Appendix B

Biological Technical Report

BIOLOGICAL TECHNICAL REPORT

FOR THE

NAPA DEVELOPMENT PROJECT

LOCATED IN THE CITY OF RANCHO CUCAMONGA, COUNTY OF SAN BERNARDINO, CALIFORNIA

Prepared For:

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January 21, 2021

INFORMATION SUMMARY

A. Report Date: January 21, 2021

B. Report Title: Biological Technical Report for the Napa Development Project, an Approximate 35.34-Acre Property Located in the City of Rancho Cucamonga, San Bernardino County, California

C. Project Site Location: Latitude 34.5466 and longitude -117.31073, located north of Napa Street, east of East Etiwanda Creek channel, south of the Burlington Northern Santa Fe Railway, and west of San Sevaine Channel, partially within the City of Rancho Cucamonga and San Bernardino County, California

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F. Report Summary:

A biological study was performed for the Napa Development Project (Project site) located partially within the City of Rancho Cucamonga, San Bernardino County, California. This report identifies biological and aquatic resources that may pose a constraint in support of future evaluation of a project under the California Environmental Quality Act (CEQA). Additionally, this report identifies resources subject to State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), Porter-Cologne Water Quality Control Act (Porter-Cologne), and the California Fish and Game Code.

Habitat assessments and focused surveys were performed for special-status plants and animals, and a jurisdictional determination was performed for the presence/absence of federal and state jurisdictional waters and wetlands. The Project site does not contain

state or federal jurisdictional waters including that of the Regional Water Quality Control Board (RWQCB), California Department of Wildlife (CDFW), or Army Corps of Engineers (Corps).

The Project site does not support any special-status plants or vegetation types identified by the CNDDB. Two special-status species, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and northern harrier (*Circus hudsonius*) were detected. Habitat assessments were conducted for Delhi Sands flower-loving fly (*Raphiomidas terminatus abdominalis* DSFF), San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, LAPM) and determined that the DSFF, SBKR and LAPM are absent from the Project site. Focused surveys for burrowing owl were conducted and the species was determined to be absent from the Project site. The Project site does support suitable habitat for nesting birds and raptors. The Project site is not located within areas mapped by USFWS as critical habitat. The Project site is located within the Delhi Sands flower-loving fly Ontario Recovery Unit boundary, although not within the Delhi Sands flower-loving fly Delhi sands mapped soils.

G. Individuals Conducting Fieldwork: April Nakagawa, Jeff Ahrens, Jillian Stephens, and Stephanie Cashin

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general biological surveys and focused biological surveys for the Napa Development Project (Project) located in the City of Rancho Cucamonga, San Bernardino County, California. The Project includes the development of approximately 35.39 acres of the 35.70-acre Project site and 0.31 acre of offsite improvements. Approximately 2.76 acres of the site consists of an existing railroad that will not be modified by the Project. This report identifies biological resources associated with the Project site in support of the development of the property. This report identifies biological and aquatic resources that may pose a constraint in support of future evaluation of a project under the California Environmental Quality Act (CEQA). Additionally, this report identifies resources subject to State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), Porter-Cologne Water Quality Control Act (Porter-Cologne), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 35.70-acre Project site, all methods employed regarding the general biological surveys and focused biological surveys, and the documentation of botanical and wildlife resources identified (including special-status species). Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would identify biological resources, including (1) general biological survey and vegetation mapping; (2) habitat assessments and focused surveys for special-status plant species; and (3) habitat assessments and focused surveys for special-status wildlife species. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Site Location

The Project site comprises approximately 35.70 acres in the City of Rancho Cucamonga, San Bernardino County, California [Exhibit 1 – Regional Map] and is located at latitude 34.052767 and longitude -117.310056 within Section) 9 and 16 of Township 1 South, Range 6 West, of the Guasti, California U.S. Geological Survey (USGS) 7.5" topographic quadrangle map (dated 1966 and photorevised in 1981)[Exhibit 2 – Vicinity Map]. The Project site is located north of Napa Street, east of East Etiwanda Creek channel, south of Burlington Northern Santa Fe (BNSF) Railway, and west of San Sevaine Channel [Exhibit 3 – Aerial Map]. The Project site is comprised of two adjacent parcels that is bisected by a railway line. The parcels are currently undeveloped vacant lots. Current land uses include commercial and industrial buildings to the north, east, and south, and East Etiwanda Channel and a commercial building to the west.

1.3 Project Description

The Project Applicant, Hillwood Investment Properties, is proposing to develop the Speedway Commerce Center (proposed Project) consisting of two warehouse buildings to include approximately 20,000 sf of office space and 632,034 sf of warehouse space for a total of 650,960 square feet (sf) and associated parking and landscaping on approximately 35 acres [Exhibit 3 – Site Plan Map]. The proposed Project includes Assessor's Parcel Numbers 0229-291-54 and 0229-291-46.

The two proposed warehouse buildings would comprise approximately 42 percent of the total proposed Project site area and include approximately 650,960 sf of building area. Each of the two proposed warehouse buildings would include 10,000 sf of office space. Building A has a typical height of 46 feet and Building B has a typical height of 38 feet.

The proposed Project would also include the creation of 381 parking stalls surrounding the two proposed buildings. Of the 381 parking stalls, 330 provide parking for standard vehicles, 13 provide parking for handicap accessibility, 38 provide parking for clean air vehicles, and 107 have been designed as trailer stalls. The proposed Project would provide 102 more standard vehicle stalls, and 5 more trailer stalls than is required for a project of this size and intensity.

Offsite improvements include construction of a driveway access and improvements to the pedestrian sidewalk along the southern boundary of the Project site.

2.0 METHODOLOGY

Glenn Lukos Associates (GLA) assembled biological data to identify biological and sensitive natural resources. The assembled data consists of the following main components:

- Evaluation of the Project site for aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and CDFW;
- Performance of vegetation mapping for the Project site; and
- Performance of habitat assessments, and site-specific biological surveys, to evaluate the presence/absence of special-status species.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB [CDFW 2020], CNPS 8th edition online inventory (CNPS 2020), Natural Resource Conservation Service (NRCS) soil data, other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot throughout the Project site for each target plant or animal species identified below. Table 2-1 provides a summary list of survey dates, survey types, and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site.

Survey Type	2020 Survey Dates	Biologist(s)
Evaluation for Federal and State Jurisdictional Waters	4/14	AN
Focused Burrowing Owl Surveys	4/14, 5/5, 6/2, 6/23	AN
General Biological Survey	4/27, 8/26	SC, JA
Focused Plant Surveys	4/27, 6/2, 8/26	JS, AN, JA
Vegetation Mapping	8/26	JA

AN – April Nakagawa, JA = Jeff Ahrens, JS = Jillian Stephens, SC = Stephanie Cashin,

Individual plant and wildlife species are evaluated in this report based on their "special-status." For the purpose of this report, plants were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

Wildlife species were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State ESA;
- Proposed for listing under the Federal and/or State ESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered "special-status" based on one or more of the following criteria:

- Global (G) and/or State (S) ranking of category 3 or less based on CDFW (see Section 3.2.2 below for further explanation);
- Consideration as a wetland/riparian habitat; and/or
- Occurrence in the CNDDB inventory.

2.1 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and special-status vegetation communities that could occur within the Project site; (3) general field reconnaissance surveys; (4) vegetation mapping according to the List of Vegetation Alliances and Associations; and (5) habitat assessments and focused surveys for special-status plants.

2.1.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- California Native Plant Society, Rare Plant Program Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2020); and

- CNDDB for the USGS 7.5' quadrangles: Guasti and eight surrounding quadrangles (CNDDB 2020).

2.1.2 Vegetation Mapping

Because the Project site consisted of areas that are best described as developed and disturbed, there are no natural communities consistent with descriptions in the List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. Land-use/Land-cover types were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as Exhibit 5. Representative site photographs are included as Exhibit 6.

2.1.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

A literature search was conducted to obtain a list of special status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2020).

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project site was developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special status plants that may occur within the Project site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

2.1.4 Botanical Surveys

Focused plant surveys were conducted by GLA biologist Jillian Stephens on April 27, 2020, GLA biologist April Nakagawa on June 2, 2020, and GLA biologist Jeff Ahrens on August 26, 2020. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were

conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

2.2 Wildlife Resources

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFG 2008), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggert (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7th Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.2.1 General Surveys

Birds

During the general biological and reconnaissance survey within the Project site, birds were detected incidentally by direct observation and/or by vocalizations, with identifications recorded in field notes.

Mammals

During general biological and reconnaissance survey within the Project site, mammals were identified and detected incidentally by direct observations and/or by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance surveys within the Project site, reptiles and amphibians were incidentally observed and identified. Habitats were examined for diagnostic reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

2.2.2 Special-Status Animal Species Evaluated for the Project Site

A literature search was conducted in order to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on two factors: 1)

species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.2.3 Habitat Assessment for Special-Status Animal Species

Delhi Sands Flower Loving Fly Assessment

On May 22, 2020, a Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) (DSFF) habitat assessment was conducted by Ecological Sciences principal biologist Scott Cameron (TE-808642-8). The site was examined on foot by walking a series of meandering transects across the subject property. Dominant plant species and other habitat characteristics present at the site were identified to assess the overall habitat value. The Delhi Sands flower-loving fly habitat assessment report is attached as Appendix C.

Small Mammal Assessment

On April 23, 2020, a Phase One Assessment was conducted by Phillipe Vergne of ENVIRA (TE-831207), for San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*; LAPM). The habitat assessment included walking transects throughout the entire Project site and looking for evidence of LAPM or SBKR occupation including burrows, scat, tail-drags or footprints attributed to each species. Results of the small mammal habitat assessments are discussed in Section 4 and the Phase One Assessment Report is attached as Appendix D.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

GLA biologist April Nakagawa conducted focused surveys for the burrowing owl (*Athene cunicularia*) for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2012 CDFG Staff Report on Burrowing Owl Mitigation. The guidelines stipulate that four focused survey visits should be conducted between February 15 and July 15, with the first visit occurring between February 15 and April 15. The remaining three visits should be conducted three weeks apart from each other, with at least one visit occurring between June 15 and July 15. Focused surveys were conducted on April 14, May 5, June 2 and June 23, 2020. As recommended by the survey guidelines, the survey visits were conducted between morning civil twilight and 10:00 AM. Weather conditions during the surveys were conducive to a high level of bird activity.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Transects were spaced between 7 m and 20 m apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 m along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied

burrows. Exhibit 6 provides locations of suitable burrows mapped during the transect surveys. Table 2-2 summarizes the dates, personnel, and conditions during the burrowing owl survey visits. Exhibit 7 identifies the burrowing owl survey area and burrows detected at the Project site. The results of the burrowing owl surveys are discussed further in Section 4.0 of this report.

Table 2-2. Summary of 2020 Burrowing Owl Surveys

Survey Date	Biologist	Start/End Time	Start/End Temperature	Start/End Wind Speed (mph)	Start/End Cloud Cover (%)
4/14/20	AN	0715/1000	52/62	10/5	0/0
5/5/20	AN	0700/0945	66/81	1/2	0/0
06/2/20	AN	0630/0945	64/76	0-2/1-2	50/100
06/23/20	AN	0630/0930	62/72	0-1/1-2	100/0

2.3 Jurisdictional Waters

GLA biologist April Nakagawa evaluated the Project site on April 14, 2020 to determine if potential jurisdictional waters were present. Prior to beginning the field evaluation, a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine if potential locations of Corps, Regional Board, or CDFW jurisdiction could be observed from the aerial photograph. The Project site was field checked to look for definable channels and/or wetland vegetation, soils and hydrology. Evaluation of the site for wetlands followed the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement) and Section 1600-1617 of the FGC.

3.0 REGULATORY SETTING

The Project site is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish,

amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the

action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.2 Other Special-Status Plants, Wildlife and Vegetation Communities

3.2.1 Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FC Federal Candidate Species (former C1 species)
- FSC Federal Species of Concern (former C2 species)

3.2.2 State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511,

respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- SFP State Fully Protected
- SP State Protected
- SSC State Species of Special Concern

3.2.3 CNDDB Global/State Rankings

The CNDDB provides global and state rankings for species and communities based on a system developed by The Nature Conservancy to measure rarity of a species. The ranking provides a shorthand formula about how rare a species/community is and is based on the best information available from multiple sources, including state and federal listings, and other groups that recognize species as sensitive (e.g., Bureau of Land Management, Audubon Society, etc.). State and global rankings are used to prioritize conservation and protection efforts so that the rarest species/communities receive immediate attention. In both cases, the lower ranking (i.e., G1 or S1) indicates extreme rarity. Rare species are given a ranking from 1 to 3. Species with a ranking of 4 or 5 is considered to be common. If the exact global/state ranking is undetermined, a range is generally provided. For example, a global ranking of "G1G3" indicates that a species/community global rarity is between G1 and G3. If the animal being considered is a subspecies of a broader species, a "T" ranking is attached to the global ranking. The following are descriptions of global and state rankings:

Global Rankings

- G1 – Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or because of some factor(s) making it especially vulnerable to extinction.
- G2 – Imperiled globally because of rarity (6-20 occurrences), or because of some other factor(s) making it very vulnerable to extinction throughout its range.
- G3 – Either very rare and local throughout its range (21 to 100 occurrences) or found locally (even abundantly at some of its locations) in a restricted range (e.g., a physiographic region), or because of some other factor(s) making it vulnerable to extinction throughout its range.
- G4 – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 – Common, widespread and abundant.

State Rankings

- S1 – Extremely rare; typically, 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically, between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically, 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.
- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

3.2.4 California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Eighth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that are summarized in Table 3-1.

Table 3-1. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a), pursuant to the *Navigable Waters Protection Rule*[1] (NWPR), as:

[1] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(a) Jurisdictional waters. For purposes of the CWA, 33 U.S.C. 1251 *et seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ‘‘waters of the United States’’ means:

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(2) Tributaries;
(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not ‘‘waters of the United States’’:

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

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

1. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

* More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[2],[3]);

* Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

* Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[4] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are

[2] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[3] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

[4] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be “waters of the U.S.” in an approved jurisdictional determination; “waters of the U.S.” identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of “waters of the U.S.” or any current or historic federal regulation defining “waters of the U.S.” under the federal Clean Water Act.

defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

1. State Wetland Definition

The State Board Wetland Definition and Procedures define an area as wetland as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.*

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[5] *and*
3. *Artificial wetlands*[6] *that meet any of the following criteria:*

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

[5] “Created by modification of a surface water of the state” means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.
[6] Artificial wetlands are wetlands that result from human activity.

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[7]

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1617 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC

[7] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, and a jurisdictional evaluation for Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, Waters of the State subject to the jurisdiction of the Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

As previously stated, the Project site is comprised of two adjacent parcels that are bisected by a BNSF railway line. The parcels consist of undeveloped vacant land that is highly disturbed. Historic aerial photography (dating as far back as 1938) appears to show that the majority of the Project site and environs have been dry farmed for at least 30 years and then continued to be mechanically disturbed thereafter. A review of historic aerial photography shows as far back as 1938 and up until 1959, East Etiwanda Creek Channel traversed through the westernmost portion of the Project site. However, through decades of farming, mechanical disturbance and flood control measures, the Project site is no longer part of the active wash associated with the creek. Several scalebroom (*Lepidospartum squamatum*) occur at the western edge of the property, confirming that the Project site at one time was part of the wash and supported alluvial scrub habitat. However, the modification of the site has removed all functional aspects of alluvial scrub, with the remaining scalebroom being a remnant of the former habitat.

The Project site appear to support an underlying gravel or road base that is densely compacted throughout the site. Vegetation protruding from the compact gravel is comprised predominantly of disturbed ruderal species.

The Project site is bordered by rural residential and commercial properties to the north, commercial property to the south and east, and Etiwanda channel to the west. Elevation on site ranges from 1,097 to 1,125 feet above mean sea level (AMSL).

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the Project site [Exhibit 4: Soils Map]:

- ***Tujunga Loamy Sand, 0 to 5 Percent Slopes (TuB)***
- ***Tujunga Gravelly Loamy Sand, 2 to 9 Percent Slopes (TvC)***

The Tujunga series consists of somewhat excessively drained nearly level to moderately sloping soils that formed on alluvial fans in granitic alluvium. Slopes are 0 to 9 percent. The soil is brown loamy sand and pale brown coarse sand that extends to a depth of 60 inches or more. The Tujunga

soils are rapidly permeable and are used for irrigated crops such as citrus, grapes, grains, and potatoes.

4.2 Vegetation Mapping

The Project site supports the following vegetation and land-use types: Developed and Disturbed. Table 4-1 provides a summary of the vegetation/land-use types. Descriptions of each vegetation/land use type follow the table. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 6.

Table 4-1. Summary of Vegetation/Land Use Types for the Project Site

Vegetation/ Land Use Type	Onsite (Acres)	Offsite (Acres)	Total (Acres)
Developed	1.70	0.30	2.01
Disturbed	33.69	0.01	33.69
Total	**35.39**	**0.31**	**35.70**

Developed
The Project site supports 2.01 acres of developed lands of which 1.70 acres occurs onsite and 0.30 acre is associated with the offsite improvement areas. Developed areas include existing access roads, pedestrian sidewalks, and a BNSF railway line that bisects the Project site [Exhibit 5]. These areas are predominantly unvegetated.

Disturbed
The Project site supports 33.69 acres of disturbed lands that contain imported compacted material including gravel and road base. The Project site is approximately 50-percent vegetated with mostly non-native herbaceous ruderal species dominated by shortpod mustard (*Hirschfeldia incana*), Mediterranean schismus (*Schismus barbatus)*, annual bursage (*Ambrosia acanthicarpa*), and Russian thistle (*Salsola australis*). Other common species includes doveweed (*Croton setiger*), Maltese star-thistle (*Centaurea melitensis*), cudweed (*Pseudognaphalium* sp.) and golden crownbeard (*Verbesina encelioides*).

As previously stated, until 1959 the westernmost portion of the Project site was part of East Etiwanda Creek Channel. However, through decades of farming, mechanical disturbance and flood control measures, the Project site no longer supports alluvial scrub on site. Only a trace amount of remnant alluvial species remain, including several scalebroom and a handful of giant eriastrum (*Eriastrum densifolium* ssp. *densifolium*).

In addition, the Project site supports a small amount of other native species including California croton, telegraphweed (*Heterotheca grandiflora*), western sunflower (*Helianthus annuus*), and slender buckwheat (*Eriogonum gracile*). A complete floral compendium is included in Appendix A.

4.3 Wildlife

A total of 40 animal species, including invertebrates, reptiles, birds, and mammal, were recorded for the site, the majority of which are common to urban or disturbed areas. Two species of reptiles were observed, the common side-blotched lizard (*Uta stansburiana*) and Great Basin fence lizard (*Sceloporus occidentalis*).

Twenty-five bird species were observed within the Project site, none of which are considered special-status species, include northern harrier (*Circus hudsonius*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), horned lark (*Eremophila alpestris*), rock pigeon (*Columba livia*), Eurasian collared-dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), white-throated swift (*Aeronautes saxatilis*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), northern rough-winged swallow (*Stelgidopteryx serripennis*), bushtit (*Psaltriparus minimus*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), and house sparrow (*Passer domesticus*).

Three mammal species were detected within the Project site, one of which is considered a special-status species, San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), which is discussed further below. The remaining two mammal species detected within the Project site include, desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*).

A complete faunal compendium is included in Appendix B.

4.4 Special-Status Vegetation Communities (Habitats)

The CNDDB identifies the following eight special-status vegetation communities for the Guasti and surrounding quadrangle maps: coastal and valley freshwater marsh, Riversidean alluvial fan sage scrub, southern California arroyo chub/Santa Ana sucker stream, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern riparian forest, southern sycamore alder riparian woodland, and southern willow scrub. The Project site does not contain any of these special-status vegetation types identified by the CNDDB.

4.5 Special-Status Plants

No special-status plants were detected at the Project site and none are expected to occur due to a lack of suitable habitat. Table 4-2 provides a list of special-status plants evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site and 2) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

Table 4-2. Special-Status Plants Evaluated for the Project site

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

CNPS Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Occurrence

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Brand's star phacelia *Phacelia stellaris*	Federal: None State: None CNPS: Rank 1B.1	Coastal dunes and coastal sage scrub. Annual herb. Blooming from Mar-Jun.	Does not occur
Braunton's milk-vetch *Astragalus brauntonii*	Federal: FE State: None CNPS: Rank 1B.1	Closed-cone coniferous forest, chaparral, coastal sage scrub, valley and foothill grassland. Usually carbonate soils. Recent burn or disturbed areas. Perennial herb. Blooming from Jan-August.	Does not occur
California muhly *Muhlenbergia californica*	Federal: None State: None CNPS: Rank 4.3	Mesic habitats, including seeps and streambanks, in chaparral, coastal scrub, lower montane coniferous forest, and meadows. Perennial rhizomatous herb. Blooming Jun-Sept.	Does not occur

Species Name	Status	Habitat Requirements	Potential for Occurrence
California saw-grass *Cladium californicum*	Federal: None State: None CNPS: Rank 2B.2	Meadows and seeps, and alkaline or freshwater marshes and swamps. Perennial rhizomatous herb. Blooming from Jun-Sept.	Does not occur
Catalina mariposa lily *Calochortus catalinae*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland. Perennial bulbiferous herb. Blooming from Feb-Jun.	Does not occur
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CNPS: Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils. Annual herb. Blooming from Jan-Apr.	Does not occur
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: Rank 1B.1	Sandy soils in chaparral, coastal sage scrub. Annual herb. Blooming from Jan-Sept.	Absent
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: Rank 1B.1	Playas, vernal pools, marshes and swamps (coastal salt). Annual herb. Blooming from Feb-Jun.	Does not occur
Coulter's matilija poppy *Romneya coulteri*	Federal: None State: None CNPS: Rank 4.2	Often in burns in chaparral and coastal scrub. Perennial rhizomatous herb. Blooming from Mar-July.	Absent
Coulter's saltbush *Atriplex coulteri*	Federal: None State: None CNPS: Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland. Occurring on alkaline or clay soils. Perennial herb. Blooming from Mar-Apr.	Does not occur
Intermediate maropisa lily *Calochortus weedii var. intermedius*	Federal: None State: None CNPS: Rank 1B.2	Rocky calcareous soils in chaparral, coastal sage scrub, valley and foothill grassland. Perennial bulbiferous herb. Blooming from May-July.	Does not occur
Lewis' evening-primrose *Camissoniopsis lewisii*	Federal: None State: None CNPS: Rank 3	Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland. Annual herb. Blooming from Mar-Jun.	Absent
Lucky morning-glory *Calystegia felix*	Federal: None State: None CNPS: Rank 3.1	Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly silty loam and alkaline soils. Meadows and seeps (sometimes alkaline), riparian scrub (alluvial). Annual rhizomatous herb. Blooming from Mar-Sept.	Does not occur
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils. Perennial herb. Blooming from Apr-July.	Does not occur

Species Name	Status	Habitat Requirements	Potential for Occurrence
Mesa horkelia *cuneata* var. *puberula*	Federal: None State: None CNPS: Rank 1B.1	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub. Perennial herb. Blooming from Feb-Sept.	Does not occur
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: Rank 1B.1	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Perennial evergreen shrub. Blooming from Feb-Jun.	Does not occur
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CNPS: Rank 4.2	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools. Annual herb. Blooming from Apr-Nov.	Absent
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub. Annual herb. Blooming from Apr-Jun.	Does not occur
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: Rank 4.2	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland. Perennial bulbiferous herb. Blooming from May-July.	Does not occur
Prairie wedge grass *Sphenopholis obtusata*	Federal: None State: None CNPS: Rank 2B.2	Cismontane woodland and seeps, foothill meadows. Occurring in mesic soils. Perennial herb. Blooming from Apr-July.	Does not occur
Pringle's monardella *Monardella pringleii*	Federal: None State: None CNPS: Rank 1A	Coastal sage scrub with sandy soil. Annual herb. Blooming from Apr-July.	Does not occur
Prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CNPS: Rank 1B.1	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils. Annual herb. Blooming from Apr-July.	Does not occur
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: Rank 4.3	Chaparral, coastal sage scrub. Annual herb. Blooming from Jan-July.	Does not occur
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CNPS: Rank 1B.2	Coastal dune, coastal salt marshes and swamps. Annual herb (hemiparasitic). Blooming from Mayr-Oct.	Does not occur
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Perennial herb. Blooming from Mar-Jun.	Does not occur
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CNPS: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Perennial	Does not occur

Species Name	Status	Habitat Requirements	Potential for Occurrence
		rhizomatous herb. Blooming from Jul-Nov.	
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: Rank 1B.1	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats. Perennial rhizomatous herb. Blooming from Apr-Oct.	Does not occur
Santa Ana River woolly star *Eriastrum densifolium* ssp. *sanctorum*	Federal: FE State: SE CNPS: Rank 1B.1	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils. Perennial herb. Blooming from Apr-Sept.	Does not occur
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: Rank 1B.1	Sandy soils in alluvial scrub, chaparral, cismontane woodland. Annual herb. Blooming from Apr-Jun.	Absent
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: Rank 1B.1	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats. Annual herb. Blooming from Apr-Sept.	Absent
Southern California black walnut *Juglans californica*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces. Perennial deciduous tree. Blooming from Mar-Aug.	Does not occur
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Perennial herb. Blooming from Jul-Dec.	Absent

4.5.1 Special-Status Plant Species Discussion for the Project Site

Santa Ana River Woollystar

Santa Ana River woollystar (*Eriastrum densifolium* subsp. *sanctorum*) is a member of the phlox family (POLEMONIACEAE) and is designated as a federal and state endangered species as well as a CNPS CRPR 1B.1 species. This perennial herb is known to occur in alluvial chaparral and coastal sage scrub from 90 to 610 meters (295 to 2,000 feet) MSL. Santa Ana River woollystar is known to occur from San Bernardino and Riverside counties and is known to bloom from May through September.

On August 26, 2020, five giant eriastrum (*Eriastrum densifolium* subsp. *densifolium*) were detected within the southwestern portion of the Project site in an area (based on a review of historic aerial photography) that was once part of East Etiwanda Creek Channel. This area is highly disturbed and no longer supports alluvial scrub habitat. The Santa Ana River woolystar is almost entirely confined to the Santa Ana River. The Santa Ana River woolystar was not detected during the focused plant surveys.

Slender-Horned Spine Flower

Slender-horned spine flower (*Dodecahema leptoceras*) is a member of the buckwheat family (POLYGONACEAE) and is a federal and state listed endangered species as well as a CNPS List 1B.1 species. This annual herb is known to occur in late stage chaparral, cismontane woodland and coastal scrub on alluvial benches from 200 to 760 meters (656 to 2,490 feet) MSL. Slender-horned spine flower is known to occur in Los Angeles, San Bernardino and Riverside counties and is known to bloom from April through June.

As previously mentioned, a review of historic aerial photography (dating as far back as 1938) appears to show that the majority of the Project site and environs have been dry farmed for at least 30 years and then continued to be mechanically disturbed thereafter. Historic aerial photography shows as far back as 1938 and up until 1959, East Etiwanda Creek Channel traversed through the westernmost portion of the western parcel of the Project site. However, through decades of farming, mechanical disturbance and flood control measures, the Project site no longer supports alluvial scrub. The slender-horned spine flower was not detected during the focused plant surveys.

4.6 Special-Status Animals

Two special-status animals, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and northern harrier (*Circus hudsonius*) were detected at the Project site. Two special-status bird species have a potential to occur onsite (foraging only): golden eagle (*Aquila chrysaetos*), and Swainson's hawk (*Buteo swainsoni*).

Table 4-3 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

Table 4-3. Special Status Animals Evaluated for the Project site

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate
BGEPA– Bald and Golden Eagle Protection Act

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
CFP – California Fully-Protected Species
SSC – Species of Special Concern

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

Occurrence

- Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SCE	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Not expected to occur
Delhi-sands flower-loving fly *Raphiomidas terminatus abdominalis*	Federal: FE State: None	Fine, sandy soils often associated with wholly or partially consolidated dunes referred to as the "Delhi" series. Vegetation consists of a sparse cover, including Californica buckwheat, California croton, deerweed, and evening primrose.	Absent. Habitat assessment confirmed no suitable habitat.
Fish			
Arroyo chub *Gila orcutti*	Federal: None State: SSC	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	Absent
Santa Ana speckled dace *Rhinichthys osculus* ssp. *3*	Federal: None State: SSC	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-	Absent

Species Name	Status	Habitat Requirements	Potential for Occurrence
		20 C. Usually inhabits shallow cobble and gravel riffles.	
Santa Ana sucker *Catostomus santaanae*	Federal: FT State: None	Small, shallow streams, less than 7 meters in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates.	Absent
Southern steelhead - southern California DPS *Oncorhynchus mykiss irideus*	Federal: FE State: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	Absent
Amphibians			
Arroyo toad *Anaxyrus californicus*	Federal: FE State: SSC	Breed, forage, and/or aestivate in aquatic habitats, riparian, coastal sage scrub, oak, and chaparral habitats. Breeding pools must be open and shallow with minimal current, and with a sand or pea gravel substrate overlain with sand or flocculent silt. Adjacent banks with sandy or gravely terraces and very little herbaceous cover for adult and juvenile foraging areas, within a moderate riparian canopy of cottonwood, willow, or oak.	Absent
Western spadefoot *Spea hammondii*	Federal: None State: SSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Absent
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Absent
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Not expected to occur
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Not expected to occur
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Not expected to occur

Species Name	Status	Habitat Requirements	Potential for Occurrence
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: SSC	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Absent
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC	Occurs primarily in areas with sandy or loose soil, or where there is plenty of leaf litter. Associated with coastal sage scrub, chaparral, coastal dunes, valley/foothill grasslands, oak woodland. pine forest, sandy washes and alluvial fans	Not expected to occur
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Absent
Western pond turtle *Emys marmorata*	Federal: None State: SSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Absent
Birds			
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Confirmed absent during focused surveys
California black rail *Laterallus jamaicensis coturniculus*	Federal: None State: ST, FP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Absent
Coastal cactus wren *Campylorynchus brunneicapillus sandiegensis*	Federal: None State: SSC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Absent
Coastal California gnatcatcher *Polioptila californica*	Federal: FT State: SSC	Low elevation coastal sage scrub and coastal bluff scrub.	Absent
Grasshopper sparrow (nesting) *Ammodramus savannarum*	Federal: None State: SSC	Open grassland and prairies with patches of bare ground.	Absent
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: None State: FP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Potential to occur for foraging only

Species Name	Status	Habitat Requirements	Potential for Occurrence
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Absent
Long-eared owl (nesting) *Asio otus*	Federal: None State: SSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Absent
Northern harrier (nesting) *Circus hudsonius*	Federal: None State: SSC	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Present
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Absent
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST	Summer in wide open spaces of the American West. Nest in grasslands but can use sage flats and agricultural lands. Nests are placed in lone trees.	Potential to occur for foraging only
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: SCE, SSC	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Absent
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT, State: SE	Dense, wide riparian woodlands with well-developed understories.	Absent
Yellow rail *Coturnicops noveboracensis*	Federal: None State: SSC	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish marshes, as well as dense, deep grass, and rice fields.	Absent
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Absent
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Absent
Mammals			
Big free-tailed bat *Nyctinomops macrotis*	Federal: None State: SSC WBWG: MH	Roost mainly in crevices and rocks in cliff situations; also utilize buildings, caves, and tree cavities.	Absent
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC	Fine, sandy soils in coastal sage scrub and grasslands.	Absent. Habitat assessment

Species Name	Status	Habitat Requirements	Potential for Occurrence
			confirmed no suitable habitat.
Northwestern San Diego pocket mouse *Chaetodipus fallax*	Federal: None State: SSC	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Absent
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Absent
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Absent
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Absent. Habitat assessment confirmed no suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	Present
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Absent
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Not expected to occur
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Absent
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Absent

4.6.1 Special-Status Wildlife Species Observed within the Project Site

Northern Harrier (*Circus cyaneus*) - The northern harrier is a CDFW Species of Special Concern for nesting. This species may forage on the Study area during migration and/or over winter in the general area. This species was detected flying over the Study area on one occasion during the field studies. There is no nesting habitat present. Because the status of this species is associated with nesting only, further analysis of the species is addressed under Raptor Use (Section 4.7), below.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) – The San Diego black-tailed jackrabbit is designated as a CDFW Species of Special Concern (SSC). The black-tailed jackrabbit is widespread throughout the western United States but is absent from the higher elevations of the Rocky Mountains, the Sierra Nevada, and the Cascades (Hall 1981). Black-tailed-jackrabbits typically prefer open scrub and grassland habitats but are also found in non-natural areas, including agriculture and residential/urban development. They typically do not burrow but take shelter at the base of shrubs in shallow depressions called forms. Threats include habitat loss, habitat fragmentation, and isolation of populations.

One San Diego black-tailed jackrabbit was observed on two occasions within the eastern portion of the Project site.

4.6.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur at the Project site

Burrowing Owl (*Athene cunicularia hypugaea*) – The burrowing owl is designated as a CDFW California Species of Special Concern (SSC) at burrow sites and some wintering sites. The burrowing owl breeds in much of southern California and western and mid-western U.S. The winter range is similar to the breeding range. The burrowing owl requires large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows, and may also use pipes, culverts, and nest boxes where burrows are scarce. The species appears to be seriously threatened with extirpation from central, western, and Southern California because land development.

The burrowing owl was not detected during focused breeding surveys. The burrow owl survey area and burrows are depicted in Exhibit 7 [Burrowing Owl Survey Map]. Although the burrowing owl was not detected during focused breeding surveys, suitable habitat occurs on site. Therefore, it is recommended that a preconstruction presence/absence survey for burrowing owl be conducted between 14 and 30 days prior to site disturbance. Refer to Section 6.0 for details.

Golden Eagle (*Aquila chrysaetos*) – The golden eagle is designated as a California Fully Protected Species and is considered a sensitive species when nesting or wintering. Golden eagles are sparsely distributed throughout most of California, occupying primarily mountain and desert habitats. Habitat for the golden eagle is typically grasslands, rolling foothills, mountain areas, sage-juniper flats, and desert within its range in California. The species requires large expanses for foraging and are not common in urbanized areas. Threats include habitat loss and fragmentation, and human disturbance.

The golden eagle has a low potential for foraging only within the Project site. The Project site does not provide suitable nesting habitat.

Swainson's Hawk (*Buteo swainsoni*) – The Swainson's hawk is designated as a state-listed threatened species. Typical habitat of the Swainson's hawk is open desert, sparse shrub lands, grassland, or cropland with nests in scattered trees within these habitats. The nests are typically in isolated large trees and may be located along roadsides or near urban residential development. Threats associated with this species decline are unclear.

The Swainson's hawk has a low potential for foraging only within the Project site and is not expected to nest on site due to a lack of suitable habitat including the presence of trees.

4.6.3 Special-Status Wildlife Species Where Specific Habitat Assessments were Conducted

Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) - The DSFF is designated as a federally endangered species and is restricted (endemic) to the Colton Dunes that once covered over approximately 40 square miles in northwestern Riverside and southwestern San Bernardino counties in southern California (USFWS 1997; USDA 1980) in irregular patches.

The fly is tied to fine, sandy soils, often with wholly or partly consolidated dunes referred to as the "Delhi" series (USFWS 1993). The fly is typically found in relatively intact, open, sparse, native habitats with less than 50 percent vegetative cover (USFWS 1997). The vegetation type, desert sand-verbena series includes *Eriogonum fasciculatum*, *Croton californicus*, *Lotus scoparius*, and *Oenothera californica* (Sawyer and Keeler-Wolf 1993). In some cases, *Eriogonum fasciculatum*, *Heterotheca grandiflora*, and *Croton californicus* are associated with the presence of Delhi sands flower-loving fly (Ballmer1989, USFWS 1997). In addition, *Ambrosia acanthocarpa, Amsinkia intermedia, Eriastrum sapphirinum, Eriogonum thurberi, Lessingia glandulifera* (USFWS 1993), and *Eriastrum filifolium* (Cazier 1985) have also been found in association with the fly.

Formerly widespread over the Colton Dunes, the Delhi Sands flower-loving fly now is restricted to 12 known populations, of which 11 are small and highly vulnerable to extinction. Virtually all populations occur in small, isolated habitat patches surrounded by incompatible land uses. Extensive surveys for *R. t. abdominalis* by Ballmer (1989) and others (USFWS 1993, 1997) indicate that it now occupies less than 2.5 percent of the total Delhi sands available because of conversion to other uses including dairy, agriculture, etc.

The Project site is located within the DSFF Ontario Recovery Unit boundary, but not within the Delhi Sands flower-loving fly Delhi sands mapped soils. However, the Project site does contain two of eight constituent soil types, Tujunga gravelly loamy sand and Tujunga loamy sand, identified as potentially suitable habitat for DSFF [Exhibit 4].

As previously mentioned, Mr. Cameron conducted a Delhi Sands flower-loving fly habitat assessment for the Project site and did not detect any potential suitable habitat on site. The Delhi Sands flower-loving fly habitat assessment is attached as Appendix C.

Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*) – The LAPM is designated as a CDFW Species of Special Concern. The historic range of the LAPM was estimated to be from Burbank and San Fernando in Los Angeles County east to the City of San Bernardino, San Bernardino County (the type locality) (Hall 1981). Its range extends eastward to the vicinity of the San Gorgonio Pass in Riverside County, and southeast to Hemet and Aguanga, and possibly to Oak Grove, in north-central San Diego County (Hall 1981; Patten *et al.* 1992).

The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams 1986). This species occurs in open sandy areas in the foothills and valleys of southwestern California (Hall 1981).

The Phase One habitat assessment conducted by Mr. Vergne did not detect any sign (burrows, scat, tail-drags, footprints) attributable to LAPM within the Project site. Mr. Vergne did observe LAPM burrows offsite within East Etiwanda Creek Channel. The Phase One Small Mammal Assessment Report is attached as Appendix D.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) – The SBKR is designated as a federally endangered species and a CDFG Species of Special Concern. The historic range of the subspecies SBKR lies west of the desert divide of the San Jacinto and San Bernardino mountains and extends from the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County (Lidicker 1960; Hall 1981).

The SBKR, a subspecies of the Merriam's kangaroo rat (*Dipodomys merriami*), typically is found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub (McKernan 1997 as cited in USFWS 1998). Braden and McKernan (2000) suggest that the SBKR also occurs in other habitats in their range, including chaparral and even disturbed areas that are associated with alluvial processes.

Soil texture is a primary factor in this subspecies' occurrence. Sandy loam substrates allow for the digging of simple, shallow burrows (McKernan 1997 as cited by USFWS 1998). *D. merriami*, and other kangaroo rat species, actively avoid rocky substrates (Brown and Harney 1993). Soils along occupied portions of the San Jacinto River include riverwash, Tujunga loam sand, Soboba cobbly loamy sand, Hanford coarse sandy loam, and Gorgonio loamy sand (Knecht 1971). All of these soils developed from granitic sources. However, as with vegetation types, Braden and McKernan (2000) demonstrated that the SBKR occurs in various soil types, so soil alone cannot be used to rule out occupation. They argue that live-trapping is the only way to confirm or rule out occupation.

Vegetation and other plant species consistent with SBKR occupation, includes California buckwheat (*Eriogonum fasciculatum*), scalebroom California croton yerba santa (*Eriodictyon* sp.), deerweed (*Lotus scoparius*), telegraphweed (*Heterotheca grandiflora*), western verbena (*Verbena lasiostachys*), and red-stemmed filaree (*Erodium cicutarium*). They also include a high percentage cover of invasive non-native grasses and ruderal species such as bromes (*Bromus* spp.), slender wild oat (*Avena barbata*), tocalote (*Centaurea melitensis*), and black mustard (*Brassica nigra*). These invasive species tend to preclude the SBKR where they grow in high densities. In most cases, SBKR scat and burrows are present but difficult to detect in disturbed habitat, indicating that the population occurs at very low or trace densities.

The highest quality habitat supports abundant SBKR surface sign and is almost free of invasive species (although all areas exhibit some disturbance in the form of exotics and ground disturbances). High quality habitat supports California buckwheat, California croton, and deerweed as dominant species, and scattered Spanish bayonet (*Yucca whipplei*), cacti (*Opuntia* spp.) and a variety of native annual forbs such as phacelia (*Phacelia* sp.), lupine (*Lupinus* sp.),

cryptantha (*Cryptantha* sp.), and popcorn flower (*Plagiobothrys* sp.). Such areas support little black mustard and brome grasses.

The Phase One habitat assessment conducted by Mr. Vergne did not detect any sign (burrows, scat, tail-drags, footprints) attributable to the SBKR within the Project site. In addition, Mr. Vergne did not observe any evidence of SBKR sign offsite within East Etiwanda Creek Channel. The Phase One Small Mammal Assessment Report is attached as Appendix D.

4.7 Raptor Use

The Project site is highly disturbed and devoid of trees. The Project site does not provide suitable nesting habitat but does provide suitable foraging habitat for a number of raptor species, including special-status raptors. Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), and American Kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

The Project site is highly disturbed, devoid of trees, and contains compacted soils. Nonetheless, the Project site provides some foraging resources for raptors. Three raptor species including the red-tailed hawk, northern harrier, and American kestrel were detected flying over the Project site. The Project site does not provide suitable nesting habitat for these species.

4.8 Nesting Birds

The Project site contains ground cover and shrubs that provide suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[8]

4.9 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations. The Project site does not support a habitat linkage, as it is fenced, is in a highly disturbed condition, lacks natural habitat or topography, and is predominantly surrounded by development.

[8] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired. The Project site does not contain a wildlife corridor, as it is fenced, is in a highly disturbed condition, lacks natural habitat or topography, and is predominantly surrounded by development.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species. As mentioned above, the Project site has the potential to support common species of nesting birds but does not support bird species that require nesting in rookeries.

4.10 Critical Habitat

The Project site is not located within areas mapped by USFWS as critical habitat.

4.11 Jurisdictional Waters

The Project site does not contain any jurisdictional waters subject to the jurisdiction of the Corps, Regional Board, or CDFW. The site lacks any channelized features that exhibit an ordinary high water mark (Corps/Regional Board jurisdiction) and a bed, bank and channel (CDFW jurisdiction), and the site does not support any wetlands/riparian vegetation.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.
Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other off site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into

native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement 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 of California:

> *"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 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 CEQA, Section 15064.7 (Thresholds of Significance), 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 threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2017 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

a) 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.

b) 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.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Impacts to Native Vegetation

The Project site does not support natural vegetation communities. Table 5-1 provides a summary of vegetation community impacts. The development of the proposed Project would remove 1.09 acres of developed lands (of which 0.79 acre is onsite and 0.30 acre is offsite) and 31.85 acres of disturbed lands (of which 31.84 acres is onsite and 0.01 acre is offsite). In addition, 2.76 acres within the Project site will not be modified by the Project (of which 0.92 acre is developed land and 1.84 acres is disturbed lands) as the BSNF Railway will remain. The Project will not result in a substantial adverse effect on any sensitive communities.

Table 5-1. Summary of Vegetation/Land Use Impacts

Vegetation/ Land Use Type	Permanent Impacts Onsite (Acres)	Permanent Impacts Offsite (Acres)	Avoided [BNSF Rail] (Acres)	Total (Acres)
Developed	0.79	0.30	0.92	**2.01**
Disturbed	31.84	0.01	1.84	**33.69**
Total	**32.63**	**0.31**	**2.76**	**35.70**

5.3 Impacts to Special-Status Plants

The proposed Project will not impact special-status plants due to the lack of suitable habitat and high level of disturbance at the Project site.

5.4 Impacts to Special-Status Animals

The proposed Project would result in the loss of habitat that supports or potentially supports the following listed special-status species: Swainson's hawk.

The proposed Project would result in the loss of habitat that supports or potentially supports the following non-listed special-status species: golden eagle, northern harrier, and San Diego black-tailed jackrabbit.

5.4.1 Impacts to Listed Species

Swainson's Hawk (*Buteo swainsoni*) - Development of the proposed Project would remove 31.85 acres (disturbed lands) of potential foraging habitat for migrating Swainson's hawks during spring/fall and winter. Although this species is listed as Threatened by the state of California, CESA does not protect migrant habitat unless the habitat supports breeding/nesting, thus protection under CESA would notbe triggered by the Project. Regardless, the removal of this amount of potential foraging habitat would not be a significant impact under CEQA. The number of individual Swainson's hawks potentially affected would be low.

5.4.2 Impacts to Non-Listed Species

In addition to the listed species discussed above, the proposed Project would impact habitat for other non-listed, special-status species that have either been observed on the Project footprint, or that have the potential to occur.

Burrowing Owl (*Athene cunicularia*) - The burrowing owl is designated as a CDFW Species of Special Concern. As summarized in Section 2.2.4, focused breeding surveys were conducted to determine presence/absence for burrowing owl. The burrowing owl was not detected during the focused breeding surveys. Exhibit 7 [Burrowing Owl Survey Area/Burrow Map] depicts the location of the burrowing owl survey areas and of burrows detected during the focused burrow survey. This species was confirmed absent from the Project site.

As burrowing owls were not observed within the Project site during focused surveys, proposed impacts to this species from development of the project would not cause impact to burrowing owl. However, due to the mercurial nature of the species and because at least one suitable burrow was detected on site, a pre-construction burrowing owl survey is recommended to avoid potential impacts to burrowing owls during construction. Refer to Section 6.0 for details.

Golden Eagle (*Aquila chrysaetos*) - This species is designated as a state CDFW Species of Special Concern. Nesting for this species requires low levels of disturbance and occurs in locations not easily noticed and/or easily gotten to (e.g. high cliff face, top of power pole). There is no potential habitat for golden eagle within the Project site of in the vicinity. Development of the proposed Project would remove 31.85 acres (disturbed lands) of potential foraging habitat. Removal of this amount of potential foraging habitat would not be a significant impact under CEQA.

Northern Harrier (*Circus cyaneus*) - The northern harrier is designated as a CDFW Species of Special Concern for nesting. This species was detected flying over the Study area on one occasion during the field studies. The northern harrier may forage within the Study area during migration and/or over winter in the general area. The Study area supports an estimated 31.85 acres (disturbed lands). There is no nesting habitat present.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) – This species is designated as a CDFW Species of Special Concern. One San Diego black-tailed jackrabbit was observed on two occasions within the eastern portion of the Project site. Development of the proposed Project would remove 31.85 acres (disturbed lands) of low-quality potential live-in habitat. The loss of potential live-in-habitat would not result in a substantial adverse effect on this species as a whole across its range, based on the small size of the Project site, the past and existing land uses and the level of disturbance. Therefore, proposed impacts to San Diego black-tailed jackrabbit would be less than significant under CEQA without mitigation.

5.5 Impacts to Critical Habitat

The proposed Project will not impact lands designated as critical habitat by the USFWS.

5.6 Impacts to Nesting Birds

The Project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the MBTA and California Fish and Game Code. A project-specific avoidance measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.7 Local Policies or Ordinances

Appendix G(e) of the State CEQA guidelines asks if a project is likely to "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance."

The Project is not subject to any local policy or ordinance.

5.8 Habitat Conservation Plans

Appendix G(f) of the State CEQA guidelines asks if a project is likely to "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan."

The Project site is not subject to any Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans.

5.9 Impacts to Jurisdictional Waters

The Project will not impact jurisdictional waters. As discussed in Section 4.9, the Project site does not contain waters subject to the jurisdictions of the Corps, Regional Board, or CDFW. As such, the Project will not require a Corps CWA Section 404 Permit, a Regional Board CWA Section 401 Water Quality Certification or CWC Section 13260 Waste Discharge Order, or a CDFW Section 1602 Streambed Alteration Agreement.

5.10 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Potential indirect effects associated with development include water quality impacts associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc.

The Project site is surrounded on all sides by development, except to the west, which borders the East Etiwanda Creek Channel. However, the channel is not expected to contain biological resources that would be affected by indirect means that would rise to a level of significance. The channel does not contain any riparian habitat or other habitat that would support sensitive bird species. As noted previously, results of the small mammal habitat assessment found evidence of Los Angeles pocket mouse burrows within this offsite channel. However, due to the fragmentation and modification of this section of the channel, the LAPM population (if present) would itself not represent a significant population relative to the broader species distribution, and any affects as result indirect means would not be considered significant.

5.10.1 Drainage

The Project does not propose a hydrological connection to the East Etiwanda Creek Channel, including the construction of outfall structures, and will not otherwise direct runoff to the channel. Therefore, the Project will have no indirect impacts to the channel related to drainage. as

5.10.2 Toxics

As noted above, the Project does not propose a hydrological connection to the East Etiwanda Creek Channel, including the construction of outfall structures, and will not otherwise direct runoff to the channel. Therefore, the Project will not introduce chemicals to the channel that might be toxic to biological resources and will have no indirect effects as a result of toxics.

5.10.3 Lighting

Indirect impacts are not expected to occur to special-status within the East Etiwanda Creek Channel as a result of Project lighting. As is discussed above, the channel is not expected to contain special-status species that if affected by indirect means such as artificial lighting would be considered a significant impact. Furthermore, the Project is not expected to utilize night lighting during construction or post-project adjacent to the channel that would increase the ambient lighting that could have a substantial adverse indirect effect on a resource.

5.10.4 Noise

Indirect impacts are not expected to occur to special-status species within the East Etiwanda Creek Channel as a result of noise generated during construction or post-project. As is discussed above, the channel is not expected to contain special-status species that if affected by indirect means such as noise would be considered a significant impact.

5.10.5 Invasives

The Project will not use invasive plant species within landscaped areas. Therefore, there will no project-related indirect impacts to the East Etiwanda Creek Channel due to invasive plants.

5.11 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

The majority of the Project site is surrounded by commercial development including a major road. One sensitive animal species, the San Diego black-tailed jackrabbit, was detected on site. The Project will not have a cumulative impact to this species. No sensitive plant species or habitats have been detected or are expected to occur within the Project site; therefore, no cumulative impacts are expected to occur.

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls between 30 and 14 days prior to site disturbance. If burrowing owls are detected on site, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of CDFW.

6.2 Nesting Birds

Vegetation clearing should be conducted outside of the nesting season (February 1 through August 31). If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior any disturbance of the site, including disking and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Typically, established buffers are greater for raptors than songbirds and depend upon the species, the nesting stage, and type of construction activity proposed. The buffer should generally be a minimum of 300 feet for raptors and 100 feet for songbirds; unless specifically determined by a qualified biologist familiar with the nesting phenology of the nesting species.

There are no specific protocols for nesting bird surveys or for buffering requirements once nests are found. The key is to ensure that no direct mortality of a native bird, which when nesting includes eggs and young. Implementation of this measure will ensure the Project applicant is not in violation of the MBTA and Fish and Game Code and reduces potential impacts to native nesting birds to a level of less than significant under CEQA.

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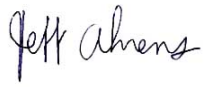
8.0 CERTIFICATION

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



Signed:_____ Date: 01/21/21

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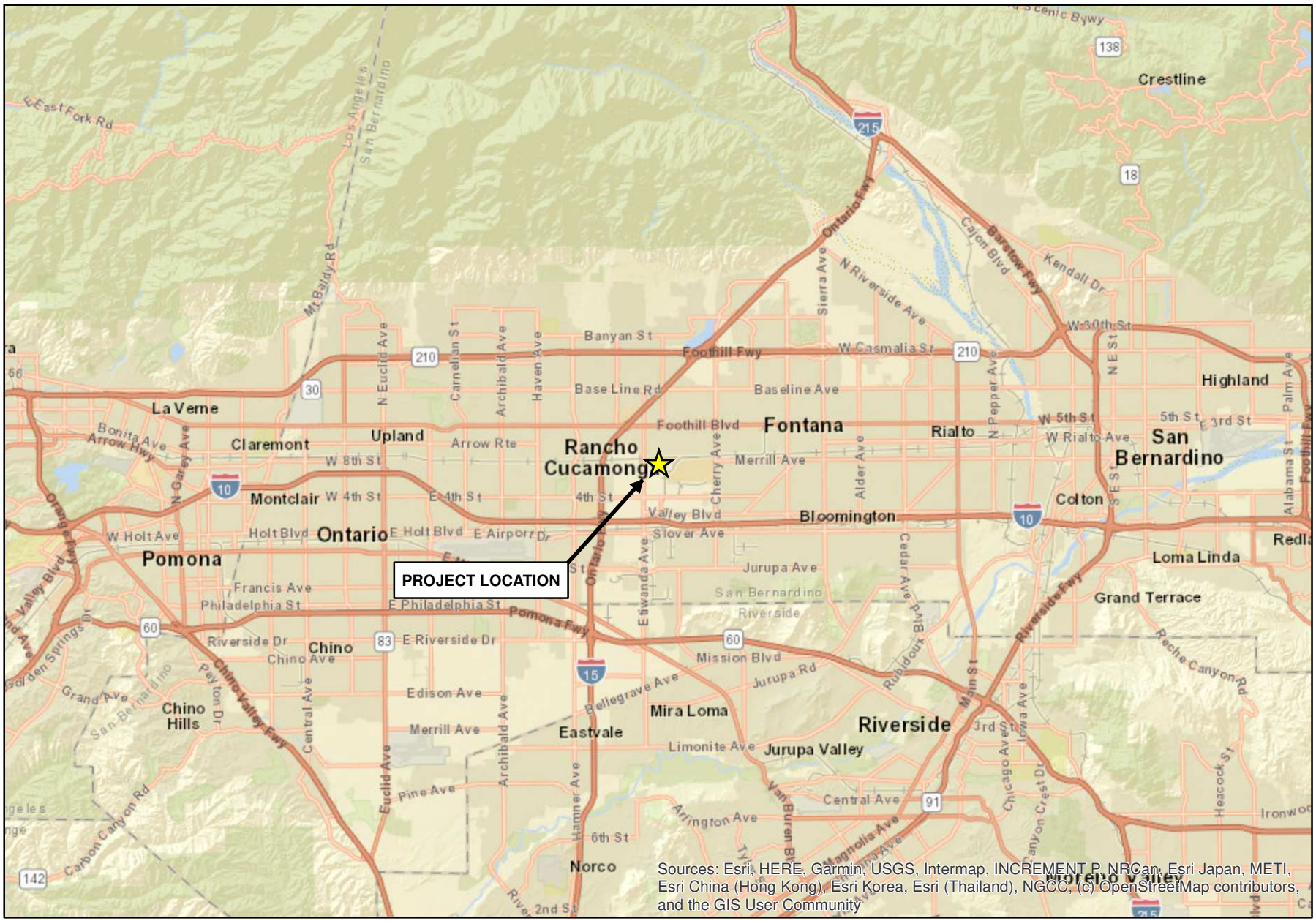
Source: ESRI World Street Map



N

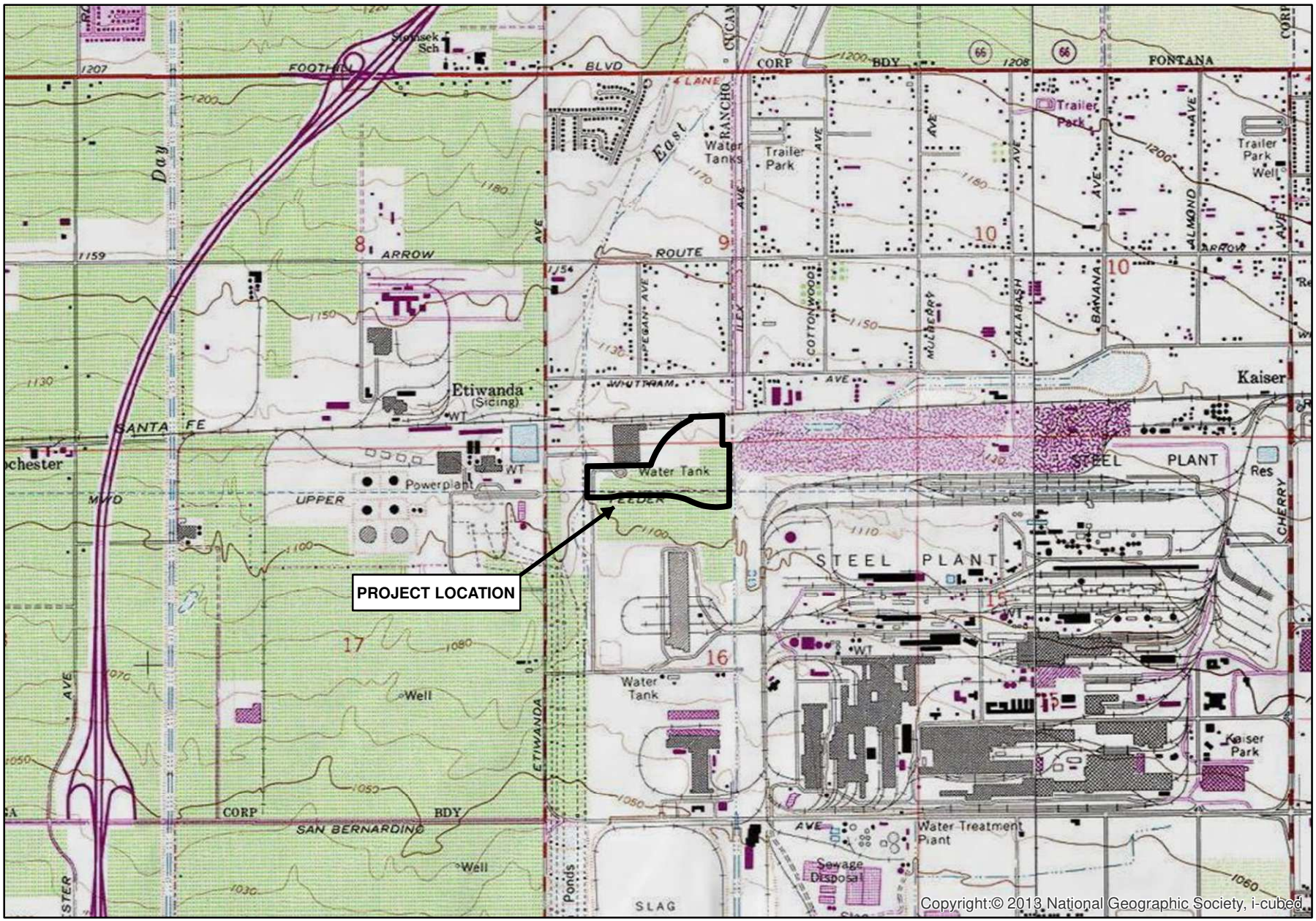
0 2 4 8 Miles

NAPA DEVELOPMENT PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Guasti, CA quadrangle

N

0 1,000 2,000 4,000 Feet

NAPA DEVELOPMENT PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Project Site

Offsite Impacts

Project Site Plan

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 21, 2020

NAPA INDUSTRIAL DEVELOPMENT PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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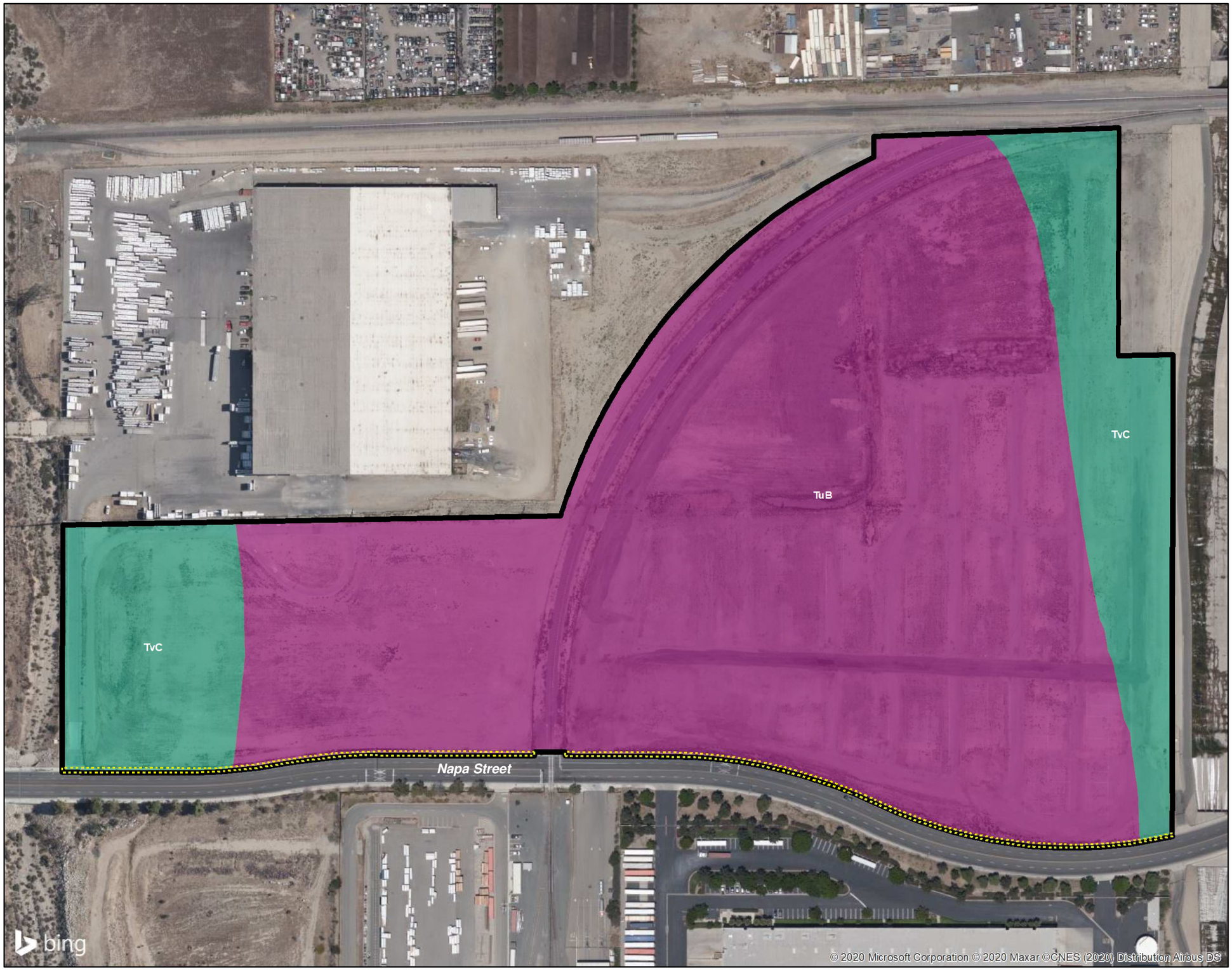

Project Site

Offsite Impacts

TuB - Tujunga Loamy Sand,
0 to 5 Percent Slopes

TvC - Tujunga Gravelly Loamy Sand,
0 to 9 Percent Slopes

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 21, 2020

NAPA INDUSTRIAL DEVELOPMENT PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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Project Site

Offsite Impacts

Disturbed

Developed

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 21, 2020

NAPA INDUSTRIAL DEVELOPMENT PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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Photograph 1: View looking north from the southeastern portion of the Project site.

Photograph 2: View looking at a disturbed soil mound within the eastern parcel.

Photograph 3: View looking west along the northeastern portion of the Project site.

Photograph 4: View looking west towards the western half of the eastern parcel.

NAPA DEVELOPMENT PROJECT
Site Photographs

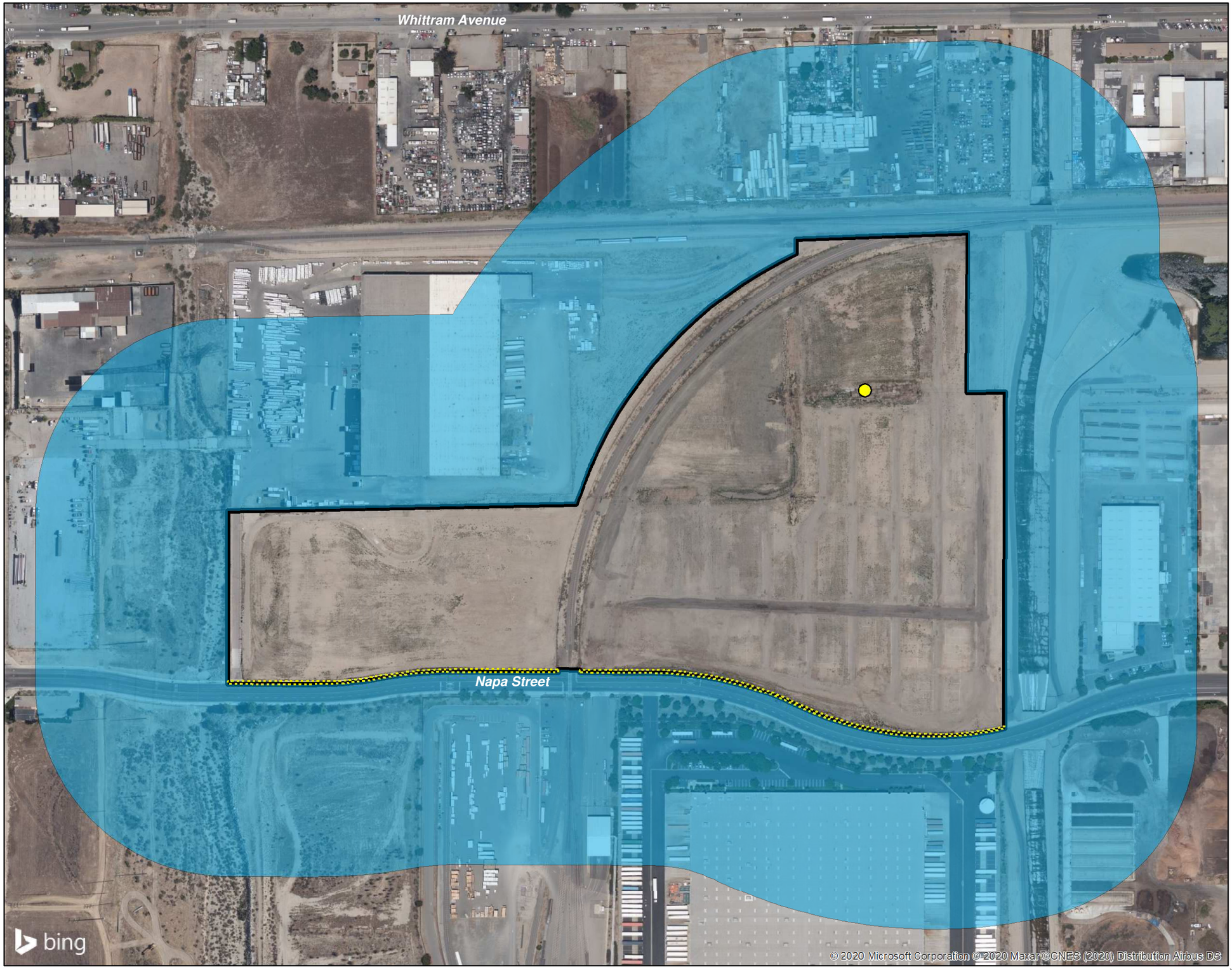
Photograph 5: View looking northeast at the BNSF railway that bisects the eastern and western parcels within the Project site.

Photograph 6: View looking west from the southeastern portion of the western parcel of the Project site.

Photograph 7: View looking north from the southeastern portion of the western parcel of the Project site.

Photograph 8: View looking at two developed roads located along the western edge of the western parcel of the Project site.

NAPA DEVELOPMENT PROJECT
Site Photographs



Project Site

Offsite Impacts

500' Visual Survey Buffer

Burrow

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 21, 2020

NAPA INDUSTRIAL DEVELOPMENT PROJECT

Burrowing Owl Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 7

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APPENDIX A: FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy typically follows Jepson Flora Project (2013)[1]. An asterisk (*) denotes a non-native species.

EUDICOTS

Amaranthaceae – Amaranth Family

Amaranthus blitoides, prostrate pigweed

Asteraceae – Sunflower Family

Ambrosia acanthicarpa, annual burrweed
* *Carduus pycnocephalus*, Italian yhistle
* *Centaurea melitensis*, tocalote
* *Centaurea solstitialis*, yellow starthistle
* *Dittrichia graveolens*, stinkwort
Helianthus annuus, western sunflower
Heterotheca grandiflora, telegraph golden-aster
* *Hypochaeris glabra*, smooth cat's Ear
Lepidospartum squamatum, scalebroom
* *Oncosiphon piluliferum*, stinknet
Pseudognaphalium californicum, California everlasting
Pseudognaphalium stramineum, cottonbatting plant
* *Senecio vulgaris*, common groundsel
* *Sonchus asper*, spiny sowthistle
* *Sonchus oleraceus*, common sow thistle
* *Verbesina encelioides*, golden crownbeard

Boraginaceae – Borage Family

Amsinckia intermedia, common fiddleneck
Cryptantha barbigera, bearded cryptantha
Pectocarya linearis¸ sagebrush combseed

Brassicaceae – Mustard Family

* *Hirschfeldia incana*, short-pod mustard
Lepidium nitidum, shining pepper grass
* *Sisymbrium irio*, london rocket

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[1] Jepson Flora Project (B. D. Baldwin, D. J. Keil, S. Markos, B. D. Mishler, R. Patterson, T. J. Rosatti, and D. H. Wilken, eds.) [JFP]. 2013. *Jepson Flora Project*. Accessed through 31 Oct 2014. Facets of this extensive online resource include the Jepson eFlora, available at http://ucjeps.berkeley.edu//IJM.html and Jepson Online Interchange (JOI), available at http://ucjeps.berkeley.edu/interchange.html. The latter enables searches of the Index to California Plant Names (ICPN) for nomenclature, status, and relationships, often with links to helpful details and discussion. All information incorporated here was accessed after, or confirmed accurate through, inclusion of the "Errata and Small Changes" at http://ucjeps.berkeley.edu/JM12_errata.html (dated 01 Jul 2013) and "Supplement 1 to" TJM2 at http://ucjeps.berkeley.edu/IJM_suppl_summary.html, (dated Jul 2013).

Chenopodiaceae – Goosefoot Family

* *Salsola australis*, Russian thistle

Crassulaceae – Stonecrop Family

* *Crassula tillaea*, Mediterranean pygmy weed

Euphorbiaceae – Spurge Family

Croton californicus, California croton
Croton setiger, doveweed
* *Euphorbia maculata*, spotted spurge
* *Ricinis communis*, castor bean

Fabaceae – Pea Family

Acmispon americanus, Spanish lotus
Acmispon glaber, deerweed trefoil
Lupinus bicolor, bicolor lupine

Geraniaceae – Geranium Family

* *Erodium botrys*, broad leaf filaree
* *Erodium cicutarium*, red-stemmed storksbill

Lamiaceae – Mint Family

* *Marrubium vulgare*, white horehound
Salvia columbariae, chia sage

Malvaceae – Mallow Family

* *Malacothamnus fasciculatus*, chaparral bush mallow

Plantaginaceae – Plantain Family

Penstemon spectabilis, showy penstemon

Polemoniaceae – Phlox Family

Eriastrum densifolium subsp. *densifolium*, giant eriastrum
Eriastrum sapphirinum, sapphire eriastrum
Gilia angelensis, chaparral gilia

Polygonaceae – Buckwheat Family

Eriogonum gracile, slender buckwheat

Solanaceae – Nightshade Family

Datura wrightii, jimsonweed
* *Nicotiana glauca*, tree tobacco
Solanum douglasii, Douglas' nightshade

MONOCOTS

Poaceae – Grass Family

* *Bromus diandrus*, ripgut brome
* *Bromus madritensis* ssp. *rubens*, red brome
* *Schismus barbatus*, Mediterranean schismus

APPENDIX B: FAUNAL COMPENDIUM

The faunal compendium lists species that were either observed within or adjacent to the Project site. Taxonomy and common names are taken from Pelham (2008)[1] for butterflies, AOU (1998 et seq.)[2] for birds, Crother (2012)[3] for amphibian, turtle, and reptile taxonomy, and Wilson and Reeder (2005)[4] for mammals.

INVERTEBRATES

Acrididae – Short-horned Grasshopper Family

Lactista gibbosus, banded-winged grasshopper

Coccinellidae – Ladybug Family

* *Hippodamia convergens*, convergent lady beetle

Formicidae – Ant Family

* *Pogonomyrmex californicus*, California harvester ant

Gryllidae – Cricket Family

Gryllus sp., field cricket

Lycaenidae – Blue, Copper, and Hairstreak Butterfly Family

Plebejus acmon, Acmon bBlue

Nymphalidae - Brush-Footed Butterfly Family

Junonia coenia, common buckeye butterfly
Vanessa cardui, painted lady

Pentatomidae – Stink Bug Family

Chlorochroa sayi, Say's stink bug

Pieridae - White and Sulphur Butterfly Family

* *Pieris rapae*, cabbage white butterfly
Pontia protodice, checkered white butterfly

REPTILES

Phrynosomatidae – Spiny Lizard Family

Sceloporus occidentalis, Great Basin fence lizard

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[1] Jonathan Pelham. 2008. Catalogue of the Butterflies of the United States and Canada. Journal of Research on the Lepidoptera 40: xiv + 658 pp.

[2] American Ornithologists' Union 1998. The A.O.U. Checklist of North American Birds, seventh edition. American Ornithologists' Union, Washington D.C.; and 2000, 2002, 2003, and 2004 supplements.

[3] Crother, B. I., ed. 2012. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico*, *with Comments Regarding Confidence in Our Understanding, 7th Edition*. SSAR Herpetological Circular 39:1-92. Shoreview, MN: Society for the Study of Amphibians and Reptiles, Committee On Standard English And Scientific Names.

[4] Wilson, D. E., and D. M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*, *3rd Edition*. Baltimore, MD: Johns Hopkins University Press. Available online at http://www.bucknell.edu/msw3/browse.asp. No separate corrigenda or updates since initial publication.

Uta stansburiana, Common Side-blotched Lizard

BIRDS

Accipitridae – Hawk Family
Buteo jamaicensis, red-tailed hawk
Circus hudsonius, northern harrier

Alaudidae – Lark Family
Eremophila alpestris, horned lark

Charadriidae – Plover Family
Charadrius vociferus, killdeer

Columbidae – Pigeon and Dove Family
* *Columba livia*, rock pigeon
* *Patagioenas fasciata*, band-tailed pigeon
Zenaida macroura, mourning dove

Falconidae – Falcon Family
Falco sparverius, American kestrel

Tyrannidae – Tyrant Flycatcher Family
Sayornis nigricans, black phoebe
Sayornis saya, Say's phoebe
Tyrannus verticalis, western kingbird

Corvidae – Jay and Crow Family
Corvus brachyrhynchos, American crow
Corvus corax, common raven

Hirundinidae – Swallow Family
Hirundo rustica, barn swallow
Stelgidopteryx serripennis, northern rough-winged swallow

Icteridae – Blackbird Family
Euphagus cyanocephalus, Brewer's blackbird

Aegithalidae – Bushtit Family
Psaltriparus minimus, bushtit

Mimidae – Thrasher Family
Mimus polyglottos, northern mockingbird

Sturnidae – Starling Family
* *Sturnus vulgaris*, European starling

Emberizidae – Sparrow Family

Passerculus sandwichensis, savannah sparrow
Melospiza melodia, song sparrow
Melozone crissalis, California towhee

Fringillidae – Finch Family

Haemorhous mexicanus, house finch
Spinus psaltria, lesser goldfinch

Passeridae – Old World Sparrow Family

* *Passer domesticus*, house sparrow

MAMMALS

Sciuridae – Squirrel Family

Spermophilus beecheyi, California ground squirrel

Leporidae – Hare and Rabbit Family

Lepus californicus bennettii, San Diego black-tailed jackrabbit
Sylvilagus audubonii, desert cottontail

ECOLOGICAL SCIENCES, inc.

September 29, 2020

Martin Rasnick
Principal/Senior Regulatory Specialist
Glenn Lukos Associates, Inc.
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Santa Ana, California 92705

SUBJECT: Results and Reliance Letter for Habitat Suitability Evaluation; ±37-acre Napa Project Site; San Bernardino County, California

Dear Martin:

This report presents findings of a reconnaissance-level survey conducted to generally evaluate the suitability of a ±37-acre site to support special-status biological resources with particular emphasis on the federally-listed endangered Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*-DSFF).

Introduction

The subject ±37-acre site is regionally located in unincorporated San Bernardino County (County), California. More specifically, the site is located north of Napa Street, east of Etiwanda Avenue, and south of Whittram Avenue. In order to meet the environmental documentation and review requirements, potentially occurring sensitive biological resources must be addressed to demonstrate the applicant's conformance to California Environmental Quality Act (CEQA), and the federal Endangered Species Act (ESA) of 1973, as amended. As such, this report is intended to provide biological information to the applicant and reviewing agencies in support of the environmental review process.

This report is intended to provide the applicant and reviewing regulatory agencies with general and specific information necessary for planning and permitting decisions concerning the proposed project relative to the occurrence potential of selected sensitive biological resources primarily based on the nature of habitat present. No focused surveys were conducted as part of this analysis.

2020 DSFF Habitat-Suitability Evaluation

Ecological Sciences conducted a reconnaissance-level field survey on the subject site to evaluate habitat potentially suitable to support special-status species such as the DSFF on May 22, 2020. The survey was conducted by Scott Cameron; Principal Biologist of Ecological Sciences, Inc. Ecological Sciences is well versed with the biotic characteristics of a range of potential DSFF habitats providing both focused surveys (TE-808242-8) and habitat assessments over the past 20 years. The site was examined on foot by walking a series of meandering transects across the subject property. Dominant plant species and other habitat characteristics present at the site were identified to assess the overall habitat value. Weather conditions included clear skies, 1-2 breezes, and an ambient temperature of 74 ºF.

Results / Conclusion

Delhi Sands Flower-loving Fly Habitat Assessment

Based on results of the May 2020 habitat suitability evaluation, existing conditions present on site are not consistent with those known or expected to support a DSFF population. Substrate conditions are also not consistent with those most often correlated with potential DSFF habitat. No exposed natural or semi-natural open areas with unconsolidated wind-worked granitic soils or dunes are present. Exposure

to historic and recurring substrate disturbances have substantial negative effects on potential DSFF habitat and may also prevent potentially suitable DSFF microhabitat soil conditions from developing. Although a few native plant species are present that are often associated with potential DSFF habitat, the context in which these species occur (e.g., scattered within disturbed site conditions) does not constitute a native plant community most commonly associated with potential DSFF habitat. The underlying soil environment appears to be the most definitive factor of whether an area could potentially support DSFF.

There is no direct connectivity to the subject site from the nearest known DSFF population due to the presence of existing commercial development that surrounds the site. While this species likely has the capability of dispersing over relatively large distances of seemingly unsuitable habitats under certain circumstances, it would be reasonable to assume (based on our current knowledge of the species) that the likelihood of DSFF dispersing to the subject site from the nearest known off-site occupied area would not be expected despite the fact that variables such as the length, width, and structural characteristics of dispersal corridors are not fully understood. Accordingly, the subject site would not be considered an important or viable property for preservation or restoration due to its geographic location and current/surrounding land uses which have fragmented potential DSFF habitat in the area.

In view of the site's current existing condition (e.g., compact substrates, lack of indicator plant species, geographic location, exposure to long standing disturbances) and analyses of other correlative habitat information from a wide range (e.g., relatively disturbed to more natural habitats) of occupied DSFF habitats in the region, the ±37-acre site does not contain habitat suitable to support or sustain a DSFF population. It would be contrary to expectation that the FWS would require focused protocol surveys within areas that support overall disturbed conditions such as those present on site. No impacts to DSFF are expected and no further mitigation is required for less than significant impacts under CEQA.

Φ

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

Sincerely,

Ecological Sciences, Inc.

Scott D. Cameron
Principal Biologist

References

Kingsley, Kenneth J. 1996. Behavior of the Delhi Sands Flower-Loving Fly (Diptera: Mydidae), a Little Known Endangered Species. Ann. Entomol. Soc. Am. 89(6): 883-891.

U.S. Fish and Wildlife Service (FWS) for the Delhi Sands Flower-loving Fly. U.S. Department of Interior. Federal Register, 58 (183): 49881-49887.

U.S. Fish and Wildlife Service (FWS). 1996. Interim General Survey Guidelines for the Delhi Sands Flower-loving Fly. December 30.

U.S. Fish and Wildlife Service (FWS). 1997. Delhi sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR. 51 pp.

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May 25, 2020

Subject:Phase One Assessment for the San Bernardino kangaroo rat (Dipodomys merriami parvus)-[SBKR] and the Los Angeles Pocket mouse (Perognathus longimembris brevinasus)-[LAPM] on the Napa Street proposed development project.

A phase one assessment for the San Bernadino kangaroo rat and the Los Angeles pocket mouse was performed on Napa Street Development Project (Figure 1). The survey was performed on April 23, 2020 between the hours of 11:00 Am and 3:00 PM. The entire project footprint area was covered by walking transects.

Field surveys for the San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR] and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) [LAPM] were performed by Mr. Philippe Vergne of ENVIRA who holds a U.S. Fish and Wildlife Service permit to trap and handle Stephens' and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-4), a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for above mentioned species and the Mohave ground squirrel, Los Angeles pocket mouse, Palms Springs pocket mouse, Palm Springs ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, north-western San Diego pocket mouse, and the Dulzura pocket mouse , and a current CDFG scientific collection permit.

San Bernardino Kangaroo Rat

The SBKR (*Dipodomys merriami parvus*) is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes (McKernan 1997, U. S. Fish and Wildlife Service 1998a and 1998b). Burrows are dug in loose soil, usually near or beneath shrubs. In recent years, they have been found in highly disturbed habitats adjacent to otherwise suitable habitat. Burrows are dug in loose soil, usually near or beneath shrubs.

The SBKR is one of three subspecies of the Merriam kangaroo rat (*Dipodomys merriami*). The Merriam kangaroo rat is a widespread species that can be found from the inland valleys to the deserts (Hall 1981 and Ingles 1965). The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages.

Like all kangaroo rats, the SBKR is primarily a seed eater, feeding on the seeds of both annual and shrub species. It also feeds on green vegetation and insects when these are available. Being primarily a desert species, the SBKR obtains nearly all of its water from the food it eats and can subsist indefinitely on water extracted from dry seeds. It forages in open ground and underneath shrubs. Burrows are dug in loose soil, usually near or beneath shrubs. The breeding season extends primarily from January through late November, with peak reproduction occurring in late June. Usually, only one litter is produced per year with an average of only two to three young.

The present known distribution of this species in Riverside and San Bernardino counties extends from the San Gabriel and San Bernardino mountains south to the Temecula and Aguanga areas, and from the east side of the Santa Ana Mountains east to Cabazon (Hall 1981).

Where the SBKR occurs in alluvial scrub, the subspecies reaches its highest densities in early and intermediate vegetation stages (McKernan 1997). Alluvial scrub includes elements from chaparral, coastal sage, and desert communities. Three successional phases of alluvial scrub have been described: pioneer, intermediate, and mature alluvial scrub. The distribution of these phases is influenced by elevation, distance from the main channels, and the time since previous flooding (Smith 1980, Hanes et al. 1989). Vegetation cover generally increases with distance from the active stream channel. The pioneer, or youngest phase, is subject to frequent disturbance, and vegetation is usually renewed by annual floods (Smith 1980, Hanes et al. 1989). The intermediate phase, defined as the area between the active channel and mature terraces, is subject to periodic flooding at longer intervals. The vegetation on intermediate terraces is relatively open and supports the highest densities of the SBKR. The mature phase is rarely affected by flooding and supports the highest plant cover (Smith 1980).

The SBKR is now primarily associated with a variety of sage scrub vegetation, where the common elements are the presence of sandy soils and relatively open vegetation structure (McKernan 1997). The SBKR prefers open habitat characterized by a low stature open scrub canopy cover of less than 22 percent. Occupied SBKR habitat also typically exhibits a reduced herbaceous cover with a low abundance of European grasses, such as brome species.

This type of habitat is best described as early to intermediate phase alluvial sage scrub communities that are subject to frequent flooding/scouring. The open vegetation structure in these communities support the highest densities of SBKR. Mature phase alluvial scrub and alluvial chaparral, which are usually located above the active channel or on higher

benches are not usually occupied by SBKR, although individuals have been trapped in dense upland scrub adjacent to open habitat and SBKR populations (Vergne 2008).

Most of the original drainages used by this species have been historically altered as a result of flood control efforts. The increased use of river resources, including mining, off road vehicle use and road and housing development, has resulted in a reduction in both the amount and quality of habitat available for the SBKR. The past habitat losses and potential future losses prompted the emergency listing of the SBKR as an endangered species (U. S. Fish and Wildlife Service, 1998a).

The SBKR is proposed for endangered species listing by the California Department of Fish and Wildlife-CDFW

Los Angeles Pocket Mouse

The LAPM (*Perognathus longimembris brevinasus*) is one of two pocket mice found in this area of Riverside County (Williams 1986). Both the LAPM and the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) occupy similar habitats, but the northwestern San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams 1986). This species prefers habitat similar to that of the Stephens's kangaroo rat and SBKR. It occurs in open sandy areas in the valley and foothills of southwestern California (Hall 1981).

LAPM, like other subspecies of *Perognathus longimembris*, are granivorous rodents and specialize on grass and scrub seeds but will take insects when available (French 1999; Meserve 1976). Pocket mice possess external, fur-lined cheek pouches used in the collecting and caching of seeds. Seeds are cached for use during the colder months of the year.

They spend most of their foraging time in or near bushes, scrubs, rock crevices, or other sources of cover. The LAPM is primarily nocturnal and exhibits a distinct seasonal pattern in surface activity. During colder months the pocket mouse may enter into torpor (dormancy) and not engage in surface activity. This species may enter torpor as early as the end of September; the exact date may depend on the nightly low temperatures, and the availability of food.

At some point when surface conditions are very cold and food is scarce, the animal cannot meet its energy needs by foraging and thus must shut down surface activity to survive the winter. LAPM must then survive on the food they have cached (Richman and Price 1993).

LAPM emerge when the surface ground temperatures are higher than the surrounding ground temperature in their burrows (French 1999).

The LAPM is listed as a California Species of Concern by the CDFW.

Project Findings

No sign (burrows, scat, tail-drags, footprints) attributable to either the SBKR or the LAPM were observed within the project boundaries.

The western portion of the site is covered by dense mustard and by limited open spaces on the edge and central portion with imported soils (Picture One). The imported soils contain numerous pieces of iron ore.

The eastern and larger portion of the sites is covered with imported gravel and densely packed soils and appears to have been used in the past for a swap meet or farmers market with stalls (Pictures Two and Three).

The drainage located off site and to the west of the site appears to have LAPM burrows. No SBKR sign was observed within that drainage.

If development occurs within the project boundaries as shown in Figure One there will be no impacts to SBKR or LAPM from project implementation.

Figure One Project Area

Picture One Eastern Portion of Site Note Gravel and Dense Mustard

Picture Two Western Portion of Site Note Imported Gravel Soils

Picture Three Western Portion of Site Note Gravel and Stalls/Parking Areas