

APPENDIX B

FEDERAL AND STATE LISTED SPECIES HABITAT SUITABILITY ASSESSMENT

**HABITAT SUITABILITY ASSESSMENT FOR SPECIAL STATUS SPECIES
(FEDERAL AND CALIFORNIA) WITHIN THE PROJECT AREA**

Species	Status	Suitable Habitat	Rationale of Habitat Assessment
Fish			
Delta smelt <i>Hypomesus transpacificus</i>	FT	No	Inhabits brackish water habitats from the Suisun Bay through the delta into San Joaquin, Solano, and Yolo counties. There are no brackish water habitats within the project area.
Reptile			
Blunt-nosed leopard lizard <i>Gambelia sila</i>	FE, SE	No	This lizard is found in association with other burrowing animals. It prefers burrows in pond loam in sparsely vegetated areas. They are known to occur in valley and foothill grassland, saltbrush scrubland, iodine bush grassland and <i>Sueda</i> flats communities. The project does not occur in any of these communities. The project area is occupied only by an orchard. There is no ground covering vegetation.
Giant garter snake <i>Thamnophis gigas</i>	FT, ST	No	The USFWS lists four habitat requirements for the species: adequate water during the active season, emergent herbaceous wetland vegetation, grassy banks with open area for basking, and higher elevation uplands for cover and refuge from flooding. The project area contains no suitable aquatic habitat for this species.
Invertebrates			
Vernal fairy shrimp <i>Branchineta lynchi</i>	FT	No	The fairy shrimp occurs in vernal pools of varying sizes. There are no vernal pools within the project area.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	No	The species existence is closely related to the elderberry (<i>Sambucus spp.</i>). There are no elderberry plants within the project area.
Mammals			
Nelson's antelope squirrel <i>Ammospermophilus nelsoni</i>	FC, ST	No	Also known as the San Joaquin antelope squirrel, this animal occupies arid grassland, shrubland, and alkali sink habitats. Green vegetation is an important food source, especially Mormon tea. Seeds, insects, and small rodents are also food sources. No suitable habitat is present among the project area. The majority of vegetation in the project area is almond trees.
Giant kangaroo rat <i>Dipodomys ingens</i>	FE, SE	No	Giant kangaroo rats inhabit grassland of gentle slopes of less than 10 degrees. There are no suitable grasslands among the project area that will support this species.

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Tipton kangaroo rat <i>Dipodomys nitratooides nitratooides</i>	FE	No	This species of kangaroo rat digs burrows on elevated areas not subject to flooding. The species prefers vegetation of sparsely scattered shrubs and scant to moderate ground cover. Present distribution of the species is known to these locations: near Lenmore and Hanford in Kings County, west of Tipton, Pixley, and Earlimart of Tulare County, between Kern National Wildlife Refuge and Delano, King County, and the Kern River corridor, as well as, scattered populations in Kern County. The project area does not provide suitable habitat for the species. The area is regularly flooded to provide irrigation for the orchard which is not suitable burrowing conditions.
Buena Vista Lake shrew <i>Sorex ornatus relictus</i>	FE	No	This species of shrew inhabits marshes, lakes or sloughs. There are no marsh, lake, or slough areas within the project area.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE, ST	Yes	See analysis section.
Plants			
Horn's milkvetch <i>Astragalus hornii</i> var. <i>hornii</i>	1B.1	No	The Horn's milkvetch is confirmed to exist in Kern, Inyo, Tulare, and San Bernadino counties. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Heartscale <i>Atriplex cordulata</i>	1B.2	No	The heartscale is found in chenopod scrub, meadows, seeps, and valley and foothill grasslands. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Bakersfield smallscale <i>Atriplex tularensis</i>	SE, 1B.1	No	The Bakersfield smallscale is found in the chenopod scrub community, The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Lost hills crownscale <i>Atriplex vallicola</i>	1B.2	No	The crownscale is found in chenopod scrub, vernal pools, and valley and foothills grasslands. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
California jewel-flower <i>Caulanthus californicus</i>	FE, SE	No	The jewel flower occurs in nonnative grassland, upper sonoran subshrub scrub, and cismontane juniper woodland. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Slough thistle <i>Cirsium crassicaule</i>	1B.1	No	Slough thistle is found in chenopod scrub, marshes, swamps, and riparian scrub. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Recurved larkspur <i>Delphinium recurvatum</i>	1B.2	No	Recurved larkspur is found in chenopod scrub, cismontane woodland, and valley/foothill grassland. The project area is composed of an almond orchard; all other vegetation from the area has been removed.

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Kern mallow <i>Eremalche kernensis</i>	FE, 1B.1	No	The Kern mallow is known from one metapopulation near the Tremblor Range in Lokern area of western Kern County, The project area is not within the known population area of the species.
Tejon poppy <i>Eschscholzia lemmonii ssp. kernensis</i>	1B.1	No	This species of poppy is found in chenopod scrub and valley and foothill grassland communities. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
California satintail <i>Imperata brevifolia</i>	2.1	No	The satintail is found in a variety of habitats: Chaparral, Coastal scrub, Mojavean desert scrub, Meadows and seeps, and Riparian scrub. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
San Joaquin woolly-threads <i>Monolopia congdonii</i>	FE, 1B.2	No	The San Joaquin woolly-threads occupies nonnative grassland, valley saltbrush scrub, interior Coast Range, and upper sonoran subshrub communities. The project area is within an almond orchard; all native vegetation from the area has been removed.
Bakersfield cactus <i>Opuntia treleasei</i>	FE, SE, 1B.1	No	The species distribution is limited to central Kern County near Bakersfield. Soils known to support the cactus are sandy, gravel, cobbles, or boulders may also support the species. The project area is composed of an almond orchard; all other vegetation has been removed.
California chalk moss <i>Pterygoneurum californicum</i>	1B.1	No	This species of chalk moos is found in chenopod scrub and valley and foothill grassland communities. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Oil neststraw <i>Stylocline citroleum</i>	1B.1	No	Oil neststraw can be found in the following communities, chenopod scrub, coastal scrub, and valley and foothill grassland. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Mason's neststraw <i>Stylocline masonii</i>	1B.1	No	Mason's neststraw inhabits chenopod scrub, and pinyon and juniper woodland communities. The project area is composed of an almond orchard; all other vegetation from the area has been removed.
Birds			
Swainson's hawk <i>Buteo swainsoni</i>	ST	No	Swainson's hawks require large open grasslands with suitable nest trees and abundant prey. Foraging occurs among native grasslands, lightly grazed pastures, alfalfa and other hay crop fields, and grain and row crops. No records of the hawk occur from near the project area. No stick nests were observed during the March 2008 biological review.

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<p><u>USFWS categories:</u> Endangered (FE)—Taxa in danger of extinction throughout all or a significant portion of its range; Threatened (FT) - Taxa likely to become endangered within the foreseeable future throughout all or a significant portion of its range; Candidate (FC) –Species for which the USFWS has sufficient information on biological vulnerability and threats to support proposals to list as Endangered or Threatened. Candidate species, however, are not protected legally because proposed rules have not been issued; Proposed Endangered (PE) – Any species for which a proposed rule has been published in the Federal Register to list the species as endangered under the Endangered Species Act; Proposed Threatened (PT) – Any species for which a proposed rule has been published in the Federal Register to list the species as threatened under the Endangered Species Act.</p> <p><u>CDFG categories:</u> Endangered (SE) - Taxa in danger of extinction throughout all or a significant portion of its range; Threatened (ST) - Taxa likely to become endangered within the foreseeable future throughout all or a significant portion of its range; Rare (SR) – Species that, although not currently threatened with extinction, is found in such minimal numbers throughout its range that it may become endangered if current environment deteriorate; Candidate Species (SCS) – Species that has been officially under review by the CDFG for addition to the threatened or endangered species. [Source: CDFG Fish and Game Code]. Species of Concern (SSC) – Animals not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.</p> <p><u>CNPS categories:</u> 1A – Presumed extinct in California; 1B – Rare or Endangered in California and elsewhere; 2 – Rare or endangered in California, more common elsewhere.</p>			