

## **Appendix E. Biological Technical Information**

Table E-1. Common and Scientific Names of Plants and Wildlife Mentioned in the Text

	Common Name	Scientific Name
Plants	Alkali heath	<i>Frankenia salina</i>
	Alkali mallow	<i>Malvella leprosa</i>
	Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>
	Alkali sacaton	<i>Sporobolus airoides</i>
	Alkali weed	<i>Cressa truxillensis</i>
	Almond	<i>Prunus dulcis</i>
	Annual hairgrass	<i>Deschampsia danthanooides</i>
	Annual sunflower	<i>Helianthus annuus</i>
	Arroyo willow	<i>Salix lasiolepis</i>
	Arundo	<i>Arundo donax</i>
	Blue elderberry	<i>Sambucus mexicana</i>
	Blue gum eucalyptus	<i>Eucalyptus globulus</i>
	Box elder	<i>Acer negundo</i> var. <i>californicum</i>
	Bristly ox-tongue	<i>Picris echioides</i>
	Brittlescale	<i>Atriplex depressa</i>
	California black walnut	<i>Juglans californica</i> var. <i>hindsii</i>
	California rose	<i>Rosa californica</i>
	Casuarina trees	<i>Casuarina equisetifolia</i>
	Cattail	<i>Typha</i> sp.
	Cocklebur	<i>Xanthium strumarium</i>
	Colusa grass	<i>Neostapfia colusana</i>
	Common spikerush	<i>Eleocharis macrostachia</i>
	Coyote thistle	<i>Eryngium vaseyi</i>
	Creeping wildrye	<i>Leymus triticoides</i>
	Crown saltbush	<i>Atriplex coronata</i>
	Curly dock	<i>Rumex crispus</i>
	Downingias	<i>Downingia</i> spp.
	Dwarf downingia	<i>Downingia pusilla</i>
	Elm	<i>Ulmus</i> sp.
	False indigo trees	<i>Amorpha</i> spp.
	Fireweed	<i>Epilobium</i> sp.
	Fremont cottonwood	<i>Populus fremontia</i>
	Goldfields	<i>Lasthenia</i> spp.
	Hackberry	<i>Celtis reticulata</i>
Heartscale	<i>Atriplex cordulata</i>	
Himalayan blackberry	<i>Rubus discolor</i>	
Interior live oak	<i>Quercus wislizenii</i>	
Italian ryegrass	<i>Lolium multiflorum</i>	
Legenere	<i>Legenera limosa</i>	

	Common Name	Scientific Name
Plants	Low barley	<i>Hordeum depressum</i>
	Marsh purslane	<i>Ludwigia peploides</i>
	Matgrass	<i>Phyla nodiflora</i>
	Navarretia	<i>Navaretia leucocephala</i>
	Oregon ash	<i>Fraxinus latifolia</i>
	Palm trees	<i>Phoenix</i> sp.
	Palmate-bracted bird's-beak	<i>Cordylanthus palmatus</i>
	Pampas grass	<i>Cortaderia selloana</i> ; <i>C. jubata</i>
	Pepperweed	<i>Lepidium latifolium</i>
	Pigweed	<i>Amaranthus</i> sp.
	Pine	<i>Pinus</i> sp.
	Popcornflowers	<i>Plagiobothrys</i> spp.
	Prickly lettuce	<i>Lactuca serriola</i>
	Privet	<i>Ligustrum</i> sp.
	Prostrate pigweed	<i>Amaranthus blitoides</i>
	Red willow	<i>Salix laevigata</i>
	Saltgrass	<i>Distichlis spicata</i>
	Sandbar willow	<i>Salix exigua</i>
	San Joaquin saltbush	<i>Atriplex joaquiniana</i>
	San Joaquin spearscale	<i>Atriplex joaquiniana</i>
	Silerscale	<i>Atriplex argentea</i>
	Soft chess	<i>Bromus hordeaceus</i>
	Solano grass	<i>Tuctoria mucronata</i>
	Sweet clover	<i>Melilotus</i>
	Tamarisk	<i>Tamarix</i> sp.
	Tree-of-heaven	<i>Ailanthus altissima</i>
	Tule	<i>Scirpus</i> sp.
	Umbrella sedge	<i>Cyperus eragrostis</i>
	Valley oak	<i>Quercus lobata</i>
	White alder	<i>Alnus rhombifolia</i>
	Wild grape	<i>Vitis californica</i>
	Wild radish	<i>Raphanus sativus</i>
	Willow herb	<i>Epilobium brachicarpum</i>
	Willow weed	<i>Polygonum lapathifolium</i>
	Willows	<i>Salix</i> spp.
	Woolly marbles	<i>Psilocarpus</i> spp.
	Yellow starthistle	<i>Centaurea solstitialis</i>

Common Name	Scientific Name
<b>Wildlife</b>	
Alligator lizard	<i>Gerrhonotus</i> spp.
American crow	<i>Corvus brachyrhynchos</i>
American kestrel	<i>Falco sparverius</i>
American pipit	<i>Anthus rubescens</i>
Anna's hummingbird	<i>Calypte anna</i>
American Avocet	<i>Recurvirostra americana</i>
Barn owl	<i>Tyto alba</i>
Beaver	<i>Castor canadensis</i>
Black-necked stilt	<i>Haematopus palliatus</i>
Botta's pocket gopher	<i>Thomomys bottae</i>
Bullfrog	<i>Rana castesbeiana</i>
Western burrowing owls	<i>Athene cunicularia hypugea</i>
Bushtits	<i>Psaltriparus minimus</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
California kingsnake	<i>Lampropeltis getulus</i>
California vole	<i>Microtus californicus</i>
Canada goose	<i>Branta canadensis</i>
Cinnamon teal	<i>Anas cyanoptera</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Common yellowthroat	<i>Geothlypis trichas</i>
Double-crested cormorant	<i>Phalacrocorax auritus</i>
Coyote	<i>Canis latrans</i>
Dunlins	<i>Calidris alpina</i>
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>
Ferruginous hawk	<i>Buteo regalis</i>
Garter snake	<i>Thamnophis</i> sp.
Giant garter snake	<i>Thamnophis gigas</i>
Gopher snake	<i>Pituophis melanoleucus</i>
Gray fox	<i>Urocyon cinereoargenteus</i>
Great blue herons	<i>Ardea herodias</i>
Great egrets	<i>Casmerodius albus</i>
Great horned owl	<i>Bubo virginianus</i>
Greater yellowleg	<i>Tringa melanoleuca</i>
Green heron	<i>Butorides striatus</i>
House finch	<i>Carpodacus mexicanus</i>
Killdeer	<i>Charadrius vociferus</i>
Belted kingfisher	<i>Megaceryle alcyon</i>
Lesser goldfinch	<i>Carduelis psaltria</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Long-billed curlew	<i>Numenius tahitiensis</i>
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>

	Common Name	Scientific Name
Wildlife	Mallard	<i>Anas platyrhynchos</i>
	Mourning dove	<i>Zenaida macroura</i>
	Muskrats	<i>Ondatra zibethicus</i>
	Northern harrier	<i>Circus cyaneus</i>
	Nuttall's woodpecker	<i>Picoides nuttallii</i>
	Pacific treefrog	<i>Pseudacris (Hyla) regilla</i>
	Western pond turtle	<i>Clemmys marmorata</i>
	Raccoon	<i>Procyon lotor</i>
	Red fox	<i>Vulpes vulpes</i>
	Red-tailed hawk	<i>Buteo jamaicensis</i>
	Red-winged blackbird	<i>Agelaius phoeniceus</i>
	River otter	<i>Lutra canadensis</i>
	Rough-legged hawk	<i>Buteo lagopus</i>
	Ruby-crowned kinglet	<i>Regulus calendula</i>
	Savannah sparrow	<i>Passerculus sandwichensis</i>
	Short-eared owl	<i>Asio flammeus</i>
	Song sparrow	<i>Melospiza melodia</i>
	Sora	<i>Porzana carolina</i>
	Striped skunk	<i>Mephitis mephitis</i>
	Swainson's hawk	<i>Buteo swainsoni</i>
	Valley elderberry longhorn beetle	<i>Desmocerus californicus demorphus</i>
	Virginia opossum	<i>Didelphis virginiana</i>
	Virginia rail	<i>Rallus limicola</i>
	Western fence lizard	<i>Sceloporus occidentalis</i>
	Western meadowlark	<i>Sturnella neglecta</i>
	Western toad	<i>Scaphiopus hammondi</i>
	Western-scrub jay	<i>Aphelocoma californica</i>
	White-faced ibis	<i>Plegadis chihi</i>
	White-tailed kite	<i>Elanus leucurus</i>
	Yellow-rumped warbler	<i>Dendroica coronata</i>

Table E-2. Special-Status Plants That Are Known to Occur or Could Occur in the Davis General Plan Area

Common and Scientific Names	Legal Status <sup>a</sup>		Distribution	Habitat	Known Occurrences in Planning Area
	Federal/State/CNPS				
Ferris's milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	SC/--/1B		Sacramento Valley	Subalkaline flats, vernal pool margins, alkali meadows and grasslands	None; suitable habitat exists for this species
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	--/--/1B		Central western California	Subalkaline flats, vernal pool margins, alkali meadows and grasslands	Two known extant populations and one population possibly extirpated; suitable habitat exists for additional populations
Heartscale <i>Atriplex cordulata</i>	SC/--/1B		Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, and alkali scrub, vernal pool margins	One reported population - possibly extirpated; suitable habitat remains for additional populations
Brittlescale <i>Atriplex depressa</i>	--/--/1B		Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, and alkali scrub, vernal pool margins	One known population; suitable habitat exists for additional populations
San Joaquin spearscale <i>Atriplex joaquiniana</i>	SC/--/1B		Western Central Valley and valleys of adjacent foothills	Alkali grassland, alkali scrub, vernal pool margins	Two known populations; suitable habitat exists for additional populations
Palmate-bracted bird's-beak <i>Cordylanthus palmatus</i>	E/E/1B		Central Valley	Alkali grassland, usually on Pescadero silty clay soil	None; suitable habitat exists for this species
Spikeweed <i>Hemizonia parryi</i> ssp. <i>rudis</i>	--/--/3		Southern Sacramento Valley, northern San Joaquin Valley	Alkali grassland	At least five known populations; suitable habitat exists for additional populations
Heckard's pepper grass <i>Lepidium latipes</i> var. <i>heckardii</i>	--/--/1B		Yolo County	Alkali grassland and vernal pool margins	Known from one historical occurrence northeast of Davis; suitable habitat exists for additional populations
Colusa grass <i>Neostapfia colusana</i>	T/E/1B		Southern Sacramento Valley, Northern San Joaquin Valley	Large, playa-type vernal pools with a long flooding period in normal years	Two known populations; suitable habitat exists for additional populations at or near USAF Transmitter Station
Crampton's tuctoria <i>Tuctoria mucronata</i>	E/E/1B		Solano and Yolo Counties	Large, playa-type vernal pools with a long flooding period in normal years	One known population; suitable habitat exists for additional populations at or near USAF Transmitter Station

• **Status explanations:**

**Federal**

E = listed as endangered under the federal Endangered Species Act.

T = listed as threatened under the federal Endangered Species Act.

SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.

-- = No status definition.

**State**

E = listed as endangered under the California Endangered Species Act.

-- = No status definition.

**CNPS**

1B = List 1B species: rare, threatened, or endangered in California and elsewhere

3 = List 3 species: plants about which more information is needed to determine their status.

-- = No status definition.

Table E-3. Special-Status Wildlife Species That Are Known to Occur or Could Occur in the Davis General Plan Area

Common and Scientific Name	Status <sup>a</sup>		California Distribution	Habitats	Reason for Decline	Occurrence in Study Area
	Federal/State					
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/--		Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	Habitat loss to agricultural and urban development	Known to occur at D-Q University and Gloval Communication Center (south of Davis); suitable habitat occurs at Covell Center
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E/--		Shasta County south to Merced County	Vernal pools and ephemeral stock ponds	Habitat loss to agricultural and urban development	Known to occur at Global communication center, south of Davis
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T/--		Streamside habitats below 3,000 feet through the Central Valley of California	Riparian and oak savanna habitats with elderberry shrubs; elderberries are host plant	Loss and fragmentation of riparian habitats	Suitable habitat (elderberry shrubs) are widespread in the Davis area, including Putah Creek, North Fork Putah Creek; Willow Slough, Wildhorse development, proposed Covell Center, and proposed Oeste Campus
California tiger salamander <i>Ambystoma californiense</i> (= <i>A. tigrinum</i> c.)	C/SSC		Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	Loss of grasslands, vernal pools, and other wetlands to agricultural development and urbanization	one occurrence in 1993 at Southwest corner of Covell Boulevard and Lake Boulevard near West Pond; the Davis area has minimal habitat for this species
Giant garter snake <i>Thamnophis gigas</i>	T/T		Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno	Sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for	Loss of habitat from agriculture and urban development, habitat fragmentation	There are several occurrences northeast of Davis in agricultural drainages and water delivery channels; also one occurrence in Putah



Table E-3 Continued

Common and Scientific Name	Status <sup>a</sup>		California Distribution	Habitats	Reason for Decline	Occurrence in Study Area
	Federal/State					
White-tailed kite <i>Elanus leucurus</i>	--/FP		Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Loss of grassland and wetland habitats to agriculture and urban development	Creek area near Old Davis Road; suitable habitat occurs in Covell Drain, Channel A, and ditches between Yolo Bypass and Davis
Northern harrier <i>Circus cyaneus</i>	--/SSC		Throughout lowland California; has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover	Loss of habitat to agricultural and urban development	Nests at Hunt Wesson-Yolo Audubon Society spray fields; suitable foraging occurs in agricultural fields, grasslands, and wetlands in the Davis area
Cooper's hawk <i>Accipiter cooperii</i>	--/SSC		Throughout California except high altitudes in the Sierra Nevada; winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range; permanent residents occupy the rest of the state	Nests primarily in riparian forests dominated by deciduous species; also nests in densely canopied forests from digger pine-oak woodland up to ponderosa pine; forages in open woodlands	Human disturbance at nest sites, loss of riparian habitats, especially in the Central Valley; pesticide contamination	Nests on UC Davis campus, winters throughout the Davis area

Table E-3 Continued

Common and Scientific Name	Status <sup>a</sup>		California Distribution	Habitats	Reason for Decline	Occurrence in Study Area
	Federal/State					
Swainson's hawk <i>Buteo swainsoni</i>	--/T		Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; the state's highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, grain fields, and vegetable crops	Loss of riparian, agriculture, and grassland habitats; vulnerable to human disturbance at nest sites	Numerous records in the Davis area, including Putah Creek, south fork and north fork of Putah Creek, Willow Slough, Dry Creek, formerly at Covell Center; near Oeste Campus, western Mace Ranch, and Chiles Road area, east of Mace Boulevard
Ferruginous hawk <i>Buteo regalis</i>	SC/SSC		Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, eastward to the Sierra Nevada foothills and southeastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County	Open terrain in plains and foothills where ground squirrels and other prey are available	Conversion of grasslands for agriculture and urban development	Winter visitor in agricultural fields around Davis
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T/SSC (Coastal)  --/SSC (Inland)		Winters along the coast from Del Norte County to San Diego County; breeding sites within this range are very limited	Coastal beaches above the normal high tide limit with wood or other debris for cover	Human disturbance on nesting beaches, feral animal and non-native predator disturbance, loss of habitat	Nested at Davis Sewage Plant in 1963 and at Yolo Bypass Wildlife Area in 1988
			Nests at inland lakes throughout northeastern, central, and southern California; rare nesting species in the Sacramento Valley	Inland shores of salt ponds and alkali or brackish inland lakes		

Table E-3 Continued

Common and Scientific Name	Status <sup>a</sup>		California Distribution	Habitats	Reason for Decline	Occurrence in Study Area
	Federal/State					
Mountain plover <i>Charadrius montanus</i>	C/SSC		Does not breed in California; in winter, found in the Central Valley south of Yuba County, along the coast in parts of San Luis Obispo, Santa Barbara, Ventura, and San Diego Counties; parts of Imperial, Riverside, Kern, and Los Angeles Counties	Occupies open plains or rolling hills with short grasses or very sparse vegetation; nearby bodies of water are not needed; may use newly plowed or sprouting grainfields	Loss of habitat to agriculture and urban development; decline of California's wintering population may be attributable to disturbance of breeding population	Winter visitor to the Yolo Bypass and north of Woodland
Long-billed curlew <i>Numenius americanus</i>	--/SSC		Nests in northeastern California in Modoc, Siskiyou, and Lassen Counties; winters along coast or in interior valleys west of Sierra Nevada	Nests at high-elevation grasslands adjacent to lakes or marshes during migration and in winter; frequents coastal beaches and mudflats or interior grasslands and agricultural fields	Loss of wetland and grassland habitats to urbanization and agriculture	Winter visitor and migrant to the agricultural fields in eastern Yolo County
Western burrowing owl <i>Athene cunicularia hypugea</i>	SC/SSC		Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Rodent burrows in sparse grassland, desert, and agricultural habitats	Loss of habitat, human disturbance at nesting burrows	Nests and winters on the UC Davis Campus, Covell Drain, Global Communications facility and Yolo County Grasslands Park (both south of Davis), Wild Horse Development, the fields at Fifth Street and Alhambra Boulevard (Mace Ranch), proposed Covell Center, near the Sutter Davis Hospital, old Davis sewage ponds (1986), and County

Table E-3 Continued

Common and Scientific Name	Status <sup>a</sup>		California Distribution	Habitats	Reason for Decline	Occurrence in Study Area
	Federal/State					
Short-eared owl <i>Asio flammeus</i>	--/SSC		Permanent resident along the coast from Del Norte County to Monterey County although very rare in summer north of San Francisco Bay, in the Sierra Nevada north of Nevada County, in the plains east of the Cascades, and in Mono County; small, isolated populations also nest in the Central Valley; winters on the coast from San Luis Obispo County to San Diego County, in the Central Valley from Tehama County to Kern County, in the eastern Sierra Nevada from Sierra County to Alpine County, on the Channel Islands, and in Imperial County	Freshwater and salt marshes, lowland meadows, and irrigated alfalfa fields; needs dense tules or tall grass for nesting and daytime roosts	Loss of wetland and grassland habitats to agriculture and urban development	Road 27 near County Road 102b; could occur in other agricultural lands and fields in the Davis area  Nests at Hunt Wesson-Yolo Audubon Society spray fields; could forage in other grasslands and agricultural fields in the Davis area
Loggerhead shrike <i>Lanius ludovicianus</i>	SC/SSC		Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north to Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	Loss of habitat and pesticide use; still widespread in California	Observed near the Sutter Davis Hospital; could occur in agricultural areas where dense shrubs or trees

<sup>a</sup> Status definitions: (see the "Definitions of Special-Status Species" section above for citations):

**Federal**

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- C = species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list.
- SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.
- = no listing.

**State**

- T = listed as threatened under the California Endangered Species Act.
  - FP = fully protected under the California Fish and Game Code.
  - SSC = species of special concern in California.
  - = no listing.
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Table E-4. Covered Species of Flora Addressed in the Habitat Conservation Plan

Common and Scientific Names	Permit Required <sup>a</sup>	Status <sup>b</sup>		
		CNPS List	State	Federal <sup>c</sup>
Heckard's peppergrass <i>Lepidium latipes</i> var. <i>heckardii</i>	No	1B	None	None
Brittlescale <i>Atriplex depressa</i>	No	1B	None	None
San Joaquin saltbush <i>Atriplex joaquiniana</i>	No	1B	None	None <sup>c</sup>
Alkali milkvetch <i>Astragalus tener</i> var. <i>tener</i>	No	1B	None	None
Palmate bird's-beak <i>Cordylanthus palmatus</i>	Yes	1B	CE	FE
Colusa grass <i>Neostapfia colusana</i>	Yes	1B	CE	PT
Crampton's tuctoria <i>Tuctoria mucronata</i>	Yes	1B	CE	FE

<sup>a</sup> Covered under Section 2081, Management Agreement and/or Section 10(a)(1)(B) permits.

<sup>b</sup> Status definitions:

**CNPS**

1B = plants rare, threatened, or endangered in California and elsewhere, as defined by the California Native Plant Society.

**State**

CE = state-listed as endangered.

**Federal**

FE = federally listed as endangered.

PT = federally proposed as threatened.

<sup>c</sup> Federal candidate status based on plant and animal taxa candidate review, Federal Register, 50 CFR Part 17, February 28, 1996. The USFWS has redefined candidate species to include only those meeting Category 1 criteria; as such, Category 2 species are no longer considered as a valid candidate status for listing as threatened or endangered. However, the species are considered as species of concern or species at risk by the USFWS. Since C2 status was not the key reason they were designated as Covered Species, they will remain Covered Species for HCP purposes.



Table E-5. Covered Species of Fauna Addressed in the Habitat Conservation Plan

Common Name/Scientific Name	Permit Required <sup>a</sup>	Status <sup>b</sup>	
		State	Federal <sup>c</sup>
California tiger salamander <i>Ambystoma californiense</i>	No	CSC	C <sup>c</sup>
Western spadefoot toad <i>Scaphiopus hammondi</i>	No	CSC	None <sup>c</sup>
Northwestern pond turtle <i>Clemmys marmorata marmorata</i>	No	CSC	None <sup>c</sup> C2 <sup>c</sup>
Giant garter snake <i>Thamnophis gigas</i>	Yes	CT	FT
Double-crested cormorant <i>Phalacrocorax auritus</i> (rookery)	No	CSC	None
White-faced ibis <i>Plegadis chihi</i> (rookery)	No	CSC	None <sup>c</sup>
Cooper's hawk <i>Accipiter cooperii</i> (nesting habitat)	No	CSC	None
Swainson's hawk <i>Buteo swainsoni</i>	Yes	CT	None
Northern harrier <i>Circus cyaneus</i> (nesting habitat)	No	CSC	None
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	Yes	CE	None
Short-eared owl <i>Asio flammeus</i> (nesting habitat)	No	CSC	None
Western burrowing owl <i>Athene cunicularia hypugea</i> (burrow sites)	No	CSC	None
Bank swallow <i>Riparia riparia</i>	Yes	CT	None
Loggerhead shrike <i>Lanius ludovicianus</i>	No	CSC	None
Tricolored blackbird <i>Agelaius tricolor</i> (nesting habitat)	No	CSC	None <sup>c</sup>
California yellow warbler <i>Dendroica petechia brewsteri</i> (nesting habitat)	No	CSC	None
Midvalley fairy shrimp <i>Branchinecta</i> sp.	No	None	None
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	Yes	None	FE



Table E-5. Continued

Common Name/Scientific Name	Permit Required <sup>a</sup>	Status <sup>b</sup>	
		State	Federal <sup>c</sup>
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>	Yes	None	FE
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Yes	None	FT
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	Yes	None	FE
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	Yes	None	FT

<sup>a</sup> Covered under Section 2081, Management Agreement and/or Section 10(a)(1)(B) permits.

<sup>b</sup> Status definitions:

**State**

CE = state-listed as endangered.

CSC = California Department of Fish and Game-designated Species of Special Concern.

CT = state-listed as threatened.

**Federal**

C2 = federal Category 2 candidate.

FE = federally listed as endangered.

FT = federally listed as threatened.

<sup>c</sup> Federal candidate status based on plant and animal taxa candidate review, Federal Register, 50 CFR Part 17, February 28, 1996. The USFWS has redefined candidate species to include only those meeting Category 1 criteria; as such, Category 2 species are no longer considered as a valid candidate status for listing as threatened or endangered. However, the species are considered as species of concern or species at risk by the USFWS. Since C2 status was not the key reason they were designated as Covered Species, they will remain Covered Species for HCP purposes.