* (2nd ed.). New York, NY: John Wiley & Sons.
- Harris, L.D. and P.B. Gallagher. 1989. New Initiatives for Wildlife Conservation: The Need for Movement Corridors. *Preserving Communities and Corridors* (pp. 11–34) (G. Mackintosh, Ed.). Washington, D.C.: Defenders of Wildlife.
- Hickman, J.C. Ed. 1993. *The Jepson Manual Higher Plants of California*. Berkeley, CA: University of California Press.
- Jennings, M.R. and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California* (Contract No. 8023). Sacramento, CA: CDFG, Inland Fisheries Division.

- Jepson Flora Project. 2019 (Accessed April 1). Jepson eFlora. Berkeley, CA: Jepson Herbarium. <http://ucjeps.berkeley.edu/IJM.html>.
- Kaufman, K. 1996. *Lives of North American Birds*. Boston, MA: Houghton Mifflin Company.
- MacArthur, R.H. and E.O. Wilson. 1967. *The Theory of Island Biogeography*. Princeton, NY: Princeton University Press.
- Munz, P.A. 1974. *A Flora of Southern California*. Berkeley, CA: University of California Press.
- Noss, R.F. 1983. A Regional Landscape Approach to Maintain Diversity. *BioScience* 33:700–706. Washington, D.C.: American Institute of Biological Sciences.
- PBS&J. 2009 (June 1). *Results of Biological Constraints Assessment of the Soil Safe South Colton Project, San Bernardino County, California*. Riverside, CA: PBS&J.
- Perkins Coie, LLC. 2018 (January 2). “Department of Interior Reverses MBTA’s Take Definition in a New Solicitor’s Opinion.” <https://www.perkinscoie.com/en/news-insights/departement-of-interior-reverses-mbta-s-take-definition-in-a-new.html>.
- Pike, J, D. Pellegrini, L. Hays, and R. Zembal. 2004. *Least Bell’s Vireos and Southwestern Willow Flycatchers in Prado Basin of the Santa Ana River Watershed, CA*. Fountain Valley and Carlsbad, CA: Orange County Water District and USFWS.
- Placeworks. 2018 (March 14). *Santa Ana River Trail and Parkway, Parkway and Open Space Plan, Expanding the River’s Reach*. Santa Ana, CA: State Coastal Conservancy.
- RBF Consulting (RBF). 2015 (February). *Riverside North Aquifer Storage and Recovery Project, City of Colton, San Bernardino County, California, Habitat Assessment*. Ontario, CA: RBF.
- _____. 2010 (September). *Habitat Assessment for the Soil Safe Project Located in the City of Colton, San Bernardino County, California*. Ontario, CA: RBF.
- Reed, P.B., Jr. 1988. *National List of Plant Species That Occur In Wetlands: National Summary* (Biological Report 88 [24]). Washington, D.C.: USFWS.
- San Bernardino Valley Municipal Water District (SBVMWD). 2018 (December). *Notice of Preparation of Environmental Impact Report, Upper Santa Ana River Habitat Conservation Plan*. San Bernardino, CA: SBVMWD.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation (Second Edition)*. Sacramento, CA: CNPS.
- Simberloff, D. and J. Cox. 1987. Consequences and Costs of Conservation Corridors. *Conservation Biology* 1(1):63–71. Boston, MA: Blackwell Scientific Publications.
- Smithsonian National Museum of Natural History (SNMNH). 2011. Mammal Species of the World (3rd ed.) (a database based on Wilson, D.E., and D. M. Reeder’s 2005 publication entitled *Mammal Species of the World, A Taxonomic and Geographic Reference*, 3rd ed.). Washington, D.C.: SNMNH. <https://www.departments.bucknell.edu/biology/resources/msw3>.

- Sogge, M.K., D. Ahlers, and S.J. Sferra. 2010. *A natural history summary and survey protocol for the southwestern willow flycatcher*. U.S. Geological Survey Techniques and Methods 2A-10, 38, pgs., USGS, Reston, Virginia.
- Soule, M.E. 1987. *Viable Populations for Conservation*. New York, NY: Cambridge University Press.
- Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians* (3rd ed.). Boston, MA: Houghton-Mifflin Company.
- U.S. Army Corps of Engineers (USACE). 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. (J.S. Wakeley, R.W. Lichvar, and C.V. Noble, Eds.). Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- _____. 2007 (June 5). *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*. Washington, D.C.: USACE.
- U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2019. Web Soil Survey. Lincoln, NE: USDA NRCS. <http://websoilsurvey.nrcs.usda.gov/>.
- United States Department of the Interior, Office of the Solicitor (USDOJ). 2017 (December 22). Memorandum M-37050: "The Migratory Bird Treaty Act Does Not Prohibit Incidental Take." Washington, D.C.: DOI. <https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf>.
- U.S. Fish and Wildlife Service (USFWS). 2013 (January 3). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Southwestern Willow Flycatcher; Final Rule. *Federal Register* 78(2): 343–534. Washington, D.C.: USFWS.
- _____. 1995 (February 27). Endangered and Threatened Wildlife and Plants: Final Rule, Determining Endangered Status for the Southwestern Willow Flycatcher. *Federal Register*. 60(38): 10693–10715. Washington, D.C.: USFWS.
- U.S. Geological Survey (USGS). 2017. [The National Hydrography Dataset](https://nhd.usgs.gov/NHD_High_Resolution.html). U.S. Department of the Interior. Washington, D.C.: USGS. https://nhd.usgs.gov/NHD_High_Resolution.html.
- West, Z. 2017 (April 12). *Jurisdictional Delineation for the Colton Sports Park, an approximately 35-Acre Property Located in the City of Colton, San Bernardino County, California*. Irvine, CA: Glenn Lukos Associates, Inc.
- Williams, D.F. 1986. *Mammalian Species of Special Concern in California* (Administrative Report 86-1). Sacramento, CA: CDFG.
- Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White (Eds.). 1990a. *California's Wildlife, Vol. 2: Birds*. Sacramento, CA: CDFG, The Resources Agency.
- _____. 1990b. *California's Wildlife Vol. 3: Mammals*. Sacramento, CA: CDFG, The Resources Agency.
- _____. 1988. *California's Wildlife, Vol. 1: Amphibians and Reptiles*. Sacramento, CA: CDFG, The Resources Agency.

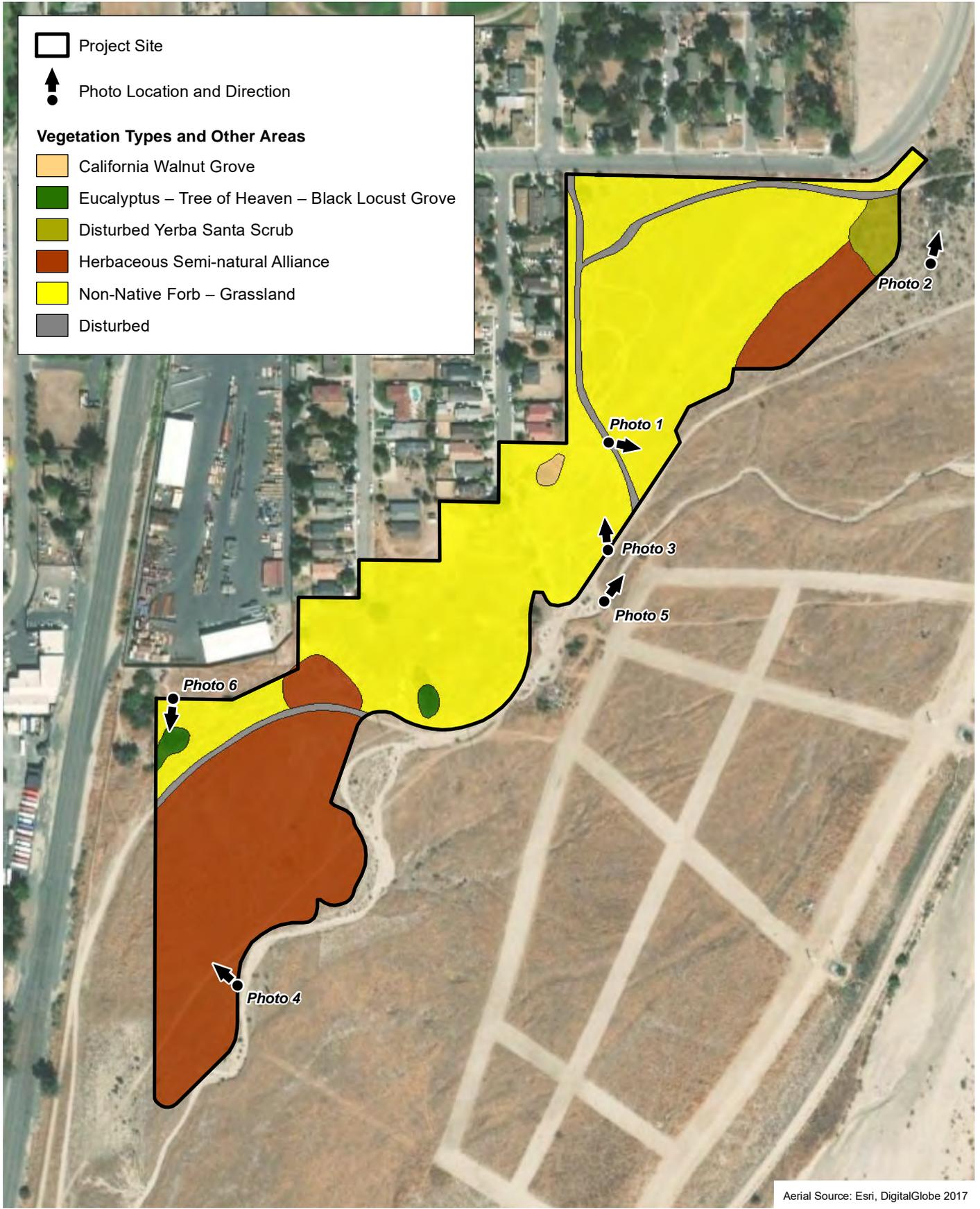
Appendix A

Site Photographs

 Project Site
 Photo Location and Direction

Vegetation Types and Other Areas

-  California Walnut Grove
-  Eucalyptus – Tree of Heaven – Black Locust Grove
-  Disturbed Yerba Santa Scrub
-  Herbaceous Semi-natural Alliance
-  Non-Native Forb – Grassland
-  Disturbed



Aerial Source: Esri, DigitalGlobe 2017

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Photo Locations

Colton Community Soccer Park Project

Appendix A-1

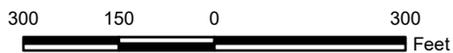




Photo 1: Overview of the project site facing east. The majority of the project site is comprised of low-growing annual plant species.



Photo 2: View of the disturbed yerba santa scrub vegetation type facing north.

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Site Photographs

Colton Community Soccer Park Project

Appendix A-2





Photo 3: View of the project site facing north. The non-native forb – grassland vegetation type is shown in the foreground and the California walnut grove is shown in the background at the base of the slope immediately below the red-roofed house on the left side of the photograph.



Photo 4: View of the herbaceous semi-natural alliance vegetation type facing northwest.

Site Photographs

Colton Community Soccer Park Project

Appendix A-3





Photo 5: View of Feature 2 facing northeast. The non-native forb – grassland vegetation type is dominant on both sides of the drainage feature.



Photo 6: View of Feature 1 facing south. The eucalyptus – tree of heaven – black locust grove is visible on both side of the photograph.

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Site Photographs

Colton Community Soccer Park Project

Appendix A-4



Appendix B

Plant and Wildlife Compendia

**APPENDIX B-1
PLANT SPECIES OBSERVED DURING SURVEYS**

Species	
Scientific Name	Common Name
EUDICOTS	
ADOXACEAE – MUSKROOT FAMILY	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry
ASTERACEAE – SUNFLOWER FAMILY	
<i>Ambrosia acanthicarpa</i>	annual bur-sage
<i>Ambrosia psilostachya</i>	western ragweed
<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	mule fat
<i>Centaurea melitensis</i> *	tootalote
<i>Chaenactis glabriuscula</i>	yellow pincushion
<i>Erigeron canadensis</i>	horseweed
<i>Helianthus annuus</i>	annual sunflower
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Lactuca serriola</i> *	prickly lettuce
<i>Lepidospartum squamatum</i>	scaly scale-broom
<i>Malacothrix saxatilis</i>	rocky malacothrix
<i>Oncosiphon piluliferum</i> *	stinknet
<i>Sonchus oleraceus</i> *	common sow thistle
BORAGINACEAE – BORAGE FAMILY	
<i>Amsinckia intermedia</i>	common fiddleneck
<i>Cryptantha intermedia</i>	intermediate cryptantha
<i>Eriodictyon trichocalyx</i> var. <i>trichocalyx</i>	hairy yerba santa
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	seaside heliotrope
<i>Pectocarya linearis</i> ssp. <i>ferocula</i>	narrow-toothed pectocarya
BRASSICACEAE – MUSTARD FAMILY	
<i>Brassica nigra</i> *	black mustard
<i>Brassica tournefortii</i> *	Sahara mustard
<i>Hirschfeldia incana</i> *	grayish shortpod mustard
<i>Sisymbrium irio</i> *	London rocket
CACTACEAE – CACTUS FAMILY	
<i>Opuntia</i> × <i>vaseyi</i>	Vasey's prickly-pear
CRASSULACEAE – STONECROP FAMILY	
<i>Crassula connata</i>	pygmy-weed
CUCURBITACEAE – GOURD FAMILY	
<i>Cucurbita foetidissima</i>	buffalo gourd
EUPHORBIACEAE – SPURGE FAMILY	
<i>Croton californicus</i>	California croton
<i>Ricinus communis</i> *	common castor bean
FABACEAE – LEGUME FAMILY	
<i>Medicago polymorpha</i> *	variable burclover
<i>Melilotus indicus</i> *	sourclover
GERANIACEAE – GERANIUM FAMILY	
<i>Erodium cicutarium</i> *	redstem filaree
JUGLANDACEAE – WALNUT FAMILY	
<i>Juglans californica</i>	southern California black walnut

**APPENDIX B-1
PLANT SPECIES OBSERVED DURING SURVEYS**

Species	
Scientific Name	Common Name
LAMIACEAE – MINT FAMILY	
<i>Marrubium vulgare</i> *	common horehound
MALVACEAE – MALLOW FAMILY	
<i>Malva parviflora</i> *	cheeseweed
MELIACEAE – MAHOGANY FAMILY	
<i>Melia azedarach</i> *	china berry
MYRTACEAE – MYRTLE FAMILY	
<i>Eucalyptus sp.</i> *	gum tree
OLEACEAE – OLIVE FAMILY	
<i>Fraxinus cf. velutina</i>	velvet ash
ONAGRACEAE – EVENING PRIMROSE FAMILY	
<i>Camissoniopsis bistorta</i>	California sun cup
POLEMONIACEAE – PHLOX FAMILY	
<i>Eriastrum densifolium ssp. sanctorum</i>	Santa Ana River woollystar
<i>Eriastrum sapphirinum</i>	sapphire eriastrum
<i>Gilia angelensis</i>	chaparral gilia
POLYGONACEAE – BUCKWHEAT FAMILY	
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eriogonum thurberi</i>	Thurber's wild buckwheat
RUBIACEAE – COFFEE FAMILY	
<i>Galium aparine</i>	goose grass
SALICACEAE – WILLOW FAMILY	
<i>Populus fremontii ssp. fremontii</i>	Fremont cottonwood
SIMAROUBACEAE – SIMAROUBA FAMILY	
<i>Ailanthus altissima</i> *	tree of heaven
SOLANACEAE – NIGHTSHADE FAMILY	
<i>Datura wrightii</i>	Wright's jimsonweed
<i>Nicotiana glauca</i> *	tree tobacco
MONOCOTS	
ARECACEAE – PALM FAMILY	
<i>Phoenix canariensis</i> *	Canary Island palm
<i>Washingtonia robusta</i> *	Mexican fan palm
POACEAE – GRASS FAMILY	
<i>Arundo donax</i> *	giant reed
<i>Avena barbata</i> *	slender wild oat
<i>Avena fatua</i> *	wild oat
<i>Bromus diandrus</i> *	ripgut grass
<i>Bromus madritensis ssp. rubens</i> *	red brome
<i>Festuca myuros</i> *	rattail sixweeks grass
<i>Hordeum murinum</i> *	wall barley
<i>Schismus barbatus</i> *	barbed Mediterranean grass
THEMIDACEAE – BRODIAEA FAMILY	
<i>Dichelostemma capitatum</i>	blue dicks
* Non-native or invasive species	

APPENDIX B-2 WILDLIFE SPECIES OBSERVED DURING SURVEYS

Species	
Scientific Name	Common Name
LIZARDS	
PHRYNOSOMATIDAE - SPINY LIZARD FAMILY	
<i>Uta stansburiana</i>	common side-blotched lizard
BIRDS	
COLUMBIDAE - PIGEON AND DOVE FAMILY	
<i>Zenaida macroura</i>	mourning dove
CUCULIDAE - CUCKOO AND ROADRUNNER FAMILY	
<i>Geococcyx californianus</i>	greater roadrunner
APODIDAE - SWIFT FAMILY	
<i>Aeronautes saxatalis</i>	white-throated swift
CHARADRIIDAE - PLOVER FAMILY	
<i>Charadrius vociferus</i>	killdeer
ACCIPITRIDAE - HAWK FAMILY	
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo lineatus</i>	red-shouldered hawk
<i>Buteo jamaicensis</i>	red-tailed hawk
STRIGIDAE - TYPICAL OWL FAMILY	
<i>Bubo virginianus</i>	great horned owl
PICIDAE - WOODPECKER FAMILY	
<i>Melanerpes formicivorus</i>	acorn woodpecker
FALCONIDAE - FALCON FAMILY	
<i>Falco sparverius</i>	American kestrel
TYRANNIDAE - TYRANT FLYCATCHER FAMILY	
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Tyrannus vociferans</i>	Cassin's kingbird
CORVIDAE - JAY AND CROW FAMILY	
<i>Aphelocoma californica</i>	California scrub-jay
<i>Corvus brachyrhynchos</i>	American crow
ALAUDIDAE - LARK FAMILY	
<i>Eremophila alpestris</i>	horned lark
HIRUNDINIDAE - SWALLOW FAMILY	
<i>Petrochelidon pyrrhonota</i>	cliff swallow
TROGLODYTIDAE - WREN FAMILY	
<i>Thryomanes bewickii</i>	Bewick's wren
MIMIDAE - MOCKINGBIRD AND THRASHER FAMILY	
<i>Mimus polyglottos</i>	northern mockingbird
STURNIDAE - STARLING FAMILY	
<i>Sturnus vulgaris*</i>	European starling*
PASSERIDAE - OLD WORLD SPARROW FAMILY	
<i>Passer domesticus*</i>	house sparrow*

APPENDIX B-2 WILDLIFE SPECIES OBSERVED DURING SURVEYS

Species			
Scientific Name	Common Name		
FRINGILLIDAE - FINCH FAMILY			
<i>Haemorhous mexicanus</i>	house finch		
<i>Spinus psaltria</i>	lesser goldfinch		
PASSERELLIDAE - NEW WORLD SPARROW FAMILY			
<i>Melospiza crissalis</i>	California towhee		
<i>Chondestes grammacus</i>	lark sparrow		
<i>Passerculus sandwichensis</i>	savannah sparrow		
<i>Zonotrichia leucophrys</i>	white-crowned sparrow		
ICTERIDAE - BLACKBIRDS AND ORIOLES			
<i>Icterus bullockii</i>	Bullock's oriole		
PARULIDAE - WOOD-WARBLER FAMILY			
<i>Setophaga coronata</i>	yellow-rumped warbler		
MAMMALS			
SCIURIDAE - SQUIRREL FAMILY			
<i>Otospermophilus beecheyi</i>	California ground squirrel		
GEOMYIDAE - POCKET GOPHER FAMILY			
<i>Thomomys bottae</i>	Botta's pocket gopher		
LEPORIDAE - HARE AND RABBIT FAMILY			
<i>Lepus californicus</i>	black-tailed jackrabbit		
<i>Sylvilagus audubonii</i>	desert cottontail		
CANIDAE - CANID FAMILY			
<i>Canis latrans</i>	coyote		
MEPHITIDAE - SKUNK FAMILY			
<i>Mephitis mephitis</i>	striped skunk		
USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife Species Status: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Federal (USFWS) FE Endangered FT Threatened FCE Federal Candidate Endangered FCT Federal Candidate Threatened FPD Proposed for delisting FC Candidate </td> <td style="width: 50%; vertical-align: top;"> State (CDFW) SE Endangered ST Threatened SCE Candidate Endangered SCT Candidate Threatened SCD Candidate for delisting FP Fully Protected SSC Species of Special Concern </td> </tr> </table>		Federal (USFWS) FE Endangered FT Threatened FCE Federal Candidate Endangered FCT Federal Candidate Threatened FPD Proposed for delisting FC Candidate	State (CDFW) SE Endangered ST Threatened SCE Candidate Endangered SCT Candidate Threatened SCD Candidate for delisting FP Fully Protected SSC Species of Special Concern
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* Non-native or invasive species			