

**Reconnaissance Level Biological Evaluation  
For  
APN 497-010-94  
Section 20, T30S, R27E, MDB&M  
Bakersfield, California**

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## EXECUTIVE SUMMARY

This report documents the biological resources found during a reconnaissance-level biological survey conducted July 15, 2019 on 16.89 gross acres (6.83 hectares) of vacant land in Bakersfield, California. The project consists of portions of Assessor's Parcel Map Number 497-010-94 located in Section 20, Township 30 South, Range 27 East, Mount Diablo Base and Meridian (M. D. B. & M.), at the northeast corner of Panama Lane and Old River Road.

The purpose of this report is to document biological resources identified during survey of the project site, and to recommend avoidance and minimization measures for implementation prior to and during project activities. This report includes an evaluation of the potential for special-status biological resources not observed during surveys to occur on the property based on the habitat conditions observed. The project is located within the geographic range of several threatened and/or endangered wildlife taxa including San Joaquin kit fox (*Vulpes macrotis mutica*) and blunt-nosed leopard lizard (*Gambelia sila*). In addition, the site is in the range of listed plant taxa, including Bakersfield cactus (*Opuntia basilaris* var. *treleasei*).

Listed plant and animal species are protected primarily through the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Each of these laws, among other provisions, prohibits *take* of listed threatened and endangered species. Although the definition of *take* under each law varies somewhat, in general, injuring or killing listed species without a permit issued from the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife is unlawful. Under FESA, harassment and harm also be considered *take* for which the USFWS recommends a permit. One of the potentially occurring species, blunt-nosed leopard lizard (BNLL) is a California *fully protected* species. Under this designation, no *take* of this species is allowed, even under endangered species act permitting.

Based upon the field survey results, the project has the potential to result in significant impacts to some special-status wildlife species. Species-specific recommendations and a series of general recommendations are included in this report that, when implemented, will fully mitigate any project impacts, to biological resources, to a less-than-significant level. The project will not conflict with existing or adopted Habitat Conservation Plans, Natural Community Conservation Plans, local or regional conservation plans, or local ordinances protecting biological resources.

The project is located within the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) California Department of Fish and Wildlife, Incidental Take Permit No. 2081-2013-058-04 (ITP) boundaries. Consideration of potential impacts to plant and animal species are required under FESA, CESA, and the California Environmental Quality Act during a General Plan Amendment and Zone Change. Any impacts to plant and animal species, other than blunt-nosed leopard lizard, would be fully-mitigated by participation in the MBHCP.

## 1.0 INTRODUCTION

### 1.1 Purpose and Background

The purpose of this report is to document biological resources identified during a biological reconnaissance-level survey of the project site, and to recommend avoidance and minimization measures for implementation prior to and during project activities. A literature review, survey



results, and the professional experience of McCormick Biological, Inc. (MBI) staff were combined to evaluate the potential project effects on those resources. The fieldwork consisted of a surface survey to evaluate habitat conditions suitable for occupation by special-status species, based on the existing natural vegetative communities, current site conditions, and diagnostic signs detected during the survey.

This report is intended to support a *California Environmental Quality Act (CEQA) of 1970* (2015) review of the proposed project for a General Plan Amendment and Zone Change. For the purposes of this report, potential impacts to the biological resources of the proposed project were evaluated in accordance with Appendix G of the *CEQA Guidelines* (2015).

## *1.2 Project Site and Surrounding Area Descriptions*

The proposed project consists of 16.89 gross acres (6.83 hectares) of vacant land in southwest Bakersfield, California. The site is located in Section 20, T30S, R27E, M. D. B. & M (Figures 1-1 and 1-2), in central Kern County. The site is located at the northeast corner of the intersection of Panama Lane and Old River Road. The site is land previously row-crop farmed for decades. Aerial imagery indicates that the site has been cleared and at least intermittently maintained for vegetation control since about 2009. The project site was disced at the time of the survey.

## *1.3 Regulatory Background*

The following section identifies the regulatory compliance framework that has been considered during both the field work and development of this biological evaluation. The regulatory framework establishes criteria in which significance is determined and whether a project will have a significant impact on species, biological resources, or the environment.

### 1.3.1 Federal and State Endangered Species Acts

The project site is within the range of several state- and federal-listed species which are protected through various statutes. Listed plant and animal species are protected primarily through the *Federal Endangered Species Act (FESA) of 1973* (2014), and/or the *California Endangered Species Act (CESA) of 1970* (2015). Each of these laws, among other provisions, prohibits *take* of listed threatened and endangered species. Although the definition of *take* under each law varies, in general, injuring or killing listed species without a permit issued from the U. S. Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) [Formerly the California Department of Fish and Game (CDFG)] is unlawful. Under FESA, harassment could also be considered take, which requires a permit. The California Fish and Game Code (CFG) has classified some species as *fully protected*. Under this designation, no take of these species is allowed, even with authorization under CESA or FESA permitting.

### 1.3.2 Migratory Bird Treaty Act

Among other provisions, the *Migratory Bird Treaty Act* (MBTA) of 1918 (2013) prohibits the destruction of nests, eggs, and/or young of all designated migratory bird species. With very limited exceptions, all birds are included in this prohibition (MBTA 2013).

### 1.3.3 California Fish and Game Code (C.F.G.C. § 1580 et seq.)

The following paragraphs summarize several sections of the CFGC, applicable to analysis of biological resource impacts that may be associated with the project





**Figure 1-1:** Aerial photograph showing the vicinity of the project site (Google Earth Pro 2019).



**Figure 1-2:** Aerial photograph of the project site (Google Earth Pro 2019).







### *Section 1580*

This section declares the policy of the state is to protect threatened or endangered native plants; wildlife; aquatic organisms or specialized habitat types; both terrestrial and non-marine aquatic, or large, heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves.

### *Sections 1600–1616*

This portion of the CFGC requires notification of the CDFW if any of the following may occur within a river, stream, or lake in the state of California:

- Substantial diversion or obstruction of the natural flow,
- Substantially changing or using any material from the bed, channel, or bank,
- Depositing or disposing of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

This notification may result in a Streambed Alteration Agreement between the project applicant and the CDFW. Activities in intermittent streams and canals may require Streambed Alteration Agreements.

### *Section 1900, et seq.*

This portion of the CFGC is known as the *California Native Plant Protection Act of 1977* (2015). The purpose of this chapter is to preserve, protect and enhance endangered or rare native plants of California. Many species and subspecies of native plants are endangered because their habitats are threatened with destruction, drastic modification, or severe curtailment. Commercial exploitation, disease, and other factors also represent threats to species and subspecies of native plants. This portion of the code designates rare, threatened, and endangered plant taxa of California.

### *Section 1930–1933*

These sections established the Significant Natural Areas Program and declared it to be administered by the CDFW, because areas containing diverse ecological and geological characteristics are vital to the continual health and well-being of the state's citizens and natural resources. The CDFW is responsible for obtaining access to the most recent information with respect to natural resources by maintaining, expanding, and keeping a current data management system (California Natural Diversity Database [CNDDB]), designed to document information on these resources. This data is required to be made available to interested parties on request, and costs are to be shared by all who use the data management system.

The state's most significant natural areas are to be designated and, after consultation with federal, state, and local agencies, educational institutions, civic and public interest organizations, private organizations, landowners, and other private individuals, periodic reports regarding the most significant natural areas are to be prepared. The CDFW is required to maintain and perpetuate these significant natural areas for present and future generations in the most feasible manner. The

code also requires that the CDFW coordinate services to federal, state, local and private interests wishing to aid in the maintenance and perpetuation of significant natural areas.

### *Section 3503*

This section prohibits taking, possessing, or needlessly destroying the nest of eggs or any bird. Birds of prey are included in Section 3503.5.

### *Section 3513*

California's migratory birds are protected under this section by making it unlawful to take or possess any migratory, non-game bird (or any part of such bird) as designated in the MBTA.

### *Section 3511, 4700, 5050, and 5515*

These sections prohibit take of animals that are classified as fully protected (FP) in California. Take of FP species is specifically prohibited, even if other sections of the CFGC provide for incidental take of the species.

### *Title 14 California Code of Regulations (CCR) Section 15000 et seq.*

This portion of the CCR prescribes the regulations to be followed by all local and state agencies in implementing CEQA.

### *Porter-Cologne Water Quality Control Act (Clean Water Act Section 401 Certification or Waiver)*

The state of California regulates water quality related to discharge of fill material into waters of the state pursuant to Section 401 of the *Clean Water Act of 1972* (2014). Section 401 compliance is a federal mandate implemented by the state. The local Regional Water Quality Control Board (RWQCB) has jurisdiction over all those areas defined as jurisdictional under Section 404 of the CWA and regulates water quality for all waters of the State. These waters may include isolated wetlands as defined under the *California Porter-Cologne Water Quality Control Act* (2015). Regulated discharges include those that can affect water quality, even if there is no significant nexus to a traditional navigable water body required for the United States (U.S.) Army Corps of Engineers (ACOE) determination of jurisdiction over waters of the U.S. A Waste Discharge Permit may be required to comply with the Porter-Cologne Water Quality Control Act even if the CWA (including Section 401 water quality certifications or Section 404 permits) would not apply.

The ACOE, under Section 404 of the CWA, regulates discharges of dredged or fill material in waters of the U.S. In addition to designated and traditional navigable waters, these terms include:

waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: 1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or 2) From which fish or shellfish are or could be taken

and sold in interstate or foreign commerce; or 3) Which are used or could be used for industrial purpose by industries in interstate commerce.

Tributaries to waters of the U.S. and adjacent wetlands would also be included. Some intermittent washes may be included in the defined waters of the U.S. depending on connection or nexus to navigable waters. Both wetlands and non-wetland areas can be included within the regulated area. Within non-wetlands that are classified as waters of the U.S., the ACOE maintains jurisdiction up to the ordinary high water mark. If wetlands are present that meet the criteria established by the ACOE, the limit of jurisdiction is the ordinary high water mark or the limit of the adjacent or associated wetland, whichever is greater. If waters are determined to be under the jurisdiction of the ACOE, the RWQCB would be the state-permitting authority. At the discretion of the ACOE, impacts to these areas could require a permit, depending on the type and size of the activity within ACOE jurisdiction.



## 2.0 METHODS

Special-status species considered in this evaluation include those that may occur in the project vicinity that have statutory protections, and include federal- and state-listed (rare, threatened, or endangered; fully protected) species and candidates for listing under the respective endangered species acts. Species that are of special concern to the CDFW or the USFWS are included in this analysis. Special-status bird species that are also protected by the MBTA which may nest on or within an approximate 10-mile (16-kilometer) radius of the project site are also evaluated.

Species meeting the criteria as special-status for inclusion in this document include those that occur on the lists of concern consulted during the literature review. Lists consulted include those prepared by a special interest group, such as the California Native Plant Society (CNPS) or Western Bat Working Group (WBWG), where such a group has concluded based on published and/or empirical data that the species is declining and warrants concern. Species meeting these criteria have been considered, if potential habitat for that species is present in the project area. All species evaluated are collectively referred to as special-status species.

The list of special-status species that was evaluated was additionally compiled by consulting pertinent literature, obtaining the USFWS list of *Federal Endangered and Threatened Species That may Occur in or may be Affected by Project in the USGS (U.S. Geological Survey) 7.5-minute Quadrangle* of the project site (USFWS 2015a) and accessing the CNDDDB (Appendix A). MBI staff reviewed these lists and other pertinent information to complete the list of special-status species evaluated. The list was then reviewed based on site characteristics and observations to assess the potential for occurrence, and potential impacts were determined in relation to the special-status species likely occurring on the proposed project site; rather than the overall project vicinity. Species whose occurrence in the vicinity and life history makes them vulnerable to impacts, even if they do not occur directly on the project site, were also evaluated.

A 10-mile (16-kilometer) CNDDDB report was generated for the project location (i.e., USGS 7.5-minute topographic quadrangle in which the project site is found as well as the quadrangles located within a 10-mile (16-kilometer) radius of the project footprint). The CNDDDB contains records for special-status species and special-status natural communities that have been reported to the CDFW. The electronic version of the database is updated quarterly (CNDDDB 2017).

A reconnaissance-level survey was conducted on July 15, 2019, by Mr. Steven Pruett, MBI Senior Biologist and Project Manager. Survey methods consisted of walking belt transects spaced no more than 50 feet (15 meters) apart over the entire proposed project location with the intent of visually evaluating 100% of the survey area to compile an inventory of plants and animals present at the proposed project site. Field notes included observations of all plant and wildlife species observed. Supporting documentation regarding species findings included direct observations and/or significant species *sign* (e.g., scat, tracks, feather/fur, prey remains, nests/burrows or any other indication of wildlife presence) deemed necessary to document potential occupation.

If encountered, coordinates for important biological resource elements and direct observations of special-status species were recorded using a handheld geographic positioning system unit (accuracy  $\pm 20$  feet,  $\pm 6$  meters). If observed, SJKF dens were classified as potential, known, natal, or atypical as defined by the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011).



All plant taxa encountered were identified to the extent possible given the diagnostic features present. Identifications were made using keys contained in *The Jepson Manual: Vascular Plants of California* and online updates containing revisions to taxonomic treatments (Baldwin et al. 2012; Jepson Flora Project 2015). When necessary, plant identifications were made using a 10X or greater magnification field hand lens and/or were collected and identified using a dissecting microscope. Locations of special-status plant species or tentatively identified special-status plant species were recorded using a handheld global positioning unit. Notes on wildlife observed during plant surveys were also compiled, with emphasis on special-status wildlife and burrowing mammals.

General habitat and site conditions were photographed to visually depict conditions during the field surveys. In addition, special-status species or habitat features, such as vegetation communities or ephemeral channels, were also photographically documented when encountered.



### 3.0 RESULTS

The literature review resulted in identification of 23 special-status plant species and 17 special-status wildlife species for evaluation that could occur in the vicinity of the proposed project (Appendix A; Tables A1–A2). Figures 3-1 through 3-4 provide the results of the CNDDDB records query within no less than 10 miles (16 kilometers) of the proposed project. The general site conditions combined with the habitat requirements and known ranges of these species were evaluated to determine potential for occurrence of these species on the proposed project site. The remainder of this section discusses the 2019 field survey results and evaluation of those results based on the literature review and professional judgment of MBI personnel.

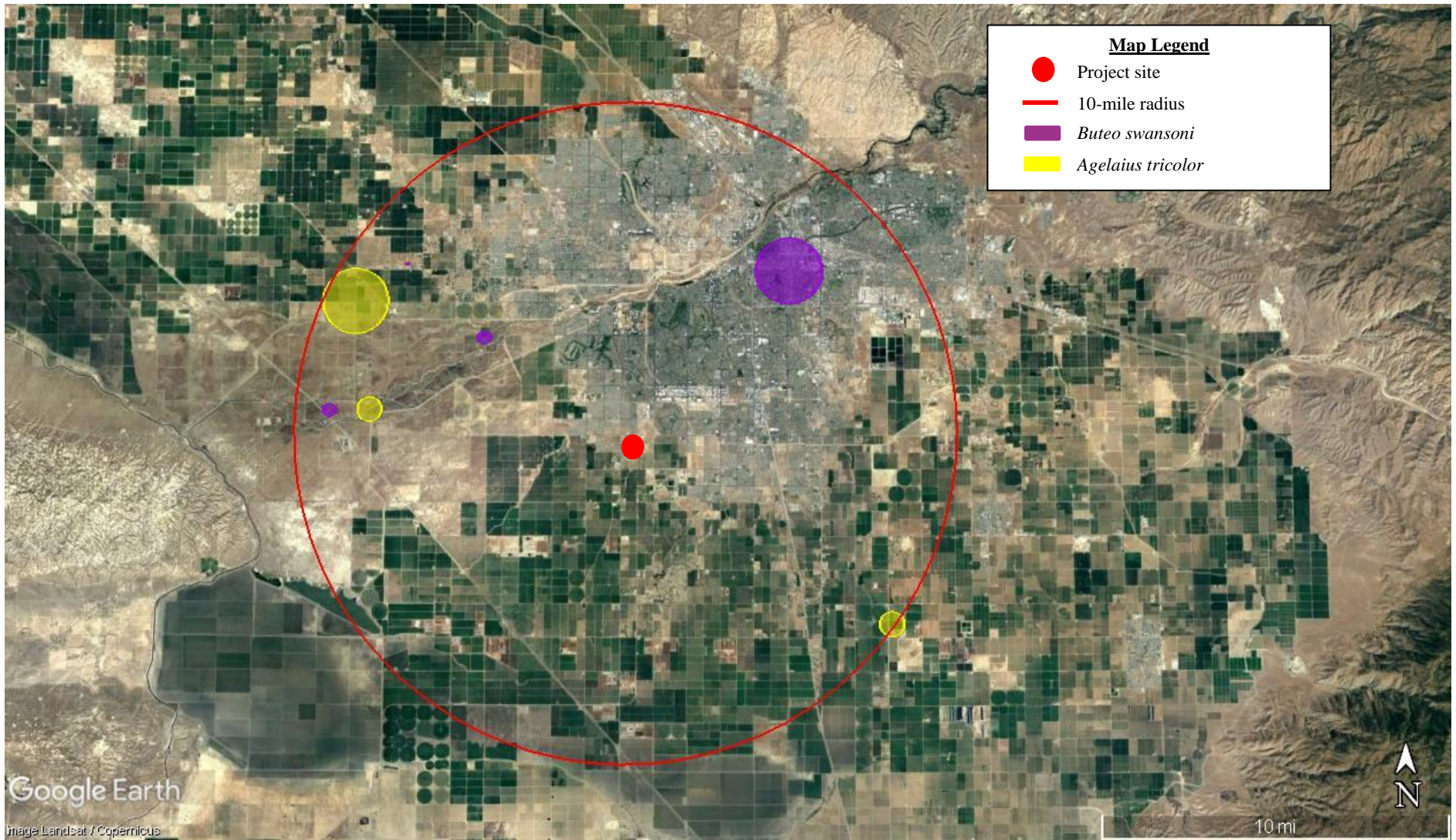
#### 3.1 General Conditions

The project site is currently vacant land. All wildlife species observed during the survey were recorded (Appendix C; Tables C1–C2). Direct and indirect evidence of several special-status wildlife species was noted during the surveys conducted on the project site and buffer. The literature review and field survey results for all relevant special-status species are described in the following sections.

The USGS soil survey map describes the soil of the project as Unit 174, Kimberlina fine sandy loam, 0 to 2 percent slopes (Table 3-1).

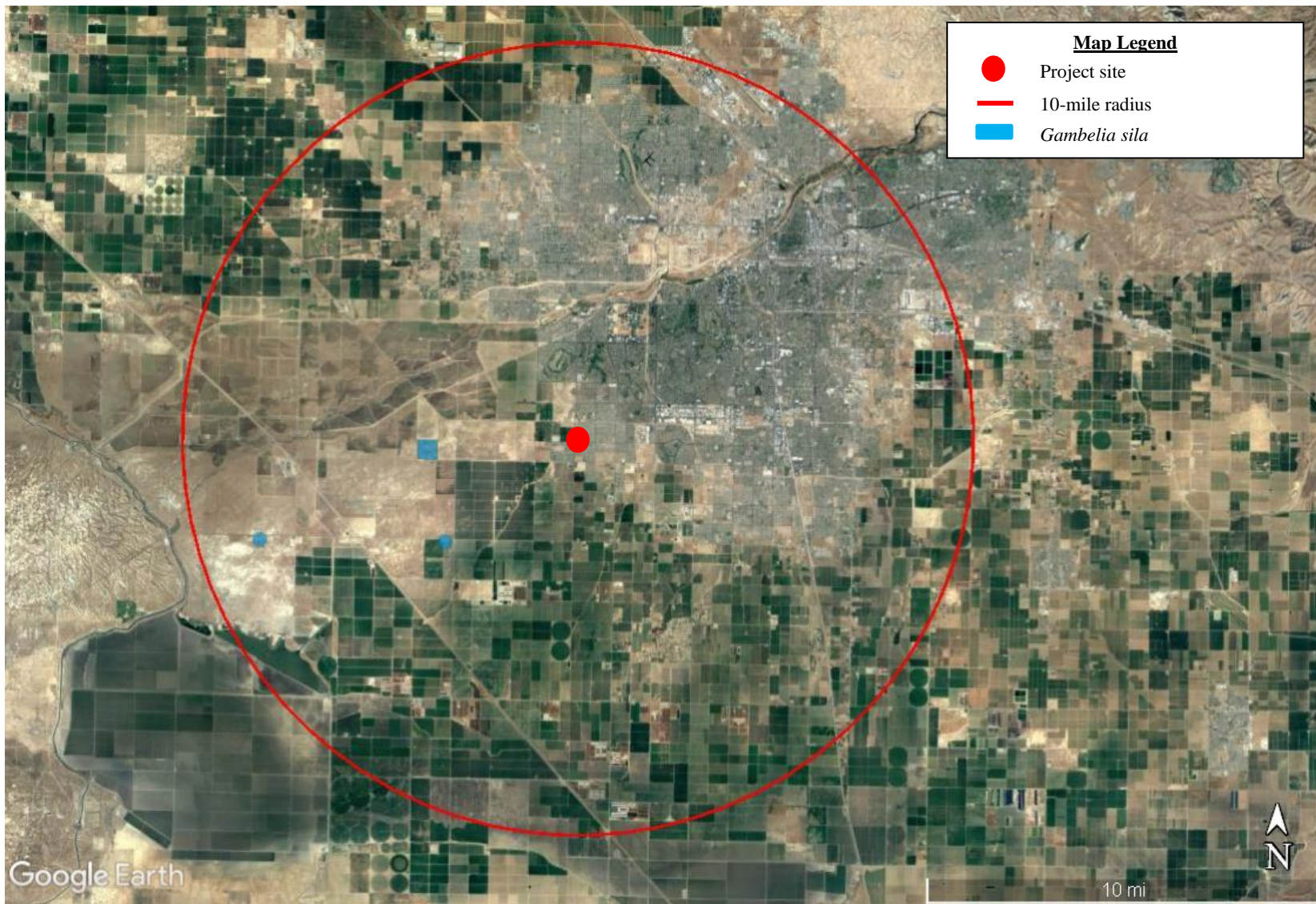
**Table 3-1:** Soil Map Units within the project site.

Soil Map Unit	Name	% of Project Area	Brief Description Project Site Distribution <sup>1</sup>
174	Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA	100.0	This soil is alluvium derived from igneous and sedimentary rock found on alluvial fans. It is comprised of fine sandy loam and silt loam to a depth of about 71 inches. The depth to the restrictive feature is more than 80 inches and the available water storage in profile is listed as moderate (about 8.7 inches). This soil has a prime farmland classification and is of statewide importance.



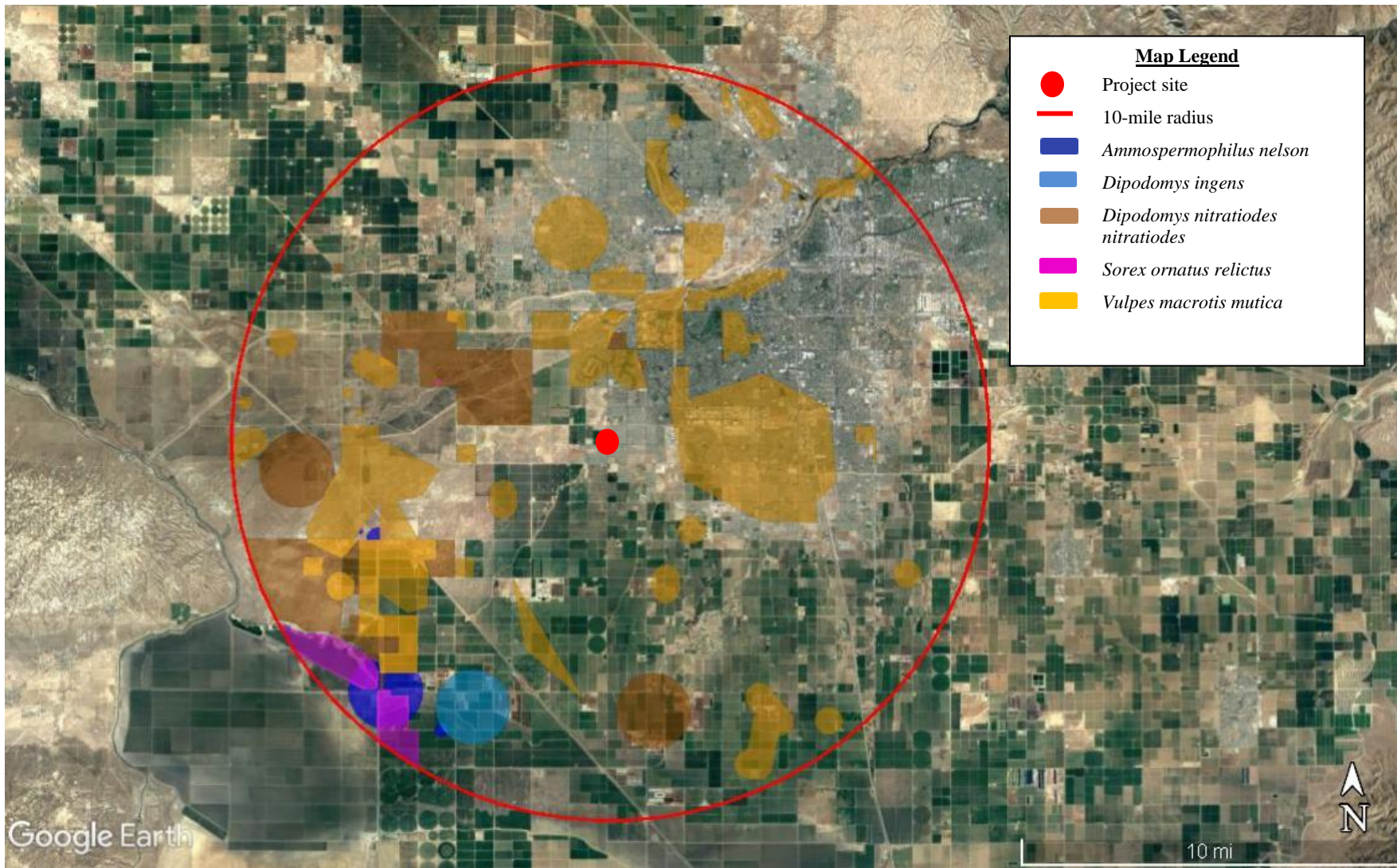
**Figure 3-1:** California Natural Diversity Database special-status bird observations (Google Earth 2017).





**Figure 3-2:** California Natural Diversity Database special-status reptile observations (Google Earth 2017).





**Figure 3-4:** California Natural Diversity Database special-status mammal observations (Google Earth 2017).



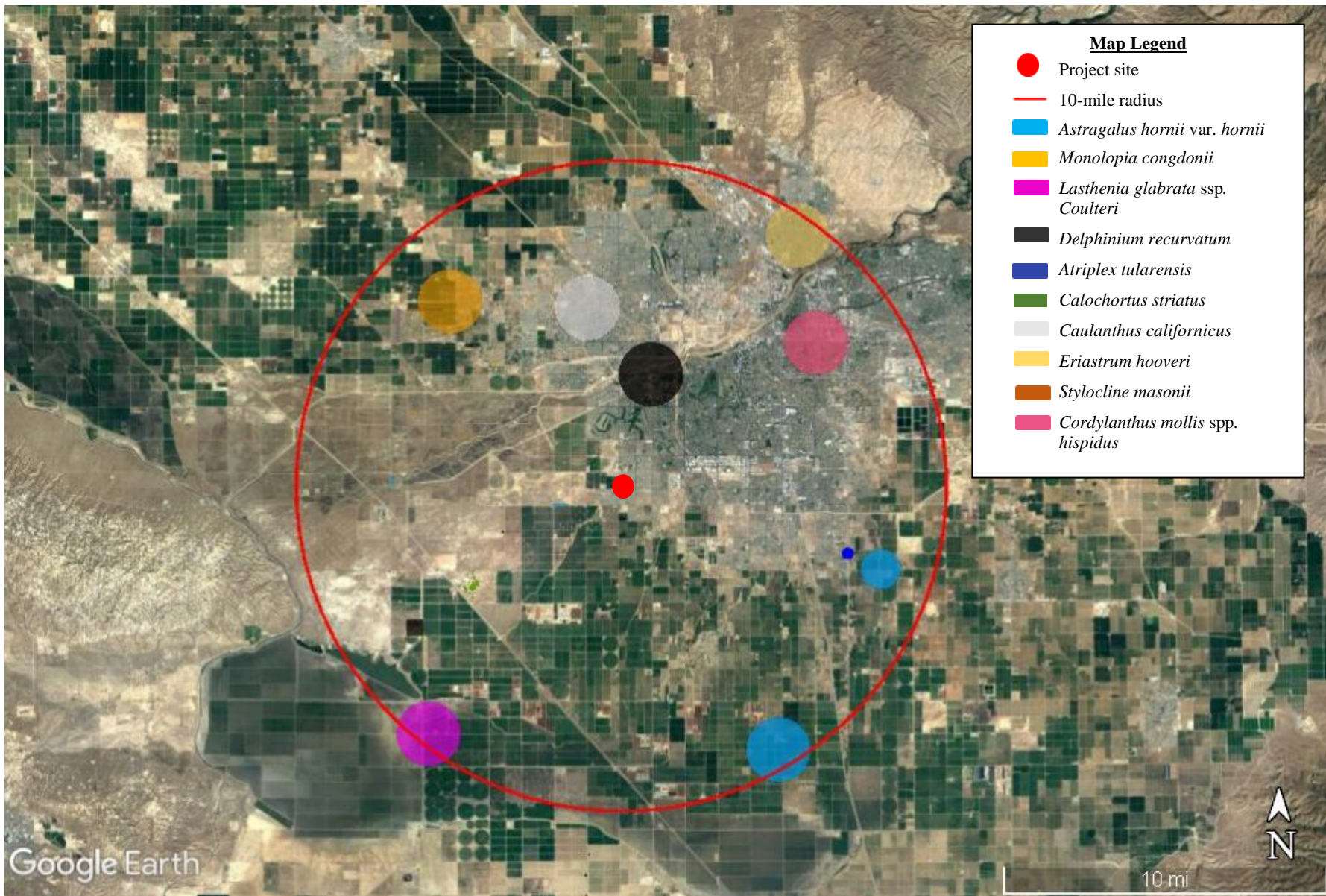


Figure 3-4. California Natural Diversity Database special-status plant observations (Google Earth 2017).

### 3.2 *Special-status Biological Resources*

As a result of the literature review and based on general habitat conditions, 23 special-status plant species were identified through database queries as potentially occurring on the project site. Seventeen animal species were identified as potentially occurring in the region of the project site. Special-status plant and animal species identified to have the potential to be impacted by the project are further discussed in the section 3.2.2. The initial evaluation of special-status species that were found during the literature review with a potential to occur in the region are included in Appendix A. Those that the initial evaluation found unlikely to be impacted by the proposed project are not discussed further in this report.

#### 3.2.1 Special-status Plant Species

For the purposes of this document, special status plants include all plant species that meet one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR §17.12).
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code §2050 et seq.). A species, subspecies, or variety of plant is endangered when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors (Fish and Game Code §2062). A plant is threatened when it is likely to become endangered in the foreseeable future in the absence of special protection and management measures (Fish and Game Code §2067).
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.). A plant is rare when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code §1901).
- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
  - Species considered by the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B and 2);
  - Species that may warrant consideration on the basis of local significance or recent biological information.
  - Some species included on the California Natural Diversity Database’s (CNDDB) Special Plants, Bryophytes, and Lichens List (California Department of Fish and Game 2008)<sup>6</sup>
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region

(CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Precipitation has been above average to date, resulting in an acceptable year for annual plant species observations. Of the 23 special-status plant species returned during database queries for the project vicinity, only 5 of these plant species have standing at either the state or federal level. Although CEQA requires consideration for impacts to locally significant plant species, no mitigation is legally required to compensate for impacts to non-listed species. No listed, or otherwise special-status plant species was observed during the fieldwork conducted for the preparation of this report. No listed, or otherwise special-status plant species, has been recorded as occurring within the project footprint. Consequently, no additional discussion is provided for special-status plant species beyond the evaluation included in Appendix A, Table A-1.

### 3.2.2 Special-status Animal Species

Table 3-2 represents those special-status wildlife species included in Appendix A, Table A-2, evaluated as potentially impacted by the proposed project. A discussion for each of these species, is provided in the following paragraphs.

**Table 3-2: Special-status Animals That May Occur in the Project Area**

<i>Scientific Name</i>	Common Name	Status Federal/State
<b>Reptiles</b>		
<i>Gambelia sila</i>	Blunt-nosed leopard lizard	E/E/SFP
<b>Birds</b>		
<i>Buteo swainsoni</i>	Swainson's hawk	-/T
<b>Mammals</b>		
<i>Ammospermophilus nelsoni</i>	San Joaquin antelope squirrel	-/T
<i>Dipodomys nitrotiodes nitrotiodes</i>	Tipton kangaroo rat	E/E
<i>Sorex ornatus relictus</i>	Buena Vista Lake shrew	E/CSC
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	E/T

<sup>1</sup>Status:

Federal

E Listed as Endangered

State

E Listed as Endangered

T Listed as Threatened

CSC California Species of Concern

SFP California Department of Fish and Wildlife Designated Fully Protected



## Reptiles

### Blunt-nosed leopard lizard (*Gambelia sila*)

The Blunt-nosed leopard lizard (BNLL) is a relatively large lizard in the Iguanidae family. It is currently federal- and state-listed as endangered, and is fully protected by the state of California. It has a long, regenerative tail; long and powerful hind limbs; and a short, blunt snout. Adult total length may reach up to 13 inches (33 centimeters). Coloration consists of a light grayish, tan, or brown background with a conspicuous pattern of dark overlaying spots and/or pale crossbars. During the spring courtship season both sexes may develop reddish markings on the sides, tail, and ventral surfaces. Juveniles usually show a similar, but more yellowish pattern (CDFW 2004; Native fish and wildlife 1967; Stebbins 1985).

BNLL are active during the day, primarily from April to October, and peak daily activity usually occurs when air temperatures are between 77 and 95 °F (25–35 °C). During the winter months, animals can be found in underground rodent burrows. BNLL feed primarily on insects (particularly grasshoppers, crickets and moths); other lizards; and occasionally plant material (USFWS 1998).

BNLL were historically distributed over the San Joaquin Valley and in adjacent lower foothills, plains, and valleys. Currently, this species is found only in the San Joaquin Valley. It inhabits sparsely vegetated plains, lower canyon slopes, valley floors, and washes. Associated vegetation may include a variety of grasses, saltbush, goldenbush, iodine bush, and seep weed (USFWS 2010).

## Birds

### Swainson's hawk (*Buteo swainsoni*)

Swainson's hawks are state-listed as a threatened species (CDFW 2004). They are diurnal and similar in size to the red-tailed hawk, but lack their pale spotting on scapulars. There are two distinct color morphs with variations in between. Light morphs have a whitish forehead and white patch on the throat below the bill, while the rest of the head, sides of the throat, patch on its chest, and all other upper body parts are dark brown. The belly is white with brown barring, and in flight their wings have dark trailing edges that contrast with the light colored leading edges and the belly. Individuals of the dark morph are entirely dark brown, except for a patch under the tail (Brown 2006; Dunn & Alderfer 2008). The Swainson's hawk feeds on mice, gophers, ground squirrels, rabbits, large arthropods, amphibians, reptiles, birds and sometimes fish (Brown & Amadon 1968; Dunkle 1977).

Swainson's hawks are an uncommon resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County and Mojave Desert. Limited breeding has been reported from Lanfair Valley, Owens Valley, Fish Lake Valley and Antelope Valley (Bloom 1980; Garrett & Dunn 1981). The majority of the state's breeding sites are in two disjunct populations in the Great Basin and Central Valley. In the Central Valley, nest sites are strongly associated with riparian forest vegetation, whereas in the Great Basin nest sites are widely distributed in upland habitats (Woodbridge 1998). Typical habitat is open desert, grassland, or cropland containing

scattered, large trees or small groves. Migrating individuals move south through the southern and central interior of California

## **Mammals**

### San Joaquin Antelope Squirrel (*Ammospermophilus nelsoni*)

The San Joaquin antelope squirrel (SJAS) is a small, yellow-brown squirrel with two distinguishing white stripes along the dorsal side of the body. In contrast to other listed mammals in their range, these squirrels are diurnal and active year-round. Young are born in March and appear above ground in early April (Kakiba-Russell et al. 1991). SJASs are most often found in grasslands or open shrublands. Associated shrubs include saltbush (*Atriplex* spp.), bladder pod (*Isomeris arborea*), goldenbush (*Isocoma acradenius*=*Haplopappus a.*), snakeweed (*Gutierrezia bracteata*) and others. SJASs are omnivorous, with a diet consisting primarily of grass and herb seeds, and insects (USFWS 1998). It appears that SJASs rarely occupy burrows they have dug; instead, they tend to use burrows dug by kangaroo rats. In grassy, shrubless areas, Harris and Stearns (1991) found SJASs only in areas which also had high kangaroo rat densities.

SJAS originally occurred on the western side of the San Joaquin Valley from southern Merced County south to Kern County, the Carrizo Plain in San Luis Obispo County, and the Cuyama Valley in San Luis Obispo and Santa Barbara Counties. Prior to cultivation of the San Joaquin Valley, SJAS occupied approximately 3,456,000 acres (13,986 square kilometers). More than 80 percent of this estimated original geographic range is now under cultivation, with this species having been nearly extirpated on the eastern side of the San Joaquin Valley. No large tracts of prime habitat remain, and only about 15 percent of the remaining habitat is considered to be good to fair in quality. SJAS now occur only in the southwestern portion of the San Joaquin Valley and in adjacent valleys to the west. The species is currently state-listed as threatened (CDFW 2016; USFWS 1998).

### Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)

The Tipton kangaroo rat is one of three subspecies of the San Joaquin kangaroo rat. It is a small rodent, measuring up to 9 inches (23 centimeters) in total length and weighing from 1 to 1.3 ounces (28–37 grams). Its head is large, compared to other rodents, with large eyes and small rounded ears. The hind legs are elongated and serve as the principal means of locomotion. Coloration is dark above, changing to whitish ventrally with a white stripe extending laterally across each flank and along the sides of the prominently-tufted tail. The presence of four toes on the feet of the San Joaquin kangaroo rat helps to distinguish it from other sympatric kangaroo rat species which have five toes (CDFG 2005; ETWP 1988; USFWS 2014).

Tipton kangaroo rats are typically found in scrub and grassland communities in level to near-level terrain having alluvial fan and floodplain soil with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite. San Joaquin kangaroo rats excavate shallow burrows from which they emerge at night to forage for seeds. They hold seeds in fur-lined pouches on the sides of their mouth before caching a significant portion for later use.

Little information is available on the population densities of San Joaquin kangaroo rats; however, Tipton kangaroo rats are known to occur in the Tulare Subbasin extending from Lemoore and

Hanford in Kings County southward to the Caliente Wash in central Kern County, and west to the north side of Buena Vista Lake. The California Aqueduct is the approximate line between the ranges of the state- and federal-listed Tipton kangaroo rat and short-nosed kangaroo rat (*Dipodomys nitratooides brevinasus*). Tipton kangaroo rat is treated by the regulatory agencies as occupying lands to the east of the California Aqueduct and north of Buena Vista and Kern Lakes (USFWS 1998; Williams 1985).

#### Buena Vista Lake shrew (*Sorex ornatus relictus*)

The Buena Vista Lake shrew is a small mammal that belongs to the family Soricidae, and is one of nine subspecies of the ornate shrew (ETWP 2002; USFWS 1998). Their back is predominantly black with a buffy-brown speckling pattern, with more buffy-brown sides than the upper surface, and its underside is smoky-gray. They are about 4 inches (10 centimeters) in length including a tail of about 1.5 inches (4 centimeters) that blackens toward the end. They forage for food, particularly insects, during both the day and night (in general, long-tailed shrews do not store food in their burrows), but during the hottest months of the year, their activity is typically limited to the cooler hours of the night. Specifics of the reproduction and mating system of the Buena Vista Lake shrew are currently unknown, but the breeding season is thought to begin in autumn and end with the onset of the dry season in May or June (Brown et al. 2006; USFWS 2014).

The Buena Vista Lake shrew is currently federal-listed as endangered and is considered a California species of special concern. Historically, they occupied the wetlands around Buena Vista Lake, Kern County, and throughout the Tulare Basin in the marshes of the San Joaquin Valley. Its range has become much restricted and current distribution is unknown due to the loss of lakes and sloughs in the area (Brown et al. 2006; ETWP 2013). A small population was recorded in 1986 on the Kern Lake Preserve and three shrews were collected between 1992 and 1994 at the Kern National Wildlife Refuge (USFWS 1998).

#### San Joaquin Kit Fox (*Vulpes macrotis mutica*)

This species, currently federal-listed as endangered and state-listed as threatened, resembles a small, lanky dog in appearance, with disproportionately large ears containing an abundance of large white, inner guard hairs. The San Joaquin kit fox (SJKF) is the largest subspecies of kit fox, with adults weighing 4.5 to 5 pounds (2–2.3 kilograms). Total length is about 32 inches (81 centimeters), including a black-tipped tail up to 12 inches (30 centimeters) long. Coloration ranges from light buff to grayish along the back and tail; gray, rust, or yellowish along the sides; and white on the belly.

SJKF occur in a variety of open grassland, oak savannah, and shrub vegetation types/habitats as well as agricultural and urban areas in Kern County. In the southern San Joaquin Valley portion of the range, SJKF are generally found in sparse, annual grassland and scrub communities (e.g., valley sink scrub, saltbush scrub). Den characteristics of the taxon vary across its range. In the southern portion of its range the taxon often creates dens with two entrances. Natal dens generally have multiple entrances. Entrances are usually 8 to 10 inches (20–25 centimeters) in diameter and are normally higher than wide, but kit foxes can utilize dens with entrances as small as 4 inches (10 centimeters) in diameter. Kit foxes do not typically excavate their own dens, but rather enlarge the burrows of other species, such as California ground squirrels, and change dens on a regular basis. Home ranges for the taxon have been reported by several authors to range from 1 to

12 square miles (1.6–19 square kilometers). In one study, a single kit fox was tracked to 70 dens during a 2-year period (Native fish and wildlife 1967; USFWS 1998).

SJKF are primarily nocturnal but can be seen during the day when activities on the surface get their attention. Potential site occupation is determined based on observation of canid scat within a size range appropriate for this species, and presence of dens that meet the criteria for classification as known or natal/pupping per the USFWS guidelines (USFWS 2011).

### 3.2.3 Riparian Habitat, Wetlands, and Other Waters

A search of the USFWS National Wetlands Inventory resulted in no wetlands mapped on the project site (USFWS 2019). These results are consistent with the observed conditions within the survey area.



## 4.0 IMPACT ANALYSIS AND RECOMMENDATIONS

This section provides an analysis of the impacts of the project following the standards of CEQA. The project is located within the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) California Department of Fish and Wildlife, Incidental Take Permit No. 2081-2013-058-04 (ITP) boundaries. Consideration of potential impacts to plant and animal species are required under FESA, CESA, and CEQA during a General Plan Amendment and Zone Change. Any impacts to plant and animal species, other than blunt-nosed leopard lizard, would be fully-mitigated by participation in the MBHCP.

CEQA Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project. The project would create a significant impact to biological resources, based on the specifications in Appendix G of the CEQA Guidelines, if the following were to occur:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
3. Have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
6. 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 following analysis discusses potential impacts associated with the development of the project and provides recommendations where appropriate to further reduce potential impacts.

**1. Would the project 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, by the CDFW, or the USFWS?**

Direct impacts, in the form of “incidental take” of a threatened, endangered, or otherwise protected species, are not expected with the proposed project mitigation through participation in the MBHCP. Any impacts to plant and animal species, other than blunt-nosed leopard lizard, would be fully-mitigated by participation in the MBHCP. The habitat of the site is not suitable for the presence of BNLL. Consequently, no measures beyond those associated with participation in the MBHCP are recommended.

**2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFW or the USFWS?**

No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service exists on the project site. Consequently, no substantial adverse effect will occur as a result of the development of the project.

**3. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No features identified in wetland categories appear on the USFWS National Wetlands Inventory mapping (USFWS 2016b) within the proposed project area. Consequently, no substantial adverse effect will occur on federally protected wetlands as defined by Section 404 of the Clean Water Act. An irrigation canal identified on the USGS 7.5 min quadrangle for the project as the Buena Vista Canal, runs northeast to southwest through the proposed project. While this canal does not fall under the purview of the USACOE, it could be considered a water of the state. Realignment would require notification to the CDFW.

**4. Would the project 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?**

Wildlife corridors can be defined as connections between wildlife blocks that meet specific habitat needs for species movement generally during migratory periods, but seasonally as well. Wildlife corridors generally contain habitat dissimilar to the surrounding vicinity and include examples such as riparian areas along rivers and streams, washes, canyons, or otherwise undisturbed areas within urbanization. Corridor width requirements can vary based on the needs of the species utilizing them. No impacts are expected. Consequently, no additional measures are included.

**5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

There are no biological resources on the site which are protected by local policies. Therefore, impacts from conflicts with local policies will not occur. Consequently, no additional measures are included.

**6. 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 is not known to conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Consequently, no additional measures are included.

## 5.0 LIST OF PREPARERS

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Jared Pratt, MBI, Senior Biologist      Document Review

### Field Survey

Steven P. Pruett, McCormick Biological, Inc. (MBI), Senior Biologist      July 15, 2019



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## **Appendix A**

### **Special-Status Plants and Animals Evaluation**



**Table A-1: Special-status Plants That May Occur in the Vicinity of the Project Site.**

<i>Scientific Name</i> <b>Common Name</b>	<b>Status</b> <b>Fed/State/CNPS</b>	<b>Brief Description</b>	<b>Blooming Period</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk vetch	S/-/1B.1	Annual herb in the Fabaceae found in meadows and seeps and on playas and lake margins on alkaline soils between 197 and 2,789 feet (60–850 meters) in elevation. Known from occurrences in the Southern San Joaquin Valley, the Tehachapi Mountains and the Western Transverse Ranges in Kern, Los Angeles, and San Bernardino Counties.	May to October	No Horn's mik vetch was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	S/-/1B.2	Herbaceous annual in the Chenopodiaceae found in chenopod scrub, meadows and weeps, and valley and foothill grasslands in sandy, saline or alkaline soils below 1,837 feet (560 meters) in elevation. Known to occur in the Great Central Valley from Kern County north to Southern Butte County.	April to October	No heartscale was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	S/-/1B.2	Herbaceous annual in the Chenopodiaceae found in valley and foothill grasslands, playas, and vernal pools on alkaline soils between 456 and 1,640 feet (139–500 meters) in elevation.	April to August	No Lost Hills crownscale was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Atriplex tularensis</i> Bakersfield smallscale	-/E/1A	Annual herb in the Chenopodiaceae found in valley and foothill grasslands, between 131 and 328 feet (40–100 meters) in elevation. Known to occur in the San Joaquin Valley from Northwestern Kern County north to Southern Merced County and in the Sacramento Valley in Southern Butte County.	June to August (occasionally October)	No Bakersfield smallscale was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Calochortus striatus</i> Alkali mariposa lily	S/-/1B.2	Bulbiferous perennial herb in the Liliaceae found in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grasslands on sandy often granitic, sometimes serpentine soils, between 1,296 and 3,281 feet (395–1,000 meters). Known to occur in the Outer South Coast Ranges in Santa Barbara and San Luis Obispo Counties.	April to May	No Alkali mariposa lily was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project



<b>Scientific Name Common Name</b>	<b>Status Fed/State/CNPS</b>	<b>Brief Description</b>	<b>Blooming Period</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<i>Caulanthus californicus</i> California jewelflower	E/E/1B.1	Annual herb in the Brassicaceae found on serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland between 1,542 and 4,003 feet (470–1,220 meters) in elevation.	May to July	No California jewelflower was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Chloropyron molle</i> ssp. <i>hispidum</i> Hispid bird's-beak	S/-/1B.1	Hemiparasitic annual herb in the Orobanchaceae found on coastal dunes and coastal saltwater marshes and swamps below 98 feet (30 meters) in elevation.	May to October	No Hispid bird's beak was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Cirsium crassicaule</i> Slough thistle	-/-/1B.1	Slough thistle ( <i>Cirsium crassicaule</i> ), an annual member of the aster family (Asteraceae). Slough thistle flowers from May to August and is found in freshwater marshes at elevations below 100m in the San Joaquin Valley	May to August	No slough thistle was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Delphinium recurvatum</i> Recurved larkspur	S/-/1B.2	Perennial herb in the Ranunculaceae found in chaparral, cismontane woodland, and pinyon and juniper woodland on rocky, carbonate soils between 984 and 4,396 feet (300–1,340 meters) in elevation. Known to occur in Kern and Tulare Counties.	April to May	No recurved larkspur was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	E/-/1B.1	Perennial, stoloniferous herb in the Onagraceae found in meadows and seeps, and subalpine coniferous forest in mesic soils between 6,562 and 10,236 feet (2,000–3,120 meters) in elevation. Known to occur in Alpine, El Dorado, Fresno, Madera, Mono, Nevada, Sierra, and Tuolumne Counties.	July to August	No Kern mallow was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project

<b>Scientific Name Common Name</b>	<b>Status Fed/State/CNPS</b>	<b>Brief Description</b>	<b>Blooming Period</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<i>Eriastrum hooveri</i> Hoover's eriastrum	D/-/4.2	Annual herb in the Polemoniaceae that occurs between 164 and 3,002 feet (50–915 meters) in elevation in pinyon-juniper woodland, and valley and foothill grasslands, occasionally on gravelly soils. Known to occur in the Southern San Joaquin Valley in Kern and Fresno Counties and on the Carrizo Plain in San Luis Obispo County.	March to July	No Hoover's eriastrum was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Eriogonum gossypinum</i> Cottony buckwheat	-/S/4.2	Annual herb in the Polygonaceae family that grows on exposed clay hills, typically south-facing. Known to occur in Kern, Kings, Fresno, San Benito, Ventura, Santa Barbara and San Luis Obispo Counties.	May to September	No Cottony buckwheat was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i> Tejon poppy	-/-/1B.1	Annual herb in the Papaveraceae found in chaparral, cismontane woodland and valley and foothill grassland on serpentinite clay soil between 656 and 4,921 feet (200–1,500 meters) in elevation. Known to occur in Fresno, Imperial, Mendocino, Monterey, San Benito, and San Luis Obispo Counties.	March to June	No Tejon poppy was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Goodmania luteola</i> Golden goodmania	-/-/4.2	Annual herb in the polygonaceae family found in meadows and playas in creosote bush scrub, valley grassland, alkali sink and wetland-riparian communities. Known to occur in Kern, San Bernadino, Tulare, Fresno, Madera, Mono and Inyo Counties.	April to August	No Golden goodmania was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Hordeum intercedens</i> Vernal barley	-/-/3.2	Annual herb in the poaceae family found near vernal pools in valley grassland, freshwater wetland and wetland-riparian communities. Known to occur in Placer, Sacramento, Merced, Mono, San Benito, Tulare, Kern, Santa Barbara, Ventura, Los Angeles, Orange, Riverside and San Diego Counties.	May to June	No vernal barley was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.

<b>Scientific Name Common Name</b>	<b>Status Fed/State/CNPS</b>	<b>Brief Description</b>	<b>Blooming Period</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<i>Imperata brevifolia</i> <i>California satintail</i>	-/-/2B.1	Perennial herb in the poaceae family found in chaparral, coastal sage scrub, creosote bush scrub and wetland-riparian communities. Known to occur in Butte, Lake, Fresno, Tulare, Inyo, Kern, Santa Barbara, Ventura, San Bernadino, Orange, Riverside, San Diego and Imperial Counties.	September to May	No California satintail was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Lasthenia ferrisiae</i> <i>Ferris' goldfields</i>	-/-/4.2	Annual herb in the Asteraceae family. Found in valley grassland and wetland-riparian communities. Known to occur in Butte, Colusa, Yolo, Sacramento, Solano, Contra Costa, San Joaquin, Alameda, Stanislaus, Merced, Fresno, Kings, Kern, San Luis Obispo and Ventura counties.	February to May	No Ferris' goldfields was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Lasthenia glabrata</i> ssp. <i>Coulteri</i> <i>Coulter's goldfields</i>	-/-/1B.1	Annual herb found in vernal pools and saline places at elevations below 1000m. Known to occur in Kern and San Joaquin Counties	February to June	No Coulter's goldfields was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.
<i>Monolopia congdonii</i> San Joaquin woolly-threads	E/-/1B.2	Perennial, rhizomatous herb in the Ericaceae found in broadleafed upland forest and North Coast coniferous forest between 328 and 3,609 feet (100–1,100 meters) in elevation. Known to occur in Del Norte, Fresno, Humboldt and Siskiyou Counties.	May to August	No San Joaquin woolly-threads was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Opuntia basilaris</i> var. <i>treleasei</i> Bakersfield cactus	E/E/1B.1	Perennial stem succulent in the Cactaceae found in chenopod scrub, cismontane woodland, and valley and foothill grasslands between 394 and 1,804 feet (120–550 meters) in elevation. Known to occur in the Southeast San Joaquin Valley and Southern Sierra Nevada Foothills in Kern County.	April to May	No Bakersfield cactus was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project

<i>Scientific Name</i> <b>Common Name</b>	<b>Status</b> <b>Fed/State/CNPS</b>	<b>Brief Description</b>	<b>Blooming Period</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<i>Stylocline citroleum</i> Oil neststraw	S/-/1B.1	Annual herb in the Asteraceae found in chenopod scrub, coastal scrub, and valley and foothill grasslands on clay soils between 164 and 1,312 feet (50–400 meters) in elevation. Known from locations in Kern and San Diego Counties.	March to April	No oil neststraw was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Stylocline masonii</i> Mason's neststraw	S/-/1B.1	Annual herb in the Asteraceae found in chenopod scrub, coastal scrub, and valley and foothill grasslands on clay soils between 164 and 1,312 feet (50–400 meters) in elevation. Known from locations in Kern and San Diego Counties.	March to April	No Mason's neststraw was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project
<i>Trichostema ovatum</i> <i>San Joaquin bluecurls</i>	-/-/4.2	Annual herb in the Lamiaceae family found in valley grassland communities. Known to occur in Fresno, Kings, Tulare, Kern, San Luis Obispo and Ventura counties	July to October	No San Joaquin bluecurls was observed during the fieldwork conducted. No occurrence is expected. No significant impacts to this species is expected to occur as a result of the development of this project.

STATUS: Federal and State Listing Code

D Delisted

E Federally or State-listed Endangered

T Federally or State-listed Threatened

CNPS

1A Plants presumed extirpated in California, and either rare or extinct elsewhere

1B.1 Plants considered rare, threatened, or endangered in California and elsewhere; seriously threatened in California

1B.2 Plants considered rare, threatened, or endangered in California and elsewhere; fairly threatened in California

2B.1 Plants considered rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California

4.2 Plants of limited distribution in California; fairly threatened in California

\*Unless otherwise noted, collection record sources are from the electronic database of herbarium specimens available at [www.ucjeps.berkeley.edu/interchange](http://www.ucjeps.berkeley.edu/interchange)



**Table A-2: Special-status Animals That May Occur in the Vicinity of the Project Site.**

<i>Scientific Name</i> <b>Common Name</b>	<b>Status</b> <b>Federal/State</b>	<b>General Habitat</b>	<b>Survey Results/Regional or Nearest Occurrence*</b>
<b>Invertebrates</b>			
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	T/-	Central Valley riparian forest; nearly always found on or close to its host plant, elderberry ( <i>Sambucus</i> species).	No suitable habitat for this species exists on the project site. No impacts will occur.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	T/-	Found in vernal pools throughout California. Exist as cysts during the dry season and reproduce when pools are filled with water again.	No suitable habitat for this species exists on the project site. No impacts will occur.
<b>Fishes</b>			
<i>Hypomesus transpacificus</i> Delta smelt	T/-	Found only in the low-salinity and freshwater habitats of the Sacramento-San Joaquin Estuary. Historically, it was one of the most common pelagic fish in the estuary	No suitable habitat for this species exists on the project site. No impacts will occur.
<b>Amphibians</b>			
<i>Rana draytonii</i> California red-legged frog	T/-	Found in habitat characterized by dense, shrubby, riparian vegetation and associated still, or slow-moving water that is at least 2.3 feet deep. The arroyo willow ( <i>Salix lasiolepis</i> ) cattails ( <i>Typha</i> sp.) and bulrushes ( <i>Scirpus</i> sp.) provide good habitat.	No suitable habitat for this species exists on the project site. No impacts will occur.
<b>Reptiles</b>			
<i>Gambelia sila</i> Blunt-nosed leopard lizard (BNLL)	E/E,SFP	Found only in the San Joaquin Valley, adjacent Carrizo Plain, Elkhorn Plain, Cuyama Valley, and Panoche Valley; inhabits sparsely vegetated plains, lower canyon slopes, on valley floors, and washes; open grassland, saltbush scrub, and alkali sink are more common habitat types.	No suitable habitat for this species exists on the project site. No BNLL were observed during the fieldwork conducted for the preparation of this report. No impacts exist.
<i>Thamnophis gigas</i> Giant gartersnake	T/T	Found in areas of freshwater marshes or low-gradient streams. Can also be found in human-made habitats, such as drainage canals and irrigation ditches, especially those associated with rice farming.	No suitable habitat for this species exists on the project site. No impacts will occur
<b>Birds</b>			
<i>Agelaius tricolor</i> Tricolored blackbird	S/CSC	Forages in grasslands, wetlands, rice fields, croplands, and weedy uplands dominated by mustards and thistles, etc.; breeds in marshes containing heavy growth of bulrushes, cattails, and blackberries; found throughout the Central Valley.	No suitable nesting or foraging habitat for this species exists on the project site. No impacts are expected.
<i>Buteo swainsoni</i> Swainson's hawk	-/T	Riparian and sometimes large isolated trees used for nesting; grasslands and agricultural lands used for foraging; in California, breeds primarily in the Sacramento Valley, with occasional nesting to the south through Kern County; migrate	No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat. No impacts are expected.

<i>Scientific Name</i> Common Name	Status Federal/State	General Habitat	Survey Results/Regional or Nearest Occurrence*
		through the Central and San Joaquin Valleys to their wintering grounds in South America.	
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	T/-	Nests, feeds, and takes cover on sandy or gravelly beaches along the coast, on estuarine salt ponds, alkali lakes, and at the Salton Sea. On the Pacific coast, it nests on barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, and river bars.	No suitable wintering habitat or foraging habitat exists on the project. No impacts are expected.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	T/E	Nests in walnut and almond orchards in California, natural nesting habitat is in cottonwood-tree willow riparian forest. Known populations of breeding western yellow-billed cuckoo are several disjunct locations in California, Arizona, and western New Mexico.	No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat. No impacts are expected.
<i>Empidonax traillii</i> Willow Flycatcher	-/E	Nests and forages in riparian habitats with dense vegetation characterized by willows, buttonbush and coyote brush, with a scattered overstory of cottonwood. Have also been known to nest in thickets dominated by tamarisk.	No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat. No impacts are expected.
<i>Vireo bellii pusillus</i> Least Bell's Vireo	E/E	Nests and forages in willow riparian habitat with a dense, shrubby understory of mulefat and other mesic species. Oak woodland with willow understory is also used in some areas.	No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat. No impacts are expected.
<b>Mammals</b>			
<i>Ammospermophilus nelsoni</i> San Joaquin antelope squirrel	-/T	Found in grasslands or open shrublands; formerly more extensive, current range includes southwestern portion of the San Joaquin Valley and in adjacent valleys to the west.	No San Joaquin antelope squirrel was observed during the fieldwork conducted for the preparation of this report. The site is beyond the current known range of the species. No impacts are expected.
<i>Dipodomys ingens</i> Giant kangaroo rat	E/E	Western side of the San Joaquin Valley, including the Carrizo Plain and the Panoche Valley; grassland and shrub-land habitats with sparse vegetative cover and soils that are well-drained, fine sandy loams with gentle slopes.	The site is beyond the published range of the species. No impacts are expected.
<i>Dipodomys nitratoideus nitratoideus</i> Tipton kangaroo rat	E/E	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	No Tipton kangaroo rat was observed during the fieldwork conducted for the preparation of this report. No burrows typical of TKR were observed. The site is within the range of the species. Decades of row crop farming have limited the potential for TKR presence. No impacts are expected.
<i>Sorex ornatus relictus</i> Buena Vista Lake shrew	E/CSC	Formerly occupied marshlands of the San Joaquin Valley and the Tulare Basin. Its range has become much restricted due to	No Buena Vista Lake shrew was observed during the fieldwork conducted for the

<i>Scientific Name</i> Common Name	Status Federal/State	General Habitat	Survey Results/Regional or Nearest Occurrence*
		the loss of lakes and sloughs in the area. It has been recorded from the Kern Lake Preserve area and the Kern National Wildlife Refuge. Current distribution is unknown but likely to be very restricted due to the loss of habitat.	preparation of this report. The site does not represent suitable habitat for the species. No impacts are expected.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox (SJKF)	E/T	Found in valley saltbush scrub, valley sink scrub, Interior Coast Range saltbush scrub, upper Sonoran sub-shrub scrub, non-native grassland, and valley sacaton grassland in the Central Valley and adjacent foothills and valleys, infrequently to the outer Coast Ranges; generally not found in densely wooded areas, wetland areas, or areas subject to frequent periodic flooding.	The site represents suitable habitat for the species. No potential, known, or natal SJKF dens were identified during the fieldwork conducted for the preparation of this report. Participation in the MBHCP would reduce potential impacts to this species to less-than-significant.

STATUS:

	<u>Federal</u>
S	Listed as a BLM Sensitive Species
D	Delisted
E	Listed as Endangered
PT	Proposed as Threatened
T	Listed as Threatened
C	Candidate for Endangered Status

State

CSC	California Department of Fish and Wildlife Designated Species of Special Concern
D	Delisted
E	Listed as Endangered
SFP	California Department of Fish and Wildlife Designated Fully Protected
T	Listed as Threatened

**Appendix B**  
**Photographs of the Project Site**  
**July 15, 2019**





**Photo B-1:** Photograph of the project site taken from near NE corner of the site facing SW (15Jul19).



**Photo B-2:** Photograph of the project site taken from near the SE corner of the project facing NW (15Jul19).





**Photo B-3:** Photograph of the project site taken from near the SW corner of the site facing NE (15Jul19).



**Photo B-4:** Photograph of the project site taken from near the NW corner of the site facing SE (15Jul19).

**Appendix C**  
**Plants and Animals Observed During Survey Conducted**  
**July 15, 2019**

**Table C1:** Plant Species Observed During the Survey Conducted on July 15, 2019.

<i>Scientific Name</i>	<b>Common Name</b>
<b>Asteraceae</b>	
<i>Lactuca serriola</i>	Prickly lettuce
<i>Stephanomeria pauciflora</i>	Wire lettuce
<b>Boraginaceae</b>	
<i>Amsinckia menziesii.</i>	Small flowered fiddleneck
<b>Brassicaceae</b>	
<i>Sisymbrium irio</i>	London rocket
<b>Chenopodiaceae</b>	
<i>Salsola tragus</i>	Russian thistle
<b>Geraniaceae</b>	
<i>Erodium cicutarium</i>	Redstemmed filaree
<b>Malvaceae</b>	
<i>Malva parviflora</i>	Cheeseweed
<b>Poaceae</b>	
<i>Avena barbata</i>	Slender wild oat
<i>Cynodon dactylon</i>	Bermudagrass
<i>Bromus diandrus</i>	Ripgut brome
<i>Bromus madritensis</i> ssp. <i>rubens</i>	Redbrome
<i>Schismus arabicus</i>	Arabian schismus
<b>Zygophyllaceae</b>	
<i>Tribulus terrestris</i>	Puncturevine

**Table C2:** Animal Species Observed during the Survey Conducted on July 15, 2019.

<i>Scientific Name</i>	<b>Common Name</b>
<b>Birds</b>	
<i>Corvus corax</i>	Common raven
<i>Haemorhous mexicanus</i>	House finch
<i>Passer domesticus</i>	House sparrow
<i>Zenaida macroura</i>	Mourning dove