# USFWS, CNPS, AND CNDDB LISTS AND REGIONALLY OCCURRING SPECIAL STATUS SPECIES

#### APPENDIX F REGIONALLY OCCURRING FEDERAL, STATE, AND CNPS LISTED SPECIAL-STATUS SPECIES

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL HABITAT OCCURS WITHIN PROJECT SITE?
Plants					
Astragalus tener var. ferrisiae Ferris' milk-vetch	//1B	Known from Butte, Colusa, Glenn, Solano, Sutter, and Yolo counties (CNPS, 2011).	Annual herb found in meadows and seeps that are occasionally vernally mesic and valley and foothill grassland that are occasionally subalkaline flats from 2 to 75 meters (CNPS, 2011).	April-May	Yes. See text.
Astragalus tener var. tener alkali milk-vetch	//1B	Known from Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties (CNPS, 2011).	Annual herb found in alkaline soils of valley and foothill grassland that are occasionally within adobe clay, playas, and vernal pools from 1 to 60 meters (CNPS, 2011).	March-June	Yes. See text.
Atriplex cordulata heartscale	//1B	Known from Alameda, Butte, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, San Joaquin, San Luis Obispo, Solano, Stanislaus, Tulare, and Yolo counties (CNPS, 2011).	Annual herb found on saline or alkaline soils on chenopod scrub, meadows and seeps, and valley and foothill grassland that are occasionally sandy, from 1 to 375 meters (CNPS, 2011).	April-October	Yes. See text.
Atriplex depressa brittlescale	//1B	Known from Alameda, Contra Costa, Colusa, Fresno, Glenn, Kern, Merced, Solano, Stanislaus, Tulare, and Yolo counties (CNPS, 2011).	Annual herb found on alkaline, clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools from 1 to 320 meters (CNPS, 2011).	April-October	Yes. See text.
Atriplex joaquiniana San Joaquin spearscale	//1B	Known from Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, and Yolo counties (CNPS, 2011).	Annual herb found on alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland from 1 to 835 meters (CNPS, 2011).	April-October	Yes. See text.
Atriplex persistens vernal pool smallscale	//1B	Known from Glenn, Madera, Merced, Solano, Stanislaus, and Tulare counties (CNPS, 2011).	Annual herb found in vernal pools that are occasionally alkaline, from 10 to 115 meters (CNPS, 2011).	June-October	Yes. See text.
Calochortus pulchellus Mt. Diablo fairy lantern	//1B	Known from Alameda, Contra Costa, and Solano counties (CNPS, 2011).	Perennial bulbiferous herb found in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland from 30 to 840 meters (CNPS, 2011).	April-June	Yes. See text.
Centromadia parryi ssp. parryi pappose tarplant	//1B	Known from Butte, Colusa, Glenn, Lake, Napa, San Mateo, Solano, and Sonoma counties (CNPS, 2011).	Annual herb found often on alkaline soils in chaparral, coastal prairie, meadows and seeps, marshes and swamps that are occasionally of coastal salt, and valley and foothill grassland that are occasionally vernally mesic, from 2 to 420 meters (CNPS, 2011).	May-November	Yes. See text.
Cicuta maculata var. bolanderi Bolander's water- hemlock	//2	Known from Contra Costa, Los Angeles, Marin, Sacramento, Santa Barbara, San Luis Obispo, and Solano counties in California and from Arizona, New Mexico, and Washington (CNPS, 2011).	Perennial herb found in fresh or brackish water in coastal marshes and swamps from 0 to 200 meters (CNPS, 2011).	July-September	No. The project site does not provide habitat for this species.

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Cirsium hydrophilum var. hydrophilum Suisun thistle	FE//1B	Known only from Solano County (CNPS, 2011)	Perennial herb found in saltwater swamps and marshes from 0 to 1 meters (CNPS, 2011)	June-September	No. The project site does not provide habitat and is outside the known elevation range for this species.
Cordylanthus mollis ssp. hispidus hispid bird's-beak	//1B	Known from Alameda, Fresno, Kern, Merced, Placer, and Solano counties (CNPS, 2011).	Annual hemiparasitic herb found on alkaline soils in meadows and seeps, playas, and valley and foothill grasslands from 1 to 155 meters (CNPS, 2011).	June-September	Yes. See text.
Cordylanthus mollis ssp. mollis soft bird's-beak	FE/CR/1B	Known from Contra Costa, Marin, Napa, Sacramento, Solano, and Sonoma counties (CNPS, 2011).	Annual hemiparasitic herb found in marshes and swamps that are occasionally coastal salt, from 0 to 3 meters (CNPS, 2011).	July-November	No. The project site does not provide habitat for this species.
Cryptantha crymophila subalpine cryptantha	//1B	Known from Alpine, Mono, and Tuolumne counties (CNPS, 2011).	Perennial herb found occasionally in volcanic, rocky substrate in subalpine coniferous forest from 2,600 to 3,200 meters (CNPS, 2011).	June-August	No. The project site occurs outside of the geographical region for this species.
Delphinium recurvatum recurved larkspur	//1B	Known from Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare counties (CNPS, 2011).	Perennial herb found on alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland from 3 to 750 meters (CNPS, 2011).	March-June	Yes. See text.
Downingia pusilla dwarf downingia	//2	Known from Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties in California and in South America (CNPS, 2011).	Annual herb found in valley and foothill grassland occasionally on mesic soils, and in and vernal pools from 1 to 445 meters (CNPS, 2011).	March-May	Yes. See text.
Eriogonum truncatum Mt. Diablo buckwheat	//1B	Known from Alameda, Solano, and Contra Costa Counties (CNPS, 2011).	Annual herb found in valley and foothill grasslands, chaparral, and coastal scrub, in sandy soils from 3 to 350 meters (CNPS, 2011).	April-December	No. The project site does not provide suitable soils for this species.
Fritillaria liliacea fragrant fritillary	//1B	Known from Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties (CNPS, 2011).	Perennial bulbiferous herb found often on serpentinite soils in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland from 3 to 410 meters (CNPS, 2011).	February-April	The project site provides habitat for this species within the nonnative grassland, however, the biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed within the project
Fritillaria pluriflora adobe lily	//1B	Known from Butte, Colusa, Glenn, Lake, Napa, Solano, Tehama, and Yolo counties (CNPS, 2011).	Bulbiferous herb found often on adobe soils in chaparral, cismontane woodland, and valley and foothill grassland from 60 to 705 meters (CNPS, 2011).	February-April	The project site provides potential habitat for this species within the nonnative grassland, however, the biological surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed within the project
Gilia capitata ssp. tomentosa Woolly-headed gilia	//1B	Known from Marin and Sonoma counties (CNPS, 2011).	Annual herb found occasionally along rocky outcrops in coastal bluff scrub from 15 to 155 meters (CNPS, 2011).	May-July	No. The project site occurs outside of the geographical region for this species.

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Gratiola heterosepala Boggs Lake hedge-hyssop	/CE/1B	Known from Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, and Tehama counties in CA and in Oregon (CNPS, 2011).	Annual herb found on clay soils in vernal pools and along the lake margins of marshes and swamps from 10 to 2,375 meters (CNPS, 2011).	April-August	Yes. See text.
Hesperolinon brewerii Brewer's western flax	//1B	Known from Contra Costa, Napa, and Solano counties (CNPS, 2011).	Annual herb found usually on serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland from 30-900 meters (CNPS, 2011).	May-July	No. The project site does not provide suitable soils for this species.
Isocoma arguta Carquinez goldenbush	//1B	Known from Solano County (CNPS, 2011).	Shrub found on alkaline soils in valley and foothill grassland from 1 to 20 meters (CNPS, 2011).	August-December	The project site provides habitat for this species within the nonnative grassland, however, this species is a shrub that is identifiable throughout the year. The February 2011 biological surveys were conducted outside of the blooming period for this species, however, this species is a shrub that is identifiable outside of the blooming period. This species was not observed during the biological surveys.
Lasthenia conjugens Contra Costa goldfields	FE//1B	Known to occur in Alameda, Contra Costa, Mendocino (though may be extirpated), Monterey, Marin, Napa, Santa Barbara (though may be extirpated), Santa Clara (though may be extirpated), Solano, and Sonoma counties (CNPS, 2011).	Annual herb found on mesic soils in cismontane woodland, playas that are usually alkaline, valley and foothill grassland, and vernal pools from 0 to 470 meters (CNPS, 2011).	March-June	Yes. See text.
Lathyrus jepsonii var. jepsonii Delta tule pea	//1B	Known from Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Sonoma counties (CNPS, 2011).	Perennial herb found in marshes and swamps that are occasionally freshwater and brackish, from 0 to 4 meters (CNPS, 2011).	May–July Uncommon in September	No. The project site does not provide habitat and is outside the known elevation range for this species.
Legenere limosa legenere	//1B	Known from Alameda, Lake, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties (CNPS, 2011).	Annual herb found in vernal pools from 1 to 880 meters (CNPS, 2011).	April-June	Yes. See text.
Lepidium latipes var. heckardii Heckard's pepper- grass	//1B	Known from Glenn, Solano, and Yolo counties (CNPS, 2011).	Annual herb found occasionally on alkaline flats in valley and foothill grassland from 2 to 200 meters (CNPS, 2011).	March-May	Yes. See text.
Lilaeopsis masonii Mason's lilaeopsis	/CR/1B	Known from Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, and Solano counties (CNPS, 2011).	Rhizomatous herb found in marshes and swamps, that are occasionally brackish or freshwater, and riparian scrub from 0 to 10 meters (CNPS, 2011).	April-November	No. The project site does not provide habitat and is outside the known elevation range for this species.
Limosella subulata Delta mudwort	//2	Known from Contra Costa, Marin, Sacramento, San Joaquin, and Solano counties in California and in Oregon (CNPS, 2011).	Stoloniferous herb found in marshes and swamps from 0 to 3 meters (CNPS, 2011).	May-August	No. The project site does not provide habitat and is outside the known elevation range for this species.

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Monardella villosa ssp. globosa Robust monardella	//1B	Known from Alameda, Contra Costa, Humboldt, Lake, Mendocino, Napa, Santa Clara, Santa Cruz, San Mateo, and Sonoma counties (CNPS, 2011).	Perennial rhizomatous herb found in broad- leafed upland forest and chaparral, occasionally in openings, cismontane woodland, coastal scrub, and valley and foothill grassland from 100 to 915 meters (CNPS, 2011).	June-July (occasionally August)	No. The project site occurs outside of the geographical region for this species.
Navarretia leucocephala ssp. bakeri Baker's navarretia	//1B	Known from Colusa, Glenn, Lake, Mendocino, Marin, Napa, Solano, Sonoma, Sutter, Tehama, and Yolo counties (CNPS, 2011).	Annual herb found on mesic soils cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland and vernal pools from 5 to 1,740 meters (CNPS, 2011).	April-July	Yes. See text.
Neostapfia colusana Colusa grass	FT/CE/1B	Known from Colusa, Glenn, Merced, Solano, Stanislaus, and Yolo counties (CNPS, 2011).	Annual herb found in vernal pools that are occasionally large on adobe soils, from 5 to 200 meters (CNPS, 2011).	May-August	No. The project site does not provide suitable soils for this species.
Orcuttia inaequalis San Joaquin valley Orcutt grass	FT/CE/1B	Known from Fresno, Madera, Merced, Solano, Stanislaus, and Tulare counties (CNPS, 2011).	Annual herb found in vernal pools from 10 to 750 meters (CNPS, 2011).	April-September	Yes. See text.
Plagiobothrys histriculus Bearded popcorn flower	//1B	Known from Solano County (CNPS, 2011).	Annual herb found often in vernal swales within valley and foothill grassland, which are mesic, and vernal pool margins from 0 to 274 meters (CNPS, 2011).	April-May	Yes. See text.
Sidalcea keckii Keck's checkerbloom	FE//1B	Known from Colusa, Fresno, Merced, Napa, Solano, Tulare, and Yolo counties (CNPS, 2011).	Annual herb found on serpentinite, clay soils in cismontane woodland and valley and foothill grassland from 120 to 425 meters (CNPS, 2011).	April-May	No. The project site does not provide suitable soils for this species.
Stuckenia filliformis Slender-leaved pondweed	//2	Known from Alameda, Butte, Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, Santa Clara*, Shasta, Sierra, San Mateo, Solano, and Sonoma Counties (CNPS, 2011)	Perennial rhizomatous herb found in assorted shallow freshwater marshes and swamps from 300 to 2150 meters (CNPS, 2011).	May-July	No. The project site does not provide habitat and is outside the known elevation range for this species.
Symphyotrichum lentum Suisun Marsh aster	//1B	Known from Contra Costa, Napa, Sacramento, San Joaquin, and Solano (CNPS, 2011).	Rhizomatous herb found in marshes and swamps that are occasionally brackish and freshwater, from 0 to 3 meters (CNPS, 2011).	May-November	No. The project site does not provide habitat for this species.
Trifolium amoenum Two forked clover	FE//1B	Known from Marin, Napa, Santa Clara, Solano, and Sonoma counties (CNPS, 2011).	Annual herb found in coastal bluff scrub and valley and foothill grassland that is sometimes on serpentinite soils, from 5 to 415 meters (CNPS, 2011).	April-June	Yes. See text.
Trifolium depauperatum var. hydrophilum saline clover	//1B	Known from Alameda, Colusa, Monterey, Napa, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Solano, and Sonoma counties (CNPS, 201).	Annual herb found in marshes and swamps, valley and foothill grassland that are occasionally on mesic, alkaline soils, and vernal pools from 0 to 300 meters (CNPS, 2011).	April-June	Yes. See text.
Tuctoria mucronata Solano grass, Crampton's tuctoria	FE/CE/1B	Known from Solano and Yolo counties (CNPS, 2011).	Annual herb found in valley and foothill grassland occasionally on mesic soils, and in vernal pools from 5 to 10 meters (CNPS, 2011).	April-August	Yes. See text.

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Animals Invertebrates					
Branchinecta conservation Conservancy fairy shrimp	FE//	Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Butte, Colusa, Glenn, Merced, Solano, Stanislaus, Tehama, Ventura, Yolo, and Yuba counties (NatureServe, 2010).	Ephemeral wetland habitats and vernal pools on clay, volcanic, and alluvial soils within annual grassland and pine forests. Elevations range from 5-1,700 meters (NatureServe, 2010).	Wet season: typically November-April (adults) Dry season: typically May- October (cysts)	Yes. See text.
Branchinecta lynchi Vernal pool fairy shrimp	FT, CH//	Known from Alameda, Butte, Contra Costa, Colusa, El Dorado, Fresno, Glenn, Kings, Lake, Los Angeles, Madera, Merced, Monterey, Napa, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Tehama, Tulare, Riverside, and Yuba counties in California and in southern Oregon (Eriksen and Belk, 1999).	Found in ephemeral wetland habitats and vernal pools within sandstone, alkaline soils, and alluvial fan terraces, within annual grassland and pine forests from 10 to 1,700 meters (Eriksen and Belk, 1999).	Wet season: December through May (adults) Dry season: June-November (eggs	Yes. See text.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT//	Known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (NatureServe, 2010).	Found in riparian forest communities from 0 to 762 meters. Exclusive host plant is elderberry (Sambucus species), which must have stems at least 1-inch diameter for the beetle (NatureServe, 2010).	All Year	No. The project site does not provide habitat for this species.
Elaphrus viridis Delta green ground beetle	FT//	To date, only been found in the greater Jepson Prairie area in south-central Solano County (NatureServe, 2010).	Prefers sandy mud substrate where it slopes gently into the water, with low-growing vegetation from 25 to 100 percent cover (NatureServe, 2010).	Year round	No. The project site does not provide habitat for this species.
Lepidurus packardi vernal pool tadpole shrimp	FE, CH//	Known from the Central valley and the San Francisco Bay area from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994).	Wide variety of ephemeral wetland habitats. Typically vernal pools on High Terrace landforms within annual grassland with clear to highly turbid water (USFWS, 1994).	Wet season: typically November-April (adults) Dry season: typically May- October (cysts)	Yes. See text.
Syncaris pacifica California freshwater shrimp	FE/CE/	Known only throughout Marin, Napa, and Sonoma counties (NatureServe, 2010).	Small, low-gradient, perennial coastal streams. Prefers relatively shallow streams with depths of 12-36 inches, exposed live roots of trees such as alder and willow, undercut banks greater than 6 inches, overhanging woody debris or stream vegetation and vines. Elevations range from 0-116 meters (NatureServe, 2010).	Consult Agency	No. The project site is outside the geographical range of this species.
Fishes Acipenser	FT//	Adults occur in coastal waters from	Utilizes both freshwater and saltwater habitats.	Consult Agency	No. The project site does not provide habitat

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medirostris Green sturgeon		Mexico to Alaska and have been observed along the west coast of North America. Spawning occurs within the Rogue and Illinois Rivers in Oregon, the Klamath River Basin, the Sacramento River, the Feather River, the Pit River, and the McCloud River. Spawning is suspected within the Trinity River, South Fork Trinity, and the Eel River. Counties include Butte, Colusa, Glenn, Humboldt, Mendocino, Nevada, Placer, Sacramento, Shasta, Sierra, Siskiyou, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba (NatureServe, 2010).	Spawning occurs in deep pools or holes in large, turbulent, freshwater river mainstems. Eggs are cast over large cobble, clean sand, or bedrock substrates. Cold, clean water is required for development. Adults live in oceanic waters, bays, and estuaries (NatureServe, 2010).		for this species.
Hypomesus transpacificus Delta smelt	FT/CT/	Known almost exclusively in the Sacramento-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay (Moyle, 2002).	Found in estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta (Moyle, 2002).	Consult Agency	No. The project site does not provide habitat for this species.
Oncorhynchus mykiss steelhead Central valley Steelhead	FT//	Spawn in the Sacramento and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area (Moyle, 2002).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly streambed (Moyle, 2002).	Consult Agency	No. The project site does not provide habitat for this species.
Oncorhynchus tshawytscha Chinook salmon Central valley spring-run	FT/CT/	Spawn in the Sacramento River and some of its tributaries. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Spawning occurs in large deep pools in tributaries with moderate velocities (Moyle, 2002).	Consult Agency	No. The project site does not provide habitat for this species.
Oncorhynchus tshawytscha Chinook salmon winter-run, Sacramento River	FE/CE/	Spawn in the upper Sacramento River. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Returns to the Upper Sacramento River in the winter but delay spawning until spring and summer. Juveniles spend 5-9 months in the river and estuary before entering the ocean (Moyle, 2002).	Consult Agency	No. The project site does not provide habitat for this species.
Amphibians	ET/OT/	Known from Alamada Dutta Contra	Found in vernal pools, appearanced welfereds, and		Tv. 0
Ambystoma californiense California tiger salamander	FT/CT/	Known from Alameda, Butte, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tulare, and Yolo counties (Stebbins, 2003).	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters (Stebbins, 2003).	November- February (adults) March 15 -May15 (larvae)	Yes. See text.
Rana aurora	FT/CSC/	Known along the Coast from Mendocino	Found in permanent and temporary pools of	November-June	No. The project site does not provide habitat

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draytonii California red- legged frog		County to Baja California, and inland through the northern Sacramento valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central valley (NatureServe, 2010).	streams, marshes, and ponds with dense grassy and/or shrubby vegetation from 0 to 1,160 meters (NatureServe, 2010).		for this species.
Rana boylii foothill yellow- legged frog	/CSC/	Known to occur in the coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles County, throughout most of northern California west of the Cascade crest, and along the western portion of the Sierra south to Kern County, with a few isolated populations in the Central valley (NatureServe, 2010).	Found in shallow flowing streams with some cobble in a variety of habitats including woodlands, riparian forest, coastal scrub, chaparral, and wet meadows from 0 to 1,830 meters. Rarely encountered far from permanent water sources (NatureServe, 2010).	March-June	No. The project site does not provide habitat for this species.
Reptiles					
Emys marmorata western pond turtle	/CSC/	Known throughout California west of the Sierra-Cascade crest. Absent from desert regions except along the Mohave River and its tributaries (Stebbins, 2003).	Found in permanent ponds, lakes, streams, irrigation ditches, permanent pools and along intermittent streams. Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes less than 15 percent with little vegetation or sandy banks. Found from 0 to 1,430 meters (Stebbins, 2003).	All year	Yes. The detention basin onsite provides marginally suitable habitat for this species. No sign of this species was detected during the February 2011 biological survey of the site. This species is unlikely to be present on the site. See text.
Thamnophis gigas giant garter snake	FT/CT/	Known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Sacramento, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant (Stebbins, 2003).	March-October	No. The project site does not provide habitat for this species.
Birds					
Agelaius tricolor tricolored blackbird	/CSC/	Known from the Central valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California	Found nesting in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water. Feeds in grass and cropland habitats (NatureServe, 2010).	All Year	Yes. See text.

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		(NatureServe, 2010).			
Athene cunicularia burrowing owl	/CSC/	Formerly common within the described habitats throughout the state except the northwest coastal forests and high mountains (NatureServe, 2010).	Yearlong resident of open, dry grassland and desert habitats, as well as in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (NatureServe, 2010).	All Year	Yes. The project site provides foraging and nesting habitat for this species. See text.
Buteo swainsoni Swainson's hawk	/CT/	In California, breeds in the Central valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair valley, Owens valley, Fish Lake valley, Antelope valley, and in eastern San Luis Obispo County (NatureServe, 2010).	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations (NatureServe, 2010).	March–October	Yes. The project site provides foraging habitat for this species. See text.
Circus cyaneus Northern harrier	/CSC/	Permanent residents of the northeastern plateau and coastal areas; less common resident of the Central Valley. Occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 3000 meters (NatureServe, 2010).	Coastal scrub, Great Basin grassland, marsh and swamp (coastal and fresh water), riparian scrubs, valley and foothill grassland, and wetlands. Nests and forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation usually at marsh edge; nests built of a large mound of sticks in wet areas (NatureServe, 2010).	All Year	Yes. The project site provides suitable habitat for this species and the species was spotted flying over the site during the February 2011 biological survey. See text.
Elanus leucurus white-tailed kite	/CFP/	Permanent resident of coastal and valley lowlands (NatureServe, 2010).	Habitats include savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations. Nesting occurs in trees (NatureServe, 2010).	Year round	Yes. The project site provides foraging and nesting habitat for this species and this species was spotted flying over the site during the February 2011 biological survey. See text.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	/CSC/	Breeding range bounded by Tomales Bay on the north, Carquinez Strait on the east, and Santa Cruz county to south, with occurrences in the Bay Area during migration and winter (NatureServe, 2010).	Utiliizes saltwater, brackish, and freshwater marshes for breeding. Nests just above ground or over water, in thick herbaceous vegetation, often at base of shrub or sapling, sometimes higher in weeds or shrubs up to about 1 meter (NatureServe, 2010).	March - July	No. The project site does not provide habitat for this species.
Icteria virens yellow-breasted chat	/CSC/	Common along western edge of southern deserts, in Santa Clara County and on coastal slope from Monterey County south; uncommon in foothills surrounding Central valley. Winters in southern coastal lowlands, Colorado River valley; and in Northern California (NatureServe, 2010).	Nests in dense riparian habitats. Typical Northern California habitats include valley foothill hardwood and valley foothill hardwood- conifer (NatureServe, 2010).	March-August	No. The project site does not provide habitat for this species.
Laterallus jamaicensis conturniculus California black rail	/CT/	Small populations and individual records scattered throughout North America and California (NatureServe, 2010).	In habits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. In freshwater, usually found in bulrushes, cattails, and saltgrass. Usually found in immediate vicinity of tidal sloughs. Needs water depths of about 1 inch that does not	Year round	No. The project site does not provide habitat for this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL HABITAT OCCURS WITHIN PROJECT SITE?
			fluctuate during the year, and dense vegetation for nesting habitat (NatureServe, 2010).		
Melospiza melodia maxillaries Suisun song sparrow	/CSC/	Resident of brackish water marshes surrounding Suisun Bay (NatureServe, 2010).	Inhabits cattails, tules and other sedges, and salicornia. Also known to frequent tangles bordering sloughs (NatureServe, 2010).	Year Round	No. The project site does not provide habitat for this species.
Rallus longirostris obsoletus California clapper rail	FE/CE/	Occur in the San Francisco bay region (NatureServe, 2010).	Salt water and brackish marshes traversed by tidal sloughs. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud bottomed sloughs (NatureServe, 2010).	All year	No. The project site does not provide habitat for this species.
Mammals					
Lasiurus blossevellii Western red bat	/CSC/	Occurs from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts (NatureServe, 2010).	The winter range includes western lowlands and coastal regions south of San Francisco Bay. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Roosts primarily in trees (less often in shrubs) along the edge of habitats adjacent to streams, fields or urban areas. Foraging habitats occurs in open areas. They may be found in unusual habitats during migration (NatureServe, 2010).	Year Round (spring migrations March to May AND autumn migrations September to October)	No. The project site does not provide habitat for this species.
Reithrodontomys raviventris Saltmarsh harvest mouse	FE/CE/	Only in the saline emergent wetlands of San Francisco Bay and its tributaries (NatureServe, 2010).	Pickleweed (salicornia) is the primary habitat. Does not burrow, but builds loosely organized nests. Requires higher areas for flood escape (NatureServe, 2010).	All Year	No. The project site does not provide habitat for this species.
Sorex ornatus sinuosus Suisun shrew	/CSC/	Tidal marshes of the northern shores of San Pablo and Suisun bays (NatureServe, 2010).	Occurs in herbaceous wetlands and tidal marshes in dense, low-lying cover of salicornia (NatureServe, 2010).	All Year	No. The project site does not provide habitat for this species.

#### **STATUS CODES**

FEDERAL: United States Fish and Wildlife Service

Federally Endangered Federally Threatened FΕ FT Federal Candidate for Listing Federally Listed Critical Habitat FC СН

STATE: California Department of Fish and Game CE California Listed Endangered CR California Listed Rare СТ California Listed Threatened California Species of Special Concern California Fully-Protected CSC CFP UKN Unknown Code

CNPS: California Native Plant Society
List 1A
List 1B
List 2
List 3

California Native Plant Society
Plants Presumed Extinct in California
Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
Plants About Which We Need More Information- A Review List

SOURCE: USFWS, 2011; CDFG, 2003; CNPS, 2011.

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG o
1	Agelaius tricolor tricolored blackbird	ABPBXB0020			G2G3	S2	SC
2	Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SC
3	Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030			G2	S2	
4	Aquila chrysaetos golden eagle	ABNKC22010			G5	S3	
5	Ardea alba great egret	ABNGA04040			G5	S4	
6	Asio flammeus short-eared owl	ABNSB13040			G5	S3	SC
7	Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3			G1T1	S1.1	1B.1
8	Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B.2
9	Athene cunicularia burrowing owl	ABNSB10010			G4	S2	SC
10	Atriplex cordulata heartscale	PDCHE040B0			G2?	S2.2?	1B.2
11	Atriplex depressa brittlescale	PDCHE042L0			G2Q	S2.2	1B.2
12	Atriplex joaquiniana San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2
13	Atriplex persistens vernal pool smallscale	PDCHE042P0			G2	S2.2	1B.2
14	Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered		G1	S1	
15	Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3	
16	Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150			G2	S2	
17	Buteo regalis ferruginous hawk	ABNKC19120			G4	S3S4	
18	Buteo swainsoni Swainson's hawk	ABNKC19070		Threatened	G5	S2	
19	Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2			G4T2	S2.2	1B.2
20	Charadrius montanus mountain plover	ABNNB03100	Proposed Threatened		G2	S2?	SC
21	Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051			G5T3T4	S2	2.1
22	Circus cyaneus northern harrier	ABNKC11010			G5	S3	SC
23	Cirsium hydrophilum var. hydrophilum Suisun thistle	PDAST2E1G1	Endangered		G1T1	S1.1	1B.1

u	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
	Scientific Name/Common Name	Element Code	reuerai Status	State Status	GRAIIK		CNFO
24	Coastal Brackish Marsh	CTT52200CA			G2	S2.1	
25	Coastal and Valley Freshwater Marsh	CTT52410CA			G3	S2.1	
26	Cordylanthus mollis ssp. hispidus hispid bird's-beak	PDSCR0J0D1			G2T2	S2.1	1B.1
27	Cordylanthus mollis ssp. mollis soft bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1.1	1B.2
28	Danaus plexippus monarch butterfly	IILEPP2010			G5	S3	
29	<b>Delphinium recurvatum</b> recurved larkspur	PDRAN0B1J0			G2	S2.2	1B.2
30	Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2	
31	<b>Downingia pusilla</b> dwarf downingia	PDCAM060C0			G2	S2	2.2
32	Dumontia oregonensis hairy water flea	ICBRA23010			G1G3	S1	
33	Elanus leucurus white-tailed kite	ABNKC06010			G5	S3	
34	Elaphrus viridis Delta green ground beetle	IICOL36010	Threatened		G1	S1	
35	Emys marmorata western pond turtle	ARAAD02030			G3G4	S3	SC
36	Eriogonum truncatum  Mt. Diablo buckwheat	PDPGN085Z0			G1	S1.1	1B.1
37	Fritillaria liliacea fragrant fritillary	PMLIL0V0C0			G2	S2.2	1B.2
38	Fritillaria pluriflora adobe-lily	PMLIL0V0F0			G3	S3	1B.2
39	Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2	SC
40	Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060		Endangered	G2	S2	1B.2
41	Hesperolinon breweri Brewer's western flax	PDLIN01030			G2	S2.2	1B.2
42	Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010			G1G2	S1S2	
43	Icteria virens yellow-breasted chat	ABPBX24010			G5	S3	SC
44	Isocoma arguta Carquinez goldenbush	PDAST57050			G1	S1.1	1B.1
45	Lasiurus blossevillii western red bat	AMACC05060			G5	S3?	SC
46	Lasiurus cinereus hoary bat	AMACC05030			G5	S4?	
47	Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered		G1	S1.1	1B.1
	Contra Costa goldfields						

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG o
48	Laterallus jamaicensis coturniculus California black rail	ABNME03041		Threatened	G4T1	S1	
49	Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2			G5T2	S2.2	1B.2
50	Legenere limosa legenere	PDCAM0C010			G2	S2.2	1B.1
51	Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1			G4T1	S1.2	1B.2
52	Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3	
53	<b>Lilaeopsis masonii</b> Mason's lilaeopsis	PDAPI19030		Rare	G2	S2	1B.1
54	Limosella subulata Delta mudwort	PDSCR10050			G4?Q	S2.1	2.1
55	Linderiella occidentalis California linderiella	ICBRA06010			G3	S2S3	
56	<b>Melospiza melodia maxillaris</b> Suisun song sparrow	ABPBXA301K			G5T2	S2	SC
57	Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1			G4T2	S2.1	1B.1
58	Neostapfia colusana Colusa grass	PMPOA4C010	Threatened	Endangered	G2	S2	1B.1
59	Northern Claypan Vernal Pool	CTT44120CA			G1	S1.1	
60	Orcuttia inaequalis San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G2	S2.1	1B.1
61	Plagiobothrys hystriculus bearded popcorn-flower	PDBOR0V0H0			G1	S1.1	1B.1
62	Pogonichthys macrolepidotus Sacramento splittail	AFCJB34020			G2	S2	SC
63	Rallus longirostris obsoletus California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	
64	Rana boylii foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
65	Rana draytonii California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
66	Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	
67	<b>Saldula usingeri</b> Wilbur Springs shorebug	IIHEM07010			G1	S1	
68	Sidalcea keckii Keck's checkerbloom	PDMAL110D0	Endangered		G1	S1.1	1B.1
69	Sorex ornatus sinuosus Suisun shrew	AMABA01103			G5T1	S1	SC
70	Stuckenia filiformis slender-leaved pondweed	PMPOT03090			G5	S1S2	2.2
71	<b>Symphyotrichum lentum</b> Suisun Marsh aster	PDASTE8470			G2	S2	1B.2

California Department of Fish and Game Natural Diversity Database Selected Elements by Scientific Name - Portrait Elmira and 8 Surrounding Quads Vanden Meadows

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
72	Trifolium amoenum showy rancheria clover	PDFAB40040	Endangered		G1	S1.1	1B.1
73	Trifolium hydrophilum saline clover	PDFAB400R5			G2?	S2.2?	1B.2
74	Tuctoria mucronata Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1.1	1B.1
75	Valley Needlegrass Grassland	CTT42110CA			G3	S3.1	

## U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 110204113228
Database Last Updated: April 29, 2010

#### **Quad Lists**

#### **Listed Species**

#### Invertebrates

Branchinecta conservatio

Conservancy fairy shrimp (E)

Critical habitat, Conservancy fairy shrimp (X)

Branchinecta lynchi

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Elaphrus viridis

Critical habitat, delta green ground beetle (X)

delta green ground beetle (T)

Lepidurus packardi

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

Syncaris pacifica

California freshwater shrimp (E)

#### Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Hypomesus transpacificus

Critical habitat, delta smelt (X)

delta smelt (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### **Amphibians**

Ambystoma californiense

California tiger salamander, central population (T)

```
Critical habitat, CA tiger salamander, central population (X)
      Rana draytonii
           California red-legged frog (T)
Reptiles
      Thamnophis gigas
            giant garter snake (T)
Birds
      Rallus longirostris obsoletus
            California clapper rail (E)
      Sternula antillarum (=Sterna, =albifrons) browni
            California least tern (E)
      Strix occidentalis caurina
            northern spotted owl (T)
Mammals
     Reithrodontomys raviventris
           salt marsh harvest mouse (E)
Plants
      Cirsium hydrophilum var. hydrophilum
           Suisun thistle (E)
      Cordylanthus mollis ssp. mollis
            soft bird's-beak (E)
     Lasthenia conjugens
            Contra Costa goldfields (E)
            Critical habitat, Contra Costa goldfields (X)
     Neostapfia colusana
           Colusa grass (T)
      Orcuttia inaequalis
            San Joaquin Valley Orcutt grass (T)
      Sidalcea keckii
            Keck's checker-mallow (=checkerbloom) (E)
      Tuctoria mucronata
            Solano grass (=Crampton's tuctoria) (E)
Proposed Species
Plants
      Cirsium hydrophilum var. hydrophilum
            Critical habitat, Suisun thistle (PX)
      Cordylanthus mollis ssp. mollis
           Critical habitat, soft bird's-beak (PX)
Quads Containing Listed, Proposed or Candidate Species:
BIRDS LANDING (481A)
DENVERTON (481B)
DIXON (498A)
ALLENDALE (498B)
ELMIRA (498C)
```

DOZIER (498D) MT. VACA (499A) FAIRFIELD NORTH (499D)

#### **County Lists**

No county species lists requested.

#### Key:

- (E) Endangered Listed as being in danger of extinction.
- (T) Threatened Listed as likely to become endangered within the foreseeable future.
- (P) Proposed Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the <u>National Oceanic & Atmospheric Administration Fisheries Service</u>. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

- (PX) Proposed Critical Habitat The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

#### Important Information About Your Species List

#### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey  $7\frac{1}{2}$  minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

#### **Plants**

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online <a href="Inventory of Rare and Endangered Plants">Inventory of Rare and Endangered Plants</a>.

#### Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our <a href="Protocol">Protocol</a> and <a href="Recovery Permits">Recovery Permits</a> pages.

For plant surveys, we recommend using the <u>Guidelines for Conducting and Reporting</u>

<u>Botanical Inventories</u>. The results of your surveys should be published in any environmental documents prepared for your project.

#### Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

### Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
  - During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
  - Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

#### Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

#### Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates

was listed before the end of your project.

#### Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

#### Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

#### **Updates**

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be May 05, 2011.



Status: search results - Fri, Feb. 4, 2011, 13:23 b

{QUADS\_123} = m/498C|481A|481B|499D|499A|482A|498D|498/ Search

**Tip:** Want to search by habitat? Try the **Checkbox and Preset** search page.[all tips and help.] [search history]

**Your Quad Selection:** Elmira (498C) 3812138, Birds Landing (481A) 3812127, Denverton (481B) 3812128, Fairfield North (499D) 3812231, Mount Vaca (499A) 3812241, Fairfield South (482A) 3812221, Dozier (498D) 3812137, Dixon (498A) 3812147, Allendale (498B) 3812148

#### Hits 1 to 41 of 41

Requests that specify topo quads will return only Lists 1-3.

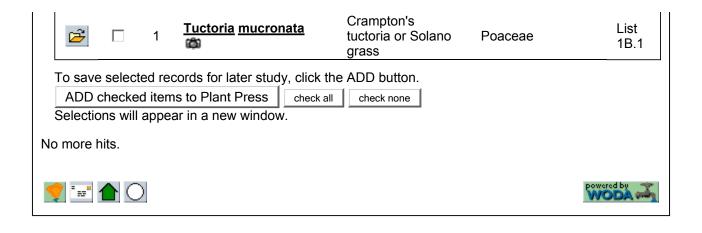
To save selected records for later study, click the ADD button.

ADD checked items to Plant Press check all check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
<b>≧</b>		1	<u>Astragalus</u> <u>tener</u> var. <u>ferrisiae</u>	Ferris' milk-vetch	Fabaceae	List 1B.1
<b>≧</b>		1	Astragalus tener var.	alkali milk-vetch	Fabaceae	List 1B.2
<b>≧</b>		1	Atriplex cordulata	heartscale	Chenopodiaceae	List 1B.2
<b>=</b>		1	Atriplex depressa 🗯	brittlescale	Chenopodiaceae	List 1B.2
<b>=</b>		1	Atriplex joaquiniana	San Joaquin spearscale	Chenopodiaceae	List 1B.2
<b>Ğ</b>		1	Atriplex persistens 🗯	vernal pool smallscale	Chenopodiaceae	List 1B.2
<b>≧</b>		1	Calochortus pulchellus	Mt. Diablo fairy- lantern	Liliaceae	List 1B.2
<b>≧</b>		1	Centromadia parryi ssp. <u>parryi</u>	pappose tarplant	Asteraceae	List 1B.2
<b>≟</b>		1	Cicuta maculata var. bolanderi	Bolander's water- hemlock	Apiaceae	List 2.1
<b>≟</b>		1	Cirsium hydrophilum var. hydrophilum	Suisun thistle	Asteraceae	List 1B.1
<b>≧</b>		1	Cordylanthus mollis ssp. <u>hispidus</u>	hispid bird's-beak	Scrophulariaceae	List 1B.1
<b>≧</b>		1	Cordylanthus mollis ssp. mollis	soft bird's-beak	Scrophulariaceae	List 1B.2
<b>≧</b>		1	Cryptantha crymophila	subalpine cryptantha	Boraginaceae	List 1B.3
<b>≧</b>		1	Delphinium recurvatum	recurved larkspur	Ranunculaceae	List 1B.2
<b>≧</b>		1	Downingia pusilla	dwarf downingia	Campanulaceae	List 2.2

<b>=</b>	1	Eriogonum truncatum	Mt. Diablo buckwheat	Polygonaceae	List 1B.1
<b>≧</b>	1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
<b>=</b>	1	Fritillaria pluriflora	adobe-lily	Liliaceae	List 1B.2
<b>=</b>	1	Gilia capitata ssp. tomentosa 🕮	woolly-headed gilia	Polemoniaceae	List 1B.1
<b>=</b>	1	Gratiola heterosepala	Boggs Lake hedge -hyssop	Scrophulariaceae	List 1B.2
<b>=</b>	1	Hesperolinon breweri	Brewer's western flax	Linaceae	List 1B.2
<b>=</b>	1	Isocoma arguta 🚳	Carquinez goldenbush	Asteraceae	List 1B.1
<b>≧</b>	1	Lasthenia conjugens	Contra Costa goldfields	Asteraceae	List 1B.1
<b>≧</b>	1	Lathyrus jepsonii var. jepsonii 🕮	Delta tule pea	Fabaceae	List 1B.2
<b>~</b>	1	Legenere limosa 🚳	legenere	Campanulaceae	List 1B.1
<b>=</b>	1	<u>Lepidium latipes</u> var. <u>heckardii</u>	Heckard's pepper- grass	Brassicaceae	List 1B.2
<b>≧</b>	1	Lessingia hololeuca	woolly-headed lessingia	Asteraceae	List 3
<b>≧</b>	1	Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	List 1B.1
<b>≧</b>	1	Limosella subulata 🛱	Delta mudwort	Scrophulariaceae	List 2.1
<b>≧</b>	1	Monardella villosa ssp. globosa 🕮	robust monardella	Lamiaceae	List 1B.2
<b>=</b>	1	Myosurus minimus ssp. apus 🗯	little mousetail	Ranunculaceae	List 3.1
<b>≧</b>	1	Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	List 1B.1
<b>=</b>	1	Neostapfia colusana	Colusa grass	Poaceae	List 1B.1
<b>≧</b>	1	Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	List 1B.1
<b>≧</b>	1	Plagiobothrys hystriculus	bearded popcorn- flower	Boraginaceae	List 1B.1
<b>=</b>	1	Sidalcea keckii	Keck's checkerbloom	Malvaceae	List 1B.1
<b>=</b>	1	Stuckenia filiformis	slender-leaved pondweed	Potamogetonaceae	List 2.2
<b>=</b>	1	Symphyotrichum lentum 🕮	Suisun Marsh aster	Asteraceae	List 1B.2
<b>≧</b>	1	Trifolium amoenum 🛱	two-fork clover	Fabaceae	List 1B.1
<b>2</b>	1	Trifolium hydrophilum	saline clover	Fabaceae	List 1B.2



## BIOLOGICAL LETTER REPORT FOR PROPOSED OFFSITE SEWER CONNECTION UPGRADES



1801 7th Street, Suite 100 Sacramento, CA 95811 http://www.analyticalcorp.com (916) 447-3479 • Fax (916) 447-1665

#### Memorandum

To:

From: Kelly Bayne, Analytical Environmental Services

Date: 9/23/2011

Re: Biological Letter Report for the Proposed Offsite Sewer Connection Upgrades for the Vanden

Meadows Specific Plan and Development Project

This memorandum (memo) summarizes the results of a biological survey and documents potentially occurring special status species with the potential to occur in the vicinity of the proposed offsite sewer connection upgrades (proposed upgrades) associated with the Vanden Meadows Specific Plan and Development Project (Vanden Meadows project), in Solano County, California (**Figure 1**).

#### Location

The proposed improvements are situated on Township 6 North, Range 1 West, Sections 25, 35, and 36 and Township 6 North, Range 1 East, Sections 19, 25, and 30 of the Elmira U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad), Mt. Diablo Meridian. The centroid of the proposed improvements is 38° 20' 20.87" north, 121° 55' 11.29" west.

#### **Existing and Proposed Offsite Sewer Connection Upgrades**

The Vanden Meadows project is located within the service area of the City's wastewater collection system. Existing City wastewater collection infrastructure includes pressurized force mains, gravity mains, lift stations, and two City-owned wastewater treatment plants. A portion of the Vanden Meadows project is located within the designated service area for the CSP-S Trunk Sewer. The CSP-S Trunk Sewer system includes a 24-inch sewer main in Vanden Road, a 21-inch sewer main at the intersection of Foxboro Parkway and Nut Tree Road, a 24-inch sewer main which runs between Nut Tree Road and Vanden Road along the southern border of the proposed school property. In addition, the Southtown Project's proposed expansion of the wastewater collection facilities north of the Vanden Meadows project includes a 12-inch pipeline which would terminate at the northeastern portion of the Vanden Meadows project.

The CSP-S Trunk Sewer transmits existing wastewater flows to the Easterly Wastewater Treatment Plant (EWWTP), located immediately southeast of the community of Elmira and northeast of the Vanden Meadows project. The EWWTP provides wastewater treatment services to the developed areas within the

City limits and the unincorporated community of Elmira. Treated effluent is discharged to Old Alamo Creek, which is a tributary to the Sacramento-San Joaquin Delta. Waste solids are beneficially reused either as alternative daily cover at a private nearby landfill, or applied as a soil amendment on City-owned agricultural lands. The proposed upgrades would occur in three locations (**Figure 1**).

#### Methodology

A list of regionally occurring special status plants and wildlife was compiled based on: a review of pertinent literature; a U.S. Fish and Wildlife Service (USFWS) list, last updated September 18, 2011, of federally listed special status species with the potential to occur on or be affected by projects on the Elmira USGS 7.5 minute topographic quad (USFWS, 2011); a California Department of Fish and Game (DFG) California Natural Diversity Database (CNDDB) query, dated September 3, 2011, of special status species known to occur on the Elmira quad (CDFG, 2003); a CNDDB map of known occurrences of special-status species documented within five miles of the proposed upgrades (**Figure 2**); and a California Native Plant Society (CNPS) query, viewed September 22, 2011, of special status species known to occur on the Elmira quad (CNPS, 2011). The USFWS list and the CNDDB and CNPS queries are included within **Attachment 1**.

Analytical Environmental Services (AES) Senior Biologist, Kelly Bayne, M.S. conducted a general biological survey of the proposed upgrades on September 21, 2011. Ms. Bayne drove along the proposed upgrade route where the pipelines would be located within previously developed roadways and walked along the proposed upgrade route on roads that were not paved. Ms. Bayne documented habitat types and waterways in the vicinity of the proposed upgrade routes to determine whether special status species documented on the Elmira quad have the potential to occur in the vicinity of the proposed upgrade routes. Habitat types occurring within each of the proposed upgrades are discussed further below.

The potential for each of the regionally occurring special-status species to occur within each of the proposed upgrades was subsequently evaluated based on the results of the biological field survey. A discussion of the distribution and habitat requirements for each species and an evaluation of the potential for each species to occur in the vicinity of the proposed upgrade route are included in **Attachment 1**. Several regionally occurring special status species were eliminated for the following reasons: the proposed upgrades lack suitable habitat or the proposed upgrades occur outside of the known elevation range or geographical distribution. Species without the potential to occur in the vicinity of the proposed upgrade route are not discussed further.

#### **Habitat Types**

Upgrade 1 occurs within a paved access road that runs parallel along the west side of the railroad, crosses beneath the railroad tracks and an irrigation ditch, continues eastward through agricultural land, extends northward along Vaca Station Road, then eastward where it terminates at the EWWTP.

Upgrade 2 occurs within a ruderal/disturbed area. Upgrade 2 extends east to west within a dirt road from Leisure Town Road to the paved access road that runs parallel along the west side of the railroad. Ruderal vegetation observed in the vicinity of the dirt road includes mustard (*Brassica* sp.), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), oat (*Avena* sp.), and pigweed (*Amaranthus* sp.).

Upgrade 3 occurs entirely within a paved access road that runs parallel along the west side of the railroad. Upgrade 3 would occur entirely within the land that has been previously developed.

#### **Critical Habitat**

Although the USFWS list identifies critical habitat for the federally listed Contra Costa goldfields (*Lasthenia conjugens*), conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), delta green ground beetle (*Elaphrus viridis*), and vernal pool tadpole shrimp (*Lepidurus packardi*) on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for these species.

#### **Special Status Plants**

Upgrade 2 provides habitat for two federally listed plants: Contra Costa goldfields and showy Rancheria clover (*Trifolium amoenum*).

Upgrade 2 provides habitat for the following seven CNPS-listed plants: alkali milk-vetch (*Astragalus tener* var. *tener*), recurved larkspur (*Delphinium recurvatum*), dwarf downingia (*Downingia pusilla*), adobe lily (*Fritillaria pluriflora*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), bearded popcorn flower (*Plagiobothrys histriculus*), and saline clover (*Trifolium hydrophilum*).

#### Special Status Wildlife

The proposed upgrades do not provide habitat for any federally listed wildlife. The trees within 0.5 miles of the proposed upgrades provide nesting habitat for the state listed Swainson's hawk (*Buteo swainsoni*). The proposed upgrades provide foraging habitat within the ruderal areas of Upgrade 2 and within the agricultural portion of Upgrade 1. Swainson's hawks were not observed during the biological survey. This species has a low potential to nest and forage in the vicinity of the proposed upgrades.

#### Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA, and those protected under Sections 3503, 3503.5, 3511, and 3800 of the California Fish and Game Code, have the potential to nest in the trees and shrubs located in the vicinity of the proposed upgrades. The nesting season is from February 15 to September 15.

#### References

- California Department of Fish and Game (CDFG), 2003. RareFind 3 Version 3.1.0, California Natural Diversity Data Base. Natural Heritage Division, CNDDB, Sacramento, California. Updated on September 2, 2011. Accessed on September19, 2011.
- California Native Plant Society (CNPS), 2011. Inventory of Rare and Endangered Plants. Online edition, v6-05c. California Native Plant Society. Fresno, California. Accessed from: http://www.cnps.org/inventory. Accessed on September 22, 2011.
- Eriksen, C. and D. Belk, 1999. Fairy Shrimps of California's Puddles, Pools, and Playas. Mad River Press, Inc. Eureka, California.
- Moyle, P.B., 2002. Inland Fishes of California. Revised and Expanded Edition. University of California Press, Berkley, California.
- NatureServe, 2010. NatureServe Explorer: An Online Encyclopedia of Life [Web Application]. (Last updated: October 10, 2008) Version 7.1. NatureServe, Arlington, Virginia. Available at: http://www.natureserve.org/explorer. Accessed on September 22, 2011.
- Stebbins, R.C., 2003. A Field Guide to Western Reptiles and Amphibians, 3rd ed. Houghton Mifflin, Boston, Massachusetts.
- U.S. Fish and Wildlife Service (USFWS), 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species. Proposed Rule. Federal Register, 59(219): 58982-59028.
- U.S. Fish and Wildlife Service (USFWS), 2011. Federal Endangered and Threatened Species that Occur On or May Be Affected by Projects on the Elmira USGS 7.5 Topographic Quadrangle. Last updated September 18, 2011. Available at: http://www.fws.gov/sacramento/es/spp\_list.htm. Accessed on September 22, 2011.

## **ATTACHMENTS**

### **ATTACHMENT 1**

USFWS, CNPS, AND CNDDB LISTS AND REGIONALLY OCCURRING
SPECIAL STATUS SPECIES

These buttons will not appear on your list.

Print species list before going on to letter.

## U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 110922051317 Database Last Updated: September 18, 2011

#### **Quad Lists**

#### Listed Species

#### Invertebrates

Branchinecta conservatio

Conservancy fairy shrimp (E)

Critical habitat, Conservancy fairy shrimp (X)

Branchinecta lynchi

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Elaphrus viridis

Critical habitat, delta green ground beetle (X)

delta green ground beetle (T)

Lepidurus packardi

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

#### Fish

Hypomesus transpacificus

delta smelt (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### **Amphibians**

Ambystoma californiense

California tiger salamander, central population (T)

Rana draytonii

California red-legged frog (T)

#### Reptiles

Thamnophis gigas

giant garter snake (T)

#### **Birds**

Rallus longirostris obsoletus

California clapper rail (E)

**Plants** 

Lasthenia conjugens Contra Costa goldfields (E)

Critical habitat, Contra Costa goldfields (X)

Orcuttia inaequalis

San Joaquin Valley Orcutt grass (T)

Quads Containing Listed, Proposed or Candidate Species:

ELMIRA (498C)

#### **County Lists**

No county species lists requested.

#### Key:

- (E) Endangered Listed as being in danger of extinction.
- (T) Threatened Listed as likely to become endangered within the foreseeable future.
- (P) Proposed Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the <u>National Oceanic & Atmospheric Administration Fisheries Service</u>. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

- (PX) Proposed Critical Habitat The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

#### **Important Information About Your Species List**

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

#### **Plants**

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online <u>Inventory of Rare and Endangered Plants</u>.

#### Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

See our <u>Protocol</u> and <u>Recovery Permits</u> pages.

For plant surveys, we recommend using the <u>Guidelines for Conducting and Reporting Botanical Inventories</u>. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
  - During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
  - Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

#### Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

#### Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals

on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

#### Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

#### Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

#### **Updates**

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be December 21, 2011.

#### **CNPS Inventory of Rare and Endangered Plants**

Status: Plant Press Manager window with 14 items - Thu, Sep. 22, 2011 18:53 c

- During each visit, we provide you with an empty "Plant Press" for collecting items of interest.
- Several report formats are available. Use the CSV and XML options to download raw data.

Standard List - with Plant Press controls

open	save	scientific	common	family	CNPS
<b>≱</b>		Astragalus tener var. tener	alkali milk-vetch	Fabaceae	List 1B.2
<u></u>		Atriplex cordulata (2)	heartscale	Chenopodiaceae	List 1B.2
<b>≧</b>		Atriplex depressa (**)	brittlescale	Chenopodiaceae	List 1B.2
<b>≧</b>		Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	List 1B.2
<b>≧</b>		Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	List 1B.1
<b>≧</b>		Delphinium recurvatum 🛱	recurved larkspur	Ranunculaceae	List 1B.2
<b>≥</b>		Downingia pusilla 🛱	dwarf downingia	Campanulaceae	List 2.2
<b>≧</b>		Isocoma arguta 🖾	Carquinez goldenbush	Asteraceae	List 1B.1
<b>≧</b>		Lasthenia conjugens	Contra Costa goldfields	Asteraceae	List 1B.1
<b>≧</b>		Lathyrus jepsonii var. jepsonii 🛱	Delta tule pea	Fabaceae	List 1B.2
<b>≧</b>		Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	List 1B.1
<b>≧</b>		Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	List 1B.1
<b>≧</b>		Plagiobothrys hystriculus (2)	bearded popcorn-flower	Boraginaceae	List 1B.1
<u>~</u>		Trifolium hydrophilum	saline clover	Fabaceae	List 1B.2

### ATTACHMENT 1 REGIONALLY OCCURRING FEDERAL, STATE, AND CNPS LISTED SPECIAL-STATUS SPECIES

SCIENTIFIC	FEDERAL/	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF	POTENTIAL HABITAT OCCURS WITHIN
NAME	STATE/CNPS			IDENTIFICATION	PROJECT SITE?
COMMON NAME	STATUS				
Plants					
Astragalus tener var. tener Alkali milk-vetch	//1B	Merced, Monterey, Napa, San Benito, Santa	Annual herb found in alkaline soils of valley and foothill grassland that are occasionally within adobe clay, playas, and vernal pools from 1 to 60 meters (CNPS, 2011).	March-June	This species has the potential to occur within Upgrade 2.
Atriplex cordulata Heartscale	//1B	Joaquin, San Luis Obispo, Solano, Stanislaus,	Annual herb found on saline or alkaline soils on chenopod scrub, meadows and seeps, and valley and foothill grassland that are occasionally sandy, from 1 to 375 meters (CNPS, 2011).	April-October	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Atriplex depressa Brittlescale	//1B	Fresno, Glenn, Kern, Merced, Solano,	Annual herb found on alkaline, clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools from 1 to 320 meters (CNPS, 2011).	April-October	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Atriplex joaquiniana San Joaquin spearscale	//1B	Fresno, Glenn, Merced, Monterey, Napa, San	Annual herb found on alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland from 1 to 835 meters (CNPS, 2011).	April-October	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Centromadia parryi ssp. parryi Pappose tarplant	//1B		Annual herb found often on alkaline soils in chaparral, coastal prairie, meadows and seeps, marshes and swamps that are occasionally of coastal salt, and valley and foothill grassland that are occasionally vernally mesic, from 2 to 420 meters (CNPS, 2011).	May-November	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Cloropyron molle ssp. parryi Hispid bird's-beak	//1B	Placer, and Solano counties (CNPS, 2011).	Annual hemiparasitic herb found on alkaline soils in meadows and seeps, playas, and valley and foothill grasslands from 1 to 155 meters (CNPS, 2011).	June-September	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Delphinium recurvatum Recurved larkspur	//1B	Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare counties (CNPS, 2011).	Perennial herb found on alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland from 3 to 750 meters (CNPS, 2011).	March-June	This species has the potential to occur within Upgrade 2.
Downingia pusilla Dwarf downingia	//2	Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties in California and in South America (CNPS, 2011).	Annual herb found in valley and foothill grassland occasionally on mesic soils, and in and vernal pools from 1 to 445 meters (CNPS, 2011).	March-May	This species has the potential to occur within Upgrade 2.
Fritillaria pluriflora Adobe lily	//1B	Napa, Solano, Tehama, and Yolo counties (CNPS, 2011).	Bulbiferous herb found often on adobe soils in chaparral, cismontane woodland, and valley and foothill grassland from 60 to 705 meters (CNPS, 2011).	February-April	This species has the potential to occur within Upgrade 2.
Isocoma arguta Carquinez	//1B	Known from Solano County (CNPS, 2011).	Shrub found on alkaline soils in valley and foothill grassland from 1 to 20 meters (CNPS, 2011).	August-December	Although the nonnative annual grassland provides suitable habitat within the Upgrade 2, this species was not observed during the September 21, 2011 biological

Analytical Environmental Services September 2011

SCIENTIFIC NAME	FEDERAL/ STATE/CNPS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL HABITAT OCCURS WITHIN PROJECT SITE?
goldenbush	STATUS				survey, which was conducted within the evident and identifiable blooming period for this species. This species does not occur within the Upgrade 2.
Lasthenia conjugens Contra Costa goldfields	,		Annual herb found on mesic soils in cismontane woodland, playas that are usually alkaline, valley and foothill grassland, and vernal pools from 0 to 470 meters (CNPS, 2011).	March-June	This species has the potential to occur within Upgrade 2. Although the USFWS list identifies critical habitat on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for this species.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	, ,,,,	Known from Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Sonoma counties (CNPS, 2011).	Perennial herb found in marshes and swamps that are occasionally freshwater and brackish, from 0 to 4 meters (CNPS, 2011).	May–July Uncommon in September	No. The proposed upgrades do not provide habitat for this species.
Legenere limosa Legenere		Known from Alameda, Lake, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties (CNPS, 2011).	Annual herb found in vernal pools from 1 to 880 meters (CNPS, 2011).	April-June	No. The proposed upgrades do not provide habitat for this species.
Navarretia leucocephala ssp. bakeri Baker's navarretia			Annual herb found on mesic soils cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland and vernal pools from 5 to 1,740 meters (CNPS, 2011).	April-July	This species has the potential to occur within Upgrade 2.
Orcuttia inaequalis San Joaquin valley Orcutt grass		Known from Fresno, Madera, Merced, Solano, Stanislaus, and Tulare counties (CNPS, 2011).	Annual herb found in vernal pools from 10 to 750 meters (CNPS, 2011).	April-September	No. The proposed upgrades do not provide habitat for this species.
Plagiobothrys histriculus Bearded popcorn flower	//1B	Known from Solano County (CNPS, 2011).	Annual herb found often in vernal swales within valley and foothill grassland, which are mesic, and vernal pool margins from 0 to 274 meters (CNPS, 2011).	April-May	This species has the potential to occur within Upgrade 2.
Trifolium amoenum Showy rancheria clover	FE//1B		Annual herb found in coastal bluff scrub and valley and foothill grassland that is sometimes on serpentinite soils, from 5 to 415 meters (CNPS, 2011).	April-June	This species has the potential to occur within Upgrade 2.
Trifolium hydrophilum Saline clover		San Luis Obispo, San Mateo, Solano, and	Annual herb found in marshes and swamps, valley and foothill grassland that are occasionally on mesic, alkaline soils, and vernal pools from 0 to 300 meters (CNPS, 2011).	April-June	This species has the potential to occur within Upgrade 2.
Animals					
Invertebrates  Branchinecta conservatio Conservancy fairy shrimp		Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Butte, Colusa, Glenn, Merced, Solano, Stanislaus, Tehama, Ventura, Yolo, and Yuba counties (NatureServe, 2010).	Ephemeral wetland habitats and vernal pools on clay, volcanic, and alluvial soils within annual grassland and pine forests. Elevations range from 5-1,700 meters (NatureServe, 2010).	November-April (adults) Dry season: typically	No. The proposed upgrades do not provide habitat for this species. Although the USFWS list identifies critical habitat on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for this species.
Branchinecta lynchi Vernal pool fairy shrimp  Desmocerus	FT, CH//	Known from Alameda, Butte, Contra Costa, Colusa, El Dorado, Fresno, Glenn, Kings, Lake, Los Angeles, Madera, Merced, Monterey, Napa, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Tehama, Tulare, Riverside, and Yuba counties in California and in southern Oregon (Eriksen and Belk, 1999).	Found in ephemeral wetland habitats and vernal pools within sandstone, alkaline soils, and alluvial fan terraces, within annual grassland and pine forests from 10 to 1,700 meters (Eriksen and Belk, 1999).  Found in riparian forest communities from 0 to 762	Wet season: December through May (adults) Dry season: June- November (eggs	No. The proposed upgrades do not provide habitat for this species. Although the USFWS list identifies critical habitat on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for this species.  No. The proposed upgrades do not provide habitat for

SCIENTIFIC	FEDERAL/	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF	POTENTIAL HABITAT OCCURS WITHIN
NAME	STATE/CNPS			IDENTIFICATION	PROJECT SITE?
COMMON NAME	STATUS				41.
californicus dimorphus		Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer,	meters. Exclusive host plant is elderberry ( <i>Sambucus</i> species), which must have stems at least 1-inch diameter		this species.
Valley elderberry			for the beetle (NatureServe, 2010).		
longhorn beetle		Stanislaus, Sutter, Tehama, Tulare, Yolo, and			
<i>y</i>		Yuba counties (NatureServe, 2010).			
Elaphrus viridis Delta green ground beetle	FT, CH//	Prairie area in south-central Solano County (NatureServe, 2010).	Prefers sandy mud substrate where it slopes gently into the water, with low-growing vegetation from 25 to 100 percent cover (NatureServe, 2010).		No. The proposed upgrades do not provide habitat for this species. Although the USFWS list identifies critical habitat on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for this species.
Lepidurus packardi Vernal pool tadpole	FE, CH//	Known from the Central valley and the San Francisco Bay area from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994).	Wide variety of ephemeral wetland habitats. Typically vernal pools on High Terrace landforms within annual grassland with clear to highly turbid water (USFWS, 1994).	November-April (adults) Dry season: typically	No. The proposed upgrades do not provide habitat for this species. Although the USFWS list identifies critical habitat on the Elmira quad, the proposed upgrades do not occur within the boundaries of the designated critical habitat for this species.
Fishes					
Hypomesus	FT/CT/	Known almost exclusively in the Sacramento-	Found in estuarine waters. Majority of life span is spent	Consult Agency	No. The proposed upgrades do not provide habitat for
transpacificus Delta smelt	23.20	San Joaquin estuary, from the Suisun Bay	within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta (Moyle, 2002).	Consult Agency	this species.
Oncorhynchus mykiss steelhead Central valley Steelhead	FT//	Delta and Bay Area (Moyle, 2002).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly streambed (Moyle, 2002).	Consult Agency	No. The proposed upgrades do not provide habitat for this species.
Oncorhynchus	FT/CT/		Spawning occurs in large deep pools in tributaries with	Consult Agency	No. The proposed upgrades do not provide habitat for
tshawytscha Chinook salmon Central valley spring- run		its tributaries. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	moderate velocities (Moyle, 2002).		this species.
Oncorhynchus tshawytscha Chinook salmon winter-run,	FE/CE/	Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Returns to the Upper Sacramento River in the winter but delay spawning until spring and summer. Juveniles spend 5-9 months in the river and estuary before entering the ocean (Moyle, 2002).	Consult Agency	No. The proposed upgrades do not provide habitat for this species.
Sacramento River					
Amphibians		lv			
Ambystoma californiense California tiger salamander		Fresno, Glenn, Kern, Madera, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tulare, and Yolo counties (Stebbins, 2003).	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters (Stebbins, 2003).	(adults) March 15 -May15 (larvae)	No. The proposed upgrades do not provide habitat for this species and occur outside of the known geographic range for this species.
Rana aurora draytonii California red-legged frog	FT/CSC/	Known along the Coast from Mendocino County to Baja California, and inland through the northern Sacramento valley into the foothills of the Sierra Nevada mountains,	Found in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation from 0 to 1,160 meters (NatureServe, 2010).		No. The proposed upgrades do not provide habitat for this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL HABITAT OCCURS WITHIN PROJECT SITE?
Davida		south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central valley (NatureServe, 2010).			
Reptiles Emys marmorata Western pond turtle	/CSC/	Known throughout California west of the Sierra-Cascade crest. Absent from desert regions except along the Mohave River and its tributaries (Stebbins, 2003).	Found in permanent ponds, lakes, streams, irrigation ditches, permanent pools and along intermittent streams. Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes less than 15 percent with little vegetation or sandy banks. Found from 0 to 1,430 meters (Stebbins, 2003).	All year	No. The proposed upgrades do not provide habitat for this species.
Thamnophis gigas Giant garter snake	FT/CT/	Known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Sacramento, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant (Stebbins, 2003).	March-October	No. The proposed upgrades do not provide habitat for this species.
Birds			, ,		
Athene cunicularia Burrowing owl	/CSC/	(NatureServe, 2010).	Yearlong resident of open, dry grassland and desert habitats, as well as in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (NatureServe, 2010).	All Year	No. The proposed upgrades do not provide habitat for this species.
Buteo swainsoni Swainson's hawk	/CT/	County, and Mojave Desert. Very limited breeding reported from Lanfair valley, Owens valley, Fish Lake valley, Antelope valley, and in eastern San Luis Obispo County (NatureServe, 2010).		March-October	Yes. See text.
Rallus longirostris obsoletus California clapper rail	FE/CE/	Occur in the San Francisco bay region (NatureServe, 2010).	Salt water and brackish marshes traversed by tidal sloughs. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud bottomed sloughs (NatureServe, 2010).	All year	No. The proposed upgrades do not provide habitat for this species.

#### STATUS CODES

FEDERAL: United States Fish and Wildlife Service

Federally Endangered Federally Threatened Federally Listed Critical Habitat FΕ FT

СН

STATE: California Department of Fish and Game CE California Listed Endangered CT California Listed Threatened California Species of Concern CSC

CNPS:

List 1B

California Native Plant Society
Plants Rare, Threatened, or Endangered in California and Elsewhere
Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere List 2