

3.2. BIOLOGICAL RESOURCES

3.2.1. INTRODUCTION

The purpose of this section of the EIR is to examine the potential effects on biological resources that may occur as a result of the proposed Reynolds Ranch Project in the City of Lodi. North State Resources, Inc. (NSR) prepared a *Biological Resources Assessment* report and an *Assessment of Waters of the U.S., Including Wetlands* report for the project site, based on field surveys conducted on March 1, 2006 and March 17, 2006. These reports are contained in Appendix C of this EIR.

This section of the EIR is based on the aforementioned project-specific biological resource materials, as well as information collected from the City of Lodi General Plan Background Report (1988); the City of Lodi General Plan EIR (State Clearinghouse Number 89020206); the San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP); the Soil Survey of San Joaquin County (U.S. Department of Agriculture, 1992); the Lodi South, California, 7.5-Minute United States Geological Survey (USGS) Topographic Quadrangle (photo revised 1976) (referred to hereafter as the Lodi South Quadrangle); and various biological resources reference documents.

3.2.2. ENVIRONMENTAL SETTING

Regional Setting

Geographically, the City of Lodi is located in the Southern Sacramento Valley, a wide and shallow-sloping valley bounded by the Sierra Nevada Mountain Range on the east and California's coastal ranges on the west. The Sacramento Valley is drained by the Sacramento-San Joaquin River complex, with the south-flowing Sacramento River merging with the north-flowing San Joaquin River in the center of the valley. The confluence of these two rivers forms the Sacramento-San Joaquin Delta, which ultimately drains into San Francisco Bay.

The City of Lodi lies east of the Sacramento-San Joaquin Delta, in a flat, low-lying portion of the Sacramento Valley. The Mokelumne River, which originates in the Sierra Nevada Mountains and drains into the Sacramento-San Joaquin Delta, traverses the northern portion of the City. The City gently slopes downward from east to west, with elevations ranging from approximately 55 feet above mean sea level (amsl) to 35 feet amsl (Lodi South Quadrangle, 1976).

Soils in the City of Lodi consist primarily of alluvium that has been transported from the Sierra Nevada Mountains to the valley floor by the streams and rivers that over time have drained and eroded the western slopes of the Sierra Nevada range. The thick alluvium layer underlying the City is of granitic origin, with surface soils consisting primarily of sandy loams (City of Lodi, 1988).

The City of Lodi has a Mediterranean climate with hot, dry summers and mild winters. In the summer, temperatures commonly exceed 100 °F, while in the winter the average

temperatures are in the mid 40s °F (Western Regional Climate Center, 2005). The City's average annual precipitation is 18 inches, most of which occurs between November 1 and April 30 (Western Regional Climate Center, 2005).

Development in the City of Lodi generally follows a concentric pattern, with an urban/suburban core surrounded by agricultural land and open space. Regionally, Lodi is one of a number of small cities in the Sacramento Valley that exist as development nodes along freeway corridors that connect larger metropolitan areas.

Physical Characteristics of the Project Site

The project site is a 220-acre, rectangular-shaped plot on the southern periphery of the developed portion of the City of Lodi, immediately south of the City's corporate boundary. The project site is primarily agricultural land with residences and a Moose Lodge also present onsite. The site is generally surrounded by suburban development on the north and agricultural land and scattered development on the east, south, and west. The project site is principally bounded by UPRR to the west, Harney Lane to the north, State Route 99 to the east, and the more distant Scottsdale Road to the south.

The project site is essentially flat, with elevations ranging from approximately 40 feet amsl in the western portion of the site to approximately 48 feet amsl in the eastern portion of the site (Lodi South Quadrangle, 1976). Drainage onsite occurs primarily as sheet flow, with a single drainage swale (approximately 300 linear feet) in the northeastern corner of the site and an excavated ditch paralleling the UPRR railway on the site's western boundary.

The Soil Survey of San Joaquin County identifies four soil units occurring onsite – Acampo sandy loam, Tokay fine sandy loam, Tokay-urban land complex, and Tujunga loamy sand. NSR provides the following description of these soil units in the site's *Assessment of Waters of the U.S., Including Wetlands* report (Appendix C):

Acampo sandy loam, 0-2% slopes. This is a moderately well-drained, nearly level soil that occurs on low fan terraces. It is deep to a hardpan, and formed in alluvium derived from granitic rock sources. Permeability is moderately rapid and available water capacity is moderate. This soil map unit is non-hydric, but may contain hydric inclusions of Devries soils in basin rims.

Tokay fine sandy loam, 0-2% slopes. This is a very deep, well-drained, nearly level soil that occurs on low fan terraces. It formed in alluvium derived from granitic rock sources. Permeability is moderately rapid and available water capacity is high. This soil map unit is non-hydric, but may contain hydric inclusions of Devries soils in basin rims.

Tokay-Urban land complex, 0-2% slopes. This is a nearly level map unit that occurs on low fan terraces. This unit is 50% Tokay fine sandy loam and 35% Urban land. The Tokay soil is very deep and well-drained. It formed in alluvium derived from granitic rock sources. Permeability is

moderately rapid and available water capacity is high. Urban lands consist of areas covered by roads, driveways, sidewalks, etc. The soil material under these impervious services is similar to that of Tokay fine sandy loam. This soil map unit is non-hydric, but may contain hydric inclusions of Devries soils in basin rims, or Columbia soils in flood plains.

Tujunganga loamy sand, 0-2% slopes. This soil is very deep, somewhat excessively drained, and nearly level on flood plains and elongated channel remnants. It formed in alluvium derived from granitic rock sources. Permeability is rapid and available water capacity is low. This soil map unit is non-hydric, but may contain hydric inclusions of Columbia soils in flood plains.

Wetlands and Waters of the United States

NSR surveyed the project site for wetlands and waters of the United States (U.S.) in accordance with the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). To qualify as a wetland under the jurisdiction of the U.S. Army Corps of Engineers (USACOE) pursuant to Section 404 of the Clean Water Act, the land must be dominated by hydrophytic vegetation, underlain by hydric soils, and inundated with water for a portion of the growing season. To qualify as a water of the U.S., a drainage feature must be a navigable waterway supporting interstate or international commerce, or a tributary to such a waterway with a discernable ordinary high water mark.

NSR evaluated the single drainage swale in the northeastern corner of the site and the excavated ditch paralleling the UPRR railway on the site's western boundary to determine if either of these features qualify as waters of the U.S. or wetlands. The drainage swale contains vegetation that is equally likely to occur in wetlands and uplands (i.e. facultative vegetation); does not show indications of inundation; and the underlying soils are not hydric and do otherwise not show characteristics of hydric soils. As such this drainage swale is not a jurisdictional wetland. In addition, since this swale is not navigable and is not a tributary to a navigable waterway, it is not a jurisdictional water of the U.S. Similarly, the excavated ditch paralleling the UPRR railway is not a jurisdictional wetland or water of the U.S. This typically dry ditch is dominated by upland plants, and is not a tributary to a navigable waterway.

More detailed information regarding the presence/absence of wetlands and waters of the U.S. is provided in the project's *Assessment of Waters of the U.S., Including Wetlands* report (NSR, 2006), which is contained in Appendix C of this EIR.

Vegetative Characteristics of the Project Site and Vegetation Existing Onsite

As depicted on Figure 3.2-1, four plant communities exist on the project site – fallow cropland, vineyard, orchard, and urban. NSR provides the following description of these communities in the site's *Assessment of Waters of the U.S., Including Wetlands* report (Appendix C):

Fallow cropland. The fallow cropland is highly disturbed and dominated by annual nonnative forbs¹. The dominant plant species in these areas are miner's lettuce (*Claytonia perfoliata* – FAC²) and common chickweed (*Stellaria media* - FACU). Associated species include soft brome (*Bromus hordeaceus* - FAC), fiddleneck (*Amsinckia* spp. - NL), filaree (*Erodium* spp. - NL), henbit (*Lamium amplexicaule* - NL), red maids (*Calandrinia ciliata* - FACU), milk thistle (*Silybum marianum* - NL), cocklebur (*Xanthium strumarium* – FAC+), wild radish (*Raphanus raphanistrum* - NL), pineapple weed (*Chamomilla suaveolens* - FACU), and yellow star-thistle (*Centaurea solstitialis* - NL).

Vineyard. Vineyards within the study area contain both well-established and newly planted grapevines (*Vitis* sp.). The vineyards are generally well-groomed and lack other plant species. However, in some areas other species are present including shepherd's purse (*Capsella bursa-pastoris* – FAC-), common chickweed, filaree, red maids, soft brome, annual bluegrass (*Poa annua* – FACW-), miner's lettuce, fireweed (*Epilobium* sp.), Bermuda grass (*Cynodon dactylon* - FAC), dandelion (*Taraxacum officinale* - FACU), and nightshade (*Solanum* sp.). Adjacent to the vineyards and bordering the study area on the west is a drainage ditch that runs parallel to the Union Pacific Railroad. Plant species associated with this ditch include black mustard (*Brassica nigra* - NL), yellow star-thistle, foxtail barley (*Hordeum jubatum* – FAC+), common chickweed, giant reed (*Arundo donax* - FACW), and fruit trees (*Prunus* sp. - NL).

Orchard. Orchard within the study area contains well-established almond trees (*Prunus dulcis*). The orchard appears to be well-groomed and supports only scattered annuals in the understory.

Urban. Urban areas within the study area include roadsides, a ball field, rural residences, and a Moose Lodge. These areas are dominated by lawns, horticultural plant species, and weedy annuals. Tree species observed within urban portions of the study area include California walnut

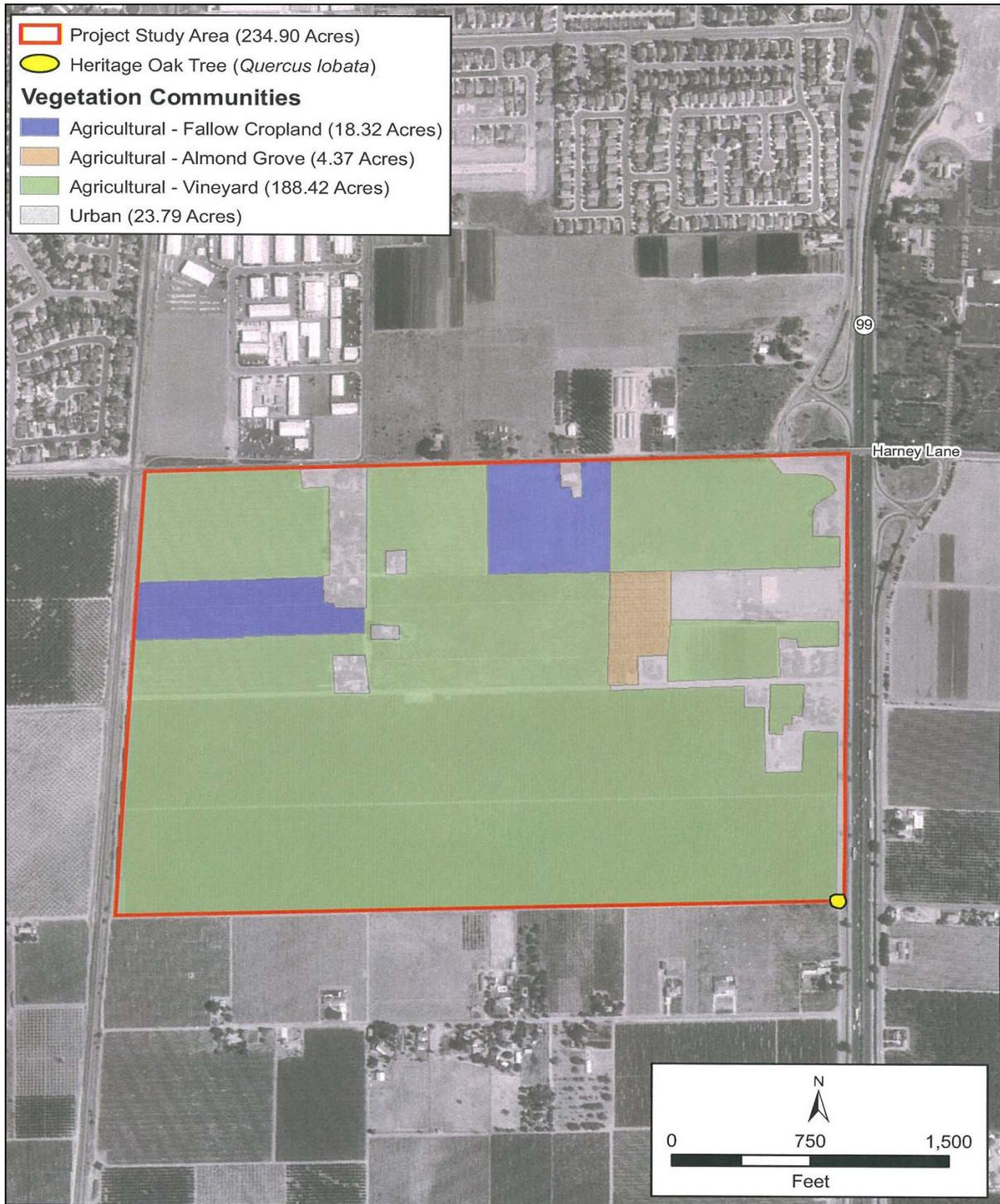
¹ A forb is a non-woody plant other than a grass.

² NSR provides the "Indicator Symbol" for each plant species observed onsite, as defined in the U.S. Army Corps of Engineers Wetlands Delineation Manual. These symbols, which describe the likelihood of the plant species to occur in a wetland, represent the following categories: OBL = obligate wetland plants; FACW = facultative wetland plants; FAC = facultative upland plants; UPL = obligate upland plants; NL = plants not listed on the National List of Plants that Occur in Wetlands.

(*Juglans californica*), fruit tree (*Prunus* spp.), birch (*Betula* spp.), deodar cedar (*Cedrus deodara*), coast redwood (*Sequoia sempervirens*), Lombardy poplar (*Populus nigra*), orange (*Citrus sinensis*), and olive (*Olea europaea*). Common shrubs and herbaceous species within urban portions of the study area include pampas grass (*Cortaderia selloana*), rose (*Rosa* spp.), narcissus (*Narcissus* spp.), camellia (*Camellia* spp.), alyssum (*Lobularia maritima*), calendula (*Calendula officinalis*), iris (*Iris* sp.), and tulip (*Tulipa* sp.). Species found within the ball field, located behind the Moose Lodge include lanceleaf plantain (*Plantago lanceolata*), speedwell (*Veronica persica*), vetch (*Vicia* spp.), fireweed (*Epilobium* spp.), blue gum (*Eucalyptus globulus* and *E. spp.*), and golden raintree (*Koelreuteria paniculata*).

FIGURE 3.2-1: VEGETATIVE COMMUNITIES

(Source: North State Resources, Inc.; USGS DOQQ, Lodi South, CA, on or before 1999)³



³ A current aerial photograph of the project site and surrounding areas was not available at the time this figure was prepared. Please note the properties located north of Harney Lane are currently developed with a mix of single-family and multi-family residential and public uses.

Special Status Plant Species

NSR compiled a list of regionally occurring special-status⁴ plant species based primarily on a search of the California Natural Diversity Database (CNDDDB) and a species list obtained from the United States Fish and Wildlife Service (USFWS). The CNDDDB is a state-maintained database consisting of historic observations of special-status plant species, wildlife species, and special plant communities. The CNDDDB is limited to reported sightings and is not a comprehensive list of floral and faunal species that may occur in a particular area. This research revealed 13 (thirteen) special-status plant species that may occur in the general area of the project site. However, none of these species were observed onsite, and the site does not contain suitable habitat for any of these special-status species (NSR, 2006). As such, special-status plant species are considered absent from the project site.

The complete list of regionally occurring special-status plant species compiled for the site, along with the rationale for determining whether suitable habitat is available onsite for each of these species, is included in the project's *Biological Resources Assessment* (NSR, 2006) contained in Appendix C of this EIR.

Fish and Wildlife Present or Expected to Occur on the Project Site

The project area supports a limited diversity of wildlife species due to the disturbed and agricultural nature of the site. NSR biologists recorded the wildlife observed onsite during their fieldwork for the site's *Biological Resources Assessment and Assessment of "Waters of the U.S.," Including Wetlands*. Wildlife observed within the project area included a variety of common birds, small mammals, and reptiles. The wildlife species observed and expected to occur on-site are described below

Birds. Birds were the most common vertebrates observed in the project area. While limited natural vegetation occurs onsite, the project site does provide nesting opportunities for tree-dwelling, shrub-dwelling, and ground-dwelling bird species.

⁴ The term special-status is used in the EIR to collectively describe species that fall into one or more of the following categories:

- Endangered or threatened under the federal Endangered Species Act (or formally proposed, or candidates, for listing);
- Endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Endangered or rare, pursuant to California Fish and Game Code (§1901);
- Fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- USFWS species of concern or local concern, or CDFG species of special concern;
- Plants or animals that meet the definitions of rare or endangered under the California Environmental Quality Act (CEQA);
- Plants listed as rare under the California Native Plant Protection Act; or
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2).

Foraging opportunities onsite include a variety of fruiting plants, notably including vineyards and almond trees. Due to the lack of open grassland, the site contains limited foraging opportunities for raptors and other soaring carnivores.

Bird species observed onsite include house finch (*Carpodacus mexicanus*), turkey vulture (*Cathartes aura*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), yellow-billed magpie (*Pica nutallii*), brown towhee (*Pipilo fuscus*), western meadowlark (*Sturnella neglecta*), American robin (*Turdus migratorius*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Mammals. Due to its agricultural and disturbed nature, the project site supports a limited variety of mammals. The site provides no den opportunities for large mammals, and given the site's distance from large tracts of natural open space, large mammals are not expected to visit or forage onsite. The site does provide habitat for rodents, rabbits, and other small mammals. Only two mammal species were observed onsite – black-tailed jackrabbit (*Lepus californicus*) and California ground squirrel (*Spermophilus beecheyi*).

Reptiles. Typically plant communities that have an abundant amount of leaf litter, rocks, and rotting logs would have a higher diversity of reptiles than those areas that have been highly modified or disturbed. Given its agricultural and disturbed nature, the site is expected to support only a limited variety of reptiles. The western fence lizard (*Sceloporus occidentalis*), which is common in disturbed areas, was the only reptile observed onsite.

Amphibians. Amphibians often require a source of standing or flowing water to complete their life cycle. Since no standing or flowing water exist onsite, the project site provides poor habitat for amphibians. No amphibians were observed during site surveys.

Fish. No fish were observed onsite and none are expected to occur in the project area, as the site does not contain a perennial water body.

Special Status Fish and Wildlife Species

NSR compiled a list of regionally occurring special-status fish and wildlife species based primarily on a search of the CNDDDB and a species list obtained from the USFWS. This research revealed 71 (seventy-one) special-status fish and wildlife species that may occur in the general area of the project site. None of these species were observed onsite, and only eight (8) have the potential to occur onsite. Table 3.3-1 describes these eight (8) species and the rationale for their potential to occur on the project site. The complete list of regionally occurring special-status fish and wildlife species compiled for the site, along with the rationale for determining whether suitable habitat is available onsite for each of these species, is included in the project's *Biological Resources Assessment* (NSR, 2006) contained in Appendix C of this EIR.

TABLE 3.2-1: SPECIAL STATUS WILDLIFE SPECIES

(Adapted from the site's Biological Resources Assessment [NSR, 2006], as contained in Appendix C of this EIR)

Scientific Name	Status ¹ (Fed/State)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
Birds				
<i>Buteo swainsoni</i> Swainson's hawk	--/T	Require large, open grasslands with abundant prey in association with suitable nest trees. Nest in Central Valley riparian habitat (e.g., valley oak, Fremont cottonwood, walnut, and large willow), and lone trees or groves of trees in agricultural fields.	P	There is marginal foraging and breeding habitat in the study area. However, no large stick nests were observed on the site. There are 18 CNDDDB recorded occurrences of this species within five miles of the project area; two of these are within two miles of the study area (CDFG 2006).
<i>Athene cunicularia hypugaea</i> Western burrowing owl	SC/SC	Open habitats, dry grasslands and ruderal habitats with ground squirrel burrows.	P	Open habitats are present within the study area, and ground squirrel burrows were observed during the field survey. Thus, suitable habitat is present in the study area. There is a 1999 CNDDDB recorded occurrence of this species five miles south of the project area (CDFG 2006).
<i>Elanus leucurus</i> White-tailed kite	SC/FP	Nest in lowland grasslands, agricultural areas, wetlands, oak-woodland and savannah habitats, and riparian areas associated with open areas; forage over grassland, meadows, cropland and marshes.	P	Large trees suitable for nesting are present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Eremophila alpestris actia</i> California horned lark	--/SC	Various open habitats, usually where trees and large shrubs are absent. Nest on the ground.	P	The fallow cropland areas and recently planted vineyard provide suitable foraging and nesting habitat. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Lanius ludovicianus</i> Loggerhead shrike	SC/SC	Forage in open grassland habitats throughout the Central Valley of California. Nest in shrubs and trees.	P	Foraging and nesting habitats for this species are present within the study area. Landscape trees and shrubs associated with rural residences are suitable for nesting. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

TABLE 3.2-1: SPECIAL STATUS WILDLIFE SPECIES

(Adapted from the site's Biological Resources Assessment [NSR, 2006], as contained in Appendix C of this EIR)

Scientific Name	Status ¹ (Fed/State)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Selasphorus rufus</i> Rufous hummingbird	SC/--	Breed in Transition Life Zone of northwest coastal area from Oregon Border to southern Sonoma County.	P	Urban habitats provide foraging habitat for this species. However, this species does not breed in the San Joaquin Valley. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--/SC	Forage over many habitats; roost in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves, and under bridges.	P	Buildings may provide suitable roosting habitat for this species. However, suitable hibernacula and maternity sites are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Eumops perotis californicus</i> Greater western mastiff bat	--/SC	Roost in rock outcrops, buildings and trees. Forage in open habitats.	P	Buildings and trees provide suitable roosting habitat within the study area. However, suitable hibernacula and maternity sites are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

- 1 E = Endangered
T = State Threatened
SC = Species of Special Concern (State) / Species of Concern (Federal)
PF = Fully Protected
-- = No Status

Wildlife Corridors and Connectivity

The ability of wildlife to move from one tract of habitat to another increases the value of the habitat. Habitats with wildlife movement opportunities allow for population dispersal and seasonal migration, and increase the area for home range activities. Wildlife movement opportunities are often called wildlife corridors.

There are three types of wildlife corridors – travel routes, habitat linkages, and wildlife crossings. Travel routes are linear landscape features, such as watercourses or ridgelines that provide animals resources such as water and den sites and are easily traveled (i.e. gentle topography and no obstructions). Habitat linkages are corridors of habitat that connect two or more larger tracts of habitat. Wildlife crossings are features that allow wildlife to bypass physical obstructions, such as culverts under roadways.

The greater Sacramento Valley supports seasonal north-south wildlife movement, as well as east-west wildlife movement between the mountains and the valley. Much of the Sacramento Valley is flat and easily traveled. In addition, a variety of rivers and streams throughout the valley, including the Mokelumne through the northern portion of the City of Lodi, can act as wildlife travel routes. Wildlife movement through the Sacramento Valley is restricted by areas of urban development and linear barriers, such as roadways and fence lines.

The project site makes up 220 acres of land, mostly agricultural land, on the southern periphery of the developed portion of the City of Lodi. Given the site's location along the southern fringe of development, it is unlikely that non-avian wildlife would cross the site during seasonal north-south migration. Rather, wildlife diverge either east or west of the developed portions of the City into the more passable open space and agricultural land when migrating north-south through the Sacramento Valley. Additionally, the SR 99 Freeway along the site's eastern boundary restricts long-range east-west wildlife movements. Thus, it is unlikely that wildlife would traverse the site during east-west movements between the mountains and the valley. The only wildlife movements that are expected to occur onsite are typical home-range activities of local resident individuals.

3.2.3. REGULATORY FRAMEWORK

Biological resources in California are protected by a network of federal, state, and local laws, policies, ordinances, and regulations. The following discussion summarizes the biological resource regulations that apply to the City of Lodi.

Threatened and Endangered Species

Threatened and endangered species are protected by both the Federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA). In addition, San Joaquin County has adopted the San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP) to aid threatened/endangered species planning throughout the County. The federal and state endangered species acts and the SJMSCP are described below.

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) of 1973 makes it unlawful to “take” (defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”) any species identified by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered (16 USC 35 §1538). The ESA (16 USC 35 §1532) establishes the following definitions:

- **Endangered:** “any species, which is in danger of extinction throughout all or a significant portion of its range.”
- **Threatened:** “any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

A project that has the potential to take or incidentally take an endangered or threatened species cannot be undertaken without an ESA permit issued by the USFWS. Three (3) relevant ESA permits exist – ESA Section 7 Permit, ESA Section 10 Permit, and ESA Special Rule Section 4(d). The ESA Section 7 Permit applies to projects undertaken by a federal agency. The ESA Section 10 Permit applies to projects undertaken by non-federal entities. ESA Special Rule Section 4(d) applies to projects that involve incidental taking of a threatened (not endangered) species for which a conservation plan is in place in the location of the project.

California Endangered Species Act

The California Endangered Species Act (CESA) makes it unlawful to “import to this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species or attempt any of those acts except as otherwise provided.” CESA establishes the following definitions:

- **Endangered:** “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.”
- **Threatened:** “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.”

In accordance with Section 25081 of the California Department of Fish and Game (CDFG) Code, any taking of a CESA endangered or threatened species requires a permit or Memorandum of Understanding issued by the CDFG or CDFG approval of a

Natural Communities Conservation Plan (NCCP) in accordance with the NCCP Act of 2001, a Habitat Conservation Plan (HCP), or a Habitat Management Plan (HMP).

In addition to endangered and threatened species, the CDFG has jurisdiction over fully protected species as identified in CDFG Code. The CDFG has determined that fully protected statutes prohibit any state agency or department from issuing incidental take permits for any species listed as fully protected, unless authorized for necessary scientific research or relocation pursuant to a permit for the protection of livestock.

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan

San Joaquin County has developed and implemented a Multi-species Habitat Conservation and Open Space Plan (SJMSCP). In accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, the SJMSCP provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish, and wildlife species covered by the Plan. The SJMSCP covers 97 species, including 25 species that are state- or federally-listed as endangered or threatened.

The SJMSCP protects the covered species by establishing habitat preserves and requiring protection measures to be implemented for activities that may incidentally kill or injure a covered species. The SJMSCP establishes compensation zones throughout the County that identify fees for converting land types to developed uses. The SJMSCP's compensation zones are briefly described below:

- Category A/No-Pay Zone: This zone consists of urban lands and land where conversion of open space has already occurred.
- Category B/Pay Zone A: This zone consist of "Multi-Purpose Open Space", which includes lands that do not qualify as "Natural Lands", "Agricultural Habitat Lands", or "Urban Lands" as described in Chapter 2.2 of the SJMSCP, but contribute to agriculture, recreation, scenic values, and other beneficial open space uses.
- Category C/Pay Zone B: This zone consists of "Agricultural Habitat Lands", as described in Chapter 2.2 of the SJMSCP.
- Category D/Pay Zone B: This zone consists of "Natural Lands" other than "Vernal Pool Grasslands" as described in Chapter 2.2 of the SJMSCP.
- Category E/Pay Zone C: This zone consists of "Natural Lands" classified as "Vernal Pool Grasslands", as described in Chapter 2.2 of the SJMSCP.

The City of Lodi's SJMSCP Compensation Zone Map encompasses the project site and shows the site to contain urban lands (Category A) and Multi-Purpose Open Space lands (Category B).

Wetland, Watercourses, and Riparian Vegetation

Wetlands, watercourses, and riparian vegetation are protected by federal and state regulations largely due to their biological value. These regulations include the federal Clean Water Act of 1972 and Section 1600 of the CDFG Code.

Section 404 of the Clean Water Act grants the United States Army Corps of Engineers (USACE) regulatory authority over “waters of the United States”. “Waters of the United States” as described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) are:

- a. *The territorial seas with respect to the discharge of fill material.*
- b. *Coastal and inland waters, lakes, rivers, and streams that are navigable waters of the United States, including their adjacent wetlands.*
- c. *Tributaries to navigable waters of the United States, including adjacent wetlands.*
- d. *Interstate waters and their tributaries, including adjacent wetlands.*
- e. *All other waters of the United States not identified above, such as isolated wetlands and lakes, intermittent streams, prairie potholes, and other waters that are not part of a tributary system to interstate waters or navigable waters of the United States, the degradation or destruction of which could affect interstate commerce.*

The boundaries of non-wetland waters of the United States are typically identified by the ordinary high water mark. Wetland waters of the United States, as defined by the USACE, are lands that, during normal conditions, possess hydric soils, are dominated by wetland vegetation, and are inundated with water for a portion of the growing season.

Section 404 of the Clean Water Act protects watercourses, wetlands, and riparian vegetation by prohibiting the discharge of fill material into any water of the United States (wetlands and non-wetlands) unless permitted by the USACE.

Similarly, the CDFG, per section 1600 et seq. of the CDFG Code, has permit authority over any activity that may “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake”.

Migratory Birds

Migratory birds in California are protected by the federal Migratory Bird Treaty Act (U.S.C. Title 16, Chapter 7) and Sections 3503 and 3800 of the CDFG Code. The Migratory Bird Treaty Act makes it unlawful “to pursue, hunt, take, capture, kill, possess, offer for sale, or transport any bird, egg, nest, or part thereof.” The Migratory Bird Treaty Act applies to all native nongame birds.

The Migratory Bird Treaty Act is restated in California in Section 3513 of the CDFG Code. This section states “it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.” In addition, CDFG Code Section 3800 makes it unlawful to take California-native, nongame birds; and CDFG Code Section 3503 makes it unlawful to take, possess, or needlessly destroy bird nests or eggs. Measure that may be instituted to help ensure compliance with the MBTA and CDFG Code include scheduling grading and construction activities for the non-nesting season and/or identifying active bird nests and establishing construction-free buffer zones around the nests.

Tree Protection Regulations

The City of Lodi does not have any regulatory policies or ordinances protecting biological resources. However, San Joaquin County’s tree protection ordinance may apply to the proposed project, as the site is currently outside the corporate boundary of the City of Lodi. This ordinance is found in Division 15, Natural Resources Regulations; Chapter 9-1505, Trees. According to Section 9-1505.2, the provisions of the chapter apply to all development projects requiring discretionary approval that have Native Oak Trees, Heritage Oak Trees, or Historical Trees on the property. Division 1 Chapter 9-110, of the San Joaquin County Ordinances defines these as follows:

Heritage Oak Tree. “Heritage oak tree” means a native oak tree that has a single trunk diameter of 32 inches or greater measured at four and one-half feet above the average ground elevation of the tree.

Historical Tree. “Historical tree” means any tree or groups of trees given special recognition because of the size, age, location, or history. Designation of historical trees shall be made by the Planning Commission following a Public Hearing.

Native Oak Tree. “Native oak tree” means a valley oak (*Quercus lobata*) with a trunk diameter of six (6) inches to less than thirty-two (32) inches for a single trunk tree...measured four and one-half feet above the average ground elevation of the tree...

In addition to San Joaquin County’s tree protection ordinance, oak woodlands in county lands are afforded protection by California Senate Bill (SB) 1334, which took effect on January 1, 2005. SB 134 amended CEQA to require counties to make a specific effort to determine whether projects they consider may lead to a significant environmental impact as a result of the conversion of oak woodlands. The bills adds Public Resources Code (PRC) 21083.4, which creates two new requirements for counties (it does not apply to other public agencies). First, counties must now determine whether or not a project may result in a conversion of oak woodlands that will have a significant effect. Second, if there may be a significant effect, they must employ one or more of the following mitigation measures:

- Conserving oaks through the use of conservation easements;
- Planting and maintaining an appropriate number of trees either on-site or in restoration of a former oak woodland (tree planting is limited to half the mitigation requirement);
- Contributing funds to the Oak Woodlands Conservation Fund for the purpose of purchasing conservation easements; or
- Other mitigation measures developed by the county.

This requirement does not apply to projects undertaken pursuant to an NCCP that includes oaks as a covered species or that conserves oak habitat consistent with the bill, affordable housing projects for lower income households, conversion of oak woodlands on agricultural land "that includes land that is used to produce or process plant and animal products for commercial purposes" (this would include grazing lands), and projects undertaken pursuant to a certified regulatory program.

3.2.4. THRESHOLDS OF SIGNIFICANCE

A project will have a significant impact if it:

- Results in a substantial adverse effect to any sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.
- Results in a substantial adverse effect on any riparian habitat or on federally protected wetlands as defined in Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.
- Substantially interferes with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- Results in a substantial adverse effect, either directly or indirectly through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFG or U.S. Fish and Wildlife Service (USFWS).
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

3.2.5. PROJECT IMPACTS

No Impacts

The proposed project would have no impacts related to the following topics.

Sensitive Natural Communities – The proposed project would have no impact to sensitive natural communities.

As discussed in Section 3.2.2 above, the site contains fallow cropland, vineyard, orchard, and urban plant communities. None of these communities are sensitive natural communities and all are human-influenced and disturbed. Furthermore, the project site contains no sensitive natural community identified by local or regional plans, policies, regulations, or by the CDFG or USFWS. Therefore, the proposed project would have no impact on sensitive natural communities.

Riparian Habitat and Wetlands – The proposed project would have no impact to riparian habitat or wetlands.

There are no riparian habitat areas or wetlands onsite. There are no discernable natural drainage features onsite. The site contains two man-made drainage features – a single drainage swale in the northeastern corner of the site and an excavated ditch paralleling the UPRR railway on the site's western boundary. Neither of these features are wetlands and neither support riparian habitat. As discussed in Section 3.2.2 above, the ditch along the UPRR contains only upland plants and is typically dry. The drainage swale contains vegetation that is equally likely to occur in wetlands and uplands (i.e. facultative vegetation), and does not possess the soil or hydraulic characteristics required for wetlands and riparian habitat. Therefore, the proposed project would have no impact to riparian habitat or wetlands.

Impact 3.2.1: Wildlife Movement, Migration, and Nursery Sites – Less than Significant Impact: The proposed project would not affect the regional movement of wildlife, wildlife migration patterns, or nursery sites.

The project site makes up 220 acres of land, mostly agricultural land, on the southern periphery of the developed portion of the City of Lodi. The site does not contain any rivers, ridgelines, or other typical wildlife travel routes. Further, given the site's location along the southern fringe of development, it is unlikely that non-avian wildlife would cross the site during seasonal north-south migration. Rather, wildlife diverge either east or west of the developed portions of the City into the more passable open space and agricultural land when migrating north-south through the Sacramento Valley. Additionally, the SR 99 Freeway along the site's eastern boundary restricts long-range east-west wildlife movements. Thus, it is unlikely that wildlife would traverse the site during east-west movements between the Sacramento Valley and the surrounding mountains.

The proposed project, if developed, would expand the development sphere of the City of Lodi. However, even if the site were developed, the City would remain as an

urban/suburban core surrounded by agricultural land and open space, and the remaining non-urbanized land surrounding the City would support regional wildlife movements. Therefore, the proposed project would not restrict regional wildlife movement or wildlife migration patterns, and would have no related significant impacts.

Impact 3.2.2: Habitat Conservation Plans – Significant Unless Mitigated: The proposed project is located within the area covered by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMHCPC).

As discussed above in Section 3.2.3, San Joaquin County has developed and implemented a Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP provides compensation for the Conversion of Open Space to non-Open Space uses, which affect the plant, fish, and wildlife species covered by the Plan. The SJMSCP covers 97 species, including 25 species that are state- or federally-listed as endangered or threatened. The SJMSCP protects the covered species by establishing habitat preserves and requiring protection measures to be implemented for activities that may incidentally kill or injure a covered species.

The project site is not within an open space preserve area identified in the SJMSCP. Rather, the project site lies within an area identified for development in the City of Lodi's SJMSCP Compensation Zone Map. Per this map, the site contains urban lands (Category A) and Multi-Purpose Open Space lands (Category B). The project's participation in the plan would include payment of conversion fees and implementing protection measures for activities that may incidentally kill or injure a covered species. Mitigation Measure 3.2.2 requires the project to comply with the SJMSCP, including these provisions. With the incorporation of Mitigation Measure 3.2.2, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and the project would have no related significant impacts.

Impact 3.2.3: Special-Status Species – Significant Unless Mitigated

As discussed above in Section 3.2.2, 13 (thirteen) special-status plant species and 71 (seventy-one) special-status fish and wildlife species may occur in the general area of the project site. However, due to the existing conditions of the site, special-status plant species are considered absent from the project site, and only eight (8) special-status wildlife species have the potential to occur onsite. The eight (8) special-status species that have the potential to occur onsite are discussed below in Impacts 3.2.3 (a) – 3.2.3 (g). Because of the relatively limited importance of Multi-Purpose Open Space Lands to SJMSCP Covered Species, the SJMSCP Biological Analysis and the Permitting Agencies determined that activities contributing to the Conversion of SJMSCP Multi-Purpose Open Spaces do not require compensation in the form of establishing Preserves. However, minimization of impacts to SJMSCP Covered Species takes a species-based approach emphasizing the implementation of Incidental Take Minimization Measures aimed at averting the actual killing or injury of individual SJMSCP Covered Species and minimization of impacts to habitat for such species on Open Space lands Converted to non-Open Space uses. Minimization measures for special-status species potentially occurring on the site are discussed below.

Impact 3.2.3 (a): Swainson’s Hawk – Significant Unless Mitigated: The proposed project has a low potential to impact the Swainson’s hawk by eliminating marginal foraging habitat and marginal nesting habitat.

The Swainson’s hawk (*Buteo swainsoni*) is a relatively large (Length – 19 inches, wingspan – 51 inches [National Audubon Society, 2000]) bird of prey in the *Accipitridae* (hawks and eagles) family. Swainson’s hawk is a state-listed threatened species and has no federal designation. The species occurs year-round in the Sacramento Valley, and nests in riparian habitat and in lone trees or groves of trees in agricultural fields. Swainson’s hawk forages in large, open grasslands for prey that includes insects, small mammals, birds, and occasionally reptiles and amphibians.

Although no individuals or nests of the species were observed onsite, the project site contains marginal foraging habitat and marginal nesting habitat for the Swainson’s hawk. The potential foraging habitat onsite consists of the two small patches of fallow cropland. While it is possible for Swainson’s hawk to forage onsite, the foraging habitat onsite is not of the size or quality typically utilized by the species. The trees onsite provide potential nesting opportunities for the species; however, no stick nests were observed during site visits. Swainson’s hawks show strong nest site affinity (i.e. pairs return to the same territory year after year). Thus, due to the lack of stick nests and the low value and minimal size of the foraging habitat onsite, the species not expected to nest onsite.

Swainson’s hawk is a covered species in the SJMSCP. Therefore, with the project’s participation in the SJMSCP, as required by Mitigation Measure 3.2.2, the project’s impact on the species is considered less-than-significant. In addition, Mitigation Measure 3.2.1 provides protection for Swainson’s hawk nests, should the species unexpectedly inhabit the site.

Impact 3.2.3 (b): Western Burrowing Owl – Significant Unless Mitigated: The proposed project would eliminate marginal habitat for the western burrowing owl, including agricultural land with ground squirrel burrows that could provide nesting opportunities for the western burrowing owl. Construction of the proposed project also has the potential to impact individual burrowing owls, if any are present onsite during the time of construction.

The western burrowing owl (*Athene cunicularia hypugaea*) is a small owl (Length – 9.5 inches, wingspan – 31 inches [National Audubon Society, 2000]), in the Typical Owl (*Strigidae*) family. The species is unique from other owls in that it nests in underground burrows rather than trees; is a grassland species rather than a forest species; is often active in daylight rather than strictly nocturnal; and eats insects as well as rodents. The burrowing owl prefers open, dry, grassland and desert habitats, and scrublands with low growing vegetation. The species’ habitat range includes southern Canada, the Great Basin, the Great Plains, the southwest, Texas, Mexico, and El Salvador. Individual burrowing owls have also been seen throughout most of the continental United States, and a population is known to exist in Florida.

The burrowing owl is not a federally listed species and does not have a formal state designation (i.e. endangered, threatened, or candidate species). The species is, however, a state species of concern ranked S2 by the CDFG (6-20 occurrences or 1000-3000 individuals, or 2000 – 10,000 acres).

No burrowing owls or active burrowing owl nests were observed onsite. However, the project site contains agricultural habitats that burrowing owl could inhabit, particularly fallow cropland. In addition, burrowing owls are known to nest in ground squirrel burrows, and ground squirrels are present on the project site. If developed, the proposed project would eliminate the potential habitat for the western burrowing owl from the project site. Construction of the proposed project also has the potential to impact individual burrowing owls if any are present onsite during the time of construction.

Western burrowing owl is a covered species in the SJMSCP. Therefore, with the project's participation in the SJMSCP, as required by Mitigation Measure 3.2.2, the project's impact on the species is considered less-than-significant. In addition to providing offsite habitat banking, the SJMSCP requires a preconstruction survey be conducted onsite. If any burrowing owl individuals or active burrowing owl nests are found onsite during the preconstruction survey, the SJMSCP requires additional measures to be taken to protect all discovered individuals and nests. These measures include evicting the species from the site using passive relocation as described in the CDFG's Staff Report on Burrowing Owls (CDFG, 1995) and providing a 75 meter construction buffer for any active nests during the nesting season. These required SJMSCP measures ensure that the project would not result in a burrowing owl taking.

Impact 3.2.3 (c): White-Tailed Kite – Significant Unless Mitigated: The proposed project has the potential to eliminate potential nesting and foraging habitat for the white-tailed kite. Additionally, construction of the proposed project has the potential to impact individual white-tailed kites or their nests if any are present onsite during the time of construction.

The white-tailed kite (*Elanus leucurus*) is one of the smallest species (Length – 15 inches, wingspan – 39 inches [National Audubon Society, 2000]) in the *Accipitridae* (hawks and eagles) family. White-tailed kite is a federal species of concern and a fully protected species in California. The species, which does not have a distinct migration pattern, occurs year-round in both the coastal zones and lowlands of the Sacramento Valley. The white-tailed kite's diet consists primarily of small mammals, particularly mice and voles. The species forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands, and nests near the top of dense oaks, willows, or other tree stands located adjacent to these foraging areas.

Although no individuals or nests of the species were observed onsite, and there are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006), the project site contains large trees suitable for nesting. The project site also contains potential foraging habitat, particularly the fallow cropland. As such, the proposed project has the potential to eliminate potential nesting and foraging habitat for the white-tailed kite. Additionally, construction of the proposed project has the potential

to impact individual white-tailed kites or their nests if any are present onsite during the time of construction.

White-tailed kite is a covered species in the SJMSCP. Therefore, with the project's participation in the SJMSCP, as required by Mitigation Measure 3.2.2, the project's impact on the species is considered less-than-significant. In addition, Mitigation Measure 3.2.1 provides protection for white-tailed kite and their nests, should the species be present during construction.

Impact 3.2.3 (d): California Horned Lark – Significant Unless Mitigated: The proposed project has the potential to eliminate potential foraging and nesting habitat for the California horned lark from the site. Additionally, construction of the proposed project has the potential to impact individual California horned larks or their nests if any are present onsite during the time of construction.

The California horned lark (*Eremophila alpestris actia*) is a state species of special concern with no federal designation. The California horned lark is a ground-dwelling songbird in the *Alaudidae* (lark) family, and one of 21 sub-species of horned lark. The California horned lark typically inhabits open areas of varying vegetation where trees and large shrubs are absent. The species builds ground-level nests and feeds primarily on grains, seeds, insects, snails, and spiders.

No individuals or nests of the species were observed onsite, and there are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006). The fallow croplands onsite, however, provide suitable foraging and nesting habitat for this species.

California horned lark is a covered species in the SJMSCP. Therefore, with the project's participation in the SJMSCP, as required by Mitigation Measure 3.2.2, the project's impact on the species is considered less-than-significant. In addition, Mitigation Measure 3.2.1 provides protection for California horned lark and their nests, should the species be present during construction.

Impact 3.2.3 (e): Loggerhead Shrike – Significant Unless Mitigated: The proposed project has the potential to eliminate suitable nesting and foraging habitat for the loggerhead shrike, and construction of the proposed project has the potential to impact individual loggerhead shrikes or their nests if any are present onsite during the time of construction.

The loggerhead shrike (*Lanius ludovicianus*) is a federal species of concern and a state species of special concern. The loggerhead shrike is a relatively large (Length – 9 inches, wingspan – 12 inches [National Audubon Society, 2000]) songbird in the *Laniidae* (shrikes) family. The species occurs in open areas where small trees, shrubs, and fences can provide suitable perches. The loggerhead shrike preys on insects, small birds, lizards, and rodents, and nest in shrubs and trees.

Although no individuals or nests of the species were observed onsite, and there are no CNDDDB recorded occurrences of this species within five miles of the project area

(CDFG 2006), the project site contains suitable foraging and nesting habitat for the loggerhead shrike. As such, the proposed project has the potential to eliminate suitable nesting and foraging habitat for the loggerhead shrike. In addition, construction of the proposed project has the potential to impact loggerhead shrike individuals or their nests if any are present onsite during the time of construction.

Loggerhead shrike is a covered species in the SJMSCP. Therefore, with the project's participation in the SJMSCP, as required by Mitigation Measure 3.2.2, the project's impact on the species is considered less-than-significant. In addition, Mitigation Measure 3.2.1 provides protection for loggerhead shrikes and their nests, should the species be present during construction. It should be further noted that the proposed development may provide suitable nesting habitat for the loggerhead shrike in the form of ornamental trees and shrubs.

Impact 3.2.3 (f): Rufous Hummingbird – Less than Significant: The proposed project has the potential to temporarily reduce the foraging habitat for the rufous hummingbird onsite.

The rufous hummingbird (*Selasphorus rufus*) is a federal species of concern with no state designation. The rufous hummingbird, a small and active member of the *Trochilidae* (hummingbird) family, has the longest migration route of all hummingbirds found in the United States. The rufous hummingbird spends winters in Mexico and summers throughout the United States and Canada. The species breeds in woodlands and forages wherever flowers are present. In addition to nectar, the rufous hummingbird feeds on small insects.

Although no individuals of the species were observed onsite, and there are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006), the project site contains suitable foraging habitat for the rufous hummingbird. Particularly, the human-influenced environment, including ornamental flowering plants and hummingbird feeders provide foraging opportunities for the species in the project area. Rufous hummingbirds, however, do not breed in the San Joaquin valley and, as such, no nesting habitat exists in the project area.

The proposed project has the potential to temporarily reduce the foraging habitat for rufous hummingbird onsite. However, after construction the proposed development would provide foraging habitat in the form of ornamental flowering plants. Furthermore, the proposed project would have no impact to the species' breeding habitat. As such, the proposed project would not affect any regional populations of rufous hummingbird or the species' range. Therefore, the proposed project's potential impacts on rufous hummingbird are considered less-than-significant.

Impact 3.2.3 (g): Pallid Bat and Greater Western Mastiff Bat – Less than Significant: The proposed project has the potential to reduce the roosting and foraging habitat onsite for the pallid bat and the greater western mastiff bat.

The pallid bat (*Antrozous pallidus*) and the greater western mastiff bat (*Eumops perotis californicus*) are both California species of special concern with no federal designation.

Both of these bat species can roost in rock outcrops, buildings, and trees. However, the species' nursery sites and hibernation sites (hibernacula) require greater protection and more stable conditions, such as that provided by caves and mines. While both species prey on insects, the pallid bat is known to crawl while hunting and the greater western mastiff bat species often forage aerially and are known to forage considerable distances from their roosting sites.

The project site contains potential roosting sites for both bat species. However, no suitable maternity sites or hibernacula are present within the project area. As such, the proposed project would not affect any regional populations of the species or the ranges of the species. Therefore, the proposed project's potential impact on pallid bat and greater western mastiff bat is considered less-than-significant. It should be further noted that the greater western mastiff bat is a covered species in the SJMSCP, and the project's potential impacts on the species would be further reduced through participation in the SJMSCP, which is required by Mitigation Measure 3.2.2.

Impact 3.2.4: Oak Tree Impacts/Consistency With San Joaquin County's Tree Protection Ordinance – Significant Unless Mitigated: The project site contains one tree that is protected under San Joaquin County's tree protection ordinance. This tree is a valley oak that would be classified as a "Heritage Oak Tree" by the County's ordinance. Development of the project site has the potential to either remove this tree or damage this tree during construction.

While the City of Lodi does not have any regulatory policies or ordinances protecting biological resources, the project site is currently located outside of the corporate boundary of the City, in unincorporated San Joaquin County. As discussed above in Section 3.2.3, San Joaquin County has adopted a tree protection ordinance. Depending on the timing of annexation of the site and development activities onsite, the project may be subject to this ordinance.

The project site contains one tree that is protected under San Joaquin County's tree protection ordinance. This tree, which is located in the southeastern corner of the project site (see Figure 3.2-1), is a valley oak (*Quercus lobata*) with a diameter at breast height (dbh) of 38.2 inches. The valley oak onsite would be classified as a "Heritage Oak Tree" by the County's tree protection ordinance.

If development onsite occurs prior to annexation of the site into the City of Lodi, removing the site's valley oak tree and construction in the vicinity of this tree would be subject to the County's tree protection ordinance. Per this ordinance, removal of this "Heritage Oak Tree" would require replacement at a five-to-one ratio of trees or acorns, and the replacement stock must be planted and maintained in a manner that ensures survival of replacements after three year from date of planting. If the Heritage Oak Tree is to be retained on site, the County's tree protection ordinance would require construction onsite to incorporate "Development Constraints" to protect the tree from construction-related damage.

If the project site is annexed into the City of Lodi prior to construction, development of the project would not be subject to the County's tree protection ordinance. As such, to

ensure the site's valley oak is protected or replaced, Mitigation Measure 3.2.3 requires the tree to be replaced or protected in a manner that is equivalent to the County's tree protection ordinance. With the incorporation of Mitigation Measure 3.2.3, the proposed project would not significantly impact any oak trees and would not conflict with any local policies or ordinances protecting biological resources.

The proposed project would not impact oak woodlands. The oak tree onsite is an individual tree in an agricultural area and is not part of an oak woodland. Therefore, SB 1334 does not apply to the proposed project.

3.2.6. CUMULATIVE IMPACTS

The City of Lodi and surrounding region are experiencing growth. Multiple development projects are proposed, approved, or currently under construction in the City and region. These projects are causing a loss of open space in the region, which can adversely affect biological resources. The proposed project would contribute to this cumulative loss of open space by developing 220 acres of mostly agricultural land.

Since the loss of open space being experienced is region-wide, and development pressures affect the entire region, the most effective mitigation is a regional planning effort to conserve biologically valuable open space. Fortunately, an effort to preserve biological resources in San Joaquin County is underway – the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP will preserve a substantial amount of open space in the region, particularly open space that is highly valuable to biological resources. The project's participation in the SJMSCP, which is required by Mitigation Measure 3.2.2, will result in the payment of funds that will be used to conserve open space. Therefore, with the incorporation of Mitigation Measure 3.2.2, the proposed project would not significantly contribute to cumulative impacts on biological resources.

3.2.7. MITIGATION MEASURES

Mitigation Measure 3.2.1: Clearing, grubbing, and/or removal of vegetation shall not occur during the bird-nesting season (from February 1 - September 31) unless a biologist with qualifications that meet the satisfaction of the City of Lodi conducts a preconstruction survey for nesting special-status birds including Swainson's hawk, western burrowing owl, white-tailed kite, California horned lark, and loggerhead shrike. If discovered, all active nests shall be avoided and provided with a buffer zone of 300 feet (500 feet for all raptor nests) or a buffer zone that otherwise meets the satisfaction of the California Department of Fish and Game. Once buffer zones are established, work shall not commence/resume within the buffer until the biologist confirms that all fledglings have left the nest. In addition to the preconstruction survey, the biologist shall conduct weekly nesting surveys of the construction site during the clearing, grubbing, and/or removal of vegetation phase, and any discovered active nest of a special-status bird shall be afforded the protection identified above. Clearing, grubbing, and/or removal of vegetation conducted outside the bird-nesting season (from October 1 - January 31) will not require nesting birds surveys.

Mitigation Measure 3.2.2: Development on the subject site shall participate in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMHCPC). This includes payment of Open Space Conversion fees in accordance with the fee schedule in-place at the time construction commences and implementation of the Plan’s “Measures to Minimize Impacts” pursuant to Section 5.2 of the SJMHCP.

Mitigation Measure 3.2.3: Regardless of whether the project develops in a manner that is subject to the San Joaquin County tree protection ordinance (San Joaquin County Code Division 15, Natural Resources Regulations; Chapter 9-1505, Trees), the proposed project shall comply with the ordinance’s “Replacement” requirements (Section 9-1505.4) and “Development Constraints” (Section 9-1505.5).

3.2.8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the incorporation of Mitigation Measures 3.2.1 – 3.2.3 the proposed project would not significantly impact biological resources. The following table is a summary of the thresholds of significance, potential impacts, and associated mitigation measures.

TABLE 3.2.2: SUMMARY OF BIOLOGICAL RESOURCES THRESHOLDS OF SIGNIFICANCE, IMPACTS, AND MITIGATION MEASURES

Threshold of Significance	Mitigation Measure	Level of Significance
Results in a substantial adverse effect to any sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or U.S. Fish and Wildlife Service (USFWS).	None required.	No Impact
Results in a substantial adverse effect on any riparian habitat or on federally protected wetlands as defined in Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.	None required.	No Impact
Substantially interferes with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.	None required. See the discussion of Impact 3.2.1 on pages 3.2-17 through 3.2-18.	Less than Significant Impact
Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	Mitigation Measure 3.2.2: Development on the subject site shall participate in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMHCPC). This includes payment of Open Space Conversion fees in accordance with the fee schedule in-place at the time construction commences and implementation of the Plan’s “Measures to Minimize Impacts” pursuant to Section 5.2 of the SJMHCP.	Less than Significant Impact After Mitigation
Results in a substantial adverse effect,	Mitigation Measure 3.2.1: Clearing, grubbing, and/or	Less than Significant

TABLE 3.2.2: SUMMARY OF BIOLOGICAL RESOURCES THRESHOLDS OF SIGNIFICANCE, IMPACTS, AND MITIGATION MEASURES

Threshold of Significance	Mitigation Measure	Level of Significance
<p>either directly or indirectly through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFG or USFWS.</p>	<p>removal of vegetation shall not occur during the bird-nesting season (from February 1 - September 31) unless a biologist with qualifications that meet the satisfaction of the City of Lodi conducts a preconstruction survey for nesting special-status birds including Swainson's hawk, western burrowing owl, white-tailed kite, California horned lark, and loggerhead shrike. If discovered, all active nests shall be avoided and provided with a buffer zone of 300 feet (500 feet for all raptor nests) or a buffer zone that otherwise meets the satisfaction of the California Department of Fish and Game. Once buffer zones are established, work shall not commence/resume within the buffer until the biologist confirms that all fledglings have left the nest. In addition to the preconstruction survey, the biologist shall conduct weekly nesting surveys of the construction site during the clearing, grubbing, and/or removal of vegetation phase, and any discovered active nest of a special-status bird shall be afforded the protection identified above. Clearing, grubbing, and/or removal of vegetation conducted outside the bird-nesting season (from October 1 - January 31) will not require nesting birds surveys.</p> <p>Mitigation Measure 3.2.2.</p>	<p>Impact After Mitigation</p>
<p>Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>Mitigation Measure 3.2.3: Regardless of whether the project develops in a manner that is subject to the San Joaquin County tree protection ordinance (San Joaquin County Code Division 15, Natural Resources Regulations; Chapter 9-1505, Trees), the proposed project shall comply with the ordinance's "Replacement" requirements (Section 9-1505.4) and "Development Constraints" (Section 9-1505.5).</p>	<p>Less than Significant Impact After Mitigation</p>