4.9 BIOLOGICAL RESOURCES

Project implementation would reduce the populations and available habitat of special-status plant and wildlife species such as San Joaquin kit fox and shining navarretia, in addition to the loss of plant communities of special concern. Because of the size of the Chandler Ranch Specific Plan Area, degree of habitat diversity, and known or potential presence of a number of special-status plant and wildlife species, and plant communities of special concern on and in the vicinity of the site, impacts to these resources would range from Class II, significant but mitigable, to Class I, significant and unavoidable. Impacts to non-native annual grassland, oak woodland, riparian woodland, and wetland habitats, in addition to special-status plant species and plant communities of special concern are considered Class II, significant but mitigable. Impacts to potential populations and available habitat of special-status wildlife species including the San Joaquin kit fox are also considered Class II, significant but mitigable. Development in accordance with the Specific Plan in combination with other expected development in the area would result in cumulative impacts that are considered Class I, significant and unavoidable.

4.9.1 Setting

The natural landscape in the vicinity of the Specific Plan area includes oak woodlands and savannas and riparian woodlands along stream courses, as well as chaparral, coastal sage scrub, and grassland habitats that occur in a mosaic pattern across the undulating landscape. Rangelands of primarily non-native annual grassland comprise a substantial portion of the agricultural landscape in the region along with vineyards, orchards, and annually cultivated row crops.

This description of existing biological resources in the Specific Plan area is based on the review of background documents for the site and other biological documents from sites in the vicinity (Althouse and Meade, 2000; Rincon Consultants, 2001 and 2003; and Douglas Wood and Associates, 2000) and field surveys conducted on January 26, February 24, April 23, May 20, 2003; June 2004; and June 2005 by Rincon Consultants' biologists. In June 2005, Rincon biologists were accompanied in the field by LynneDee Althouse of Althouse and Meade. Information on special-status species occurring in the vicinity of the site was obtained through review of the above documents, a search of the California Natural Diversity Data Base (CNDDB, 2003-2005), the EIR consultants' knowledge of the local area, and consultation with other professionals knowledgeable of the local biological resources (Root, 2002; Stafford, 2004; Keil, 2003).

a. Habitat Types. Elements of nine habitat types typical of the greater vicinity were represented in the Specific Plan area: 1) non-native annual grassland, 2) oak woodland, 3) riparian woodland, 4) ruderal, 5) agriculture; 6) wildflower field; 7) coastal scrub; 8) native perennial bunchgrass; and 9) wetland. Classification of these habitat types or vegetation communities is based generally on Robert F. Holland's classification of terrestrial vegetation communities (1986), and Sawyer and Keeler-Wolf (1995) with modifications to better represent existing conditions in the field. Additionally, several drainage courses are located within the project boundaries that could be determined as waters of the United States under the jurisdiction of the United States Army Corps of Engineers (Corps), and waters of the State under California Department of Fish and Game (CDFG) jurisdiction. The habitat types, or vegetation communities, of the site are described in Table 4.9-1 below.

Table 4.9-1 On-Site Habitat Types

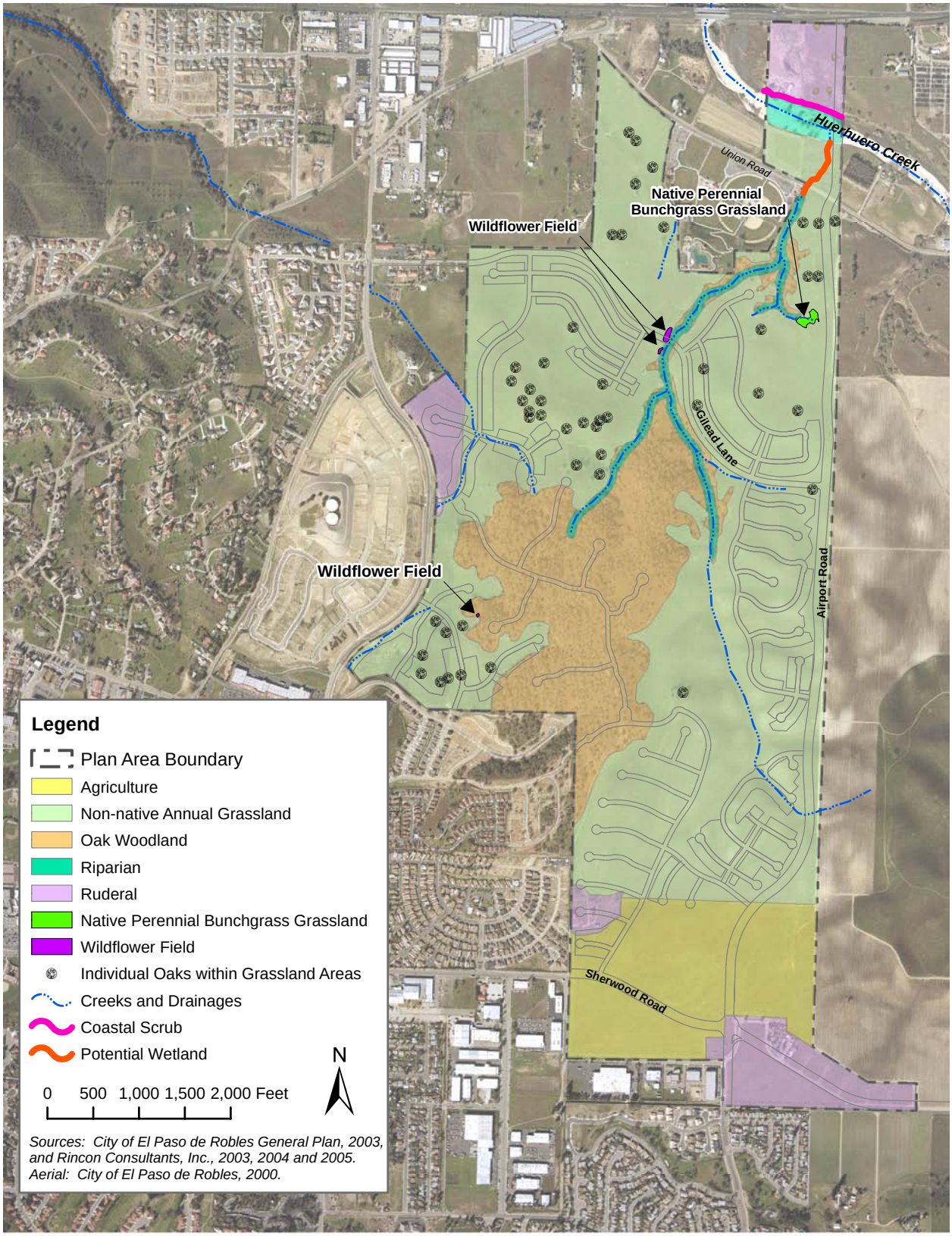
Habitat Type	On-site Acres
Non-Native Annual Grassland	517.6
Oak Woodland	137.6
Riparian	22.7
Ruderal	61.5
Agriculture	85.5
Wildflower Field	0.3
Native Perennial Bunchgrass	0.5
Coastal Scrub	0.5
Wetland	0.5
Total	**826.7**

Habitat type acreages are approximate and are based on aerial photography, with field verification.

Each vegetation community is described below based on the general structure and composition of the dominant vegetation. The extent of each community is depicted on Figure 4.9-1. The following discussion of habitat types also includes a brief discussion of common plant and wildlife species that were observed or can be expected to occur within each habitat type. A detailed discussion of special-status species is provided in Section 4.9.1.b of this report.

Non-Native Annual Grassland. The on-site non-native annual grassland habitat type most closely corresponds to Non-Native Grassland as described by Holland and the California Annual Grassland series described by Sawyer and Keeler-Wolf. Non-native annual grassland, which comprises approximately 517.6 acres of the Specific Plan area, is the dominant habitat type and also exists as an understory component of at least four of the other habitat types on the site. Because the Specific Plan area has been grazed for many years, the soils in the grassland have become compacted and dominated by non-native grasses and forbs. Common introduced grass species observed on the site include slender wild oats (*Avena barbata*), rip-gut brome (*Bromus diandrus*), soft chess brome (*B. hordeaceus*), red brome (*B. madritensis* ssp. *rubens*), and foxtail (*Hordeum murinum* ssp. *leporinum*) along with non-native herbs such as bur-clover (*Medicago polymorpha*), mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), and filaree species (*Erodium* spp.). Patchy occurrences of a native perennial bunchgrass, needlegrass (*Nassella* sp.), were observed within the annual grassland habitat on the western side of the site and western melica (*Melica californica*), a second native bunchgrass species, was observed on the midwestern portion of the site. Coyote brush (*Baccharis pilularis* var. *consanguinea*) was also found occasionally colonizing within the grassland in sparse stands. Tree-of-Heaven (*Ailanthus altissima*), a noxious weed, was found in a small stand of various aged individuals within the grassland of proposed Open Space just east of subarea 1 and west of subarea 7. Individual oak trees are observed in portions of the non-native annual grassland area, as depicted in Figure 4.9-1.

Native spring flowering herbs identified within the grasslands include: California milkweed (*Asclepias californica*), Johnny jump-ups (*Viola pedicularis*), fiddleneck (*Amsinckia* sp.), shooting star (*Dodecatheon* sp.), blue eyed grass (*Sisyrinchium bellum*), red maids (*Calandrinia ciliata*), and clover species (*Trifolium* spp.).



Habitat Map

Figure 4.9-1

Grasslands provide habitat for small mammals which in turn serve as a prey base for a variety of animals, including snakes, raptors ("birds of prey"), coyotes (*Canis latrans*), and bobcat *(Lynx rufus)*. Numerous invertebrate species, many of which provide a food source for larger animals such as lizards, birds, and some small mammals can also be found within grassland communities. Red-tailed hawk (*Buteo jamaicensis*), red-winged black bird (*Agelaius phoeniceus*), western meadowlark (*Sturnella neglecta*), and Brewer's blackbird (*Euphagus cyanocephalus)* were observed on-site, and numerous Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus beecheyi*) burrows were found within the non-native annual grassland habitat. Reptiles common to grasslands that could potentially occur on-site include ringneck snake (*Diadophis punctatus*) and gopher snake (*Pituophis melanoleucis*).

Oak Woodland. The oak woodland habitat type in the Specific Plan area corresponds to Blue Oak Woodland as described by Holland and the Blue Oak Series described by Sawyer and Keeler-Wolf. This habitat type is primarily located on the terraces and along the rolling hills within the central western portion of the site. With the exception of within Huerhuero Creek, oak woodland also formed a major constituent of the riparian corridors within the northern and central portions of the site. Oak woodland habitat comprises approximately 137.6 of the 826.7 acre Specific Plan area (17%) and is dominated by open to nearly closed canopies of blue oak (*Quercus douglasii*). Occasional valley oak (*Quercus lobata*) were observed intermixed with the blue oak, especially within drainages in the northern half of the site. The understory species composition in oak woodland habitat type can vary depending upon local conditions such as moisture availability and soil type in addition to the historical use of the land for agricultural practices such as grazing. The majority of the blue oak woodland understory in the Specific Plan area is composed of non-native annual grasses and forbs characteristic of on-site non-native annual grassland and is likely the result of past grazing activities. Understory vegetation associated with oak woodlands along drainages of the north end of the site contains additional non-native plant species such as poison hemlock (*Conium maculatum*), Italian thistle (*Carduus pycnocephalus*), and tocolote (*Centaurea melitensis*). Occasionally oak trees occur within the grassland, but do not occur at a frequency that warrants designating additional oak woodland or oak savanna habitat.

Oak woodlands, in general, provide good habitat for a large variety of wildlife species. Oaks provide nesting sites and cover for birds and many mammals. Dead and decaying oak trees with few branches or no leaves provide perches from which to search for prey and resting spots for other bird species. They also contribute woody debris to the duff in the woodland understory which provides foraging areas for small mammals and microclimates suitable for amphibians and reptiles in addition to fungi. Acorns are a valuable food source for many animal species, including acorn woodpecker (*Melanerpes formicivorus*), scrub jay (*Aphelocoma corulescens*), western gray squirrel (*Sciurus griseus*), and black-tailed deer (*Odocoileus hemionus*). Scrub jay, western bluebird (*Sialia mexicana*), turkey vulture *(Cathartes aura*), red-tailed hawk, black-tailed deer, and numerous California ground squirrel burrows were observed within oak woodland in the Specific Plan area during the site visits. Other representative animal species that could potentially occur in oak dominated woodlands on-site include arboreal salamander (*Aneides lugubris*), western screech owl (*Otus kennicottii*), oak titmouse (*Baeolophus inornatus*), and Virginia opossum (*Didelphis virginianus*).

Riparian. Two types of riparian habitat comprising approximately 22.7 acres were observed in the Specific Plan area. The first type is associated with Huerhuero Creek and

included elements of riparian that corresponded closest to the Central Coast Cottonwood Sycamore Riparian Forest described by Holland and the Freemont Cottonwood Series described by Sawyer and Keeler-Wolf. This habitat is characterized by loosely scattered tree and shrub species, the most numerous being cottonwood (*Populus fremontii*) and arroyo willow (*Salix lasiolepis*) growing on banks and sandbars of the creek. Understory within the creek generally consists of sparse mulefat (*Baccharis salicifolia*). Valley oak was observed along the south facing bank in addition to an open occurrence of coastal scrub habitat.

The second riparian habitat type, occurring along the drainage corridors of the middle and northern portions of the site, consists of blue oak and valley oak trees as described above in the *Oak Woodland* section with an understory dominated by non-native annual grasses and forbs.

Riparian communities provide habitat for a variety of songbirds including common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), as well as amphibians and reptiles such as the Pacific treefrog (*Pseudacris regilla*) and western fence lizard (*Sceloporus occidentalis*). Large mammals also use creeks and associated riparian habitats as migration corridors.

Ruderal. Ruderal habitat in the Specific Plan area includes residential areas, a site formerly graded for development, and an area in which almonds were farmed in the past. This habitat comprises approximately 61.5 acres of the Specific Plan area (7.4%). Rural residences occur at the north and south ends of the Specific Plan area with some adjacent agricultural land. An area known as "Our Town" at the southeastern end of the site is a subdivision from the 1960s that was never completely developed. The area was graded and roads were constructed but only a few houses were built. Currently vegetation in the area is non-native annual grassland in addition to scattered coastal scrub elements along Linne Road as described below. A small abandoned almond orchard with a non-native annual grassland understory occurs on the western side of the Specific Plan area. Portions of surrounding area have been used as a dumping ground for large debris as it was easily accessed from Golden Hill Road.

The wildlife habitat values provided by ruderal communities are dependent on the level of on-going disturbance and the type of plants present. For example, unpaved access roads that receive very little human traffic are used by reptiles as sunning locations and by large mammals as movement corridors. Birds may also use dirt roads for dusting and for obtaining gravel needed in their digestion. Ornamental trees within ruderal habitats provide potential habitat for many species of birds, which could use the trees for nesting, feeding, roosting, and hawking sites. Flycatchers, vireos, warblers, sparrows, orioles, red-tail hawks, turkey vultures, owls, and American kestrels would all be expected to use landscaping trees in rural areas. Animals that commonly are found within ruderal habitat include European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), California quail (*Callipepla californica*), and rock dove (*Columba livia*).

Agriculture. The southern portion of the site is planted in grain crops that are subject to regular annual disturbance. Agriculture habitat comprises about 85.5 acres, or about 10.3% of the entire Specific Plan area. The habitat value of agriculture is similar to ruderal areas, the chief difference being that plants adapted to more regular disturbance cycles are better suited for this agriculture habitat. Wildlife associated with agricultural fields are similar to those described for ruderal areas.

Wildflower Field. Several areas delineated in the Specific Plan area correspond to the Wildflower Field described by Holland. This habitat type is a loose association of herb-dominated communities with conspicuous annual wildflower displays that is considered a plant community of special concern by the CDFG. The on-site wildflower field habitat type is a unique display of native flowering herbaceous species in a combination and/or density not observed within the grassland elsewhere in the Specific Plan area. Thus, these occurrences warrant separation from the non-native annual grassland habitat type description. The size, density and location of a habitat comprised of annuals or bulbs, such as a wildflower field, is likely to vary from year to year based on ecological conditions such as available moisture. The wildflower field habitat onsite is confined to certain specific areas having sufficient wildflower density, soil and slope characteristics, and comprise about 0.26 acres. The primary area consisting of the wildflower field habitat type was observed in thin soils on the east-facing slope of the northern drainage and along the oak tree canopy drip line of that drainage, near the proposed Gilead Lane crossing of the area's central drainage feature. The area contains locally common stands of a variety of native species not observed in the surrounding grassland areas. Thus, the delineation of a separate habitat was warranted.

The wildflowers present within this habitat type include the special-status plant species shining navarretia (*Navarretia nigelliformis* ssp. *radians*), in addition to other natives such as California filago (*Filago californica*), California plantain (*Plantago erecta*), Chile lotus (*Lotus wrangelianus*), Clarkia sp. (*Clarkia* sp.), Gilia species (*Gilia* spp.), and dwarf brodiaea (*Brodiaea terrestris*). Wildlife species using this habitat type are expected to be the same as those in non-native annual grassland because there is no specific difference in the plant structure between the two habitat types.

Note that wildflowers are observed growing over much larger portions of the Specific Plan area, but such occurrences are more accurately defined by other underlying habitat types, typically non-native grassland. Such areas are found not to include the density or other site-specific characteristics to define these as wildflower fields.

Coastal Scrub. The coastal scrub habitat within the Specific Plan area is similar to the Central (Lucian) Coastal Scrub as described by Holland and the Coyote Brush Series as described by Sawyer and Keeler-Wolf. Coastal scrub is present in very limited occurrences in the Specific Plan area, comprising approximately 0.5 acre along the south facing (northern) bank of Huerhuero Creek. Coastal scrub found on the bank was represented by California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). The under-stories of coastal scrub habitat consisted of non-native annual grassland components described above.

Coastal scrub habitat types in the Paso Robles area provide cover and nesting for a variety of mammals, birds, and reptiles common to the Central Coast. These species include western fence lizard, western rattlesnake (*Crotalus viridus*), blue-gray gnatcatcher (*Polioptila caerulea*), wrentit (*Chamae fasciata*), and California mouse (*Peromyscus californicus*). The limited occurrences of coastal scrub in the Specific Plan area reduces its wildlife habitat value. However, because, this habitat type co-mingles with the grassland and riparian habitats of the site, the continuous plant cover creates higher quality wildlife habitat than the limited amount of coastal scrub habitat on the site if evaluated independently.

Wetland. Wetland habitat in the Specific Plan area corresponds to the Coastal and Valley Freshwater Marsh described by Holland and the Cattail Series described by Sawyer and Keeler-Wolf. Wetlands occur in nutrient-rich mineral soils that are saturated through part or all of the year. These communities are best developed in locations with slow-moving or stagnant shallow water such as drainage corridors in association with intermittent and perennial drainages, but can also occur as seeps or in areas with adequate hydrology that have a dominance of hydrophytic (water-loving) vegetation. The on-site wetland habitat types are considered plant communities of special concern by the CDFG because of substantial statewide losses.

Wetland vegetation was observed in the Specific Plan area extending from the edge of the southern Huerhuero Creek bank to Union Road and immediately adjacent to the southern end of the culvert passing underneath Union Road. Approximately 0.5 acre of wetland habitat occurs in the Specific Plan area, dominated by willow-herb (*Epilobium ciliatum*) and broad-leaved cattail (*Typha latifolia*). Several non-native weed species, burclover, bristly ox-tongue (*Picris echioides*), and common sow thistle (*Sonchus oleraceus*), were also found associating with the wetland species as the wetland habitat adjoined non-native grassland. The Specific Plan area was not assessed in detail for wetlands during this reconnaissance level survey, thus, limited wetland habitat may also occur within low points or drainages in which water persists longer than in the surrounding areas. No long-lasting rain pools (e.g., vernal pools) were observed in the Specific Plan area during Rincon's 2003 surveys.

Seasonally-ponded areas that may occur within wetland habitat types provide habitat for aquatic invertebrates such as water striders and boatmen and amphibians such as the Pacific treefrog. Although wetland habitat does not occupy a large portion of the site, this habitat likely provides water and food sources for a number of other wildlife species common to the vicinity including mammals such as opossums and birds such as red-winged black bird in addition to wildlife species that use the adjacent riparian habitat.

Creeks and Drainages Within Other Habitat Types. The Specific Plan area contains several unnamed drainages that are identified on the U.S.G.S topographic map as ephemeral tributaries to Huerhuero Creek and the Salinas River. In addition, approximately 850 linear feet of Huerhuero Creek, an ephemeral drainage, is located on the northern end of the Specific Plan area boundary. There are also several drainages occurring onsite that are not identified as ephemeral tributaries on the U.S.G.S topographic map, but that may be considered jurisdictional waters of the U.S. and State.

Habitat types within the designated ephemeral tributaries, or drainages, mostly consist of non-native annual grassland or oak woodland with non-native annual grassland understory. These drainages vary in width from approximately one to three feet wide. The drainage in the northern end of the site that connects with Huerhuero Creek contains wetland habitat in the section between Union Road and Huerhuero Creek and varies from approximately 15 feet wide in the south end to 5 feet wide close to the confluence with Huerhuero Creek. A limited occurrence of wetland was also observed just south of Union Road in the same drainage. A culvert allows water in this drainage to pass north underneath Union Road.

Huerhuero Creek is composed of sand, cobble, and gravel and the width of the channel within the Specific Plan area ranges from approximately 240 to 350 feet. Riparian woodland habitat

occurs in patches along sandbars within Huerhuero Creek and is described above in the *Riparian Woodland* section. Those drainages occurring on the western side of the Specific Plan area that are tributary to the Salinas River are primarily swales lacking a clearly defined bed and bank. The remaining unidentified drainages primarily contain non-native annual grassland and occasionally wildflower field habitat. Water was not flowing in Huerhuero Creek or any of the other drainages during the site visits, with the exception of the drainage containing wetland vegetation.

b. Special-Status Species. For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the federal Endangered Species Act (ESA); those considered "species of concern" by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by the CDFG under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern" by the CDFG; and the CDFG *Special Vascular Plants, Bryophytes, and Lichens List* (April 2004). This latter document includes the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California*, *Sixth Edition* (Tibor, 2001) as updated online. Those plants contained on CNPS lists 1B, 2, and 4 are considered special status species in this EIR. Per the CNPS code definitions: List 1A species include those presumed extinct in California, 1B those rare, threatened, or endangered in CNPS's opinion in California and elsewhere, and List 2 includes plants rare, threatened, or endangered in California, but more common elsewhere. List 3 species are a review list for which necessary information is lacking to assign them to one list or another or to reject them. Nearly all of these plants are taxonomically problematic. List 4 species are of limited distribution or infrequent throughout a broader range of California and their vulnerability or susceptibility to threat appears low at this time.

Rincon Consultants biologists developed a target list of special-status plant and animal species that could potentially occur on the site based on our review of the CNDDB in the Adelaida, York Mountain, Paso Robles, Templeton, Estrella, and Creston U.S.G.S. 7.5 minute topographic quadrangle maps (2003). The list was also based on biological studies from the vicinity as cited previously, information provided by knowledgeable persons regarding the biological resources of the vicinity as listed above in *4.9.1 Setting*, and Rincon Consultants' field reconnaissance of the Specific Plan area. Detailed fieldwork was not conducted to confirm the presence or absence of these or other special-status species. Site-specific surveys for the species identified below would be necessary to confirm their presence/absence in the Specific Plan area. Table 4.9-2 lists those sensitive plant and animal species known to occur in the project region that could occur in the Specific Plan area.

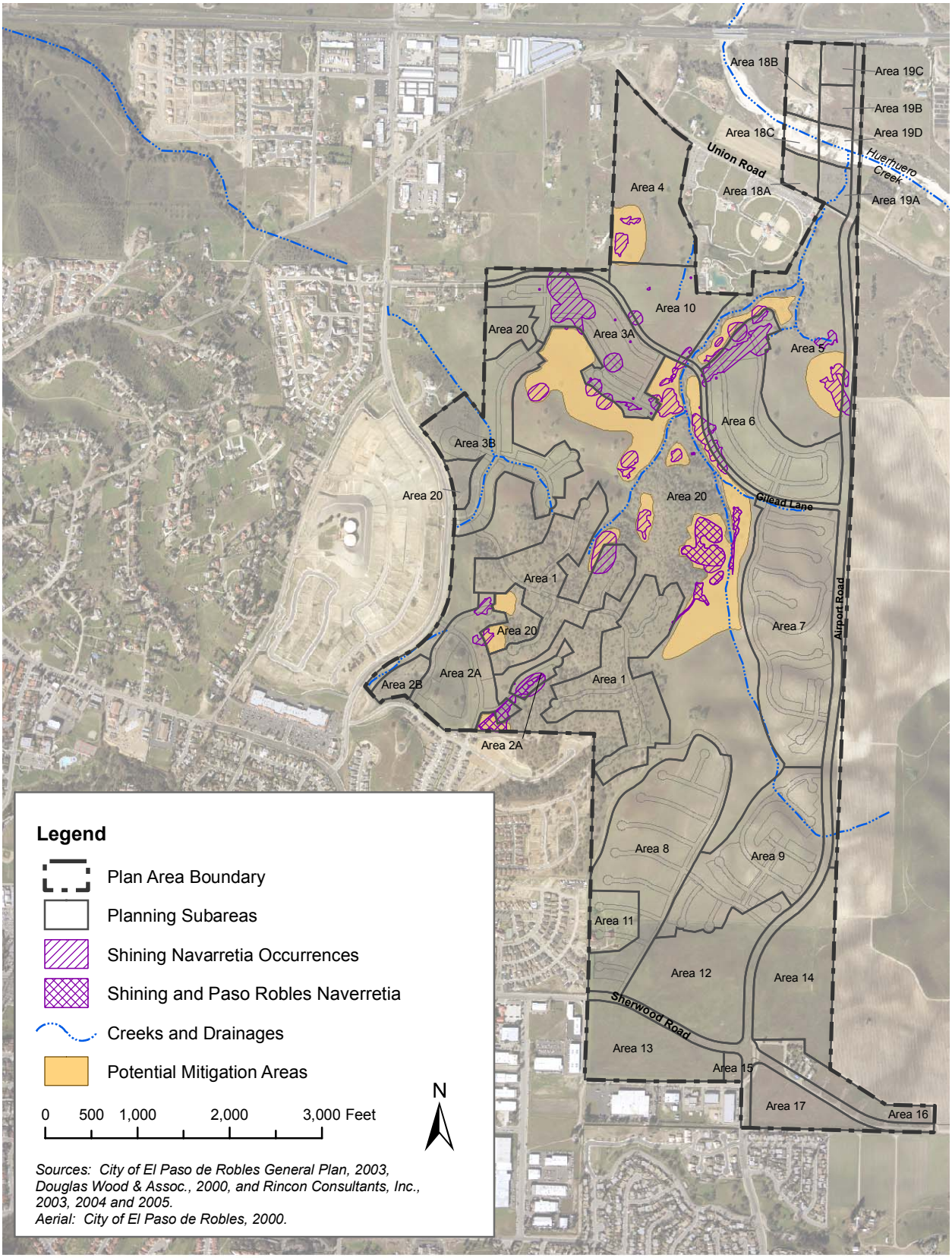
Special-Status Plants. The CNDDB contains records of five special-status plant species known from relatively localized occurrences near the Specific Plan area: **dwarf calycadenia** (*Calycadenia villosa*), **Jared's pepper-grass** (*Lepidium jaredii* ssp. *jaredii*), **Kellogg's horkelia** (*Horkelia cuneata* ssp. *sericea*), **round-leaved filaree** (*Erodium macrophyllum*), **shining navarretia (***Navarretia nigeliformis* ssp. *Radians)*, and **Paso Robles navarretia** (*Navarretia jaredii*). Previous studies identified the potential for nine special-status species to occur on-site that were not identified by the CNDDB: **Douglas' spineflower** (*Chorizanthe douglasii*), **Hardham's evening-primrose** (*Camissonia hardhamiae*), **oval-leaved snapdragon** (*Antirrhinum ovatum*), **Paso Robles navarretia** (*Navarretia jaredii*), **rayless aphanactis** (*Senecio aphanactis*), **Salinas milk vetch** (*Astragalus macrodon*), **Salinas valley goldfields** (*Lasthenia leptalea*), **Santa Margarita manzanita**

(*Arctostaphylos pilosula*), and **straight-awned spineflower** (*Chorizanthe rectispina*) (see Table 4.9-2 for plant species status). The background information reviewed in preparation of this document suggests that focused surveys of the site were never conducted for special-status plant species. The only survey that may have involved a sufficient level of effort was a survey conducted in 1988 by Dr.'s Holland and Keil. Their findings were used in preparation of the report written by Science Applications International Corporation (SAIC) in 2000 which was the basis for the Chandler Ranch Master Plan Draft EIR biological resources section (Wood, 2000). Subsequent surveys have only been conducted at a reconnaissance level and may have missed special-status plant species occurring on-site. Surveys conducted five or more years prior (depending upon location and history of the site) could potentially be considered insufficient to the resource agencies.

Shining navarretia is a CNPS List 1B species in the phlox family. This species is a small annual herbaceous plant that can be found growing in a variety of habitat types including oak woodland, valley and foothill grassland, and vernal pool. Similar to Paso Robles navarretia, shining navarretia is a California endemic known from Fresno, Merced, Monterey, San Benito, and San Luis Obispo counties. It produces small yellow flowers typically from May through July. Shining navarretia was observed growing in annual grassland and along the edge of oak woodland habitat types throughout the northern and central portions of the site. In many locations it was observed growing within topographic swales, but was also observed in large numbers on flats as well as slopes throughout the site. Shining navarretia location information included in this report was compiled from a combination of review of previous studies of the site (Wood, 2000) as well as our own focused investigations conducted in 2004 and 2005. The occurrences of this species varied from year to year, most likely a function of changing annual rainfall characteristics. Figure 4.9-2 shows the occurrences of this plant species as it varied in 2004 and 2005, but for the purpose of the Specific Plan and this analysis, all areas identified on the figure are considered to be occurrences. In all, about 31.9 acres within the Specific Plan area were found to have supported occurrences of this plant species.

Paso Robles navarretia is a CNPS List 4 species in the phlox family (Polemoniaceae). It is a small annual herb that can be found growing on clay soils in valley and foothill grasslands, oak woodlands, as well as coastal scrub and chaparral plant communities. This plant is endemic to California, and is known to occur only in Monterey and San Luis Obispo Counties. It produces clusters of small blue flowers from May through June. This species was found growing primarily on slopes and flats in annual grassland habitat on the Chandler Ranch project site, but was also observed in more open areas dominated by blue oak. While occurrences of Paso Robles navarretia were observed growing independently from other species of *Navarretia* onsite, the largest occurrences were observed growing together with shining navarretia through the central portion of the property. Specifically, several large occurrences of Paso Robles and shining navarretia were observed growing intermingled on easterly facing slopes along the main eastern fork of the central drainage in subarea 20 west of subarea 7. Another relatively large occurrence of this species was observed growing on a more northwesterly facing slope in the southern portion of subarea 2A.

Round-leaved filaree is a CNPS List 2 species that is known to occur in a number of California counties. List 2 species are plants that are rare in California but more common in other states. The Jepson Manual identifies this species occurring further east into southern Utah and south into Mexico. It is an annual herb in the geranium family (Geraniaceae) that grows on clay soils



Rare Plant Occurrences and Mitigation Areas Figure 4.9-2

in cismontane woodland and valley and foothill grassland. This species typically blooms from March through May. In early spring 2004, a plant resembling round-leaved filaree was observed by Rincon biologists in a proposed open space area on an east facing slope within grassland near the convergence of the two major northern drainages. However, because it was early in the season, it was lacking in features critical for identification. Subsequent field visits in 2004 and 2005 did not reveal the presence of the round-leaved filaree. However, suitable habitat for this plant does exist onsite, particularly within oak woodlands and grasslands that are not dominated by non-native grasses.

Oval-leaved snapdragon is an annual herb in the figwort family (Scrophulariacaea) included on List 4 by the CNPS. It typically is found growing on alkaline clay or gypsum soils in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. This species blooms from May through November and appears only in favorable years, presumably with average or above average rainfall totals. Oval-leaved snapdragon was observed in the northwest portion of the Specific Plan area in 1991 (SAIC, 1991) but has not been found again during subsequent field visits in 2004 and 2005. Hoover (1970) reported several occurrences of this species in the Carrizo Plain, Temblor Range, and the Caliente Range in eastern San Luis Obispo County. No individuals of oval-leaved snapdragon were observed in the Specific Plan area during the 2004 and 2005 field visits.

Table 4.9-2 lists status, basic habitat characteristics, observations, and Specific Plan area suitability of special-status plant species that are known to occur within the Specific Plan area vicinity.

Special-Status Wildlife. The CNDDB contains occurrences of seven special-status wildlife species in the vicinity. Several additional species not contained in this database are known to occur in the vicinity. Basic habitat characteristics and the likelihood of an on-site aquatic habitat. Suitably deep pools required by this species were not observed during any of the site visits, but some ponded water was observed in wetland habitat (with vegetation) between Union Road and Huerhuero Creek. The nearest CNDDB recorded occurrences of CRLF to the Specific Plan area are approximately 6.5 miles to the south in Paso Robles Creek and Graves Creek, both of which are tributaries of the Salinas River. Although it is highly unlikely, CRLF may use grassland and wetland habitat in the Specific Plan area for migration to breeding sites.

The **western spadefoot toad** uses vernal pools for breeding and rodent burrows in nearby uplands for dry season refuge. The western spadefoot has adapted to seasonal ponds that preclude the development of large aquatic predators. There are no known vernal pools on-site that represent suitable breeding habitat for this species although several rodent burrows were observed in the uplands. This species is highly opportunistic and it has been known to breed in prolonged puddles within grasslands. There are numerous recorded occurrences of this species at Camp Roberts to the north and one observation approximately 4.5 miles to the southeast between two branches of Huerhuero Creek. In addition, two known vernal pool habitats occur along State Route 46, one of which is less than 0.5 mile from the Specific Plan area. Although it is unlikely, this species could use the site for movement purposes.

The **California tiger salamander** (CTS) is very similar to the western spadefoot in its habitat requirements. The CNDDB does not have any recorded occurrences within an approximately

Table 4.9-2. Special-Status Species in the Project Vicinity

Species	Status[1] Fed/CA/CNPS	Habitat Requirements	Specific Plan Area Suitability/Observations
PLANTS			
Dwarf calycadenia *Calycadenia villosa*	--/--/List 1B	Dry meadows, hillsides, and gravelly washes in chaparral, cismontane woodlands, valley and foothill grasslands of the inner slopes of the outer South Coast Range; blooms May-October	Suitable habitat exists within oak woodlands and grassland; not observed on-site. Potential for this species to occur on-site.
Douglas' spineflower *Chorizanthe douglasii*	--/--/List 4	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest/sandy or gravelly soils from the Nacimiento River to west edge of Carrizo Plain with little plant cover; blooms April-July	Suitable habitat could exist in openings within coastal scrub near Huerhuero Creek; not observed on-site. Potential for this species to occur on-site.
Hardham's evening-primrose *Camissonia hardhamiae*	--/--/List 1B	Chaparral, cismontane woodland/sandy, decomposed carbonate, disturbed or burned areas, sandy soils; blooms April–May	Suitable habitat could exist within sandier substrates in the northern end of the site; not observed on-site. Potential for this species to occur on-site.
Jared's pepper-grass *Lepidium jaredii* ssp. *Jaredii*	--/--/List 1B	Alkali flats and sinks in sandy or adobe soils associated with valley and foothill grasslands of the inner South Coast Range; blooms March-May	Suitable habitat exists within sandier substrates in the northern end of the site; not observed on-site. Potential for this species to occur on-site.
Kellogg's horkelia *Horkelia cuneata* ssp. *Sericea*	--/--/List 1B	Sandy soils in coastal scrub and chaparral communities; blooms April-September	Suitable habitat exists within coastal scrub near Huerhuero Creek; not observed on-site. Potential for this species to occur on-site.
Oval-leaved snapdragon *Antirrhinum ovatum*	--/--/List 4	Woodland, chaparral, valley and foothill grasslands; blooms May-November	Suitable habitat exists in oak woodland and grassland; last observed on-site in 1991. Potential to reappear on-site during years of favorable growing conditions. On-site extant seed bank highly likely.
Paso Robles navarretia *Navarretia jaredii*	--/--/List 4	Cismontane woodland, valley and foothill grassland/clay, serpentinite (possibly chaparral); blooms April – July	Suitable habitat exists within grassland; and was observed on-site. Occurs in conjunction with shining navarretia onsite.
Rayless aphanactis *Senecio aphanactis*	--/--/List 2	Chaparral, cismontane woodland, coastal scrub/alkaline; blooms January–April	Suitable habitat exists within coastal scrub; not observed on-site. Potential for this species to occur on-site.
Round-leaved filaree *Erodium macrophyllum*	--/--/List 2	Valley grassland, foothill woodland; blooms March–May	Suitable habitat exists within oak woodlands and grassland; a plant resembling this species was observed on-site, however, features critical for its identification were not present. Potential for this species to occur on-site.
Salinas milk vetch *Astragalus macrodon*	--/--/List 4	Chaparral (openings), cismontane woodland, valley and foothill grassland/sandstone shale, or serpentinite; blooms April to July	Suitable habitat exists within grassland; not observed on-site. Potential for this species to occur on-site.
Salinas valley goldfields *Lasthenia leptalea*	--/--/List 4	Cismontane woodland, valley and foothill grassland; blooms in April	Suitable habitat exists within grassland; not observed on-site. Potential for this species to occur on-site.
Santa Margarita manzanita *Arctostaphylos pilosula*	--/--/List 1B	Closed cone coniferous forests and chaparral typically on serpentine or shale outcrops/soils from San Luis Obispo and Monterey counties; blooms December-March	No suitable habitat in the Specific Plan area; perennial shrub that would have been observed during field surveys. Highly unlikely to occur on-site.
Shining navarretia *Navarretia nigeliformis* ssp. *Radians*	--/--List 1B	Valley and foothill grasslands typically associated with vernal pools and mesic areas below 1,000 feet in the Great Central Valley and from San Luis Obispo to Contra Costa County; blooms May-July.	Suitable habitat exists within grassland, including oak woodland understory. Several large occurrences observed on-site in 2000, 2003, 2004 and 2005.
Straight-awned spineflower *Chorizanthe rectispina*	--/--List 1B	Chaparral, cismontane woodlands, and coastal scrub communities from Monterey to San Luis Obispo counties;	Highly localized species known from approximately twenty occurrences that could occur within coastal scrub near

Table 4.9-2. Special-Status Species in the Project Vicinity

Species	Status[1] Fed/CA/CNPS	Habitat Requirements	Specific Plan Area Suitability/Observations
		blooms May-July	Huerhuero Creek; not observed on-site. Potential for this species to occur on-site.
INVERTEBRATES			
Atascadero june beetle *Polyphylla nubile*	--/--	Known only from sand dunes in Atascadero and San Luis Obispo in San Luis Obispo County	No suitable habitat in the Specific Plan area; not on site.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Endemic to vernal pools in the grasslands of the central valley, central coast mountains, and south coast mountains. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Suitable habitat may exist within wetland and grassland areas; not observed on-site. Potential for this species to occur if vernal pool habitat is found on-site or if prolonged ponding were to occur within grassland habitat, because this species was observed in vernal pools < 0.5 mile to north.
California linderiella *Linderiella occidentalis*	FSC/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	Suitable habitat may exist within wetland and grassland habitat; not observed on-site. Potential for this species to occur on-site if vernal pool habitat is located because of proximity to other vernal pools < 0.5 mile to north.
FISH			
Steelhead - Central California Coast ESU *Oncorhynchus mykiss irideus*	FT/--	Perennial, fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools.	No suitable habitat in the Specific Plan area; not on-site
AMPHIBIANS/REPTILES			
Arroyo toad *Bufo californicus*	FE/CSC	Overflow pools adjacent to the inflow channel of third to greater order streams that are free of predatory fish in which to breed. Favors exposed pools that are shallow, sand or gravel-based and have a low current velocity.	Wetland habitat not suitable for breeding but may provide migration habitat; low potential for this species to occur on-site.
Blunt-nosed leopard lizard *Gambelia sila*	FE/SE	Sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief; seeks cover in mammal burrows, under shrubs or structures such as fence posts.	No typically suitable habitat on-site. Observed in ungrazed grassland approximately 7 miles east of the Specific Plan area, however this area is well outside its known range. Typically not found west of the Carrizo Plain. Highly unlikely that this species would be found onsite given that the area is substantially more mesic than its typical habitat.
Califomia red-legged frog *Rana aurora draytonii*	FT/CSC	Lowland and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation	Wetland habitat not suitable for breeding but may provide migration habitat; low potential for this species to occur on-site.
California tiger salamander (Central California population) *Ambystoma californiense*	FPT[2]/CSC	Underground refuges, especially ground squirrel burrows as aestivation habitat adjacent to vernal pools or other seasonal water sources for breeding.	Wetland habitat not suitable for breeding but may provide migration habitat; wetland habitat is in proximity to vernal pools < 0.5 mile to north. Low potential for this species to occur within vernal pools if found on-site or within wetland habitat.
Southern Pacific pond turtle *Actinemys (=Emys=Clemmys) marmorata pallida*	FSC/CSC	Highly aquatic requiring permanently ponded water with basking sites such as partially submerged logs, vegetation mats, or open mud banks	No areas of perennial water observed onsite. Wetland habitat not known to contain a water source sufficient to support this animal. Low potential for this species to occur on-site.
Western spadefoot toad *Spea hammondii*	FSC/CSC	Grassland habitats, and vernal pools for breeding/egg-laying	No suitable breeding habitat known to exist in the Specific Plan area; could use grassland as upland habitat due to proximity to vernal pool < 0.5 mile to north. Potential for this species to occur within vernal pools if found on-site or within

Table 4.9-2. Special-Status Species in the Project Vicinity

Species	Status[1] Fed/CA/CNPS	Habitat Requirements	Specific Plan Area Suitability/Observations
			wetland habitat. Known from upstream observations approximately 4.5 miles to southeast between two branches of Huerhuero Creek.
BIRDS			
Burrowing owl *Athene cunicularia*	FSC/CSC	Grasslands, nests primarily in ground squirrel burrows	Suitable habitat exists within grassland habitat; not observed on-site. Potential for this species to occur on-site.
California condor *Gymnogyps californianus*	FE/FP	Roosts in cliffs or ledges; feeds in open areas up to 100 miles from roost	No suitable habitat in the Specific Plan area; not observed on-site. Potential to occur on-site only as very rare transient.
California homed lark *Eremophila alpestris actia*	--/CSC	Sparse coastal sage scrub, grasslands	Suitable habitat exists within grassland habitat; observed on-site in February, 2000.
Cooper's hawk (nesting) *Accipiter cooperi*	--/CSC	Forages and nests in open woodlands and wood margins, riparian forests	Suitable foraging and nesting habitat exists within oak woodland habitat; not observed on-site. Potential for this species to occur on-site.
Golden eagle *Aquila chrysuetos*	--/CSC, FP	Nests on cliffs and rocks; forages in open country, grasslands	Suitable foraging habitat exists within grassland habitat; observed on-site in 2003.
Least Bell's Vireo *Vireo bellii pusillus (nesting)*	FE/SE	Low riparian growth; summer breeding migrant	Marginal breeding habitat exists within Huerhuero Creek; Not observed on-site. Unlikely for this species to occur on-site.
Loggerhead shrike *Lanius ludovicianus*	FSC/CSC	Coastal sage scrub, riparian scrub, riparian woodland, grasslands	Suitable habitat exists within grassland and riparian habitat; observed foraging near the bank of Huerhuero Creek on an adjacent site in October, 2000. Likely to forage and possibly breed in the Specific Plan area.
Northern harrier *Circus cyaneus*	--/CSC	Forages and nests in grasslands and marshes	Suitable foraging habitat exists within grassland and wetland habitat; three northern harriers were observed foraging over an adjacent site in various locations in 2000. Potential for this species to occur on-site.
Prairie falcon (nesting) *Falco mexicanus*	--/CSC	Catches pray in air and in open ground in grasslands; nests in cliffs overlooking large areas	Suitable foraging habitat exists onsite; not observed on-site. Potential to occur on-site.
Sharp-shinned hawk (nesting) *Accipiter striatus*	--/CSC	Forages and nests in open woodlands and wood margins, riparian forests	Suitable foraging and nesting habitat exists within oak woodland habitat; not observed on-site. Potential for this species to occur on-site.
Yellow warbler *Dendroica petechia brewsteri*	--/CSC	Riparian habitat, prefers willows, cottonwoods, aspens, sycamores, and alders for resting and foraging	Marginal habitat exists within Huerhuero Creek; not observed on-site. Potential to occur on-site, but not likely to nest on-site.
White-tailed kite (nesting) *Elanus leucurus*	FSC/FP	Open country, grasslands and marshes; nests in trees	Suitable foraging and nesting habitat exists in grassland and oak woodland habitat; not observed on-site. Potential for this species to occur on-site.
Willow flycatcher *Empidonax tralii*	--/SE	Dense riparian habitat near surface water or saturated soil. Not known to currently breed in SLO County.	No suitable habitat in the Specific Plan area; not observed on-site. Highly unlikely to occur on-site.

Table 4.9-2. Special-Status Species in the Project Vicinity

Species	Status[1] Fed/CA/CNPS	Habitat Requirements	Specific Plan Area Suitability/Observations
MAMMALS			
American badger *Taxidea taxus*	--/--	Friable soils and open, uncultivated ground; preys on burrowing rodents	Suitable habitat exists in the Specific Plan area; no burrows or individuals observed on-site. Potential to occur on-site.
Monterey dusky-footed woodrat *Neotoma fuscipes Luciana*	--/CSC	Forest habitats, some chaparral	Marginal habitat exists within oak woodland habitat; conspicuous nests not observed on-site. Unlikely to occur on-site.
Pallid bat *Antrozous pallidus*	--/CSC	Coastal sage scrub, rocky cliffs	Suitable habitat exists within oak woodland and riparian habitats adjacent to grassland; not observed on-site. Potential to occur on-site.
San Joaquin kit fox *Vulpes macrotis mutica*	FE/ST	Grassland, or open scrubby areas, some agricultural areas	Suitable habitat exists within grassland habitat; observed on-site and in regional vicinity in the early 1990's. Several recorded historic occurrences in the vicinity. Probable occurrence on-site.
San Joaquin Pocket Mouse *Perognathus inornatus*	FSC/--	Dry, open grasslands or scrub areas	One recorded CNDDB occurrence in the vicinity 2 mi. south of San Miguel in 1918. However, this occurrence is believed to be erroneous. This occurrence and individuals which may occur in this area are believed to be *P. i. neglectus*, which has no sensitivity status. See additional information below in *Special-Status Mammals* section.

Source: CDFG Special Animals, January 2004; CDFG Special Vascular Plants, Bryophytes, and Lichens List, April 2004; List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database, September 2003. *CNDDB Rarefind six quadrat search (Adelaida, York Mountain, Paso Robles, Templeton, Estrella, and Creston), May 2004; and California Native Plant Society, Inventory of Rare and Endangered Vascular Plants of California, August 2001.*

[1] *CSC=California Species of Special Concern; FSC=Federal Species of Concern; SE=State Endangered; ST=State Threatened; FE=Federally Endangered; FT=Federally Threatened; FPT=Proposed for Federally Threatened; FP=Federally Protected; SR = State Rare; CNPS List 4=limited distribution; CNPS list 2=rare or endangered in California; CNPS List 1B=rare or endangered in California and elsewhere; --=no status.*

[2] *The California Tiger Salamander is currently listed as endangered in Santa Barbara County and Sonoma County. On May 23, 2003 the USFWS proposed to designate the Central California Distinct Population Segment as Threatened, and to reclassify the Sonoma County and Santa Barbara County Distinct Populations from Endangered to Threatened. Final rule is pending following public review.*

10-mile radius of the Specific Plan area. CTS apparently does not co-occur with the heavily studied Camp Roberts western spadefoot populations. Historically CTS were known from the northeastern corner and two locations on the western side of San Luis Obispo County. Based on available information, they currently exist only in the northeastern end of the county. Other environmental studies in the vicinity have not shown the species to be present and the lack of known vernal pools on-site suggests that the site does not support the species. No CTS were observed during any of the reconnaissance level site visits and specific surveys for CTS have never been conducted on the site. The remote possibility for this species to occur on-site remains due to proximity to vernal pool habitat.

The **Southern Pacific pond turtle** (formerly known as southwestern pond turtle) is a highly aquatic species that will inhabit streams and ponds throughout southern and central California. The pond turtle requires permanent water and lays its eggs in the banks of creeks. It can nest up to one-half mile in adjacent uplands if suitable. While no suitable aquatic habitat has been observed on-site, this species could occur as a rare transient.

The **Arroyo toad** is also a highly aquatic species that requires shallow sandy or gravelly pools free of predators and adjacent to terraces. Breeding habitat consists of large streams with persistent water from late March until mid-June. Arroyo toad has recently been discovered on the San Antonio River, a tributary of the Salinas River north of the Study Area. Given that the historic type locality is south of the Specific Plan area (near Santa Margarita) and the recent occurrence discovered north of the Specific Plan area, this species may occur in Huerhuero Creek and adjacent drainages during times in which the Salinas and Huerhuero Creek connect due to high flows after storm events.

The **blunt-nosed leopard lizard** (*Gambelia sila*) is typically a resident of alkali flats and sparsely vegetated plains and dry grasslands of the San Joaquin Valley. It does not excavate its own burrows, but uses those of small mammals or constructs tunnels under exposed rocks or earthen berms. This species was observed in an ungrazed annual grassland in 2000 approximately seven miles east of the site, however, this area is well outside its known range. Blunt-nosed leopard lizard is typically not found west of the Carrizo Plain. It is highly unlikely that this species would be found onsite given that the area is substantially more mesic than its typical habitat.

Special-Status Birds

The **California condor** requires vast expanses of open savannah, grasslands and chaparral in mountain ranges of moderate elevation. This species typically nests in deep canyons and can forage up to 100 miles from their nest site. The California condor would be expected to occur on-site only as a very rare transient.

Many of the raptorial birds listed in Table 4.9-2 are California Species of Special Concern and are so listed primarily because their preferred habitats have been fractured and extensively reduced by agriculture and urbanization. **Golden eagle** was observed in flight and resting on-site in 2003, and an active golden eagle nest was observed on Rancho Santa Ysabel approximately 2.5 miles to the southwest. Golden eagle and other birds of prey such as the **prairie falcon**, **white-tailed kite, sharp-shinned hawk**, and **Cooper's hawk** all have extensive ranges that cover many habitats, and can be expected as rare to common transients in the

Specific Plan area. These species could potentially nest within the oak woodland habitat on-site. The **northern harrier** also has an extensive range, and could potentially occur within the grassland and wetland habitats on-site. Three northern harriers were observed foraging over an adjacent site to the east during surveys in 2000.

The **burrowing owl** is a small ground-nesting owl and, unlike other owls, is active during the daytime. The burrowing owl uses ground squirrel burrows as nest sites and forages widely in grassland and agricultural habitats. There are several CNDDB recorded occurrences of the burrowing owl in the region. No evidence of burrowing owls was observed during field reconnaissance although several ground squirrel burrows were observed on-site. The burrowing owl could occupy the site as a part of dispersal throughout the region.

California horned larks are found in open country with sparse vegetation, including agricultural fields and short grassland. The grasslands in the Specific Plan area may provide foraging habitat, and possibly nesting habitat, for this species. A horned lark was observed on-site in February 2000.

Yellow warblers typically breed in riparian woodland, but forage in a variety of habitats. This species could occur and possibly breed in riparian habitat associated with Huerhuero Creek in the Specific Plan area. Yellow warblers were not observed during any of the site visits. Due to the relatively small amount of available suitable habitat on-site, this species is not expected to breed within the proposed development areas. The nearest CNDDB recorded occurrence for this species is approximately 18 miles to the northwest of the site.

Loggerhead shrikes frequent a variety of open and semi-open habitats, locally including grassland, coastal sage scrub, and open riparian scrub and riparian woodland. One shrike was observed foraging near the bank of Huerhuero Creek on an adjacent site in October, 2000. Therefore, loggerhead shrikes are expected to forage and possibly breed in the Specific Plan area. Shrike foraging habitat is found in non-native grasslands as well as riparian and oak woodlands associated with several drainages on-site.

Least Bell's vireo is an uncommon summer resident that breeds in dense riparian vegetation. Due to the relatively sparse amount of available riparian vegetation within Huerhuero Creek, this species is not expected to breed within the proposed development areas. The least Bell's vireo was not observed during any of the site visits, and the nearest CNDDB recorded occurrence is approximately 18 miles northeast of the site.

Special-Status Mammals.

The **San Joaquin kit fox** (SJKF) is a nocturnal predator that typically preys on small rodents, rabbits, hares, insects and other prey. They can inhabit grasslands, woodlands, orchards, vineyards, and other human-influenced habitats. This species typically occupies dens that are excavated in loose soil. Several recent (1990s) and historic (1970s-1980s) sightings of SJKF are recorded in the Paso Robles and North County region (Rincon, 2000; Wood, 2000). The sightings from the early 1990s are located at Camp Roberts and in the Specific Plan area. Regionally, there are numerous sightings recorded before and after 1986. There are also sightings in the Paso Robles quadrangle map from CDFG records between 1972 and 1975, and recent (2000) records of SJKF occurrences at Camp Roberts and near Shandon.

The SJKF Survey Report prepared by Biosystems (1991) positively identified the presence of at least one SJKF in the Specific Plan area. At the time of the surveys, most of the open grassland and all of the oak woodland on-site was described as being "good habitat"; the remaining portion of the site was characterized as "fair to marginal habitat" for this species. During the time of the 1991 and 2003 surveys, the area that was characterized as "fair to marginal habitat" was being dry-farmed.

SJKF surveys of the site were also conducted by Hanson in April 1999 (SAIC), but no signs of SJKF were observed. Hanson reported that it was unlikely that SJKF were present on the Chandler Ranch Specific Plan area at that time. However, he also stated that the Chandler Ranch Specific Plan area had "appropriate habitat and an adequate prey base" for this species. Hanson reported that the decline in SJKF in the Specific Plan area could be partially due to the presence of the introduced red fox (*Vulpes vulpes*) which has recently increased in numbers and is known to cause extirpation of the SJKF.

An assessment and survey for SJKF was conducted on an immediately adjacent Specific Plan area in June 1999 (Dingus). Although no SJKF or sign (i.e., evidence of den usage or traces of scat) was identified during the six days and nights of surveying, the assessment did identify potential and likely suitable habitat.

The 1991 surveys occurred at a time when the population of SJKF in the area (Camp Roberts) was high. Since the early 1990s the SJKF population at Camp Roberts has decreased substantially. The 1999 surveys were conducted during a period when SJKF populations were in a state of decline in the region, and the Camp Roberts satellite population was limited to a few individuals. With so few individuals present, it was not expected that SJKF individuals would have been readily observed migrating in the region outside of known denning areas within the Camp Roberts satellite population given the limited field observations.

The CDFG and the USFWS have identified the Camp Roberts population as an important satellite population that could assist with the recovery of the species statewide. However, there has been a substantial decline in the Camp Roberts population in recent years to only one individual (Root, 2002). A core population occurs on the Carrizo Plains and there is evidence of SJKF movement from the Carrizo Plains through the State Route 46 corridor to the Camp Roberts area. The year 2001 sighting of an SJKF that was tagged at Camp Roberts and found approximately 11 miles south of Shandon (Stafford, 2004) further suggests that a migration route and movement corridor still exists within the vicinity of the Specific Plan area. The USFWS Recovery Plan for Upland Species of the San Joaquin Valley also includes the Specific Plan area within the distributional range of this species.

The landscape within a 10-mile radius of the Specific Plan area is composed of a mosaic of grassland, oak woodland/savanna, and riparian corridors with a substantial amount of annual and perennial agricultural lands. The agricultural component of this region is dominated by vineyards, with orchards, annual crop cultivation, irrigated pasture, and dry farm grazing lands comprising the rest. Further intensified agriculture and urban development of the corridor could result in the elimination of this wildlife movement corridor and reduce the chances for successful recovery of the species.

As stated above, the Specific Plan area contains grassland and oak woodland habitat. Many ground squirrel burrows are on the site, representing a prey base and potential denning opportunities for SJKF. These ground squirrel burrows could be considered as "potential dens" based on the USFWS survey protocol definition as "any subterranean hole within the species' range." Given that the site supports grassland and oak woodland vegetation, it can be concluded that the site represents suitable habitat within the range of SJKF. However, there was no evidence of use of the site by this species during the 2003 field reconnaissance. Although SJKF could utilize the on-site drainages, grasslands, and oak woodland habitats during dispersal and migration activities, it is unlikely that SJKF would utilize the site for anything more than temporary denning activities during movement through the site.

Huerhuero Creek is the only migration corridor through the site that would provide functional access between the primary habitat locations of Camp Roberts and the Carrizo Plain. The remainder of the Specific Plan area, while possibly supporting temporary denning and other related activities, would not act as a functional movement corridor, since it is encompassed by existing development on its eastern, southern and western sides.

The CDFG and the USFWS regulate SJKF as it is listed under both the state and federal Endangered Species Acts. Currently, unless there is a federal nexus (e.g., Corps Section 404 permitting and/or Federal funding), the USFWS has not exerted their authority over the loss of unoccupied habitat in this area of the historic range of the species. USFWS would likely regulate any take of an active den site or in an area with known occurrences within the last several years. The CDFG has exerted its authority over the loss of habitat through the California Environmental Quality Act (CEQA) approval process. The CDFG considers that under CEQA, the loss of habitat through the movement corridor between the Carrizo Plain and Camp Roberts constitutes a significant impact and requires compensatory mitigation.

American badgers occur in grassland habitats with friable soils and adequate rodent prey base. This species is not a special-status species, but is noted in the CNDDB as a declining species that is becoming rarer because of loss of habitat. While the Specific Plan area supports suitable soils and prey base, no badger dens were observed during field reconnaissance. This species could potentially exist within grassland habitat on-site.

The **Monterey dusky-footed woodrat** uses forests of moderate canopy and moderate to dense understory in addition to chaparral habitats. It builds conspicuous nests consisting of grass, leaves, sticks, feathers, etc. The onsite oak woodland understory is predominantly a single layer of herbaceous species thus the site provides only marginal habitat for this species. Its nests were not observed onsite and it is unlikely to occur onsite.

A CNDDB occurrence of **San Joaquin pocket mouse** (*Perognathus inornatus inornatus)* is listed at approximately 6.5 miles to the northwest of the site; however, this occurrence was recorded in 1918. In addition, the CNDDB record appears to be erroneous since the occurrence location and museum record appears to be the same as that assigned by Williams (1986) to *P. i. neglectus*, which has no sensitivity status. There is the potential for this record to be assigned to the Salinas pocket mouse (*P. i. psammophilus*) which is listed as a California species of special concern (January 2004) associated solely with the Salinas Valley, but both Williams (1986) and Williams, et al (1993) consider it likely that *psammophilus* is a synonym of *neglectus*. The taxonomic argument is that *P. i. inornatus* and *P. i. neglectus* are probably separate species, with

only the latter occurring on the west side of the Central Valley and further west, because of a substantial difference in the number of chromosomes and in body measurements. *P. i. neglectus* has a relatively larger range than that of either *P. i. inornatus* or *P. i. psammophilus,* ranging from the western edge of the San Joaquin Valley from near Suisun Bay southward to the Mojave Desert, northeastern Los Angeles County and western San Bernardino County, and westerly in the Panoche Valley through the Carrizo Plains and to upper Cuyama Valley in Santa Barbara and San Luis Obispo Counties. Any pocket mouse present onsite would be presumably this subspecies and given that much of the arid annual grassland and desert scrub within its range area is still present, this pocket mouse is not considered sensitive.

Pallid bats use grassland habitats when foraging for their arthropod prey. The non-native annual grasslands in the Specific Plan area could provide foraging habitat for this species. Roost sites may be found within oaks and riparian woodland adjacent to grasslands. Proposed development in the Specific Plan area could fragment existing habitat, and could subject this species, if present, to increased human presence. The pallid bat was not observed during any of the site visits. Museum records (California Academy of Sciences) include specimens from San Simeon, the City of San Luis Obispo, and Cholame; given its presence in these areas around Paso Robles, the pallid bat can be expected to use this area for at least foraging activities.

c. Plant Communities of Special Concern. The CNDDB lists one plant community of special concern, Valley Oak Woodland, as occurring in the vicinity of the Chandler Ranch. Valley Oak Woodland and other California plant communities are listed by the CNDDB as plant communities of special concern because the CDFG recognizes their rarity in California and/or because they support special-status plant and wildlife species. Some of these habitat types are formally protected by permitting through the regulatory agencies. Others are not formally protected but do constitute a working list of the comparative rarity of particular vegetation habitat types.

No Valley Oak Woodland habitat was identified on the site. Individual valley oaks were observed intermingling with blue oak, although not in the numbers or with the continuity that would constitute a Valley Oak Woodland. Three plant communities of special concern and elements of a fourth that were not recorded in the CNDDB were observed in the Specific Plan area. These include wetland (including Coastal and Valley Freshwater Marsh), riparian woodland (including Central Coast Cottonwood Sycamore Riparian Forest), Wildflower Field, and elements of native perennial bunchgrass habitat. The locations and descriptions of wetland, riparian, and wildflower field habitats were described previously. Native perennial bunchgrass habitat is described below.

Non-native annual grassland habitat often contains native perennial bunchgrass elements including needlegrass. Grassland containing native bunchgrasses used to cover much of California. However, due to grazing practices that occur throughout the state, and because annual grasses are capable of out-competing native perennial bunchgrasses, most of the grassland habitat in California is currently dominated by annual grasses largely originating from Europe. Therefore, areas with at least 10% cover of native perennial bunchgrasses as opposed to other non-native annual grasses and forbs are considered plant communities of special concern (CNDDB, 2003). The CDFG recommends avoidance and minimization of native grassland impacts. Sparse occurrences of native perennial bunchgrasses were observed within

non-native annual grassland habitat in the Specific Plan area, in a portion of the site that is intended to remain in open space.

Other habitat types in the Specific Plan area may be considered plant communities of special concern if they are found to contain special-status plants or wildlife. If additional on-site habitats are found to support special-status species they would be of concern to the resource agencies.

d. Wildlife Movement Corridors. Natural movement corridors and habitat linkages have been the focus of numerous studies intended to better understand relationships between large animal populations, open space reserves, and natural movement patterns. In general, it has been amply demonstrated that fragmentation of large habitat areas into small, isolated segments reduces biological diversity, eliminates disturbance-sensitive species, restricts genetic flow between populations of organisms, and may eventually lead to local extinctions of entire floral or faunal assemblages. Most land use planning guidelines now recognize the importance of protecting wildlife movement corridors, and seek to retain major linkages intact wherever possible. However, defining precise or comprehensively useful corridor alignments or specific spatial and resource requirements is still conjectural.

Wildlife movement corridors can vary from narrow specific paths a few feet wide used by certain species to move from breeding areas to forage areas, to major corridors for population dispersal and migration with spans of hundreds of miles and at the scale of mountain ranges and valleys. Depending on the organism and its needs, movement corridors can either be continuous or discontinuous patches of suitable habitat. For a fish migrating upstream, the habitat needs to be relatively continuous, whereas highly mobile species such as birds and large mammals can adequately move through discontinuous habitat.

The Specific Plan area contains a small section of Huerhuero Creek, which serves as a wildlife corridor for large animals such as deer, coyote, mountain lion and SJKF traveling in the vicinity of the site. Due to lack of regular flows and vegetation in some areas, this corridor may not be suitable for aquatic or terrestrial wildlife needing water or dense vegetative cover. However, species such as California red-legged frog and western spadefoot toad, traveling to and from other aquatic sources could use the creek as upland habitat. Access to the creek from the majority of the Specific Plan area is limited by Union Road. Nonetheless, culverts crossing under Union Road may provide passage for some species. Standing water was observed in the culvert to the east of Barney Schwartz Park during a site visit in April. Water may either aid or deter certain species from crossing, depending upon the species.

The Specific Plan area represents a valuable movement corridor resource for migratory wildlife as well. Many wildlife species travel to or through the Specific Plan area for breeding purposes and during winter migration. Many more species may use the Specific Plan area temporarily as they migrate to areas farther south. Bird species that potentially use the site for breeding habitat in the spring include western kingbird (*Tyrannus verticalis*) and Cooper's hawk. Sharp-shinned hawk, ferruginous hawk (*Buteo regalis*), and numerous species of warblers may use the Specific Plan area for migration in the fall, winter, or spring along with other raptor species that shift to more southern habitats during winter months.

When habitat linkages are too small or narrow, they may collapse ecologically due to encroachment or edge effects. An example is a corridor intended for deer movement that is so narrow that adjacent residential lighting is too bright for deer to tolerate crossing open pools of light. For small mammals, such as rodents and reptiles, habitat linkages need to be sufficiently wide to decrease the predatory effects of domestic dogs and cats associated with suburban development. In general, the larger and wider a link is, the better it functions for the movement of animals and genetic exchange between major areas of open space. Preserving expanses of open space that are connected may enable species utilizing this site as a thoroughfare or a residence, to persist.

The Specific Plan area and the areas north of State Route 46 along Huerhuero Creek and the airport are considered important habitat links, especially for the SJKF migrating between Camp Roberts and the Carrizo Plains, as it is a large block of intact oak woodland/savanna and grassland habitats. The year 2000 sighting of an SJKF that was tagged at Camp Roberts and found approximately 11 miles south of Shandon further suggests that a migration route and movement corridor exists within the vicinity of the Specific Plan area. As such, future intensified agricultural and urban development of the corridor could lead to the further decline of the species.

The Specific Plan area is almost completely surrounded by urban and agricultural development including vineyards and housing to the east. SJKF could potentially use agricultural areas for movement, but fencing, ground disturbance, and cultivation activities impede the efficiency and safety of their movement. SJKF and other wildlife species may use these habitats as links to adjacent farmland and to Huerhuero Creek to the east. SJKF could more directly connect to Huerhuero Creek to the northeast using culverts under Union Road or by crossing this road. While agricultural areas southeast of the Specific Plan area could provide potential SJKF movement, there are substantial impediments (roadways, fences, agricultural development) before coming to the nearest relatively unimpeded drainage corridors that link to Huerhuero Creek about two miles to the east. However, a large percentage of the nearby rangeland not in cultivation includes grassland and oak woodland/oak savanna habitat, which could allow kit fox movement. There are ground squirrel burrows in these areas representing prey base and potential den opportunities for SJKF.

Nevertheless, with the exception of Huerhuero Creek, it is unlikely that the SJKF would use the Specific Plan area as a functional movement corridor because it is encompassed by existing urban and agricultural developments to the east, south and west. In addition, future development that could occur southeast of the Chandler Ranch area within the City of Paso Robles, particularly under the Beechwood Area Specific Plan and Olsen Ranch Specific Plan, would further degrade the Chandler Ranch area's potential as a kit fox movement corridor.

e. Regulatory Setting. Regulatory authority over biological resources is shared by Federal, State, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions, in this instance, the City of Paso Robles. The CDFG is a trustee agency for biological resources throughout the state under CEQA and also has direct jurisdiction under the Fish and Game Code of California (CFGC). Under the State and Federal Endangered Species Acts, the CDFG and the USFWS also have direct regulatory authority over species formally listed as Threatened or Endangered. Section 3503 of the CFGC prohibits the

take, possession, or needless destruction of birds, their nests, or eggs. Additionally, Section 3503.5 of the CFGC protects birds of prey, their nests and eggs against take, possession, or destruction. Potential nesting and roosting sites for birds-of-prey and other migratory birds are also protected by the Migratory Bird Treaty Act (MBTA). Abiding by the CFGC code and the MBTA usually means to avoid removal of trees with active nests or disturbance of the nests until such time as the adults and young are no longer reliant on the nest site. The provision also includes any disturbance that causes a nest to fail and/or a loss of reproductive effort.

Pursuant to the Federal Endangered Species Act (FESA), a permit from USFWS is required for "take" of a Federally listed species through either the Section 7 or Section 10 process. Species "take" can be authorized under Section 7 of the FESA if a Federal agency is involved in the project (e.g., Corps Section 404 permitting and/or Federal funding) and agrees to be the lead agency requesting Section 7 consultation. This consultation process takes 135 days from the official request, and includes a Biological Assessment of the predicted impacts of the project on the species with measures to minimize and mitigate for such impacts. The result is a Biological Opinion rendered by the USFWS that includes a specified allowable incidental take as well as terms and conditions to minimize and offset such take. Take may or may not be issued for operation of the project. The Section 10 process is used to authorize incidental take when no Federal agency is involved. This process typically takes several (at least 2) years and includes development of a Habitat Conservation Plan for protecting and enhancing the Federally-listed species at a specific location in perpetuity. If "take" were only issued for construction activities, or limited only to those specific areas where a Corps Section 404 permit is required, a Section 10 permit may be needed for the long-term life of the project. If no Federal nexus can be invoked through the Section 404 permitting process, a Section 10 permit may be needed for both construction and long term development of the Specific Plan area.

The California Endangered Species Act (Sections 2050-2098 of the Fish and Game Code) requires approvals similar to Section 7 consultation of the federal ESA, and requires providing CDFG with information on the project and its potential impacts. CDFG then prepares a written finding on whether the proposed action would jeopardize the listed species or destroy essential habitat.

In response to their legislative mandates, regulatory authorities have defined sensitive biological resources as those specific organisms that have regionally declining populations such that they may become extinct if population trends continue. Habitats are also considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. Sensitive species are classified in a variety of ways, both formally (e.g., State or Federal Threatened and Endangered Species) and informally ("Special Animals"). Species may be formally listed and protected as Threatened or Endangered by the CDFG or USFWS or as California Fully Protected (CFP). Informal listings by agencies include California Species of Special Concern (CSC) (a broad data-base category applied to species, roost sites, or nest sites); or as USFWS Candidate taxa. CDFG and local governmental agencies may also recognize special listings developed by focal groups (i.e., Audubon Society Blue List; California Native Plant Society (CNPS); Rare and Endangered Plants; U.S. Forest Service regional lists).

Wetland and riparian habitat are protected on a Federal, state, and local level. Wetland and riparian habitat may be subject to Corps jurisdiction as waters of the U.S. pursuant to Section

404 of the Clean Water Act. Protection for wetland and riparian habitat is also afforded through the CDFG, and California Regional Water Quality Control Board (RWQCB). Corps permits for discharges of dredged or fill material into wetlands and waters also requires a CWA Section 401 water quality certification from the RWQCB. Any activity that would remove or otherwise alter wetland and riparian habitat types is closely scrutinized by the regulatory agencies through the CEQA review process and then later through the CDFG and Corps permitting processes.

4.9.2 Impact Analysis

a. Methodology and Significance Thresholds. The impact analysis of biological resources is based on the review of background documents for the Chandler Ranch and other biological documents for sites in the vicinity, field surveys, information from the CNDDB, the EIR preparer's knowledge of the local area, and consultation with other professionals knowledgeable of the local biological resources, all of which were cited previously.

The significance of potential impacts on biological resources is based on the CEQA Statute Sections 21083 and 21087, CEQA Guidelines Section 15065, Mandatory Findings of Significance, the CEQA Initial Study Checklist (Appendix A of the CEQA Guidelines), and the City of Paso Robles General Plan policies for protecting biological resources. For the purposes of this analysis, implementation of the proposed Specific Plan would result in a significant impact if it would:

- *Conflict with the General Plan goals of the City of Paso Robles;*
- *Substantially reduce the habitat for a fish or wildlife species;*
- *Cause a fish or wildlife population to drop below self-sustaining levels;*
- *Threaten to eliminate a plant or wildlife community;*
- *Reduce the numbers or restrict the range of rare, threatened, or endangered plant or wildlife species;*
- *Substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or*
- *Impact or otherwise have an adverse effect on any riparian or wetland habitat, or other sensitive natural community identified in local or regional plans, policies or local, state, or federal regulations.*

Section 15065 of the *State CEQA Guidelines* also provides mandatory findings of significance similar to the above:

- *Substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species.*

b. Project Impacts and Mitigation Measures. Table 4.9-3 shows the distribution of onsite habitat and the distribution of rare plants by planning subarea, and summarizes the potential impacts from development of these areas. This information will be referenced within the project Impacts B-1 through B-4 that follow.

Table 4.9-3. On-Site Habitat Distribution and Impacts

Subarea	Habitat Type									Total
	Non-Native Annual Grassland	*Oak Woodland*	*Riparian*	*Ruderal*	*Agriculture*	*Wildflower Field*	*Native Bunchgrass*	*Coastal Scrub*	*Wetland*	
Inventory of Onsite Habitat										
1	3.76	60.10	0.14	-	-	-	-	-	-	64.00
2	26.77	1.11	-	-	-	-	-	-	-	27.88
3	49.83	0.56	-	9.11	-	-	-	-	-	59.50
4	30.00	-	-	-	-	-	-	-	-	30.00
5	35.07	4.19	6.74	-	-	-	0.50	-	-	46.50
6	33.48	0.13	0.09	-	-	-	-	-	-	33.70
7	54.10	0.10	-	-	-	-	-	-	-	54.20
8	39.24	-	-	0.35	6.61	-	-	-	-	46.20
9	40.47	-	-	-	1.83	-	-	-	-	42.30
10	17.97	0.17	0.06	-	-	-	-	-	-	18.20
11	3.04	-	-	4.66	-	-	-	-	-	7.70
12	2.79	-	-	-	27.81	-	-	-	-	30.60
13	-	-	-	-	20.60	-	-	-	-	20.60
14	3.84	-	-	0.19	21.17	-	-	-	-	25.20
15	-	-	-	0.40	0.30	-	-	-	-	0.70
16	-	-	-	12.30	-	-	-	-	-	12.30
17	-	-	-	9.00	-	-	-	-	-	9.00
18	4.56	-	3.38	6.81	-	-	-	0.25	-	15.00
19	3.27	0.26	2.36	6.56	-	-	-	0.25	0.40	13.10
20	127.39	70.81	9.27	2.66	-	0.16	-	-	0.10	210.40
ROW/OS[1]	9.14	0.06	-	-	-	-	-	-	-	9.20
Major ROW[2]	32.82	0.09	0.68	9,53	7.17	0.10	-	-	-	50.40
TOTAL	***517.56***	***137.58***	***22.73***	***61.57***	***85.48***	***0.26***	***0.50***	***0.50***	***0.50***	**826.68**
Potential Impacts to Habitat										
Lots/Grading[3]	348.2	62.43	6.03	49.18	78.32	0.00	0.00	0.00	0.40	544.75
Major ROW[2]	32.82	0.09	0.68	9.53	7.17	0.10	0.00	0.00	0.00	50.40
Total Impact	**381.02**	**62.52**	**6.71**	**58.91**	**85.48**	**0.10**	**0.00**	**0.00**	**0.40**	**595.15**

1 Includes areas adjunct to major ROW, but outside development areas, particularly along Airport Road and Gilead Lane
2 Includes major roadway ROW within the Specific Plan area, including Airport Road, Gilead Lane, and Sherwood Road
3 Includes all portions of development areas 1-19 (but only the northern 2 acres of subarea 5, where a fire station could be built), and internal roadway circulation for those areas

Impact B-1 Development in accordance with the Specific Plan would result in the removal of approximately 381.0 acres of non-native annual grassland habitat. This is considered a Class III, *less than significant* impact.

The Chandler Ranch Area provides open expanses of non-native annual grassland, of which approximately 136.5 acres (26% of total onsite) would be preserved within the Specific Plan area as open space. Annual grasslands are generally not considered sensitive plant communities because they are usually a common habitat type, however grassland in this region is rapidly diminishing due to urban development and conversion to intensified agriculture including vineyards. The loss of non-native annual grassland within the Specific Plan area is not significant by itself. However, it does support a special-status plant species (shining navarretia) and could potentially support several others. Grasslands also provide home for small mammals and thus, provide forage for special-status raptor species such as golden eagle and northern harrier both of which were observed on-site. Other special-status wildlife species including burrowing owl, loggerhead shrike, and San Joaquin Kit Fox, could utilize the grasslands of the site.

Mitigation Measures. No mitigation measures are required. Mitigation measures listed under impacts B-3 and B-5 address impacts on the San Joaquin Kit Fox and shining navarretia, both of which depend in part on grassland habitat. These measures are intended in part to preserve non-native annual grassland.

Residual Impacts. Impacts would be less than significant.

Impact B-2 **Development allowed under the Specific Plan, particularly in the oak forest portion of the site (subarea 1) would result in the removal of native oak trees within a portion of the 62.5 acres of oak woodland habitat within development areas, and up to 137 healthy oak trees, 135 of which will be in subarea 1. In the short term, oak trees that are removed can be replaced, but the quality of their habitat value will not be matched until the new trees mature. Thus, short-term impacts to oak woodland are considered Class I, *significant and unavoidable*.**

The Chandler Ranch is one of the last substantial portions of existing undeveloped land within the City of Paso Robles that encompasses extensive oak woodland. Approximately 62.5 acres of oak woodland and individual oak trees exist within areas proposed for development through the Specific Plan. An estimated 137 healthy oak trees would be removed as a result of development expected under the Specific Plan, 135 of which would be in subarea 1. The resultant loss of a portion of this habitat and individual trees would be significant. In addition, indirect impacts to oak trees and habitat would result from the encroachment of development on root systems and canopies. Root systems would suffer from grading and removal of topsoil beneath oak trees which would alter the structure and nutrient complexity of the soil and increase erosion. Root systems would also be impacted from increased soil moisture due to the watering of landscaping. Increased human activity within and around oak trees and oak woodland habitat may reduce the attractiveness of the oaks and associated habitat from a wildlife perspective. Potential long-term impacts to wildlife due to loss of oak woodland habitat include the reduction of shelter, nesting, perches from which to search for prey, and food sources, as well as disruption of patterns of habitat use, displacement of individuals, and disruption of breeding habits.

Mitigation Measures. Policy C-3A of the General Plan contains measures intended to preserve oak trees and promote the planting of new oak trees. It requires implementation of the

City Oak Tree Preservation Ordinance and encouragement and/or requirement of new development to include planting new oaks where feasible. Furthermore, it requires native habitat such as oak woodland to be incorporated into project design as feasible.

The City Oak Tree Preservation Ordinance includes but is not limited to the following requirements:

- No removal of any oak trees of six inches or greater diameter at breast height (DBH) unless an approval of a Permit to Remove is authorized by the City Council.
- Oak trees removed shall be replaced with the same species.
- The collective DBH of replacement oaks must be equivalent to 25 percent of the DBH of the removed tree(s).

The General Plan and Ordinance measures would substantially mitigate the loss of oak trees and oak woodland. In addition, the Specific Plan includes language to protect oak trees, in accordance with Policy LU-14, as follows:

- ***Policy LU-14 [portion].*** *Oak trees shall be preserved consistent with City protection standards. Each oak tree removal shall be subject to City Council approval, and the Specific Plan shall not circumvent the City's Oak Tree Protection ordinance. The intent is to preserve and protect healthy oak trees from the effects of grading and development, including those in the oak forest as well as individual trees outside the forest area. Plans for grading in the vicinity of oak trees shall be designed in a manner that would preserve the natural setting of the oak or oak trees (and not isolate the oaks in either depressions or on pedestals created by grading the surrounding area). Grading plans in the vicinity of oak trees shall be reviewed by a City contract Arborist and the reviewing Arborist shall monitor grading activities to insure compliance with grading restrictions established by the City. Arborist related expenses shall be borne by the property owner or his/her representative.*

For development within subarea 1, where most impacts would likely occur, the following site-specific policy is included in the Specific Plan:

- ***Oak Tree Inventory.*** *Prior to the City granting any entitlement for development the property owner shall submit a detailed inventory of all oak trees that have the potential to be impacted that are six inches or greater in diameter. The inventory shall designate all trees that are (1) dead and requested to be removed, (2) designated by a City approved Arborist as being diseased and are recommended for removal, (3) proposed for removal to construct roads, (4) proposed for removal to facilitate a building site, or (5) recommended by the Arborist for removal in order to enhance the balance of the oak forest area.*

To further address impacts to oak trees and oak woodland habitat, the Specific Plan includes the following provisions:

- Within each subarea, there is a maximum number of mature oak trees that can be removed;
- Policy LU-14 states that oak trees adjacent to riparian corridors will be protected by including their canopies and root zones within CDFG jurisdictional determinations.

- Policy I-17 requires that the construction of detention basins shall avoid removing oak trees to the extent feasible.

In addition, the major property owner on the site has prepared an oak tree management plan, included as Appendix B to the Specific Plan. The general goals of the plan are to protect oak trees, increase understory shrub density, manage for native, non-invasive species, and plant new oaks and protect young trees to maintain diverse age structure.

While these policies and the oak tree management plan would reduce impacts to oak trees and oak woodland, in some areas, oak trees and oak woodland habitat that are lost would take at least 25 to 50 years to restore because they take at least that long to establish. The loss of habitat values will also take a long period of time to mitigate by replacement plantings in recently developed or natural settings for the same reason. One example for replacement used in the Ordinance is to replace one 30 inch DBH oak tree with 5 - 1 ½ inch DBH oak trees to replace 25 percent, or 7 ½ inches of the DBH of the removed tree. The lost habitat created by the 30 inch DBH oak tree may be mitigated in this way in the long term (25 to 50 years from replacement) but in the short term the habitat value cannot be replaced. Furthermore, 30 inches of diameter is simply a planar measurement. Replacement trees may be 1 ½ inches in diameter but they cannot make up for the additional mass or structure provided by a 30 inch DBH oak tree. The lost mass can be mitigated in the long term by implementing the above policies, the City's oak tree ordinance, and the property owner's oak tree management plan, but in the short term the lost mass cannot be replaced.

No additional mitigation measures are available to reduce potential impacts that could result from implementation of the Specific Plan as proposed.

Residual Impacts. Implementation of the applicable General Plan, City Oak Tree Preservation Ordinance, and the Chandler Ranch Area Specific Plan provisions would reduce impacts to oak trees and oak woodland habitat to the extent feasible. The effectiveness of the long-term provisions of the oak tree replacement and management aspects of the Specific Plan would be a function of the financial capabilities of the Home Owner's Association, and the willingness of that entity to enforce the recommendations of the City-approved biologist conducting the monitoring program.

In the short term impacts to oak trees and oak woodland habitats cannot be mitigated, because of the length of time required for replacement trees to reach maturity and have a similar habitat values as those that are replaced. Therefore, impacts will remain significant and unavoidable (Class I).

Impact B-3 Development in accordance with the Specific Plan would impact known, and could potentially impact unknown, occurrences of special-status plant species. Development in accordance with the Specific Plan would also impact plant communities of special concern occurring within the Specific Plan area. This would be considered a Class II, *significant but mitigable* impact.

The Chandler Ranch is either known to or has potential to support several of the special-status plant species listed in Table 4.9-2 in addition to four plant communities of special concern

observed on-site. The Specific Plan area contains a number of shining navarretia (CNPS List 1B) occurrences some of which occur in conjunction with Paso Robles navarretia (CNPS List 4). Table 4.9-4 and Figure 4.9-2 show the occurrences of shining navarretia on the site, and impacts within each planning subarea, based on surveys conducted in 2000, 2003, 2004 and 2005. It should be noted that the extent of the occurrence varies from year to year, depending on rainfall and temperature. However, the occurrences shown in the map and table represent a collective total of all sightings in those years, and is thus a reasonable approach for assessing potential impacts.

About 19.1 acres of shining navarretia could be impacted if all portions of areas slated for development, including major rights-of-way, are disturbed. Of this total, much of this would occur in subareas 3 (5.77 acres) and 6 (4.43 acres). Other development areas, including subareas 1, 2, 4, 5, and 10 also include stands of this special status plant species. However, it appears that the 2.24 acres identified in subarea 5 would be avoided, because the proposed public facility in that area would be about 1,000 feet northeast of the nearest stand. In addition, the 11.41 acres found in proposed subarea 20 would not be impacted, as it would remain in open space. About 1.98 acres within the proposed extensions of Gilead Lane and Airport Road include areas of shining navarretia that would be impacted. Impacts to shining navarretia are considered significant.

No other species status plant species were observed or confirmed on the site during the 2003, 2004 and 2005 field visits conducted for this EIR.

About 0.26 acres of wildflower field habitat was observed on the site, confined primarily to the sloping edges of the central drainage near the proposed Gilead Lane crossing. About 0.16 acres would be within designated open space in subarea 20, and would not be impacted by development under the Specific Plan. The remaining 0.10 acres, however, lies within the proposed Gilead Lane right-of-way where it crosses the drainage. The removal of this habitat would be considered a significant impact.

Coastal and Valley Freshwater Marsh and elements of Central Coast Cottonwood-Sycamore Riparian Forest habitat occurs largely within Huerhuero Creek proposed permanent open space. Because, these habitats may be indirectly impacted by adjacent development in subareas 18 and 19,, particularly to the south of the creek, where there is not a substantial topographic difference between the lowlands and the creek. Impacts could result from untreated runoff, trespassing, or illegal dumping of waste products associated with potential commercial activities within subareas 18 and 19. Mitigation for these two habitat types is detailed under B-4 below.

As shown on Figure 3-2, about 0.50 acres of native perennial bunchgrass occurs within subarea 5, which is designated for open space use. The Specific Plan notes that no development will occur in this area, with the exception of an emergency services/ fire station adjacent to Union Road. This development will not impact the native perennial bunchgrass stand, which is located about 1,000 feet south of the proposed fire station. Impacts to this resource would be less than significant.

Table 4.9-4. On-Site Shining Navarretia Distribution and Impacts

Subarea	*Shining Navarretia*	*Shining Navarretia, mixed with Paso Robles Navarretia*	TOTAL
Inventory of Onsite Occurrences			
1	1.19	0.02	1.21
2	2.38	-	2.38
3	5.77	-	5.77
4	0.81	-	0.81
5	2.24	-	2.24
6	4.43	-	4.43
7	-	-	-
8	-	-	-
9	-	-	-
10	0.02	0.24	0.26
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
19	-	-	-
20	11.41	1.40	12.81
ROW/OS[1]	0.02	-	0.02
Major ROW[2]	1.81	0.17	1.98
TOTAL	***30.08***	***1.83***	**31.91**
Potential Impacts to Shining Navarretia			
Lots/Grading[3]	16.84	0.26	17.10
Major ROW[2]	1.81	0.17	1.98
Total Impact	**18.64**	**0.43**	**19.07**

1 Includes areas adjunct to major ROW, but outside development areas, particularly along Airport Road and Gilead Lane
2 Includes major roadway ROW within the Specific Plan area, including Airport Road, Gilead Lane, and Sherwood Road
3 Includes all portions of development areas 1-19 (but only the northern 2 acres of subarea 5, where a fire station could be built), and internal roadway circulation for those areas

Mitigation Measures. The Specific Plan includes policies to address potential impacts to rare plants found onsite. Policy LU-14 contains the following provision, which is articulated in further detail in policies for affected areas, including subareas 1, 2, 3, 4, 5, 6, and 10:

- ***Policy LU-14. Habitat Protection; Rare Plant Mitigation and Enhancement.*** *Some subareas within the Specific Plan (see Section 3.5 of the Specific Plan) could disturb shining navarretia (Navarretia nigelliformis ssp. radians), a special-status plant species. The area of potential impact is shown on Figure 3-3 (of the Specific Plan; see Figure 4.9-2 of the EIR). To the extent feasible, such areas should be avoided. In lieu of avoidance, the area lost shall be replanted, or an existing area of this species shall be enhanced, at a mitigation ratio of 2:1, within a designated mitigation area. Potential mitigation areas are located within the open space included in subarea 20, as shown on Figure 3-3 (of the Specific Plan; Figure 4.9-2 of the EIR). The revegetation and enhancement efforts must be conducted under the direction of a City-approved botanist, and should use native stock found within the Specific Plan area.*

The mitigation area would be subject to five seasons of monitoring to maximize the effectiveness of the enhancement effort, followed by long-term monitoring at year 5 and year 10. The management strategy shall be consistent with the approach included in the open space management guidelines described for subarea 20, including but not limited to weed abatement and seasonally-timed reseeding as needed.

As noted in policy LU-14, subarea 20 is intended to be preserved as open space. Within the open space areas, several mitigation areas have been established for potential enhancement and revegetation efforts, as shown in Figure 4.9-2. It should be noted that 19.1 acres could be impacted, a minimum of 38.2 acres of enhancement areas must be set aside as development occurs to meet the 2:1 mitigation ratio standard. The mitigation areas shown in Figure 4.9-2 total 66.0 acres, or more than sufficient areas to allow flexibility in eventual configuration of mitigation areas.

The following mitigation measures will also be required, in combination with the Specific Plan policy provisions, to reduce potential impacts from development to a less than significant level.

B-3(a) **Permits and Agreements.** In the event that State listed species would be impacted as a result of development, developers shall submit signed copies of an incidental take permit and enacting agreements from the CDFG regarding those species as necessary under Section 2081 of the California Fish and Game Code prior to the initiation of grading. ~~If a plant species that is listed under the federal Endangered Species Act is identified, developers seeking entitlements shall provide proof of compliance with the federal Endangered Species Act, inclusive as necessary of signed copies of incidental take permit and associated enacting agreements.~~

B-3(b) **Special-Status Species Mitigation and Monitoring Plan.** A mitigation and monitoring program shall be developed by the City in consultation with CDFG as appropriate when avoidance of the species cannot be achieved. The special-status plant species mitigation program may include the following:

- The overall goal and measurable objectives of the mitigation and monitoring plan;
- Specific areas proposed for revegetation and their size;
- Specific habitat management and protection measures to be used to ensure long-term maintenance and protection of the special-status plant species are to be provided (i.e. annual population census surveys and habitat assessments; establishment of monitoring reference sites; fencing of special-status plant species preserves and signage to identify the environmentally sensitive areas; a seasonally-timed weed abatement program; and seasonally-timed seed and/or topsoil collection, propagation, and reintroduction of special-status plant species into specified receiver sites);

- Success criteria based on the goals and measurable objectives to ensure a viable population(s) in the Specific Plan area in perpetuity;
- An education program to inform residents of the presence of special-status plant species and sensitive biological resources onsite, and to provide methods that residents can employ to reduce impacts to these species/resources in protected open space areas;
- Reporting requirements to ensure consistent data collection and reporting methods used by monitoring personnel; and
- Funding mechanism(s).

The special-status plant species monitoring program may include the following:

- Monitoring shall be conducted by a qualified biologist verified by the City.
- Monitoring shall occur annually at an appropriate time of the year depending upon the species, to assess the vigor of the population.
- An adaptive management program shall address both foreseen and unforeseen circumstances relating to the preservation and mitigation programs. It shall include remedial measures to address negative impacts to the special-status plant species and their habitats (i.e.: removal of weeds, addition of seeding/planting efforts) as needed.

B-3(c) **Avoidance of Native Bunchgrass Habitat.** About 0.5 acres of native bunchgrass habitat is identified within subarea 5. Although no development is proposed in this area, the Specific Plan shall be modified to explicitly require avoidance of this identified habitat area, as shown on Figure 4.9-1.

B-3(d) **Wildflower Field Habitat**. Development of the Gilead Lane crossing of the central drainage shall avoid wildflower field habitat to the extent possible. If avoidance does not occur, this loss of 0.10 acres can be mitigated by enhancing the existing onsite occurrence at a replacement ratio of 2:1. That is, the 0.16-acre occurrence that would not be impacted must be supplemented by 0.20 acres of additional habitat adjacent to the existing area, in consultation with CDFG as appropriate.

Residual Impacts. Implementation of the above Specific Plan policies and the proposed mitigation measures would reduce impacts to special-status plant species and plant communities of special concern to a less than significant level.

Impact B-4 **Development in accordance with the Specific Plan would affect riparian woodland and wetland habitat. This is considered a Class II, *significant but mitigable* impact.**

Approximately 0.4 acre of wetland habitat would be directly impacted and 6.7 acres of riparian habitat could be indirectly impacted by buildout of the Chandler Ranch Area Specific Plan (see Table 4.9-3). Commercial development within subarea 19 (as shown on Figure 2-3) would impact wetland habitat stretching from Union Road to Huerhuero Creek. Wetland acreages are approximate in this evaluation and will likely change after a formal delineation is completed in conjunction with development in these areas.

About 5.74 acres of riparian habitat along the margins of Huerhuero Creek could be impacted by development within subareas 18 and 19. In addition, small amounts of riparian habitat could be impacted as a result of development along the boundaries of subareas 1 (0.14 acres) and 6 (0.09 acres). Riparian habitat within subarea 5 would not be affected, because that portion of the area would be preserved as open space. About 0.68 acres of riparian woodland habitat could be impacted by the Airport Road extension across Huerhuero Creek.

On-site drainages surrounded by oak woodland habitat types are likely under U.S. Army Corps of Engineers jurisdiction as "waters of the United States" and are also likely to be considered waters of the State under CDFG jurisdiction. Even those drainages with very little vegetation may be subject to regulatory review because of the no-net-loss policy for riparian and wetland habitat types maintained by the regulatory agencies. Drainages containing non-native annual grassland may also be subject to the same review process because they may be considered non-wetland waters of the U.S. and State. Proposed detention basins and the proposed development areas could directly and indirectly impact these drainages. Drainages requiring delineation of jurisdictional waters of the U.S. and State that appear to be subject to disturbance by development are identified on Figure 4.9-3. The figure was created based on field reconnaissance and a topographic map.

Run-off from construction could have short-term significant impacts to on-site drainages. An increase of impermeable surfaces, such as commercial structures, parking lots, walkways, and other paved areas could have long-term impacts to water resources and water quality. Increased surface run-off would result in increased flows of storm pollutants from roads and parking surfaces such as oils, grease, heavy metals, and rubber. During storm events, these pollutants could potentially be transported to drainage systems causing long-term significant impacts to water quality in wetland and riparian habitats. Impacts to water quality would in turn affect oxygen, pH, temperature, and nutrient levels of the water. Siltation can also bury eggs, insects, algae, and vegetation. On-site drainages and associated wetland and riparian habitat types support common and potentially special-status wildlife species that could be affected by the degradation of these habitat types and water quality.

Bridges and culverts would be constructed to cross the major drainage corridors on-site. At least one bridge/large culvert must be constructed to provide passage over the main northern drainage into which other drainages of the site converge. Impacts from road crossings could have short and long-term significant impacts with respect to biological resources.

Riparian and wetland habitat types are of special concern to the regulatory agencies due to the extensive loss of these habitat types in California. The CDFG considers these two habitat types as plant communities of special concern and as such they should be adequately protected during planning and development of the Specific Plan area. Consequently, any activity that would remove or otherwise alter riparian and wetland habitat types is closely scrutinized by

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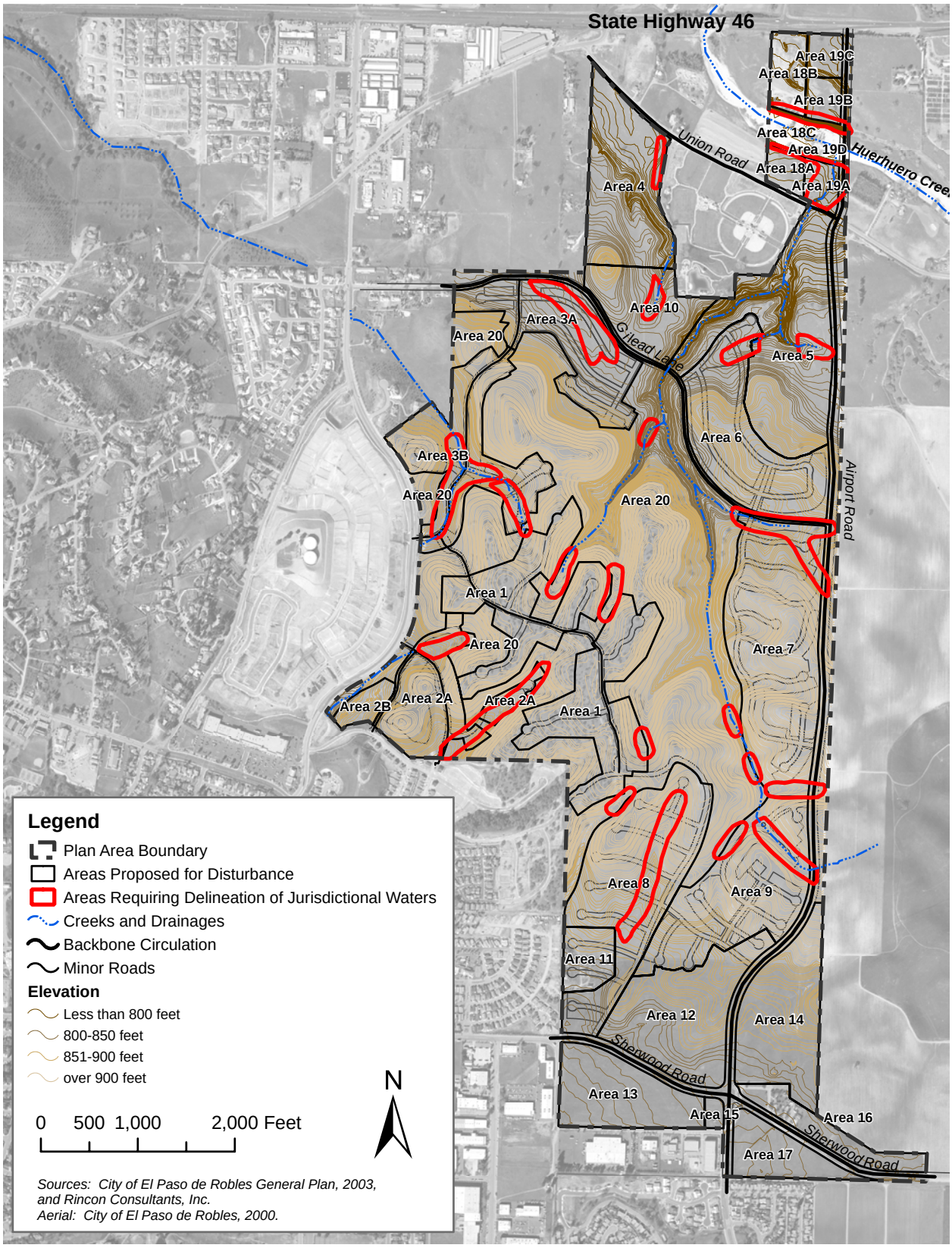

Areas to be Assessed for Jurisdictional Waters

Figure 4.9-3

the regulatory agencies through the CEQA review process and then later through the CDFG and Corps permitting processes.

Mitigation Measures. Mitigation measures from Section 4.8, Impact FD-1, *Flooding and Drainage* and measure B-4(b) of this section would help to reduce potentially significant impacts to wetlands and waters of the U.S. and State. Policy LU-14 of the Specific Plan would also reduce impacts by calling for minimum 50-foot setbacks from top of bank and riparian vegetation edges, and jurisdictional delineations for waters of the U.S. and State for any project with ground disturbance in the areas identified in Figure 3-4 of the Specific Plan. Policy LU-18 calls for the minimization of erosion and runoff via an Erosion and Sediment Control Plan, the prohibition of non-storm water construction related discharges, and BMPs. Grading practices in accordance with Policy LU-13 would also be required to minimize erosion and sedimentation. While implementation of these policies will substantially reduce impacts, the following mitigation measures are included to reduce impacts on riparian woodland and wetland habitat to a less than significant level.

B-4(a) **Sediment, Erosion, and Pollution Management.** Best Management Practices (BMPs) included in the Storm Water Pollution Prevention Plan (SWPPP) for the entire site shall be implemented, and shall be consistent with Mitigation Measure FD-1(a), (b) and (c) in Section 4.8 of this EIR. The SWPPP shall include the requirements of the National Pollutant Discharge Elimination System storm water permit from the Regional Water Quality Control Board. Mitigation measure shall include the following components:

1) Storm water runoff and nuisance flow drainage shall be directed away from the riparian and wetland habitat /detention basins and into a bio-filtration swale or stormwater filter constructed to remove pollutants before being allowed to discharge into sensitive habitat areas.
2) Depending on conditions for grading, additional inspections may be required to ensure compliance with water quality regulations.
3) Any bare soils in detention basins shall be hydroseeded with native non-invasive plant species, prior to October 15 of any construction year.
4) Silt fencing, straw bales composed of rice straw (that are certified to be free of weed seed), fiber rolls, gravel bags, mulching erosion control blankets, soil stabilizers, and storm drain filters shall be used, in conjunction with other methods, to prevent erosion throughout the entire site and siltation of stream channels and detention basins.
5) Frequency of sediment removal from detention basins, location of spoil disposal, locations and types of erosion and sediment control structures, and materials that would be used on-site during construction activities shall be specified.
6) The collection and disposal of any and all pollutants originating from construction equipment shall be identified. During construction activities, washing of concrete, paint, or equipment shall occur only in designated areas greater than 100 feet from sensitive resources where

polluted water and materials can be contained for subsequent removal from the site. Washing shall not be allowed near sensitive biological resources. Plastic shall be placed over any ground surface where fueling or equipment maintenance is to occur. Drip pans shall be placed under equipment parked on-site.

7) BMPs shall be established for material delivery and storage.
8) A list of BMPs shall be attached to project plans and posted at the construction site, or may be included in the SWPPP.

B-4(b) **Wetland and Riparian Regulatory Requirements.** If wetland and/or riparian habitat are removed for proposed Specific Plan development mitigation measures shall be carried out as required by the applicable regulatory agencies.

Residual Impacts. The implementation of applicable agency specified mitigation measures would reduce impacts to riparian woodlands, wetlands, and waters of the U.S. and State to a less than significant level.

Impact B-5 **Development in accordance with the Specific Plan could result in a direct take of individual San Joaquin kit fox (SJKF) through development activities and on-site roadways, as well as reduce the amount of available habitat potentially used by the SJKF within its historic and current range. This potential impact to a Federally Endangered and State Threatened species is considered a Class II, *significant but mitigable,* impact.**

Development under the proposed Specific Plan could directly impact SJKF individuals, available habitat for SJKF denning and foraging, and a corridor (Huerhuero Creek) potentially used for SJKF regional movement between satellite populations. A 2001 sighting of an SJKF that was tagged at Camp Roberts and found approximately 11 miles south of Shandon (Stafford, 2004) suggests that a migration route and movement corridor still exists within the vicinity of the Specific Plan area.

In addition, potential impacts to the species could occur onsite, which has been identified as being suitable habitat for this species. As noted in the setting section of this report, The SJKF Survey Report prepared by Biosystems (1991) positively identified the presence of at least one SJKF in the Specific Plan area. At the time of the surveys, most of the open grassland and all of the oak woodland on-site was described as being "good habitat"; the remaining portion of the site was characterized as "fair to marginal habitat" for this species. In terms of habitat value, the site can still be characterized in a similar fashion. Nevertheless, no kit foxes have been observed onsite since that time, based on surveys conducted in 1999 on the site (Hanson) and adjacent to the site (Dingus), and subsequent field visits conducted between 2003 and 2005 inclusive as part of the assessment of the current project.

Huerhuero Creek is the primary migration corridor through the site that would provide functional access between the primary habitat locations of Camp Roberts and the Carrizo Plain. The remainder of the Specific Plan area, while possibly supporting temporary denning and other related activities, would not act as a functional movement corridor, since it is

encompassed by existing development on its eastern, southern and western sides. While kit fox movement could occur through these developed areas, including vineyards, such movement is no more likely to occur through the areas adjacent to the Specific Plan area as through any such vineyard development east of the City of Paso Robles.

The landscape within a 10-mile radius of the Specific Plan area is composed of a mosaic of grassland, oak woodland/savanna, and riparian corridors with a substantial amount of annual and perennial agricultural lands. The agricultural component of this region is dominated by vineyards, with orchards, annual crop cultivation, irrigated pasture, and dry farm grazing lands comprising the rest. Further intensified agriculture and urban development of the corridor could result in the elimination of this wildlife movement corridor and reduce the chances for successful recovery of the species.

Development and grading activities in addition to increased traffic and human activity would increase the risk of direct mortality to SJKF via construction equipment, construction related activities, road kill, and activities associated with human presence such as the poisoning of SJKF prey through the use of pesticides, and in turn, the secondary poisoning of SJKF. Huerhuero Creek, the primary movement corridor on the site, will be preserved as open space. However, a bridge planned to span the creek may decrease the value of this corridor and its accessibility by SJKF, depending on how this facility is ultimately constructed. Development in accordance with the Specific Plan would also reduce the amount of available denning and foraging habitat within the historic range of the species.

The Specific Plan area is considered suitable habitat for the SJKF, and a portion of the site, particularly along Huerhuero Creek, could act as a migratory corridor. The site is suitable for temporary denning and other related activities. Although the most recent confirmed sighting of this species onsite occurred in 1991, the migratory nature of the species, and the project site's strategic location along this migratory route, potential impacts to the SJKF, and to its habitat, is considered significant but mitigable.

Mitigation Measures. The SJKF is listed threatened by the state and endangered by the federal government. The two different Endangered Species Acts have their own specific requirements regarding jurisdictional control. The California ESA take restrictions are encoded at Section 2080, while Section 2081 details the requirements regarding incidental take. The following criteria regarding "incidental take" are relevant per Section 2081 and the CDFG Code of Regulations (Section 783.4):

- The take will be incidental to an otherwise lawful activity.
- The applicant will minimize and fully mitigate the impacts of the authorized take. Measures to meet this obligation are to be roughly proportional to the extent of authorized take. Where various measures are available, measures shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation.
- The applicant is to ensure adequate funding to implement the measures and to monitor compliance and effectiveness of the measures.
- No incidental take permit shall be issued if such issuance would jeopardize the continued existence of the species.

It is at the CDFG's discretion as to whether or not the mitigating actions to be used meet the criteria listed above such that a finding of "no jeopardy" regarding the SJKF can be made with respect to the state ESA.

Sections 7 and 10(a) of the federal ESA provide mechanisms for the incidental take of listed plants, animals, and fish where such taking is not the purpose of the otherwise legal activity. Section 7 requires a federal nexus (such as jurisdiction over waters of the US) and permit. The permitting agency consults with USFWS and a Biological Opinion is prepared that determines whether or not the project may result in "jeopardizing" the continued existence of the organism. The USFWS establishes "reasonable and prudent measures" in the Biological Opinion to prevent such "jeopardy" to allow for incidental take and such measures are incorporated as conditions in the federal permit. Section 10(a) provides for the development of Habitat Conservation Plans (HCP), where no federal nexus is present; such plans are required to contain:

- the impact likely to occur due to the action;
- steps taken to minimize and mitigate impacts and the funding that will be available to implement those steps;
- alternative actions considered and the reasons why such alternatives are not utilized; and
- any measures or conditions required by the federal government as being necessary or appropriate.

Mitigation actions under HCPs usually take one of the following forms: (1) avoiding the impact (to the extent practicable); (2) minimizing the impact; (3) rectifying the impact; (4) reducing or eliminating the impact over time; or (5) compensating for the impact (USFWS and NMFS, 1996). It is also noted that the effectiveness of any habitat conservation or resource management plan in the context of rare and endangered organisms is determined by whether or not the plan minimizes the incidental take of the organism, mitigates the expected take, and effectively monitors the actions to determine if the mitigation is successful and the take is limited to the amount expected. The effectiveness of the mitigation strategy is central to the success of the plan: if the impacts are not effectively offset, the plan will result in more harm than expected.

An effective monitoring program alleviates much of the uncertainty inherent to the HCP process by tracking the actual take and determining how effective the mitigation actions are to offset the take. Should problems arise during plan implementation, the monitoring program needs to be capable of recognizing the problem early so that corrective actions can be taken prior to excessive harm occurring.

To determine whether or not impacts can be sufficiently mitigated or whether the project would result in an unavoidable adverse significant impact to species listed under an ESA, the regulatory framework of the state and federal ESAs as outlined above needs to be considered. The criteria established under these acts provide a basis for determining whether or not a significant impact is fully mitigated, and compliance with these laws sufficiently to obtain an incidental take permit indicates that impacts have been reduced to a level of less than significant.

Within the Specific Plan, Policy LU-14 addresses potential impacts to the SJKF as follows:

- ***Policy LU-14. Habitat Protection.*** *As feasible, preserve native vegetation and protected wildlife, habitat areas and vegetation through avoidance, impact mitigation, and habitat enhancement.*

  San Joaquin Kit Fox
  General Plan Policy C-3B, Action Item 2, states that "as part of the environmental review of new development projects, the City will require that mitigation for potential impacts to the San Joaquin Kit Fox and its habitat be provided in consultation with the State of California Department of Fish and Game and the U.S. Fish and Wildlife Service."

  In addition, project applicants pursuant to the Specific Plan shall provide proof of compliance with the state and federal Endangered Species Act, inclusive as necessary of signed copies of incidental take permits and associated enacting agreements, or other memorandum from the appropriate state and federal agencies determining that such compliance is not required, to the City prior to the any new entitlements. All mitigation must be identified prior to the approval of any new entitlements, the provisions of which must be completed prior to the initiation of any grading.

  This policy would be implemented in the following manner:

  1. *Project applicants must hire a qualified biologist, who would use the Department of Fish and Game (DFG) evaluation form to calculate the quality of habitat.*
  2. *The applicant would take the completed form and negotiate an appropriate mitigation program with the DFG. Consistent with prior direction from DFG, a mitigation ratio of 3:1 for affected acreage will form the basis of developing a mitigation program.*
  3. *Documentation of the required mitigation must be completed prior to granting any new entitlement.*
  4. *Mitigation measures must be fully implemented prior to the commencement of any grading.*

As noted within Specific Plan Policy LU-14, Policy C-3B of The City of Paso Robles General Plan Conservation Element provides the following action item to reduce impacts on the SJKF and its habitat:

- ***Action Item 2.*** *As part of the environmental review of new development projects, the City will require that mitigation for potential impacts to the San Joaquin Kit Fox and its habitat be provided in consultation with the CA Department of Fish and Game and the U. S. Fish and Wildlife Service.*

Other existing regulatory provisions would provide further mitigation for potential impacts to the San Joaquin Kit Fox. As a condition of developing Barney Schwartz Park, the City has committed to support regional efforts to prepare a Habitat Conservation Plan (HCP), if one is to be prepared under the guidance of CDFG. To date, neither CDFG nor any other regulatory

agency has initiated an HCP. All provisions of the FESA and CESA must be followed by the City and project applicants.

The following additional mitigation measures would be required to reduce impacts to SJKF to a less than significant level.

B-5(a) **Proposed Huerhuero Creek Bridge Design.** The Airport Road bridge proposed to span Huerhuero Creek shall be no more intrusive to the Creek, including tree canopies, than the neighboring bridges at Union Road to the southeast and Highway 46 to the northwest.

Residual Impact. The implementation of the above mitigation measures, in combination with General Plan, Specific Plan, and other existing state and federal regulatory requirements would reduce impacts on SJKF and its habitat to a less than significant level.

Impact B-6 **Development in accordance with the Specific Plan would reduce the populations and available habitat of wildlife in general, including special-status species. Because of the size of the site, and known or potential presence of a number of special-status wildlife species on-site, the loss of wildlife habitat is considered a Class II, *significant but mitigable* impact**.

Substantial reduction of wildlife habitat is a potentially significant impact under CEQA, but such loss of habitat is relative to the numbers and distribution of individual species. Most of the wildlife species that could be encountered within the habitats present at the site are found throughout California and the Pacific Coast, and many are found throughout the western United States. Conversion of portions of the Specific Plan area to urban development would minimally restrict the range of these species. Development would not substantially reduce the population levels of common wildlife species with broad ranges and substantial numbers. Certain common animals will continue to use the altered areas as the landscaping introduced produces suitable habitat for their continued existence. This is particularly so for arboreal species such as birds, because the proposed development introduces a greater amount of vertical habitat in the form of increased numbers of trees (as compared to the natural environment). Other species, such as the western fence lizard, are tolerant of urban landscaping and will continue within these new habitats as well as the residual open space areas.

The consideration of whether or not a substantial habitat loss occurs to a specific species focuses on those sensitive or special-status animals that have been identified by regulatory agencies because of the cumulative decreases in their ranges, or substantial decreases in overall and local population levels. The degree to which a species has suffered such losses is reflected in the identified status level of that species, beginning with initial listing of an organism as a species of special concern through listing as threatened or endangered under the state or federal Endangered Species Acts. Animals that are listed as endangered have suffered such large losses in range and numbers that the additional loss of even a few individuals or a few acres of suitable habitat could result in the eventual extinction of the animal locally and possibly throughout its range. The San Joaquin Kit Fox is an example of this particular effect, as discussed in Impact B-5 above.

Vernal pools and extensive active wetland areas that could support certain special status species that rely on such habitat (vernal pool fairy shrimp, California tiger salamander) were not observed on the site. In areas identified as requiring additional wetland assessment because for topographic conditions, these species were not observed, nor was there any tangible evidence of their presence.

Arroyo toad and red-legged frog are unlikely to occur on the site because of the relatively dry conditions on the site. The exception to this would be in the generally wet drainage area within subarea 19 north of Union Road that leads to Huerhuero Creek. However, drainage setback requirements included in the specific plan, which would also apply to any jurisdictional waters of the U.S. and State ultimately delineated, would effectively eliminate potential development within areas that might support habitat for such species.

Impacts to Wildlife in General. As described in the setting section, a variety of wildlife uses the habitat within the Specific Plan area. Potential near-term and long-term impacts to wildlife in these areas are related to loss of habitat acreage and increased human presence. Specific impacts due to development include the disruption of patterns of habitat use, displacement of individuals, disruption of breeding habitats, disruption and barriers to wildlife corridors, and night lighting. Disruption would also be a result of increased mortality of wildlife species due to domestic and feral animal predation and collecting, and in turn decreases in prey abundance.

Impacts to Wildlife Movement Corridors. Proposed roads and residential development would fragment habitats, thereby affecting wildlife movements. Barriers to movement such as roadways, fences, houses, and commercial development are disproportionately greater for small-sized animals, but even large mammal movements are affected by these features. Most of the impact to larger animals is due to blocked wildlife corridors, re-adjustment of home ranges, breeding territories, and foraging habits in response to changes in prey movements and general reduction in availability of prey. Studies of small mammal movements have shown that the presence of roadways would introduce a source of mortality not currently present on the site, i.e., road-kill. Specifically, the proposed commercial development adjacent to Huerhuero Creek and through wetland habitat, residential areas, trails, and roadways throughout the site would result in habitat fragmentation and increased human activity over broad areas of the site where none previously existed. Development in accordance with the Specific Plan would impact a regional corridor used for SJKF movement between two satellite populations (see Impact B-5).

Impacts Related to Non-native Species. Project development would intentionally and/or unintentionally introduce or maintain non-native animals such as bullfrogs, house sparrows, European starlings, dogs, cats, Norway and black rats, and house mice to the Specific Plan area. Project development would intentionally and unintentionally introduce or maintain non-native invasive plants through landscaping of new residences/structures and streets. The introduction and/or continued presence of these plant and animal species would directly and indirectly impact wildlife resources in several ways: 1) by out-competing native wildlife and plant species for food; 2) predation; 3) and habitat alteration. Horses and pedestrians, for example, may alter habitat, particularly for ground-dwelling special-status species such as the northern harrier, burrowing owl, and California horned lark which feed and/or nest on or near the ground. Predators such as bullfrogs may inhabit detention basins maintaining a perennial water source. Development in accordance with the Specific Plan may result in the spread of

non-native plants through disturbance and escapes of ornamentals. This could potentially impact wildlife, including sensitive species due to loss of food, resources, and cover.

Impacts to Water Resources. Because of the sensitivity of habitats associated with the oak woodland within the drainages, wetland and riparian habitat within Huerhuero Creek, as well as their connection to downstream receptors, the introduction of sediments, fuels, oils, solvents, pesticides, fertilizers, herbicides, and animal waste to these watercourses is considered a potentially significant impact. Refer to Mitigation Measure B-4(a) above and Section 4.8, *Flooding and Drainage* of this EIR for further discussion of impacts relating to water quality. The level of intensity of impacts related to human presence would depend upon the habitat disturbed.

Mitigation Measures. Several mitigation measures in this EIR or requirements within the Specific Plan lessen impacts to populations and available habitat of wildlife in general, including special-status species. Mitigation measures related to oak trees, special status plants, and San Joaquin Kit Fox are described under Impacts B-2, B-3 and B-5, respectively. Additional measures to reduce impacts to water quality are listed in Section 4.8, *Flooding and Drainage* of this EIR. An Open Space corridor is required in Specific Plan Policy LU-5, and policies related to the management of that open space area are included in the plan under subarea 20. Furthermore, Policy LU-25 calls for the incorporation of suitable native and drought tolerant plant species into landscaping and does not allow the use of invasive non-native plant species. These measures in combination with the following mitigation measures are required in order to reduce impacts on wildlife in general including special-status species to a less than significant level.

B-6(a) **Ground Disturbance Timing.** In order to avoid impacts to nesting special-status bird species and raptors including the ground-nesting burrowing owl and northern harrier, or other birds protected under the Migratory Bird Treaty Act, all initial ground disturbing activities and tree removal conducted outside of the period between September 15 and March 31 must be preceded by a pre-construction survey for active nests within the limits of grading, to be conducted by a qualified biologist. This survey should be conducted within two weeks prior to any construction activities. The purpose of this survey is to determine the presence or absence of nests in an area to be potentially disturbed. If active nests are located, all construction work shall be conducted outside a buffer zone of 200 feet to 500 feet from the nests as determined in consultation with the CDFG. No direct disturbance to nests shall occur until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to the start of construction.

B-6(b) **Control of Exotic Wildlife Predators**. Reduction of predators (e.g., bullfrogs that prey on special-status species such as CRLF shall be accomplished by implementing regular seasonally appropriate dry-down periods of detention basins if necessary (to reduce the likelihood of predators, such as bullfrogs, that require a perennial water source).

B-6(c) **Constructive Notice**. Upon the transfer of residential property in Specific Plan area, the developer(s) shall record constructive notice on each parcel, in a form to be approved by the Community Development Department, advising future residents about the impacts associated with non-native animals, especially cats and dogs, and other non-native animals to the Specific Plan area; similarly, inform potential homebuyers of the potential for coyotes to prey on domestic animals.

Residual Impacts. The implementation of the above mitigation measures would reduce impacts to wildlife habitat to a less than significant level.

c. Cumulative Impacts. Significance criteria for cumulative impacts to biological resources are based upon:

- *The cumulative contribution of other approved and proposed projects to fragmentation of open space in the project vicinity;*
- *The loss of sensitive habitats and species;*
- *Contribution of the project to urban expansion into natural areas; and*
- *Isolation of open space within the Plan Area by future projects in the vicinity.*

Development in accordance with the Specific Plan would contribute to cumulative biological impacts in the region. These impacts would include the loss of special-status plant species and habitat, loss of wildlife foraging/breeding areas for a variety of wildlife species, and restriction of movement opportunities for the SJKF. The extent of these impacts depends on the proximity of other approved and proposed projects under consideration, and the effects of potential buildout within the City and developed portions of the unincorporated County lands. Cumulative development, both within the City and County, is expected to occur within the vicinity of the site and along the Highway 46 corridor. City development under the General Plan is expected to occur adjacent to the site to the northwest, and to the southwest along Creston Road and Linne Road. Although project-specific impacts can be mitigated to a less than significant impact, buildout of this large area in combination with other regional development could result in additional impacts as available land for habitat decreases, and mitigation becomes more problematic as development pressures increase. Because it is unclear whether such impacts associated with regional development could be mitigated to a less than significant level, cumulative impacts to biological resources are considered Class I, *significant and unavoidable*.