4.4 BIOLOGICAL RESOURCES

4.4 BIOLOGICAL RESOURCES

This biological resource assessment provides a brief description of the existing biological resources that could be affected by new dairy applications in the County, evaluates general impacts on sensitive resources, and identifies measures to mitigate the potentially significant effects on biological resources. Identification of the biological resources was based on a review of available information. Literature and mapping reviewed included: the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants* (CNPS, 1994); the *Biological Resources Survey, Resource Conservation Element, Kings County General Plan* (Hansen's Biological Consulting, 1993); the Draft *Recovery Plan for Upland Species of the San Joaquin Valley* (U.S. Fish and Wildlife Service, 1997); and records of the California Natural Diversity Data Base (CNDDB) of the California Department of Fish and Game (CDFG) showing known occurrences of special-status species and sensitive natural communities.

SETTING

VEGETATION AND WILDLIFE

Agricultural, urban, and military uses have substantially altered the vegetative cover throughout most of Kings County, replacing the original native grasslands, valley sink scrub, valley saltbush scrub, freshwater marsh, and riparian natural communities. Remaining natural communities in the County include: valley and foothill grassland; blue oak-foothill pine woodland; chaparral; interior coast range saltbush scrub; riparian forest, woodland and scrub; valley sink scrub; valley saltbush scrub; valley freshwater marsh; and northern claypan vernal pool. The grasslands occur primarily in the rolling hills in the southwestern portion of the County, although some undeveloped parcels north of Corcoran and west of Guernsey still support grasslands. Scattered parcels supporting valley sink scrub, freshwater marsh, and valley saltbush scrub still occur on the valley floor within proposed DDOZs. Similarly, riparian habitat, woodland, and scrub associated with the Kings River, Cross Creek, the Kern River channel, and smaller streams also occur on the valley floor as bands of native vegetation along drainages. The oak and pine woodlands, chaparral, and interior coast range saltbush scrub communities are generally restricted to higher elevations in the westernmost portion of the County on lands considered unsuitable for dairy use because of steeper slopes.

Kings County supports a wide diversity of both resident and migratory wildlife species. Areas of seasonal wetlands and freshwater marsh, riparian corridors, and remnant natural communities are particularly attractive to wildlife. These areas provide important cover, undisturbed breeding locations, and foraging opportunities that are typically not available in intensively managed agricultural fields.

SPECIAL-STATUS SPECIES

Special-status species[1] are plants and animals that are legally protected under the State and Federal Endangered Species Acts[2] or associated regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species with legal protection under the Endangered Species Acts often represent major constraints to development, particularly when they are wide ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"[3] of these species.

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[1] Special-status species include:

- Officially designated (rare, threatened, or endangered) and candidate species for listing by the California Department of Fish and Game (CDFG).

- Officially designated (threatened or endangered) and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS).

- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those identified on lists 1A, 1B, and 2 in the *Inventory of Rare and Endangered Vascular Plants of California* of the California Native Plant Society (CNPS).

- And possibly other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for State or Federal status, such as those included on list 3 in the CNPS *Inventory* or identified as animal "Species of Special Concern" by CDFG. Species of Special Concern have no legal protective status under the State Endangered Species Act but are of concern to the CDFG because of severe decline in breeding populations in California.

[2] The Federal Endangered Species Act (FESA) of 1973 declares that all Federal departments and agencies shall use their authority to conserve endangered and threatened plant and animal taxa. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California taxa.

[3] The USFWS and CDFG share responsibility for protection and management of natural resources. "Take" as defined by FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFG also considers the loss of listed species habitat as "take," although this policy lacks statutory authority and case law support under the CESA.

Two sections of FESA contain provisions that allow or permit "incidental take." Section 10(a) provides a method by which a state or private action that would result in "take" may be permitted. The applicant must provide the USFWS with an acceptable conservation plan and publish notification for a permit in the Federal Register. Section 7 pertains to a Federal agency that proposes to conduct an action that may result in "take," requiring consultation with USFWS and possible issuance of a jeopardy decision. Under CESA, "take" can be permitted under Section 2081 of the Fish and Game Code. The applicant must enter into a habitat management agreement with CDFG, which defines the permitted activities and provides adequate mitigation.

Review of records maintained by the CNDDB, together with other relevant information, indicates that historical occurrences of several species with special status have been reported in Kings County. Figure 4.4-1 shows the distribution of known occurrences of special-status species and sensitive natural communities in Kings County. Notable features in Figure 4.4-1 include: the large complex of sensitive valley saltbush scrub, valley sink scrub, and grasslands in the West Hacienda area along Interstate 5; the extensive potentially occupied San Joaquin kit fox habitat; and scattered occurrences of special-status plant and animal species.

Plant Species of Concern

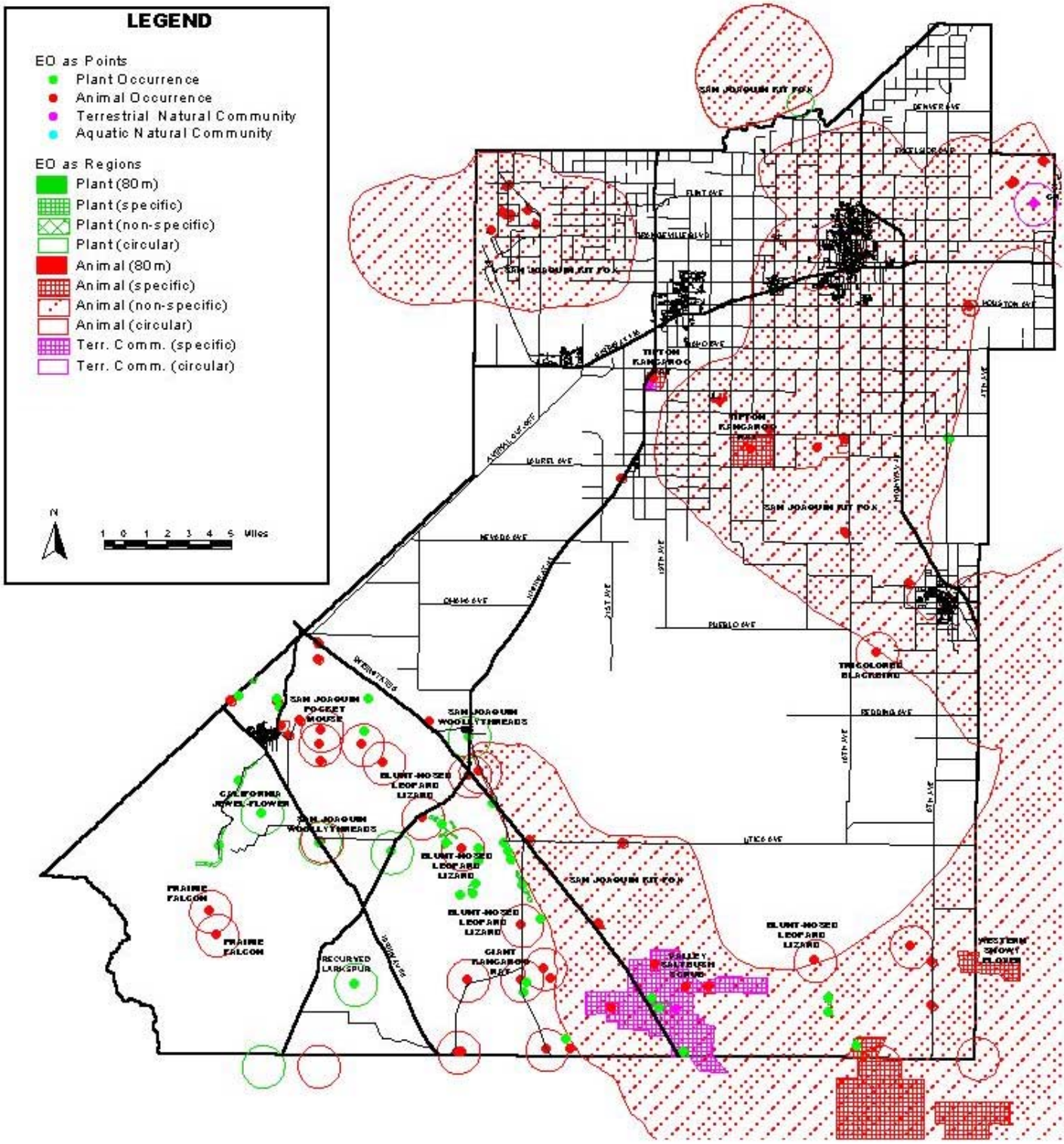
Based on recorded geographic range, plant species with special status that are known to occur or to have occurred in Kings County include: forked fiddleneck (*Amsinckia furcata*), slough thistle (*Cirsium crassicaule*), recurved larkspur (*Delphinium recurvatum*), hoover's woolly-star (*Eriastrum hooveri*), cottony buckwheat (*Eriogonum gossypinum*), and San Joaquin woolly-threads (*Lembertia congdonii*), among others. These species have varied State and Federal listing status, and most are considered rare (list 1B) by the CNPS. Most of the known occurrences of special-status plants are from the western hills where intensive agricultural use has not occurred. Grading associated with intensively managed agricultural use and urban development generally precludes the occurrence of populations of special-status plant species on most of the valley floor.

Animal Species of Concern

A number of bird, mammal, reptile, and insect species with special-status are known or suspected from the San Joaquin Valley and Kings County area. These include: Cooper's hawk (*Accipiter cooperi*), tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo swainsoni*), ferruginous hawk (*Buteo regalis*), western snowy plover (*Charadrius alexandrinus nivosus*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), California yellow warbler (*Dendroica petechia brewsteri*), white-tailed kite (*Elanus caeruleus*), prairie falcon (*Falco mexicanus*), American peregrine falcon (*Falco peregrinus anatum*), greater sandhill crane (*Grus canadensis tabida*), loggerhead shrike (*Lanius ludovicianus*), bank swallow (*Riparia riparia*), pallid bat (*Antrazous pallida*), tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), California mastiff bat (*Eumops perotis californicus*), Townsend's western big-eared bat (*Plecotus townsendii townsendii*), American badger (*Taxidea taxus*), San Joaquin kit fox (*Vulpes macrotis mutica*), southwestern pond turtle (*Clemmys marmorata pallida*), blunt-nosed leopard lizard (*Gambelia silus*), California horned lizard (*Phrynosoma coronatum*), giant garter snake (*Thamnophis couchi gigas*), San Joaquin dune beetle (*Coelus gracilis*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

WILDLIFE AND HABITAT IN KINGS COUNTY

Figure 4.4-1



Source: California Natural Diversity Database
Wildlife & Habitat Data Analysis Branch
Department of Fish & Game, 2000

BASELINE

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Habitat for most of these species has been greatly affected by past and ongoing agricultural production, flood control and drainage management, and other disturbance. Most of the remaining occurrences of special-status animal species are concentrated in locations where intensive habitat modification has not occurred, such as the southwestern portion of the County, the West Hacienda vicinity, and an area of valley sink scrub west of Guernsey. Further detailed surveys would be necessary to confirm the presence or absence of any occurrence of special-status animal species where suitable habitat remains. Species of particular concern because of their legal protective status and distribution in Kings County include: San Joaquin kit fox, tipton kangaroo rat, and blunt-nosed leopard lizard. Additional information on each of these species is summarized below.

San Joaquin Kit Fox

This subspecies is State-listed as threatened, and Federally-listed as endangered. Historically, San Joaquin kit fox occurred in several native plant communities of the San Joaquin Valley. In the central portion of its range, which includes King County, the subspecies is associated with valley sink scrub, saltbush scrub, non-native grassland, and remnant native grassland. Agriculture now dominates this region, and kit fox generally inhabit grazed, non-irrigated grasslands, but live next to and forage in tilled or fallow fields, irrigated row crops, orchards, and vineyards (USFWS, 1997).

Although the kit fox has been Federally-listed for over 30 years, its status throughout much of its current range is poorly documented and there has never been a comprehensive survey of its entire historical range. In 1990, the USFWS produced a range map based on earlier studies (Morell, 1975) that identified portions of Kings County as potentially occupied habitat, as shown on Figure 4.4-1. Records of kit fox sightings in Kings County are primarily from native plant communities of the Kettleman Hills west of the California Aqueduct, lands south of the Tulare Lake Basin, and from the isolated native scrub and grassland habitat west of Guernsey.

Tipton Kangaroo Rat

This rat is one of three subspecies of the San Joaquin kangaroo rat, and is found in Kings, Tulare, and Kern counties of the southern San Joaquin Valley. It is both State and Federally-listed as endangered. Historically, populations apparently were most abundant in the dune grasslands and saltbush scrub communities of the Tulare Lake Basin. Areas supporting this subspecies today tend to have sparsely scattered woody shrubs and a ground cover of introduced and native grasses and forbs. The CNDDB records and other information sources indicate suitable habitat and reported occurrences of this subspecies just west of Guernsey, between Stratford and Lemoore, and south of Kettleman City. Historic occurrences of other subspecies, giant kangaroo rat and Fresno kangaroo rat, have also been reported from Kings County.

Blunt-Nosed Leopard Lizard

This species is endemic to the San Joaquin Valley, with its range extending from Stanislaus County in the north southward to the Tehachapi Mountains in Kern County. It is both State and Federally listed as endangered. The currently occupied range is in scattered parcels of undeveloped land on the valley floor and in the foothills of the Coast Ranges. Suitable habitat includes native and non-native grasslands, valley sink scrub, valley saltbush scrub, and alkali playa natural communities.

WETLANDS

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted for life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions.

The CDFG and U.S. Army Corps of Engineers (Corps) have jurisdiction over modifications to wetlands and unvegetated "other waters of the U.S." Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material without a permit. Jurisdictional authority of CDFG over wetland areas is established under Sections 1601-1606 of the Fish and Game Code, which pertain to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream.

Potential jurisdictional wetlands within the County include river and stream corridors, freshwater marsh and seasonally inundated floodplains, and remnant vernal pools along Cross Creek and possibly along Cottonwood Creek, and the valley sink scrub natural community west of Guernsey. A detailed wetland assessment would be required to determine whether jurisdictional wetlands occur on individual parcels with likely indicators such as depressions or drainages.

RELEVANT GOALS, OBJECTIVES, AND POLICIES

Under **Goal DE 1** of the Revised Kings County Draft Dairy Element (Element), **Objective DE 1.2** requires that specific criteria be applied to approval of proposed new or expanded dairies to ensure that dairy operations are compatible with environmental constraints, including constraints related to biological resources. **Policy DE 1.2e** specifically addresses protection of wetlands and other ~~wildlife~~ habitat for sensitive species. The policy prohibits approval of dairy development via the SPR process in designated wetlands and areas of ~~undisturbed wildlife~~ habitat for sensitive species. ~~The policy~~ **Policy DE 3.3a** presumes that

land that has been continuously cultivated since 1985 (including fallow land in rotation) would not qualify as designated wetland or ~~wildlife~~ habitat for sensitive species. **Objective DE 3.3** requires that protection of sensitive biological resources be evaluated during permit review. The objective is supported by **Policy DE 3.3a**, which describes the requirements for site-specific biological and wetland surveys for all new and expanded dairy operations.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

According to the CEQA Guidelines, potentially significant environmental effects on biological resources include:

- substantial adverse effect on a population or essential habitat of special-status plant or animal species.
- substantial adverse effect on any riparian habitat or other sensitive natural community type, such as native grasslands and scrub.
- substantial adverse effect on federally protected wetlands.
- substantial interference with the movement of any native resident or migratory fish or wildlife species, their wildlife corridors, or nursery sites.
- conflict with an adopted habitat conservation plan, natural community conservation plan, or other local, regional, or state conservation plan.
- conflict with any local ordinances protecting biological resources, including relevant policies of the Resource Conservation Element of the County General Plan.

Impact 4.4-1

Dairy development could result in conversion of existing vegetative cover and associated wildlife habitat, including habitat for special-status species or sensitive natural communities. This is a less-than-significant impact.

Future dairy use allowed under the proposed Element would result in the conversion of primarily agricultural crops to dairy-related facilities, which generally would not affect any significant vegetation resources or sensitive wildlife habitat. Most of the anticipated future dairy use would occur in areas of existing intensively managed agricultural use, which has only limited value as significant vegetation resources and ~~wildlife~~ habitat for sensitive

species. The construction of required improvements and irrigation associated with dairy use would generally not result in significant impacts on biological resources when located on existing agricultural fields.

Policy DE 1.2e ~~would generally~~ prohibits ~~dairies on~~ approval of dairy development via the SPR process in designated wetlands and ~~undisturbed wildlife~~ habitat for sensitive species. However, further detailed studies may be necessary to confirm presence or absence of sensitive biological resources, and the extent of any required avoidance. Conversion of remaining natural community types or essential habitat for special-status plant and animal species would be considered significant.

Compatibility zones identified as part of the theoretical dairy herd capacity for the County encompass numerous known occurrences of special-status plant and animal species, as well as locations with remaining natural community types, such as valley saltbush scrub, valley sink scrub, riparian woodland and scrub, and grasslands. Conversion of remaining natural habitat to dairy facilities and irrigated agriculture would have a significant impact on wildlife resources and could result in the take of one or more listed species. Of particular concern is the potential for conversion of essential habitat for tipton kangaroo rat, blunt-nosed leopard lizard, and San Joaquin kit fox in the remaining natural habitat between Stratford, Lemoore, and Guernsey. There is also a potential for inadvertent entrapment or killing of individual kit fox during construction of dairy facilities. Similarly, construction activities could also result in the destruction of raptor nests in trees or ground nests of burrowing owl, which would be a violation of the Migratory Bird Treaty Act and Section 3503.5 of the State Fish and Game Code.

Policy DE 1.2e of the Element states that new and expanded dairy developments ~~are prohibited~~ on wetlands and ~~undisturbed wildlife~~ habitat for sensitive species may not be approved via the SPR process. ~~The policy~~ **Policy DE 3.3a** assumes that land that has been continuously cultivated since 1985 does not qualify as wetlands or sensitive wildlife habitat. The potential for occurrence of special-status species on natural habitat, or the indirect effects (e.g., additional nighttime light and glare) of potential development adjacent to sensitive habitat, must be considered. This includes essential habitat for special-status species, riparian corridors and other natural community types, and seasonal or freshwater marsh habitat, which could all be affected by indirect effects, such as water quality degradation and increased human activity. The presence or absence of sensitive resources on or adjacent to individual dairy developments is addressed by **Objective DE 3.3** of the Element. The objective is supported by **Policy DE 3.3a**, which requires that site-specific biological and wetland surveys be conducted prior to approval of new or expanded dairy developments. The policy requires that ~~mitigations to avoid or minimize impacts to biological resources be recommended by the completed surveys~~ the CUP process be

completed if the site-specific biological resources survey identifies habitat for sensitive species.

Implementation of **Policies DE 1.2e** and **3.3a** would reduce the impacts to less-than-significant levels by requiring site-specific biological and wetland surveys for all new and expanded dairy developments.

Mitigation Measure 4.4-1

None required.

Impact 4.4-2

Loss and modification of wetlands. This is a less-than-significant impact.

According to **Policy DE 1.2e** of the Element, any land conversion associated with future dairy facilities would be prohibited on wetlands and no significant adverse impacts are anticipated. ~~However, detailed surveys may be necessary to confirm the presence or absence of wetlands, as called for in **Policy DE 3.3a**.~~ If surveys conducted in accordance with Policy DE 3.3a confirm the presence of wetlands, the applicant will be required to complete the CUP process.

Mitigation Measure 4.4-2

None required.