LIVE OAK
ASSOCIATES, INC.

BIOLOGICAL EVALUATION
KERMAN MIXED USE PROJECT
FRESNO COUNTY, CALIFORNIA

Prepared by

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) investigated the biological resources of an approximately 48-acre site proposed for a mixed-use development and evaluated potential project-related impacts to such resources pursuant to the California Environmental Quality Act (CEQA). This site is located immediately north of Kerman city limits in unincorporated Fresno County, California.

The project site was surveyed on December 12, 2023, for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law. At the time, the site consisted of an almond orchard, a disked field, and an existing residential area. The site supported grasses and forbs typical of disturbed agricultural and residential areas and is expected to primarily be used by common wildlife species. The project site did not contain any wildlife movement corridors, sensitive natural communities, designated critical habitat, or federally or state protected waters or wetlands.

The orchard trees and various ornamental trees in the existing residential area represent potential nesting habitat for a variety of migratory birds and raptors, and certain disturbance-tolerant birds could nest elsewhere on the site, including on the ground. Other birds, like the state-listed Swainson's hawk, would not nest on the site itself, but could nest close enough to the site to be disturbed by construction activities, possibly leading to nest abandonment. Mortality/disturbance of nesting birds and raptors would be considered a significant impact of the project under CEQA. By either implementing the project outside of the nesting season or by avoiding active nests identified during preconstruction surveys, the project applicant can reduce the magnitude of this potential impact to a less than significant level.

The project will either have no impact or a less than significant impact, as defined by CEQA, on the following biotic resources: Special status plant species; ten special status animal species that would not likely use the site (i.e., the project site is outside their typical range or habitats of the site are not suitable for them); two special status animal species that would use the site for foraging only; wildlife movement corridors; sensitive natural communities and designated critical habitat; and waters of the State or U.S. The project is not in conflict with any habitat conservation plans or local policies.

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1.0 INTRODUCTION

Live Oak Associates, Inc. (LOA) conducted an investigation of the biotic resources of an approximately 48-acre property proposed for residential and commercial development in Fresno County, California ("project site" or "site"). This report describes the biotic habitats of the project site, evaluates the suitability of each habitat for special status plant and animal species, identifies potentially significant impacts to sensitive or protected biological resources from the project and proposes measures that, if implemented, would mitigate those impacts to a less than significant level as defined by the California Environmental Quality Act (CEQA).

1.1 PROJECT LOCATION

The project site is located at the northwest intersection of California State Route 180 (West Whitesbridge Avenue) and North Del Norte Avenue in an unincorporated area on the northern boundary of the City of Kerman (Figure 1). The site can be found on the Kerman U.S. Geological Survey (USGS) 7.5-minute quadrangle, Section 01, Township 14 South, Range 17 East; Mount Diablo Base and Meridian (Figure 2).

1.2 PROJECT DESCRIPTION

Infill 360, on behalf of George Holland, proposes a 48-acre mixed-use development in Kerman, California. The subject site is currently in the unincorporated area of Fresno County and borders the City of Kerman on the west and south and will require annexation to the City of Kerman. It is the intent of the applicant to entitle and develop the subject property for the construction of up to 200 single-family residential units, 5,000 square-foot minimum, on 38 acres of the subject site; a proposed multiple-family development that will yield up to 25 units per acre on 4 acres; and a proximate 6-acre parcel that may house a mid-major tenant of 15,000 square feet with additional pads which may be drive-through facilities.

The following applications are being proposed:

- A General Plan Amendment for the Land Use Map of the 2040 Kerman General Plan to change the land use designation of the subject property from 15.0 acres of "General Commercial" planned land use to 6.0 acres of General Commercial planned land use and

4.0 acres of High Density Residential planned land use. The amount of medium density residential planned land use will increase by 3 acres from 35 acres to 38 acres.

- A rezone to amend the current zoning from Fresno County Agricultural Zoning (AE-20, Exclusive Agriculture 20 acre minimum) to the following City of Kerman zone districts; 38 acres of R-1 zoning (Single Family Residential), 4.0 acres of R-3 zoning (High Density Residential), and 6.0 acres of General Commercial zoning. These zone districts are consistent with the proposed General Plan land use designations listed above.

- Reorganization (Annexation) to annex the subject 48 acres into the City of Kerman and detach it from the Kings River Conservation District. This request may be expanded to include an adjacent property to the east. This inclusion would be for annexation purposes only. Any future development of this additional property would require separate applications from the adjacent property owner.

- Tentative Subdivision Map to subdivide the site into a 38-acre parcel that will accommodate up to 200 single family residential lots (which contains area for a potential storm drainage basin), a 4.0-acre lot for multi-family residential development up to 25 units per acre: and a 6.0-acre lot for general commercial development.

1.3 REPORT OBJECTIVES

This report summarizes a biological study conducted by LOA to facilitate environmental review pursuant to CEQA. As such, the report's objectives are to:

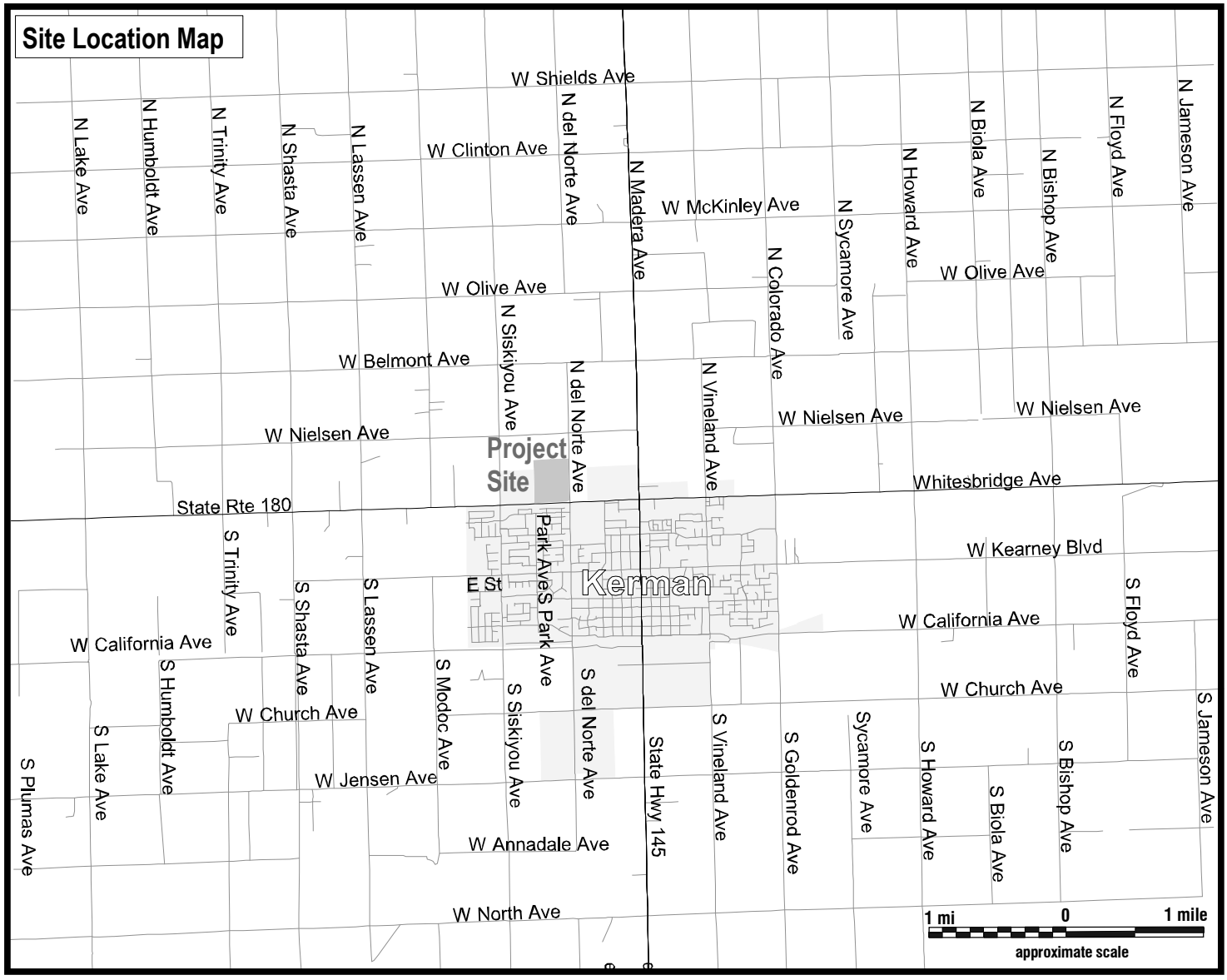
- Characterize the project site's existing biological resources, including biotic habitats, flora and fauna, soils, and aquatic resources

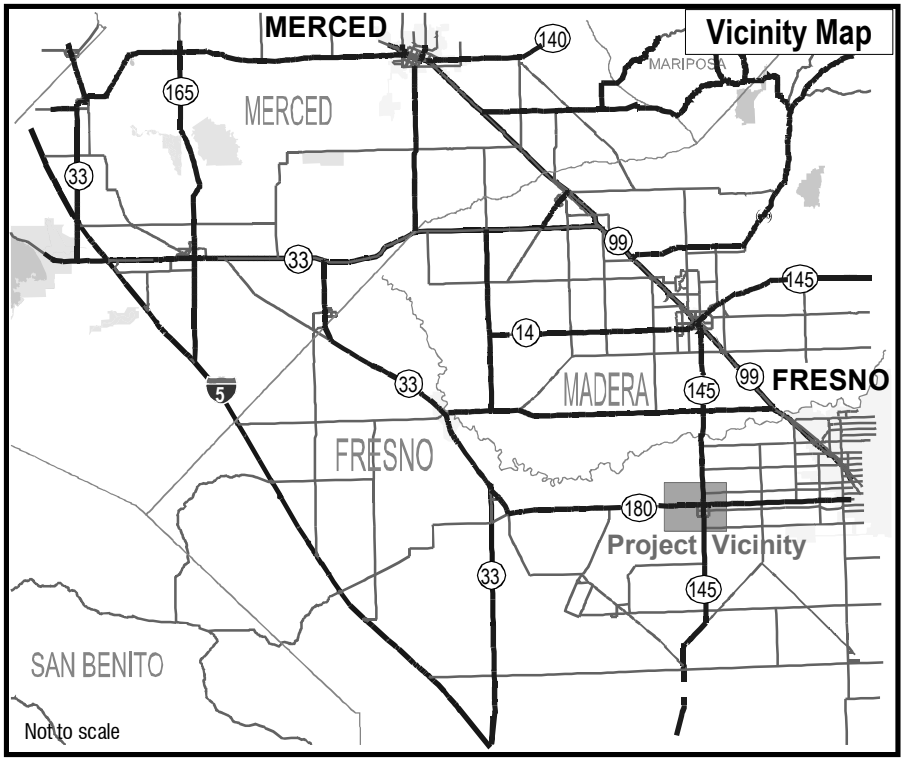
- Evaluate the project site's potential to support sensitive resources such as special status species, sensitive natural communities, and jurisdictional waters and wetlands

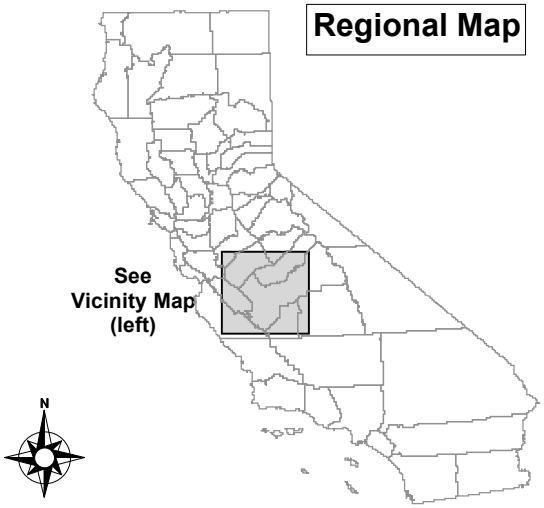
- Summarize all state and federal natural resource protection laws that may be relevant to project implementation

- Identify and discuss potential project-related impacts to biological resources within the context of CEQA and other state and federal laws

- Identify avoidance and mitigation measures that would reduce the magnitude of project-related impacts in a manner consistent with CEQA and species-specific guidelines







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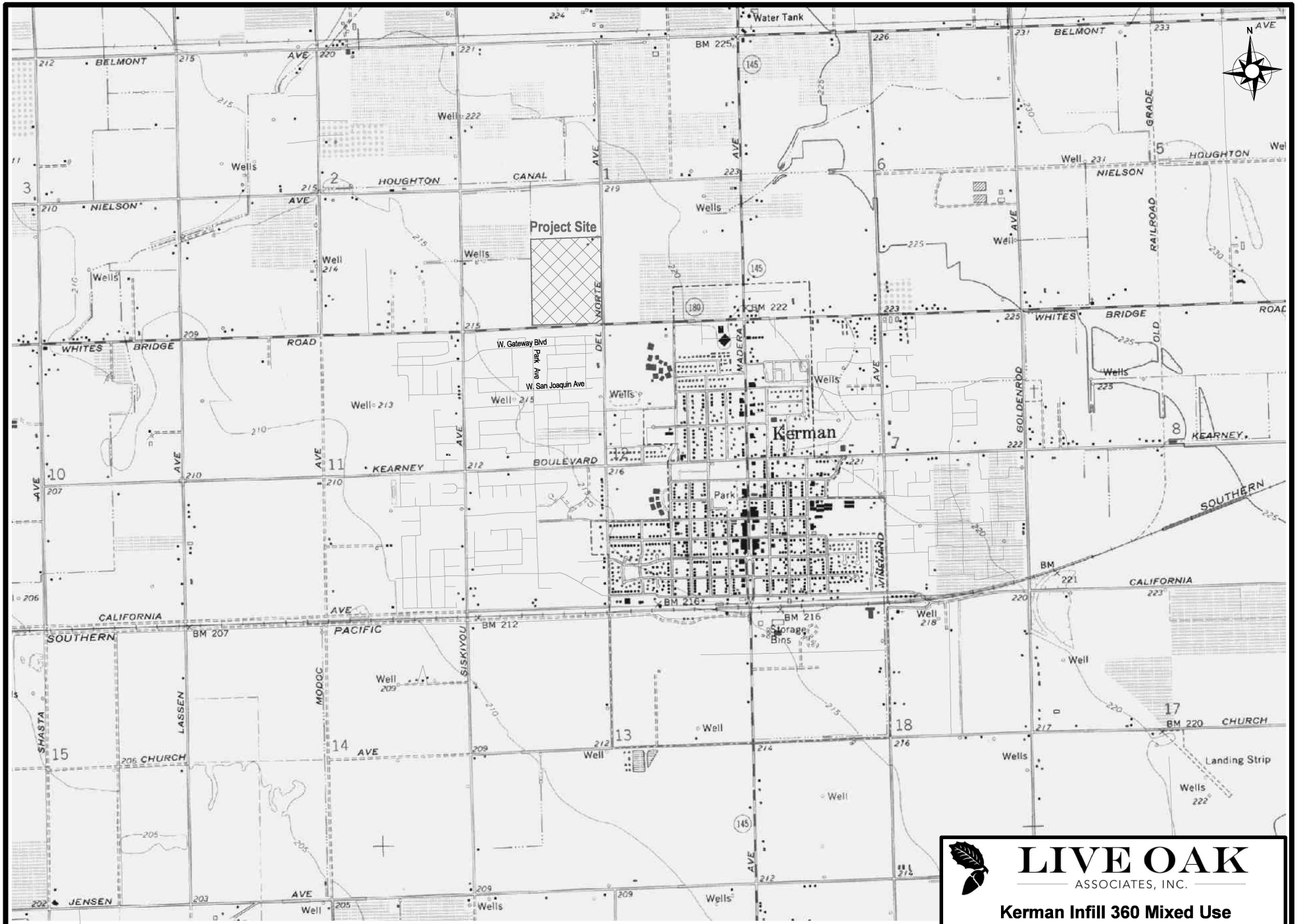
Kerman Infill 360 Mixed Use

Site / Vicinity Map

Date	Project #	Figure #
12/19/2023	2836-01	1



1 mile 0 1/2 1 mile

approximate scale

From USGS
Kerman 7.5' Quadrangle 1981

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Kerman Infill 360 Mixed Use

U.S.G.S. Quadrangle

Date	Project #	Figure #
12/19/2023	**2836-01**	**2**

1.4 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site (discussed in Section 2.0). Sources of information used in the preparation of this analysis include: (1) the *California Natural Diversity Data Base* (CDFW 2023); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023); (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley; and (4) other available planning documents and biological studies from the general project vicinity. A field survey of the project site was conducted on December 12, 2023 by LOA biologist Natalie Neff. The survey consisted of a meandering walk through the project site while identifying the principal land uses of the project site and the constituent plants and animals of each land use. The field survey conducted for this study was sufficient to assess the significance of possible biological impacts associated with the development plans for the project site.

2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project site is located in California's San Joaquin Valley. The San Joaquin Valley is a large, nearly flat alluvial plain bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coast ranges to the west, and the Sacramento-San Joaquin Delta to the north.

The San Joaquin Valley experiences a Mediterranean climate with warm, dry summers followed by cool, moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely exceed 70 degrees Fahrenheit with daytime highs often below 60 degrees Fahrenheit. Annual precipitation in the project vicinity varies considerably from year to year, but averages approximately 11.5 inches, almost all of which falls between the months of October and March in the form of rain (National Weather Service 2023).

The principal water feature of the region is the San Joaquin River, which starts in the Sierra Nevada, flows generally southwest to the trough of the San Joaquin Valley, then bends sharply and runs north-northwest for the remainder of its passage to the Sacramento-San Joaquin Delta. The San Joaquin River is approximately 5.5 miles north of the project site at its closet point.

The site lies immediately outside the northern city limits of the City of Kerman, in an area heavily influenced by urban and intensive agricultural uses. It is bordered by an orchard to the north, North Del Norte Avenue and orchard land to the east, California State Route 180 (West Whitesbridge Avenue) and residential uses to the south, and an orchard and residential area to the west.

2.2 PROJECT SITE

The project site consists of an almond orchard, a disked field, and a small residential area and has been used for agricultural purposes since at least 1998. The site is relatively flat with an elevation of approximately 220 feet National Geodetic Vertical Datum (NGVD) (see Figure 2).

Soils of the site comprise the following soil mapping units:

- Hesperia sandy loam, deep (464348)
- Tujunga loamy sand, 0 to 3 percent slopes (464505)
- Hanford coarse sandy loam (464329)
- Hanford sandy loam, silty substratum (4642335)
- Hesperia sandy loam, deep (464348)
- Hesperia sandy loam, deep, saline-sodic (464349)

These soil mapping units are not considered hydric, meaning they do not have the propensity to pond water and support the growth of wetland vegetation. The soils of the project site have been substantially altered through agriculture. As a result, they no longer maintain their native soil characteristics and have no particular significance to biological resources of the site.

2.3 BIOTIC HABITATS

The project site contained two biotic habitats, characterized as agricultural and residential. An aerial view of the site is presented in Figure 3. A list of vascular plants identified on the site is presented in Appendix A. A list of terrestrial vertebrates using or potentially using the project site is presented in Appendix B. Representative photos of the site are presented in Appendix C.

2.3.1 Agricultural

At the time of LOA's field survey, the majority of the project site consisted of agricultural land. The southern portion of the site consisted of an almond (*Prunus dulcis*) orchard and the northern portion contained a disked field from which the orchard trees had recently been removed per Google Earth aerial imagery. The most prevalent herbaceous vegetation within the orchard and on associated agricultural roads included common weeds such as common chickweed (*Stellaria media*), henbit (*Lamium amplexicaule)*, large crabgrass (*Digitaria sanguinalis*) and bearded sprangletop (*Leptochloa fusca*). The disked field contained herbaceous species typical of a disturbed environment including cheeseweed (*Malva parviflora*), red-stemmed amaranth (*Amaranthus retroflexus*), flax-leaf fleabane (*Erigeron bonariensis*), and prickly lettuce (*Latuca serriola*).

LEGEND

- Project Boundary
- Residential
- Agriculture

300' 0 300 feet
approximate scale

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Kerman Infill 360 Mixed Use

Habitats / Land Uses

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The site's orchard habitat may be used by a number of native wildlife species that have adapted to make use of agricultural lands. A variety of birds could nest in the orchard including mourning doves (*Zenaida macroura*), northern mockingbirds (*Mimus polyglottos*), Brewer's blackbirds (*Euphagus* cyanocephalus), and American robins (*Turdus migratorius*), among others. Ground nesting birds like killdeer (*Charadrius vociferus*) are highly disturbance tolerant and could nest in the dirt roads that line and run through the orchard. This biotic land type does not provide suitable nesting habitat for large raptors, though it does provide some foraging habitat as evidenced by a Cooper's hawk (*Accipiter cooperii*) seen foraging in the mature portion of the almond orchard during the December survey. Other avian species likely to forage in the site's orchard include the California scrub jay (*Aphelocoma californica*) and American crow (*Corvus brachyrhynchos*). Reptile species like side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and Pacific gopher snake (*Pituophis catenifer catenifer*) may forage in the orchard as well.

The disked field provides relatively low wildlife value due to the high amount of disturbance it receives and general lack of vegetation; however, some common species are expected to utilize this portion of the site. Brewer's blackbirds and American crows may forage in the disked field from time to time while the disturbance-tolerant killdeer could nest in the field. The same reptiles found in the orchard could utilize the disked field as well.

Small mammal use of the site's agricultural lands may include the Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus maniculatus*), and California ground squirrel (*Otospermophilus beecheyi*). California ground squirrel burrows and Botta's pocket gophers were found in the orchard, though only a few active burrows were present.

Common mammalian predators such as coyotes (*Canis latrans*), raccoons (*Procyon lotor*), and striped skunks (*Mephitis mephitis*) may forage and pass through the site's agricultural lands as well. Various bats may forage over these lands, though roosting in the active almond orchard would be unlikely.

2.3.2 Residential

In the northeast corner of the project site, approximately 1.4 acres can be categorized as residential. Five structures and associated residential infrastructure including cars and equipment occupy this section of the project site. Large ornamental trees such as English walnut (*Juglans regia*), white mulberry (*Morus alba*), and orange (*Citrus x sinensis*) are scattered around this portion of the project site. Weedy species associated with disturbed soils such as mat amaranth (*Amaranthus blitoides*), red-stemmed filaree (*Erodium cicutarium*), and black nightshade (*Solanum nigrum*) were found here as well.

This habitat type provides habitat for nesting birds that may occur in the agricultural habitat type, and may also attract avian species associated with the built environment, such as the house finch (*Haemorhous mexicanus*) and black phoebe (*Sayornis nigricans*). The same reptiles and mammals expected to be found in the agricultural habitat are expected to be found here as well, though no California ground squirrel burrows were located in this area of the project site.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Many species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and residential uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists (i.e., California Rare Plant Ranks, or CRPR) of native plants considered rare, threatened, or endangered (CNPS 2023). Collectively, these plants and animals are referred to as "special status species."

The California Natural Diversity Data Base (CNDDB) was queried for special status plant and animal occurrences in the nine USGS 7.5-minute quadrangles containing and surrounding the project site: *Madera, Gregg, Lanes Bridge, Biola, Herndon, Fresno North, Kerman, Kearney Park,* and *Fresno South.* A number of special status plants and animals were returned in the query and are summarized below in Table 1. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2023), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023), *Calflora.org,* and *eBird.org*.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS (Adapted from CDFW 2023 and CNPS 2023)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat/Range	*Occurrence within the Project Site
Palmate-Bracted Bird's-Beak (*Chloropyron palmatum*)	FE, CE, CRPR 1B.1	Grows in saline-alkaline soils in seasonally flooded lowland plains and basins at elevations of less than 500 feet. Blooms late spring – summer.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Hairy Orcutt Grass (*Orcuttia pilosa*)	FE, CE, CRPR 1B.1	Vernal pools California's Central Valley. Requires deep pools with prolonged periods of inundation; blooms May to September.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.

CNPS-listed Species

Species	Status	Habitat	*Occurrence within the Project Site
Heartscale (*Atriplex cordulata* var. *cordulata*)	CRPR 1B.2	Occurs on saline or alkaline soils in chenopod scrub, meadows, seeps, and grasslands; blooms April-October; elevations below 1,230 ft.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Earlimart Orache (*Atriplex cordulata var. erecticaulis*)	CRPR 1B.2	Occurs in alkaline soils of valley and foothill grasslands between 130 and 330 ft. in elevation; blooms August-September.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Lost Hills Crownscale (*Atriplex coronata var. vallicola*)	CRPR 1B.2	Found in chenopod scrub and valley and foothill grasslands; alkaline soils; blooms April-August; elevations below 2,080 ft.	**Absent.** Suitable habitat is absent from the project site.
Brittlescale (*Atriplex depressa*)	CRPR 1B.2	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April-October; elevations below 1,050 ft.	**Absent.** Suitable habitat is absent from the project site.
Lesser Saltscale (*Atriplex minuscula*)	CRPR 1B.1	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May-October; elevation 50-660 ft.	**Absent.** An occurrence from 1948 was documented approximately 1.75 miles southeast of the project site but current conditions have eliminated any potential suitable habitat that maybe have once been present.
Vernal Pool Smallscale (*Atriplex persistens*)	CRPR 1B.2	Occurs in alkaline vernal pools; blooms July-Oct.; elevations below 400 ft.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Subtle Orache (*Atriplex subtilis*)	CRPR 1B.2	Occurs in valley and foothill grasslands of the San Joaquin Valley; blooms August-October; elevation 130-330 ft.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Recurved Larkspur (*Delphinium recurvatum*)	CRPR 1B.2	Occurs in alkaline soils of cismontane woodland and valley and foothill grasslands in elevations 100 – 2,000 feet. Blooms March-June.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS (Adapted from CDFW 2023 and CNPS 2023)

CNPS-listed Species (cont.)

Species	Status	Habitat	*Occurrence within the Project Site
Hoover's Eriastrum (*Eriastrum hooveri*)	CRPR 4.2	Occurs in alkali sinks, washes, and on ridgetops with stabilized silty to sandy soils, a low cover of competing herbaceous vegetation and cryptogamic crust. However, is relatively adaptable and found in habitats without these characteristics. Elevation between 164 and 3,002 feet. Blooms March – June.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Spiny-sepaled Button Celery (*Eryngium spinosepalum*)	CRPR 1B.2	Found in vernal pools, swales and valley and foothill grasslands at the eastern edge of the San Joaquin Valley and in the Tulare basin; elevation between 330 and 840 ft.. Blooms April to May.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Alkali-Sink Goldfields (*Lasthenia chrysantha*)	CRPR 1B.1	Occurs in valley grassland, alkali sink, wetland riparian areas less than 328 ft. in elevation in the southern Sacramento Valley and San Joaquin Valley. Blooms February – June.	**Absent.** This species was generally mapped to Kerman in 1936, and the resulting CNDDB occurrence polygon overlaps the project site. Any suitable habitat that may once have been present on the project site would have been eliminated with the site's conversion to intensive agriculture.
Munz's Tidy Tips (*Layia munzii*)	CRPR 1B.2	Occurs on hillsides, in white-gray alkaline clay soils between 500 and 2,300 feet in elevation. Blooms March – April.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
California Alkali Grass (*Puccinellia simplex*)	CRPR 1B.2	Occurs in alkali sinks and flats within grassland and chenopod scrub habitats of the Central Valley, San Francisco Bay area, and western Mojave Desert below 3,000 ft. in elevation. Blooms March-May.	**Absent.** This species was generally mapped to Kerman in 1936, and the resulting CNDDB occurrence polygon overlaps the project site. Any suitable habitat that may once have been present on the project site would have been eliminated with the site's conversion to intensive agriculture.
Sanford's Arrowhead (*Sagittaria sanfordii*)	CRPR 1B.2	Occurs in freshwater emergent marsh habitat in drainage ditches and canals of California's Central Valley and low Sierra foothills. Blooms May to October.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2023)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills.	**Absent.** The current accepted distribution of this species does not include the San Joaquin Valley south of Merced County. Furthermore, blue elderberry shrubs required by this species are absent from the site.
Giant Gartersnake (*Thamnophis gigas*)	FT, CT	Occurs in marshes, sloughs, drainage canals, irrigation ditches, rice fields, and adjacent uplands. Prefers locations with emergent vegetation for cover and open areas for basking. Inhabit small mammal burrows and other upland soil crevices during the winter during hibernation.	**Absent.** Suitable habitat is absent from the project site and there are no CNDDB occurrences within the vicinity of the project site.
Blunt-Nosed Leopard Lizard (*Gambelia sila*)	FE, CE	Occurs in semiarid grasslands, alkali flats, and washes. Avoids densely vegetated areas. Inhabits the San Joaquin Valley and adjacent valleys and foothills north to Merced County	**Absent.** The project site is situated in a matrix of intensive anthropogenic uses within which the blunt-nosed leopard lizard would not have been able to persist. Furthermore, suitable habitat is absent from the project site itself. The closest CNDDB occurrence of this species is from 1993 and lies approximately 5.75 miles west of the project site**.**
Swainson's Hawk *(Buteo swainsoni*)	CT	Summer migrant in the Central Valley. Forages in grasslands and fields close to riparian areas.	**Possible.** The CNDDB lists eight nesting occurrences of this species within a ten-mile radius of the project site. The closest of these is from 2018 and lies approximately 4 miles west of the project site. The project site itself does not contain nesting habitat for this species, but potentially suitable nesting trees are present within the vicinity of the project site in the form of larger ornamental trees and almond trees in abandoned orchards nearby. Swainson's hawks could forage over the site's disked field from time to time.
Tricolored Blackbird (*Agelaius tricolor*)	CT, CSC	Breeds colonially near fresh water in dense bulrush, cattails, or thickets of willows or shrubs. In the San Joaquin Valley, frequently nests in wheat and other types of grain fields. Forages in a wide variety of habitats.	**Possible.** Suitable nesting habitat is absent from the project site and adjacent lands, but tricolored blackbirds could potentially forage in the site's disked field from time to time.
Freson Kangaroo Rat (*Dipodomys nitratoides exillis*)	FE, CE	Historically occurred in grassland and scrub communities on the San Joaquin Valley floor in Fresno, Madera, Merced, and Kings Counties. Currently occurs in alkali scrub and herbaceous habitats with scattered shrubs in the southwestern San Joaquin Valley.	**Absent.** The project site does not contain suitable habitat for the Fresno kangaroo rat, and no known populations of this species remain in Fresno County. Although there are three CNDDB occurrences of this species within a 5-mile radius of the project site, the sightings are historical, with the most recent one documented in 1975, and all are now extirpated.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2023)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Desert alkali scrub, annual grasslands of California's San Joaquin Valley and Tulare Basin, extending west into San Luis Obispo County. This species may forage in adjacent agricultural habitats.	**Unlikely.** The site is situated in a matrix of residential and commercial developments, orchards, and other land uses generally incompatible with kit fox ecology. This species is extremely uncommon in the vicinity. There is only one CNDDB occurrence within 10 miles of the site, and it is historical in nature, documented approximately 4.5 miles southwest of the site in 1975. The site's habitats are marginal, at best, for this species due to regular ground disturbance and an overall degraded condition, further contributing to a low probability of occurrence on site.
Western Spadefoot (*Spea hammondii*)	FPT CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary pools for breeding. Baumberger et al. (2019) recorded a maximum distance of around 890 feet between breeding and aestivation sites.	**Absent.** Suitable breeding habitat is absent from the project site and surrounding lands, and there are no known occurrences of this species within 5 miles of the project site.

State Species of Special Concern

San Joaquin Coachwhip (*Masticophis flagellum ruddocki*)	CSC	Open, dry habitats with little or no tree cover. Found in valley grasslands and saltbush scrub in the San Joaquin Valley.	**Absent.** Suitable habitat is absent from the project site. There is a CNDDB occurrence approximately 2.25 miles west of the project site, but it is from 1948.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low- growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Unlikely.** Although the site's disked field would theoretically provide some foraging opportunity for burrowing owls, the site is situated in a matrix of residential and commercial development, orchards, and other incompatible uses, making burrowing owl occurrence in the project vicinity, and the site itself, unlikely. There are seven CNDDB documented occurrences within 10 miles of the project site, the closest of which lies 3.75 miles west of the project site and is from 1984.
Mountain Plover (*Charadrius montanus*)	CSC	This species is a winter resident of California's Central and Imperial Valleys, where it forages in short grasslands and freshly plowed fields. Breeds in the western Great Plains and Rocky Mountain states.	**Possible.** This winter resident of California travels widely to meet its foraging needs, and individuals or flocks may forage in the site's disked field from time to time. Mountain plovers do not nest in California.
American Badger (*Taxidea taxus*)	CSC	This species inhabits open and dry sections of grasslands, shrub, and forest habitats with friable soil.	**Absent.** The project site does not provide suitable habitat for the American badger, and is situated in a landscape dominated by intensive anthropogenic uses incompatible with this species' ecology.

*** Explanation of Occurrence, Designations, and Status Codes**

Present: Species observed on the site at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the site, but it could occur there from time to time.
Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient
Absent: Species not observed on the Site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered
FT	Federally Threatened
FPT	Federally Proposed Threatened
FC	Federal Candidate
FPD	Federally (Proposed) Delisted
CE	California Endangered
CT	California Threatened
CSC	California Species of Special Concern
CRPR	California Rare Plant Ranking
CFP	California Fully Protected
CCE	California Candidate Endangered

CRPR CODES

1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened, or Endangered in California and elsewhere
2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere

Threat Ranks
0.1 – Seriously threatened (> 80% of occurrences threatened)
0.2 – Moderately threatened (20-80% of occurrences threatened)
0.3 – Not very threatened (< 20% of occurrences threatened)

2.5 JURISDICTIONAL WATERS

Jurisdictional waters are those rivers, streams, lakes, ponds, and wetlands that are subject to the authority of the U.S. Army Corps of Engineers (USACE), CDFW, and/or the Regional Water Quality Control Board (RWQCB). In general, the USACE regulates navigable waters, tributaries to navigable waters, and wetlands with a continuous surface connection to these waters, where wetlands are defined by the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. All waters under USACE jurisdiction are also regulated by the RWQCB as waters of the State. Additionally, the RWQCB asserts jurisdiction over certain isolated features disclaimed by the USACE. The CDFW has jurisdiction over natural features with a defined bed and bank, such as rivers, streams, and lakes. The regulation of jurisdictional waters is discussed in more detail in Section 3.2.8.

Jurisdictional waters are absent from the site.

2.6 CALIFORNIA SENSITIVE NATURAL COMMUNITIES

California Sensitive Natural Communities are natural communities designated by CDFW as those that are of limited distribution, distinguished by significant biological diversity, home to special

status plant and animal species, of importance in maintaining water quality or sustaining flows, etc.

No habitats designated as a Sensitive Natural Community by CDFW or any other sensitive habitats are present on the site or surrounding lands.

2.7 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines.

Wildlife movement corridors are absent from the project site.

2.8 DESIGNATED CRITICAL HABITAT

The USFWS often designates areas of "critical habitat" when it lists species as threatened or endangered. Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Designated critical habitat is absent from the project site and surrounding lands.

3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

In California, any project carried out or approved by a public agency that will result in a direct or reasonably foreseeable indirect physical change in the environment must comply with CEQA. The purpose of CEQA is to ensure that a project's potential impacts on the environment are evaluated and methods for avoiding or reducing these impacts are considered before the project is allowed to move forward. A secondary aim of CEQA is to provide justification to the public for the approval of any projects involving significant impacts on the environment.

According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest." Although the lead agency may set its own CEQA significance thresholds, project impacts to biological resources are generally considered to be significant if they would meet any of the following criteria established in Appendix G of the CEQA Guidelines:

- 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 CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.
- 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.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) requires the lead agency to make "mandatory findings of significance" if there is substantial evidence that a project may:

- 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 animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- Achieve short-term environmental goals to the detriment of long-term environmental goals.
- Produce environmental effects that are individually limited but cumulatively considerable, meaning that the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects.

3.2 OTHER RELEVANT LAWS AND POLICIES

3.2.1 General Plan Policies of Fresno County and City of Kerman

In compliance with CEQA, the lead agency must consider conformance with applicable goals and policies of the General Plans of the County of Fresno and City of Kerman. Because the proposed residential development is seeking annexation to the City of Kerman and currently lies within an unincorporated area in County of Fresno, it is assumed that the project is subject to both General Plans. The General Plan of the County of Fresno was adopted in 2000, revised in April 2023, and is valid through 2042. The City of Kerman General Plan was adopted in July 2020 and is valid through 2040. Implementation of goals in these plans is accomplished via a set of policies specific to each goal.

Relevant biological resource goals of the Fresno County General Plan and City of Kerman General Plan include:

- Minimize impact to burrowing owls, Fresno kangaroo rat, and San Joaquin kit fox
- Preserve and expand undeveloped open spaces in Kerman to support natural habitats
- support the "no-net-loss" wetlands policies of the U.S. Army Corps of Engineers;
- require new development to fully mitigate wetlands loss for function and value;

- require development to be designed in such a manner that pollutants and siltation do not significantly degrade wetlands;
- require riparian protection zones around natural watercourses;
- strive to identify and conserve upland habitat adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife;
- require that new developments preserve and enhance existing native riparian habitat;
- support the management of wetland and riparian plant communities;
- protect rare and endangered species;
- conserve upland habitat that is critical to the feeding, hibernation, or nesting of wildlife species;
- promote effective methods of pest control on croplands that do not place special status species at risk;
- preserve, to the maximum extent possible, habitat used by endangered and rare species;
- ensure conservation of large, continuous expanses of native vegetation;
- preserve, to the maximum extent possible, significant wildlife migration routes;
- encourage landowners and developers to preserve the integrity of existing terrain and natural vegetation in sensitive areas;
- require developers to use native and compatible non-native plant species for landscaping;
- preserve landmark trees;
- limit development on hillsides and require that natural vegetation be maintained
- preserve natural woodlands and oak woodlands to the maximum extent possible;
- maintain open spaces for the preservation of natural resources;

3.2.2 Threatened and Endangered Species

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as "threatened" or "endangered" under one or both Acts, and/or as "rare" under CESA. Under both Acts, "endangered" means a species is in danger of extinction

throughout all or a significant portion of its range, and "threatened" means a species is likely to become endangered within the foreseeable future. Under CESA, "rare" means a species may become endangered if their present environment worsens. Both Acts prohibit "take" of listed species, defined under CESA as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86), and more broadly defined under FESA to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). The USFWS commonly interprets "take" to include the loss of habitat utilized by a listed species.

When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the "take" of listed species must generally enter into consultation with the USFWS and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

3.2.3 California Fully Protected Species

The classification of certain animal species as "fully protected" was the State of California's initial effort in the 1960s, prior to the passage of the California Endangered Species Act (CESA), to identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The list of fully protected species are identified, and their protections stipulated, in California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and fish (5515). Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.2.4 Migratory Birds

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior.

The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Native birds are also protected under California state law. The California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.

3.2.5 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, 1992), which states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.2.6 Nesting Birds

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of "take" by the CDFW.

3.2.7 Habitat Conservation Plans and Natural Community Conservation Plans

Section 10 of the federal Endangered Species Act establishes a process by which non-federal projects can obtain authorization to incidentally take listed species, provided take is minimized and thoroughly mitigated. A Habitat Conservation Plan (HCP), developed by the project applicant in collaboration with the USFWS and/or NMFS, ensures that such minimization and mitigation will occur, and is a prerequisite to the issuance of a federal incidental take permit. Similarly, a

Natural Community Conservation Plan (NCCP), developed by the project applicant in collaboration with CDFW, provides for the conservation of biodiversity within a project area, and permits limited incidental take of state-listed species.

3.2.8 Wetlands and Other Jurisdictional Waters

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into "navigable waters" (33 U.S.C. §1344), defined in the CWA as "the waters of the United States, including the territorial seas" (33 U.S.C. §1362(7)). The CWA does not supply a definition for waters of the U.S., and that has been the subject of considerable debate since the CWA's passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Waters of the U.S. are presently defined by the EPA and USACE's joint 2023 Revised Definition of 'Waters of the U.S.' Rule (2023 WOTUS Rule), issued in January 2023 and amended in August 2023. Generally speaking, waters of the U.S. include:

- Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide
- The territorial seas
- Interstate waters
- Impoundments of waters otherwise defined as waters of the United States under the definition
- Tributaries to other waters of the U.S. that are relatively permanent, standing or continuously flowing bodies of water
- Wetlands adjacent to other waters of the U.S. that have a continuous surface connection to those waters

The 2023 WOTUS Rule also defines a number of exclusions from the definition of waters of the U.S., many of which are longstanding exclusions from earlier regulatory regimes. These generally include:

- Waste treatment systems
- Prior converted cropland
- Ditches excavated wholly in and draining only dry land that do not carry a relatively permanent flow of water
- Certain artificial features, e.g. irrigation basins, swimming pools, borrow pits, and artificially irrigated areas
- Swales and erosional features characterized by low volume, infrequent, or short duration flow

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) has regulatory authority to protect the water quality of all surface water and groundwater in the State of California ("waters of the State"). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining a Section 404 Clean Water Act permit. Discharges into waters of the State that are not also waters of the U.S. require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The SWRCB and RWQCBs also administer the federal National Pollution Discharge Elimination System (NPDES) program, which is concerned with the discharge of stormwater and other pollutants into water bodies. Projects that disturb one or more acres of soil must obtain coverage under the SWRCB's current NPDES Construction Stormwater General Permit. A prerequisite for permit coverage is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Other types of pollutant discharges into waters of the U.S., such as wastewater, may require coverage under a different NPDES general permit, and in some cases an individual permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

4.0 IMPACTS AND MITIGATIONS

The project considered in this evaluation of impacts to biological resources is the construction of up to 200 single family residential units, a multiple family development, and a commercial parcel with associated infrastructure on approximately 48 acres of land in Fresno County, California. This analysis assumes that all areas of the site will experience permanent impacts from proposed development.

4.1 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

4.1.1 Potential Project Impacts to Nesting Birds Including Swainson's Hawk

Potential Impacts. The project site has the potential to be used for nesting by a variety of birds and raptors protected by state and federal law. If project construction takes place during the nesting season, birds nesting on the site could be injured or killed by construction activities or disturbed such that they would abandon their nests. Significant construction-related disturbance is also a possibility for birds nesting adjacent to the project site, potentially including the Swainson's hawk (*Buteo swainsoni*), a California Threatened species. Construction-related mortality of nesting birds and disturbance leading to nest abandonment would violate state and federal laws and constitute significant impacts of the project. Moreover, such incidents would violate the Migratory Bird Treaty Act, California Fish and Game Code, and, in the case of Swainson's hawk, the California Endangered Species Act.

Swainson's hawks are not expected to be adversely affected by project-related loss of habitat. Orchards are not suitable foraging habitat for Swainson's hawks and the loss of approximately 24 acres of disked field in an area with many more acres of similar or more suitable foraging habitat is unlikely to substantially adversely affect individuals or populations of this species. Therefore the loss of habitat on site is not considered to be a significant impact.

Mitigation. The following measures will be implemented for the protection of nesting birds and raptors including the state-threatened Swainson's hawk.

> ***Measure 4.1.1a (Construction Timing).*** If feasible, the project will be implemented outside of the avian nesting season, typically defined as February 1 to August 31.

Measure 4.1.1b (Preconstruction Surveys). If construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days prior to the start of construction. The survey area will encompass the site and accessible surrounding lands within ½ mile for nesting Swainson's hawks, 500 feet for other nesting raptors (i.e., birds of prey), and 250 feet for nesting migratory birds.

Measure 4.1.1c (Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing and will be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of the above measures will reduce potential project impacts to nesting birds and raptors, including the state-threatened Swainson's hawk, to a less than significant level under CEQA and ensure compliance with state and federal laws protecting these species.

4.2 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.2.1 Potential Project Impacts to Special Status Plants

Potential Impacts. Sixteen (16) special status plant species have been documented in the project vicinity (see Table 2). Although two special status plant species, alkali-sink goldfields (*Lasthenia chrysantha*) and California alkali grass (*Puccinellia simplex*), were once documented on or near the site, any suitable habitat that may have once been present on site or in the immediate vicinity would have been eliminated with the area's conversion to intensive agriculture and developed uses. Because these two species and the remaining fourteen species have no appreciable potential to occur on the site due to the absence of suitable habitat, no project-related impacts are anticipated. Therefore, impacts to special status plants are considered less than significant under CEQA.

Mitigation. Mitigation measures are not warranted.

4.2.2 Potential Project Impacts to Special Status Animal Species Absent from or Unlikely to Occur Within the Project Site

Potential Impacts. Of the twelve (12) special status animal species that potentially occur in the general vicinity of the site, nine (9) are considered absent from or unlikely to occur within the project site due to the absence of suitable habitat and/or the project site being situated outside of

the species' known distribution (see Table 2). These comprise the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), giant gartersnake (*Thamnophis gigas*), blunt-nosed leopard lizard (*Gambelia sila*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin kit fox (*Vulpes macrotis mutica*), western spadefoot (*Spea hammondii*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*). The project is expected to have an insignificant effect or no effect on these species through construction mortality/disturbance or loss of habitat because there is little or no likelihood that they are present.

Mitigation. Mitigation is not warranted.

4.2.3 Project Impacts to Special Status Animal Species that Would Use the Site for Foraging Only

Potential Impacts. Two special status animal species, the tricolored blackbird (*Agelaius tricolor*) and mountain plover (*Charadrius montanus*), have the potential to forage on the site from time to time but would not nest on or near enough to the project site that they could be vulnerable to construction-related injury, mortality, or disturbance during this sensitive period (see Table 1). Individuals of these species are unlikely to be injured or killed by construction activities because they are highly mobile while foraging and would be expected to simply avoid active work areas.

The project would not adversely affect either of these species through loss of foraging habitat. The site does not offer unique habitat for these species, nor is it likely to represent an important part of any individual foraging range, given its disturbed nature and urban setting. For these reasons, impacts to the tricolored blackbird and mountain plover are considered less than significant under CEQA.

Mitigation. Mitigation is not warranted.

4.2.4 Potential Project Impacts to Waters of the United States and California

Potential Impacts. As noted in Section 2.5 of this report, the project site contains no aquatic features. As a result, the project would have no impact on waters of the State or U.S.

Mitigation. Mitigation is not warranted.

4.2.5 Potential Project Impacts to Wildlife Movement Corridors

Potential Impacts. The project site does not contain or adjoin any geographic features that could function as a wildlife movement corridor. Therefore, the project will have no impact on wildlife movement corridors.

Mitigation. Mitigation is not warranted.

4.2.6 Project Impacts to Sensitive Natural Communities and Designated Critical Habitat

No Impact. Sensitive Natural Communities and Designated Critical Habitat are absent from the project site and surrounding lands. Project development would have no impact on Sensitive Natural Communities or Designated Critical Habitat.

Mitigation. No mitigation is warranted.

4.2.7 Consistency with Local Policies and Habitat Conservation Plans

Impact. No Habitat Conservation Plans are in place in the project vicinity that would cover activities on the project site. The project area is outside sensitive biological resource areas identified in the Fresno County and City of Kerman general plans, which include riparian, upland, and oak woodland habitat. Overall, the project appears to be in compliance with the General Plan policies pertaining to biological resources and is not subject to any local policies dealing with biological resource issues.

Mitigation. Mitigation is not warranted.

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

APPENDIX A
VASCULAR PLANTS OF THE PROJECT SITE

The plants species listed below were observed on the project site during LOA's December 12, 2023 surveys. The U.S. Fish and Wildlife Service wetland indicator status of each plant, if available, has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland

ARECACEAE – Palm Family		
Washingtonia robusta	Mexican Fan Palm	FACW
AMARANTHACEAE – Amaranth Family		
Amaranthus blitoides	Mat Amaranth	FACU
Amaranthus retroflexus	Redroot Amaranth	FACU
ASTERACEAE – Sunflower Family		
Ambrosia acanthicarpa	Flatspine Bur Ragweed	UPL
Erigeron bonariensis	Flax-leaved Horseweed	FACU
Lactuca serriola	Prickly Lettuce	FACU
Senecio vulgaris	Common Groundsel	FAC
Soliva sessilis	Common Soliva	FACU
BRASSICACEAE – Mustard Family		
Brassica tournefortii	Saharan mustard	UPL
Capsella bursa-pastoris	Shepherd's Purse	FACU
Stellaria media	Common Chickweed	FACU
CYPERACEAE – Sedge Family		
Cyperus eragrostis	Tall Flatsedge	FACW
GERANIACEAE – Geranium Family		
Erodium cicutarium	Redstem Filaree	UPL
JUGLANDACEAE – Walnut Family		
Juglans regia	English Walnut	UPL
LAMIACEAE- Mint Family		
Lamium amplexicaule	Henbit	UPL
LYTHRACEAE – Loosestrife Family		
Punica granatum	Pomegranate	UPL
MALVACEAE – Mallow Family		
Malva parviflora	Cheeseweed	UPL
MORACEAE – Mulberry and Fig Family		
Morus alba	White Mulberry	FACU
OLEACEAE – Olive Family		
Fraxinus velutina	Modesto Ash	FAC
PLANTAGINACEAE – Plantain Family		

Plantago lanceolata	English Plantain	FAC
POACEAE – Grass Family		
Cynodon dactylon	Bermuda Grass	FAC
Digitaria sanguinalis	Large Crabgrass	FACU
Leptochloa fusca	Bearded Sprangletop	FACU
Echinochloa crus-galli	Barnyard Grass	FACW
Panicum capillare	Old Witch Grass	FACU
Sorghum halepense	Johnson Grass	UPL
POLYGONACEAE – Smartweed Family		
Rumex crispus	Curly Dock	FAC
ROSACEAE – Rose Family		
Prunus dulcis	Almond	UPL
RUTACEAE – Citrus Family		
Citrus x sinensis	Orange	UPL
SOLANACEAE – Nightshade Family		
Solanum nigrum	Black Nightshade	FACU

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY OCCURRING ON THE PROJECT SITE

APPENDIX B
TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may be expected to routinely and predictably use or pass through the project site during some or all of the year. An asterisk denotes a species observed on or immediately adjacent to the site during surveys conducted for the current project by LOA on December 12, 2023.

CLASS: REPTILIA
ORDER: SQUAMATA (Lizards and Snakes)
SUBORDER: SAURIA (Lizards)
FAMILY: PHRYNOSOMATIDAE
Side-blotched Lizard (*Uta stansburiana*)
Western Fence Lizard (*Sceloporus occidentalis*)
FAMILY: TEIIDAE (Whiptails and relatives)
Western Whiptail (*Cnemidophorus tigris*)
SUBORDER: SERPENTES (Snakes)
FAMILY: COLUBRIDAE (Colubrids)
Pacific Gopher Snake (*Pituophis catenifer catenifer*)
Common Kingsnake (*Lampropeltis californiae*)
FAMILY: VIPERIDAE (Vipers)
Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: CATHARTIDAE (New World Vultures)
Turkey Vulture (*Cathartes aura*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)
*Cooper's Hawk (*Accipiter cooperi*)
Red-tailed Hawk (*Buteo jamaicensis*)
Red-shouldered Hawk (*Buteo lineatus*)
FAMILY: FALCONIDAE (Caracaras and Falcons)
*American Kestrel (*Falco sparverius*)
ORDER: GALLIFORMES (Megapodes, Currassows, Pheasants, and Relatives)
FAMILY: ODONTOPHORIDAE (New World Quails)
California Quail (*Callipepla californica*)
ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)
FAMILY: CHARADRIIDAE (Plovers and relatives)
*Killdeer (*Charadrius vociferus*)
ORDER: COLUMBIFORMES (Pigeons and Doves)
FAMILY: COLUMBIDAE (Pigeons and Doves)
*Rock Pigeon (*Columba livia*)
*Mourning Dove (*Zenaida macroura*)
Eurasian Collared Dove (*Streptopelia decaocto*)
ORDER: STRIGIFORMES (Owls)

FAMILY: TYTONIDAE (Barn Owls)
Barn Owl (*Tyto alba*)
ORDER: APODIFORMES (Swifts and Hummingbirds)
FAMILY: TROCHILIDAE (Hummingbirds)
Black-chinned Hummingbird (*Archilochus alexandri*)
Anna's Hummingbird (*Calypte anna*)
ORDER: PASSERIFORMES (Perching Birds)
FAMILY: TYRANNIDAE (Tyrant Flycatchers)
*Black Phoebe (*Sayornis nigricans*)
Say's Phoebe (*Sayornis saya*)
Western Kingbird (*Tyrannus verticalis*)
FAMILY: CORVIDAE (Jays, Magpies, and Crows)
*California Scrub Jay (*Aphelocoma coerulescens*)
*American Crow (*Corvus brachyrhynchos*)
Common Raven (*Corvus corax*)
FAMILY: ALAUDIDAE (Larks)
Horned Lark (*Eremophila alpestris*)
FAMILY: HIRUNDINIDAE (Swallows)
Cliff Swallow (*Petrochelidon pyrrhonota*)
Barn Swallow (*Hirundo rustica*)
Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)
FAMILY: AEGITHALIDAE (Bushtits)
Bushtit (*Psaltriparus minimus*)
FAMILY: TURDIDAE (Thrushes)
Western Bluebird (*Sialia mexicana*)
American Robin (*Turdus migratorius*)
FAMILY: MIMIDAE (Mockingbirds and Thrashers)
Northern Mockingbird (*Mimus polyglottos*)
FAMILY: PARULIDAE (Wood Warblers and Relatives)
*Yellow-rumped Warbler (*Dendroica coronata*)
FAMILY: STURNIDAE (Starlings and Allies)
European Starling (*Sturnus vulgaris*)
FAMILY: MOTACILLIDAE (Wagtails and Pipits)
American Pipit (*Anthus rubrescens*)
FAMILY: EMBERIZIDAE (Sparrows)
Savannah Sparrow (*Passerculus sandwichensis*)
White-crowned Sparrow (*Zonotrichia leucophrys*)
Golden-crowned Sparrow (*Zonotrichia atricapilla*)
California Towhee (*Pipilo crissalis*)
FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)
Western Meadowlark (*Sturnella neglecta*)
Red-winged Blackbird (*Agelaius phoeniceus*)
Great-tailed Grackle (*Quiscalus mexicanus*)
*Brewer's Blackbird (*Euphagus cyanocephalus*)
Brown-headed Cowbird (*Molothrus ater*)
Bullock's Oriole (*Icterus bullock*)

FAMILY: FRINGILLIDAE (Finches)
*House Finch (*Haemorhous mexicanus*)
Lesser Goldfinch (*Carduelis psaltria*)
FAMILY: PASSERIDAE (Old World Sparrows)
House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA
ORDER: DIDELPHIMORPHIA (Marsupials)
FAMILY: DIDELPHIDAE (Opossums)
Virginia Opossum (*Didelphis virginiana*)
ORDER: INSECTIVORA (Shrews and Moles)
FAMILY: TALPIDAE (Moles)
Broad-footed Mole (*Scapanus latimanus*)
ORDER: CHIROPTERA (Bats)
FAMILY: VESPERTILIONIDAE (Vespertilionid Bats)
Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)
FAMILY: MOLOSSIDAE (Free-tailed Bat)
Brazilian Free-tailed Bat (*Tadarida brasiliensis*)
ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)
FAMILY: LEPORIDAE (Rabbits and Hares)
Audubon's Cottontail (*Sylvilagus audubonii*)
Black-tailed Jackrabbit (*Lepus californicus*)
ORDER: RODENTIA (Rodents)
FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)
*California Ground Squirrel (*Otospermophilus beecheyi*)
FAMILY: GEOMYIDAE (Pocket Gophers)
*Botta's Pocket Gopher (*Thomomys bottae*)
FAMILY: MURIDAE (Mice, Rats and Voles)
Western Harvest Mouse (*Reithrodontomys megalotis*)
Deer Mouse (*Peromyscus maniculatus*)
Norway Rat (*Rattus norvegicus*)
House Mouse (*Mus musculus*)
California Vole (*Microtus californicus*)
FAMILY: HETEROMYIDAE (Kangaroo Rats)
Heermann's Kangaroo Rat (*Dipodomys heermanni*)
ORDER: CARNIVORA (Carnivores)
FAMILY: CANIDAE (Foxes, Wolves, and Relatives)
Red Fox (*Vulpes vulpes*)
Coyote (*Canis latrans*)
*Domestic Dog (*Canis familiaris*)
FAMILY: PROCYONIDAE (Raccoons and Relatives)
Raccoon (*Procyon lotor*)
FAMILY: MEPHITIDAE (Skunks)

Striped Skunk (*Mephitis mephitis*)

FAMILY: FELIDAE (Cats)

Feral Cat (*Felis catus*)

APPENDIX C:

SELECT PHOTOGRAPHS OF THE PROJECT SITE

Photo 1: Representative photo of residential area of project site

Photo 2: Looking north at disked field and residential area

Photo 3: Looking west at orchard and disked field.

Photo 4: Looking east at southern edge of project site. California State Route 180 on right side of photograph.

Photo 5: Looking north at western edge of project site. Disked field in background.

Photo 6: Looking south at residential area and disked field. Almond orchard can be seen in background.