

4.3 BIOLOGICAL RESOURCES

This section addresses biological resources that could be affected by implementation of the proposed project. The evaluation presented in this section is based on review of existing documentation and field survey results. An EDAW biologist conducted a reconnaissance-level field survey of the project site on June 26, 2006. The purpose of this survey was to characterize general biological resources supported by the project site and evaluate the potential for sensitive biological resources to occur on the site and be affected by implementation of the proposed project. The biologist investigated the entire site, including on-foot evaluations of field perimeters and agricultural ditches to determine suitability for sensitive wildlife species and investigate whether the ditches were functional.

4.3.1 ENVIRONMENTAL SETTING

SOURCES OF INFORMATION

Information provided in this section is based on results of the reconnaissance field surveys and review of existing information regarding biological resources in the vicinity of the project site, including the *Biological Resource Assessment and Field Reconnaissance for the Industrial Site, Merced, California* (Carter and Burgess, Inc. 2004) and sensitive biological resource occurrences documented in the California Department of Fish and Game (DFG) California Natural Diversity Database (CNDDDB) (2006) and the online version of the California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants of California (CNPS 2006). These sources of existing documentation were reviewed prior to the field survey to identify previously reported occurrences of special-status species in the project vicinity. During the field survey, suitability of the project site to support these and other species with potential to occur on-site was specifically evaluated.

VEGETATION AND WILDLIFE

The project site is almost entirely comprised of agricultural habitats, including almond orchards in the western portion and dry-farmed field crops in the eastern portion. Narrow corridors of weedy ruderal vegetation are present along the field boundaries and roadsides. These are dominated by introduced forbs and grasses, such as Johnson grass, bindweed, and Russian thistle. A small developed area is present along Gerard Avenue, at the boundary between the orchard and open fields.

Several irrigation ditches exist along portions of the northern, eastern, and southern boundaries of the project site and portions of the agricultural field boundaries. At the time of the EDAW reconnaissance survey, no water was in any of these ditches. None of the ditches appeared to have been used recently and flap gates connecting them to adjacent ditches or underground pipeline systems were closed.

Overall, habitats present on the project site support relatively limited wildlife diversity, and species likely to exist are limited to those that utilize agricultural habitats. The site's greatest value is the foraging habitat provided by the agricultural fields, whether cultivated or fallow. Such fields can support healthy populations of small mammals and, if so, may serve as a foraging resource for raptors, such as Swainson's hawk, red-tailed hawk, and American kestrel, if the other habitat requirements of such species (e.g., nesting sites) are also present in the vicinity. The almond orchard also provides foraging and nesting habitat for several birds that are common in agricultural habitats, such as American crow, yellow-billed magpie, and house finch. The site is unlikely to support any amphibian species, because of the lack of aquatic habitat, but it likely supports common reptiles, such as western fence lizard and gopher snake, and provides habitat for mammals such as opossum, raccoon, and striped skunk.

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources addressed below include those that are afforded special protection through the California Environmental Quality Act (CEQA), the California Fish and Game Code (including but not limited to CESA), ESA, and the CWA.

Special-Status Species

Special-status species are plants and animals that are legally protected or that are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations, including:

- ▶ plant and wildlife species that are listed by ESA and/or CESA as rare, threatened, or endangered;
- ▶ plant and wildlife species considered candidates for listing or proposed for listing;
- ▶ wildlife species identified by DFG as fully protected and/or species of special concern; and
- ▶ plants considered by CNPS to be rare, threatened, or endangered.

DFG applies the term “California Species of Special Concern” to animals that are not listed under the ESA or CESA but are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and currently face known threats to their persistence. CNPS designations are used by both USFWS and DFG when considering formal species protection under the ESA and CESA.

The CNDDDB was used as the primary source to identify previously reported occurrences of special-status species in the project vicinity (CNDDDB 2006). Although the CNDDDB is the most current and reliable tool for tracking occurrences of special-status species, it contains only those records that have been reported to DFG. To identify additional special-status plant species with potential to exist in the project area, a search of the online edition of CNPS’s Inventory of Rare and Endangered Plants of California (CNPS 2006) was also conducted. CNDDDB and CNPS database searches were conducted for the Merced U.S. Geological Survey (USGS) quadrangle.

Special-Status Plants

Nine special-status plant species are documented in the CNDDDB and CNPS online inventory as existing within the Merced USGS quadrangle. The regulatory status, habitat associations, and likelihood of occurrence of these special-status plant species on the project site are summarized in Table 4.3-1. Based on the lack of suitable habitat required by these species (vernal pools, marshes and swamps, and grasslands), it was determined that none of the special-status plants has potential to occur on the project site.

Special-Status Wildlife

Seven special-status wildlife species are documented in the CNDDDB and CNPS online inventory as occurring within the Merced USGS quadrangle. The regulatory status, habitat associations, and likelihood of occurrence of these special-status wildlife species on the project site are summarized in Table 4.3-2. Four of the species listed below are restricted to vernal pools and other aquatic habitats that do not occur on the project site. Therefore, they were determined have no potential to occur on-site and are not addressed further in this document. The project site at least supports low-quality habitat for the remaining species and the potential for each of them to occur on-site is evaluated further below.

Burrowing Owl

Burrowing owl is a California Species of Special Concern, and burrowing owls and their nests are protected under Section 3503.5 of the California Fish and Game Code. Burrowing owls typically inhabit grasslands and other open habitats with low-lying vegetation. They are known to nest and forage in idle agricultural fields, ruderal fields and the edges of cultivated fields, although these areas provide lower quality habitat than native grasslands. Burrow availability is an essential component of suitable habitat. Burrowing owls are capable of digging their

**Table 4.3-1
Special-Status Plant Species Potentially Occurring on the Project Site**

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Succulent owl's clover	<i>Castilleja campestris</i> <i>ssp. succulenta</i>	Federal: Threatened State: Endangered CNPS: 1B	Vernal pools; often in acidic conditions; 160 to 2,500 feet elevation	None; no vernal pools are present on the project site
Dwarf downingia	<i>Downingia pusilla</i>	CNPS: 2	Vernal pools and mesic sites in valley and foothill grassland; 3 to 1,500 feet elevation	None; no vernal pools or grassland habitat are present on the project site
Spiny-sepaled button-celery	<i>Eryngium spinosepalum</i>	CNPS: 1B	Valley and foothill grassland and vernal pools; 260 to 840 feet elevation	None; no vernal pools or grassland habitat are present on the project site
Shining navarretia	<i>Navarretia nigelliformis</i> ssp. <i>Radians</i>	CNPS: 1B	Cismontane woodland, valley and foothill grassland, vernal pools; 295 to 3,280 feet elevation	None; no vernal pools, woodland, or grassland habitat are present on the project site
Colusa grass	<i>Neostapfia colusana</i>	Federal: Threatened State: Endangered CNPS: 1B	Deep vernal pools in Adobe clay soils; 15 to 650 feet elevation	None; no vernal pools are present on the project site
San Joaquin Valley orcutt grass	<i>Orcuttia inaequalis</i>	Federal: Threatened State: Endangered CNPS: 1B	Vernal pools; 30 to 2,500 feet elevation	None; no vernal pools are present on the project site
Hairy orcutt grass	<i>Orcuttia pilosa</i>	Federal: Endangered State: Endangered CNPS: 1B	Vernal pools; 175–650 feet elevation.	None; no vernal pools are present on the project site
Merced phacelia	<i>Phacelia ciliata</i> var. <i>opaca</i>	CNPS: 1B	Clay soils in valley and foothill grassland; 195 to 500 feet elevation	None; no grassland is present on the project site
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	CNPS: 1B	Assorted shallow freshwater marshes and swamps; 0 to 2,000 feet elevation.	None; no marsh or swamp habitat are present on the project site

California Native Plant Society (CNPS) Listing Categories:

1B Plants rare, threatened, or endangered in California and elsewhere

2 Plants rare, threatened, or endangered in California but more common elsewhere

Sources: CNDDDB 2006; CNPS 2006; EDAW 2006 field survey

**Table 4.3-2
Special-Status Wildlife Species Potentially Occurring on the Project Site**

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Invertebrates				
Vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	Federal: Endangered	Vernal pools and swales	None; no vernal pools are present on the project site
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Federal: Threatened	Vernal pools and other seasonal wetlands	None; no vernal pools are present on the project site
Amphibians and Reptiles				
California tiger salamander	<i>Ambystoma californiense</i>	Federal: Threatened State: Species of Special Concern	Vernal pools and seasonal wetlands in upland with burrows and other below-ground refuge	None; no vernal pools or seasonal wetlands are present on the project site
Giant garter snake	<i>Thamnophis gigas</i>	Federal: Threatened State: Threatened	Streams, sloughs, ponds, and irrigation/ drainage ditches; also require upland rufugia no subject to flooding during the snake's inactive season	None; ditches on-site do not provide necessary aquatic habitat
Birds				
Burrowing owl	<i>Athene cunicularia</i>	State: Species of Special Concern	Grasslands and agricultural fields	Could occur; currently no suitable burrows, but site provides suitable foraging habitat and potentially suitable burrowing habitat
Swainson's hawk	<i>Buteo swainsoni</i>	State: Threatened	Forage in grasslands and agricultural fields; nest in open woodland or scattered trees	Likely to occur; known to nest within 5 miles of project site and could forage on-site
Mountain plover	<i>Charadrius montanus</i>	State: Species of Special Concern	Short or barren grasslands and agricultural fields	Unlikely to occur; marginally suitable vegetation is present on project site but disturbance levels and adjacent unsuitable habitats limit potential for occurrence
Mammals				
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Federal: Endangered State: Threatened	Grasslands and open scrub with loose-textured soils for burrowing	Unlikely to occur; project site provides low-quality habitat and nearby CNDDDB occurrences are restricted to grassland habitats north and east of the site
Sources: CNDDDB 2006; EDAW 2006 field survey				

own burrows in areas with soft soil, but they generally prefer to adopt those excavated by other animals, typically ground squirrels. In areas where burrows are scarce, they can use pipes, culverts, debris piles, and other artificial features.

The CNDDDB includes one documented occurrence of burrowing owl within 10 miles of the project site. Evidence of owl occupation at a burrow complex in grasslands approximately 5 mile north of the project site was documented in winter of 2000. No suitable burrows for burrowing owls or evidence of burrowing occupation were observed during the field survey. However, agricultural field margins and irrigation ditches provide potential burrowing habitat and agricultural fields provide suitable foraging habitat. As a result, it is possible that burrowing owls could occupy the project site prior to project implementation, if ground squirrels or other suitable mammals become established and create suitable burrows.

Mountain Plover

Mountain plover is a California Species of Special Concern. Mountain plovers do not breed in California, but California is the primary wintering ground for the species. The species is most frequently reported in two main wintering areas: the western San Joaquin Valley and the Imperial Valley, although recent evidence suggests many mountain plovers may have shifted from Central Valley to Imperial Valley wintering sites (USFWS 2003). Mountain plovers occur in areas with flat topography and bare ground or very short vegetation, including agricultural fields and non-cultivated sites (e.g., grasslands). In the San Joaquin Valley, non-cultivated sites are preferred habitat; the suitability of cultivated sites is dependent upon factors such as vegetative structure, furrow depth, insect availability, and vegetation of surrounding land parcels (USFWS 1998).

The CNDDDB includes one documented occurrence of a small flock of mountain plovers in breeding plumage approximately 5 miles north of the project site in March of 1999, although the project vicinity is not a traditional wintering area for the species. In addition, agricultural fields on the project site provide poor-quality habitat for mountain plovers, because the area of potentially suitable habitat on-site is relatively small, and it is closely bordered by unsuitable habitat (orchards) on two sides. This configuration is inconsistent with sites typically utilized by mountain plovers, which include large open areas lacking nearby trees or other vegetation exceeding several inches in height. In addition, the site would only provide potentially suitable habitat if the fields are fallow during the winter. This was not the case at the time of the field survey, when evidence that the field had been cultivated in a winter grain crop was observed. Therefore, mountain plovers are very unlikely to occur on the project site.

San Joaquin Kit Fox

San Joaquin kit fox is federally listed as endangered and state listed as threatened. The historic range of the kit fox has been greatly reduced, and most of the remaining occupied range is restricted to portions of the San Joaquin Valley floor and the eastern foothills of the Coastal Range. The largest extant populations of kit foxes are in western Kern County and the Carrizo Plain Natural Area, San Luis Obispo County (USFWS 1998). CNDDDB occurrences from the project vicinity are restricted to grassland habitats several miles north and east of the project site.

No evidence of kit fox occurrence was observed during the field survey. The project site provides poor-quality habitat for the species, and potential for occurrence on-site is very low. In some cases, kit foxes have been documented utilizing agricultural lands if uncultivated areas that provide suitable denning sites and prey base are present (USFWS 1998). Because the project site (and surrounding areas) is actively cultivated, it does not provide suitable denning habitat and is unlikely to support a suitable prey base. Although kit foxes have been documented in grassland areas north and east of the project site, they are unlikely to range on to the site because of its poor habitat quality and lack of more suitable adjacent habitat.

Swainson's Hawk

Swainson's hawk is state listed as a threatened species. Historically, as many as 17,000 Swainson's hawk pairs may have nested throughout lowland California (DFG 1994). Currently, there are 700–1,000 breeding pairs in California, of which 600–900 are in the Central Valley (Estep 2003). Swainson's hawks are most commonly found in grasslands, low shrublands, and agricultural habitats that include large trees for nesting. Nests occur in riparian woodlands, roadside trees, trees along field borders, and isolated trees, and nesting pairs frequently return to the same nest site for multiple years and decades. Swainson's hawks typically forage in agricultural fields, grasslands, and pasture. Crops that are tall and dense enough to preclude the capture of prey do not provide suitable habitat except around field margins, but prey in even these crops are accessible during and soon after harvest. Although the most important foraging habitat for Swainson's hawks lies within a one-mile radius of each nest, Swainson's hawks have been recorded foraging up to 18.6 miles from nest sites (City of Sacramento et al. 2003). Any habitat within the foraging distance may provide food at some time in the breeding season that is necessary for reproductive success.

The CNDDDB documents six occurrences of Swainson's hawk nest sites active since 1991 within 10 miles of the project site, including one nest site within 5 miles. Fallow and cultivated field crops and ruderal field boundaries on the project site provide suitable Swainson's hawk foraging habitat. Because the site is located within 10 miles of several documented nest sites, it is within the foraging range of nesting birds and could be utilized by them during the breeding season.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the federal CWA, and the state's Porter Cologne Water Quality Control Act, as discussed under "Regulatory Setting" above. Sensitive natural habitat may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in DFG's Natural Diversity Database, a statewide inventory of the locations and conditions of the state's rarest plant and animal taxa and vegetation types.

The project site does not support any sensitive habitats. Irrigation ditches that border and traverse the eastern portion of the site are unlikely to qualify for USACE jurisdiction or protection under the state's Porter Cologne Water Quality Control Act. As indicated in the Biological Resources Assessment (Carter and Burgess, Inc. 2004), and observed during the EDAW field survey, these ditches have been excavated in uplands and do not appear to drain to jurisdictional waters of the United States. They do not support any wetland habitats and, at the time of the EDAW field survey, did not appear to have been used for an extended period of time.

4.3.2 REGULATORY SETTING

Many sensitive biological resources in California are protected and/or regulated by federal and state laws and policies. Before implementation, the proposed project must be in compliance with these regulations.

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Federal Endangered Species Act

Under the federal Endangered Species Act (ESA), the U.S. Fish and Wildlife Service (USFWS) has regulatory authority over federally listed species. Under the ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. Take is defined under Section 9 of the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation, take is further defined to include habitat modification or degradation where it

would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

CLEAN WATER ACT

In accordance with Section 404 of the federal Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into waters of the United States. Waters of the United States and their lateral limits are defined in Title 33, Part 328.3(a) of the Code of Federal Regulations to include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Waters of the United States are often categorized as “jurisdictional wetlands” (i.e., wetlands over which USACE exercises jurisdiction under Section 404) and “other waters of the United States” when habitat values and characteristics are being described. “Fill” is defined as any material that replaces any portion of a water of the United States with dry land or that changes the bottom elevation of any portion of a water of the United States. Any activity resulting in the placement of dredged or fill material within waters of the United States requires a permit from USACE.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the proposed project would uphold State of California water quality standards.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, domestically implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird...” (U.S. Code Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Endangered Species Act

Under the California Endangered Species Act (CESA), a permit from the California Department of Fish and Game (DFG) is required for projects that could result in the take of a plant or animal species that is state-listed as threatened or endangered. Under CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species, but the CESA definition of take does not include “harming” or “harassing,” as the ESA definition does. As a result, the threshold for take is higher under CESA than under ESA (i.e., habitat modification is not necessarily considered take under CESA).

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from

disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

California Fish and Game Code—Fully Protected Species

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. DFG is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. DFG has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.

California Fish and Game Code Section 1602—Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by DFG under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying DFG: 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. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. DFG's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A DFG streambed alteration agreement must be obtained for any project that would result in an impact on a river, stream, or lake.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under Section 401 of the CWA.

LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Merced Vision 2015 General Plan

The Open Space, Conservation, and Recreation Element of the *Merced Vision 2015 General Plan* (City General Plan) contains policies that apply to wildlife conservation. The following specific local policies apply to development of the uses proposed in this project.

Open Space, Conservation, and Recreation Element

GOAL AREA OS-1: Open Space for the Preservation of Natural Resources

- ▶ **Policy OS-1.1** Identify and preserve wildlife habitats which support rare, threatened, and endangered species.
 - 1.1.a: Identify, and recognize as significant, wetland habitats which meet the appropriate legal definition of Federal and State law.
 - 1.1.b: Urban development should occur away from identified sensitive species habitat unless specific provisions to ensure adequate.

- 1.1.c: Establish development review procedures which minimize impact on sensitive species and their habitats.

4.3.3 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Thresholds for determining the significance of impacts on biological resources were based on Section 15065 and Appendix G of the State CEQA Guidelines. The proposed project would have a significant impact on biological resources if it would:

- ▶ 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 DFG or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in any local or regional plans, policies, or regulations, or by DFG or USFWS;
- ▶ have a substantial adverse effect on federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA (including but not limited to marshes, vernal pools, rivers, etc.) through direct removal, filling, hydrological interruption, or other means;
- ▶ interfere substantially with the movement of any native resident or migratory 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; or
- ▶ substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife species 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.

IMPACT ANALYSIS

IMPACT 4.3-1 **Effects on Special-Status Plants.** *Implementation of the proposed project would result in loss of agricultural and ruderal habitats, which are unsuitable for special-status plants known to occur in the region. This impact would be **less than significant**.*

Special-status plants known to occur in the vicinity of the project site are restricted to habitats that do not occur on the project site, including vernal pools, marches and swamps, and grasslands. Because habitat on the project site is limited to orchards and agricultural fields, special-status plants are unlikely to occur on the site and would, therefore, not be affected by the proposed project. This impact would be **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT **Effects on Special-Status Wildlife.** *Implementation of the proposed project would result in loss of approximately 150 acres of suitable foraging habitat for Swainson's hawk and could result in destruction and/or disturbance of occupied burrowing owl burrows. Other special-status wildlife species known to occur in the project vicinity are unlikely to occur on the project site and would not be affected by project implementation. This impact would be **potentially significant**.*

Development of the project site would result in loss of approximately 150 acres of agricultural fields that provide potential foraging habitat for Swainson's hawk and potential burrowing and foraging habitat for burrowing owl. Two other special-status wildlife species that have been documented in the vicinity of the project site (mountain plover and San Joaquin kit fox) are very unlikely to occur on the project site and would not be affected by project implementation. As mentioned above, the project site provides very low-quality habitat for these species and more suitable habitat is available elsewhere in the region, including grasslands to the north and east of the site where these species have been documented in the past.

Swainson's hawk and burrowing owl have greater potential, however, to occur on-site. Although no focused surveys have been conducted to document use of the project site as foraging habitat for Swainson's hawks, suitable foraging habitat was present at the time of the EDAW field survey (conducted during the Swainson's hawk nesting season) and could be relied on by nearby nesting pairs. Loss of such habitat could adversely affect nesting pairs that rely on it. In addition, loss of habitat on the site would contribute to the overall loss of Swainson's hawk foraging habitat in the region and could contribute to a reduction in the regional breeding population. These impacts could result in a substantial effect on the species. The project site also has potential to support occupied burrowing owl burrows. At the time of the EDAW field survey, the project site did not appear to support the population of burrowing mammals typically associated with occupied burrowing owl habitat, and no evidence of burrowing owls was observed. However, the agricultural field margins and irrigation ditches provide potential burrowing habitat. Because burrowing owls have been documented within approximately five miles of the project site and this species is known to move into new areas with suitable burrows, burrowing owls could occupy these areas in the future if ground squirrels become established and create suitable burrows. Therefore, the potential for burrowing owls to occur on or adjacent to the site at the time of project implementation should not be dismissed. If burrowing owls are present during project construction, occupied burrows could be directly destroyed and owls could be disturbed by construction activities near active nest burrows, potentially resulting in abandonment of their eggs or young. Loss of individual burrowing owls would be **significant** impact. In addition, if burrowing owls become established at and dependent upon the project site, loss of the potential burrowing and foraging habitat provided by the site could result in a substantial adverse effect.

Mitigation Measure 4.3-2: Implement Measures to Minimize Potential Project Effects on Swainson's Hawk and Burrowing Owl. To minimize potential project effects on Swainson's hawk and burrowing owl, the project applicant shall do the following:

Swainson's Hawk

- ▶ Loss of Swainson's hawk foraging habitat shall be compensated for by preservation and management of foraging habitat of at least a similar quality at an appropriate off-site location. Specific measures to offset the loss of foraging habitat shall be developed in consultation with DFG pursuant to DFG's "Draft Non-regulatory Guidelines for Determining Appropriate Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*)."
- ▶ Compensatory mitigation shall be provided for any loss of suitable foraging habitat, including fallow or active agricultural fields (not orchards), before any grading on the site begins.
- ▶ Mitigation lands shall be either grassland or croplands (i.e., row crops or alfalfa) that provide suitable Swainson's hawk foraging habitat and shall be located within 10 miles of a known active nest site. In accordance with DFG mitigation guidelines (DFG 1994), habitat shall be provided at a ratio of 0.75 acre of mitigation land for each acre of foraging habitat that would be lost within 5 miles of, but greater than 1 mile from, the nearest active nest.

- ▶ Long-term protection of mitigation lands shall be ensured through fee title acquisition, conservation easement, or other suitable mechanisms. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source.

Burrowing Owl

- ▶ The project applicant shall hire a qualified biologist to conduct preconstruction surveys for burrowing owl to determine whether burrowing owls occupy the site during the breeding and/or nesting season. The timing and methodology for the surveys shall be consistent with DFG and Burrowing Owl Consortium survey guidelines. Winter surveys shall be conducted on four separate days between December 1 and January 31. Nesting season surveys shall be conducted on four separate days between February 1 and August 31, with at least two of the survey days during the peak nesting season (April 15–July 15).
- ▶ If no burrowing owls are documented during the surveys, the site shall be regularly maintained in a manner that ensures owls do not occupy the site in the future (e.g., regular discing of open areas). No further mitigation shall be necessary.
- ▶ If burrowing owls are discovered on the project site, the project applicant shall immediately notify and coordinate with DFG regarding implementation of passive relocation methods to exclude the owls from the site prior to initiating construction activities. Exclusion shall be conducted through installation of one-way doors at the burrow entrances and subsequent destruction of the burrows to preclude re-occupation. Passive relocation may only be conducted during the non-nesting season (September 31–January 31). After relocation, the site shall be regularly monitored to confirm that burrowing owls have not re-occupied the site. If the site is re-occupied, exclusion measures shall be repeated, in coordination with DFG.
- ▶ In addition to exclusion of the owls from the site, the project applicant shall consult with DFG to provide appropriate compensation for loss of burrowing owl habitat. To offset the loss of foraging and burrow habitat on the project site, DFG recommends, in their 1995 Staff Report on Burrowing Owl Mitigation, a minimum of 6.5 acres of foraging habitat (calculated on a 100 meter {approximately 300 ft.} foraging radius around the burrow) per pair or unpaired resident bird, should be acquired and permanently protected. The protected lands should be adjacent to occupied burrowing owl habitat and at a location acceptable to the Department. Mitigation for loss of Swainson’s hawk foraging habitat could, upon approval by DFG, be used concurrently to mitigate for the loss of burrowing owl habitat.
- ▶ Long-term protection of mitigation lands shall be ensured through fee title acquisition, conservation easement, or other suitable mechanisms. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source.

Implementation of the above mitigation measures would avoid impacts to nesting burrowing owls and compensate for the loss of Swainson’s hawk foraging habitat and potential burrowing owl habitat. Therefore, impacts on these species would be reduced to a *less-than-significant* level.

IMPACT **Effects on Sensitive Habitats.** *Implementation of the proposed project would result in loss of agricultural and ruderal habitats that are not considered sensitive by any biological resource agencies or conservation organizations. This impact would be less than significant.*

The project site does not support any sensitive natural communities or habitats under jurisdiction of resource protection agencies, such as USACE, DFG, or the Central Valley RWQCB. Irrigation ditches that border and traverse the eastern portion of the site have been excavated in uplands and do not appear to drain to any potentially sensitive habitats. At the time of the EDAW field survey, the ditches did not appear to have been utilized for an extended period of time and did not support wetland vegetation or provide habitat for any aquatic

animals. Because no sensitive habitats are present on the project site, there would be no adverse effects to such habitats. This impact would be *less than significant*.

Mitigation Measure

No mitigation is required.

IMPACT 4.3-4 *Effects of Wildlife Movement. Implementation of the project would not substantially interfere with wildlife movement or impede the use of wildlife nursery site. This impact would be less than significant.*

The project site is surrounded by similar agricultural and rural residential development. It does not link any areas of open space that serve as important wildlife habitat and does not serve as a wildlife nursery site. Common wildlife species that may currently travel through the site could easily use similar adjacent habitats as travel routes. Therefore, implementation of the project would not substantially interfere with wildlife movement or established migratory corridors or impede the use of important nursery sites. This impact would be *less than significant*.

Mitigation Measure

No mitigation is required.

IMPACT 4.3-5 *Consistency with Local Plans, Policies, and Ordinances. Implementation of the project could conflict or be inconsistent with the City of Merced General Plan. This impact would be significant.*

The Project site was planned for Industrial in the City General Plan. This designation's purpose is to provide land for industrial uses in the City, including combination industrial/office uses, such as the proposed project. As analyzed in section 4.7, the project is consistent with the land use designation and the land use intensity planned for the site.

The Open Space, Conservation, and Recreation chapter of the City of Merced Vision 2015 General Plan includes a goal and supporting objectives and policies related to protection rare, endangered, or threatened species and the habitats that support them. Implementation of the proposed project has the potential to adversely affect Swainson's hawk by reducing potential foraging habitat and adversely affect burrowing owl by eliminating occupied burrowing habitat. These effects could conflict with the General Plan if measures are not implemented to ensure protection of the species. This impact would be *significant*.

Mitigation Measure 4.3-5: Implement Measures to Minimize Conflict with the City's General Plan. Implementation of Mitigation Measure 4.3-2 would reduce the impact on consistency with the City's General Plan to a *less-than-significant* level.

IMPACT 4.3-6 *Consistency with Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Conservation Plan. Implementation of the project would not conflict with or be inconsistent with any conservation plans because no such plans apply to the project site. This impact would be considered less than significant.*

No Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan has been adopted for an area including the project site. In addition, no such plan is known to be in development. Therefore, the proposed project would not conflict with any conservation plan. This impact would be *less than significant*.

Mitigation Measure

No mitigation is required.