APPENDIX B

Table B-1 Special Status Species

Table B-1. Special-Status Species Considered in the Analysis for the Contra Costa Water District Proposed Long-Term Water Service Contract, Contra Costa County, California. (North State Resources, Inc., March 2004)

March 2004)							
Spe	ecies		0	Is Species			
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area		
Mammals							
riparian (San Joaquin Valley) woodrat	Neotoma fuscipes riparia	Е	Inhabits riparian forest and scrub communities along low portions of the San Joaquin and Stanislaus rivers in the northern San Joaquin Valley. Historical localities are distributed in San Joaquin, Stanislaus, and Merced counties. Known occupied range is limited to the Stanislaus River riparian areas near Caswell Memorial State Park; a possible second population is near Vernalis, San Joaquin County.	NO	The CCWD service area is outside the species known occupied range.		
salt marsh harvest mouse	Reithrodontomys raviventris	E	Inhabits tidal and nontidal salt marshes of Suisun, San Pablo, and central and south San Francisco bays.	YES	CNDDB results show 25 known occurrences in the project vicinity, in the following USGS quadrangles: Vine Hill, Honker Bay, Antioch North, and Benicia. Suitable habitat is present in the CCWD service area, and the species is known to occur within the CCWD boundary.		
riparian brush rabbit	Sylvilagus bachmani riparius	E	Found in San Joaquin Valley native riparian areas with large clumps of dense shrubs, low growing vines, and some tall shrubs and scrubby trees. Known populations exist: in Caswell Memorial State Park in southern San Joaquin County, in the Paradise Cut area south of Stockton, and near Lathrop, California.	NO	The CCWD service area is outside the species current known range.		
Mammals							
San Joaquin kit fox	Vulpes macrotis mutica	E	Inhabits semiarid communities of the San Joaquin Valley and adjacent foothill grasslands and open canopied woodlands. Current range extends from Contra Costa and San Joaquin counties in the north, south to Kern and Santa Barbara counties.	YES	Suitable habitat in the CCWD service area is highly fragmented, but the species has been observed in the CCWD service area. CNDDB results show 25 known occurrences in the project vicinity, in the following USGS quadrangles: Woodward Island, Clayton, Antioch South, Brentwood, Tassajara, Byron Hot Springs, Diablo, Altamont, and Livermore.		

Table B-1. Special-Status Species Considered in the Analysis for the Contra Costa Water District Proposed Long-Term Water Service Contract, Contra Costa County, California. (North State Resources, Inc., March 2004)

	Species				
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Birds					
California brown pelican	Pelecanus occidentalis californicus	E	Winter range is the Pacific Coast from the Gulf of California to southern British Columbia. Forages almost entirely on fish in open water or near shorelines. Rests on water or inaccessible rocks, mudflats, sandy beaches, wharfs, and jetties. Nesting and roosting take place outside the CCWD service area. Nesting is restricted to islands in the Gulf of California and along the outer coast from Baja California to West Anacapa and Santa Barbara Islands in Southern California.	NO	Extremely low probability of occurrence. Suitable foraging habitat may be present. However, the species would occur infrequently or irregularly in the CCWD service area.
California clapper rail	Rallus longirostris obsoletus	E	Occurs within a range of salt and brackish marshes. Requires emergent wetlands and tidal sloughs. Forages in higher marsh vegetation, along vegetation and mudflat interface, and along tidal creeks. Restricted almost entirely to the marshes of San Francisco estuary, where the only known breeding populations occur. Present sporadically and in low numbers at various locations throughout the Suisun Marsh Area (Carquinez Strait to Browns Island, including tidal marshes adjacent to Suisun, Honker, and Grizzly Bays).	YES	Brackish tidal marshes in the area (approximately 4,900 acres) are suitable habitat, and the adjacent grasslands and levees are suitable upland refugia (CCWD 1999). CNDDB results show four known occurrences in the project vicinity, in the following USGS quadrangles: Vine Hill, Honker Bay, and Benicia.

Table B-1. Special-Status Species Considered in the Analysis for the Contra Costa Water District Proposed Long-Term Water Service Contract, Contra Costa County, California. (North State Resources, Inc., March 2004)

Species				Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Birds					
California least tern	Sterna antillarum (=albifrons) browni	E	Winters in Latin America, but winter range and habitats are unknown. Nesting range is along the Pacific coast from southern Baja California to San Francisco Bay. Nests in colonies on bare or sparsely vegetated flat substrates near the coast. Typical nesting sites are on isolated or specially protected sand beaches or on natural or artificial open areas in remnant coastal wetlands, typically near estuaries, bays, or harbors where small fish are abundant.	YES	Suitable habitat is present in the CCWD service area. Two nesting colonies are present in the CCWD service area, in the Honker Bay quadrangle: one is located at the Pacific Gas and Electric (PG&E) plant in Pittsburg and the second is located at the Avon-Port Chicago Marsh (CNDDB 2003).
western snowy plover	Charadrius alexandrinus nivosus	Т	Breeds on coastal beaches from southern Washington to southern Baja California, Mexico. Northern California populations are concentrated in San Francisco Bay. Nests in flat, open areas with sandy or saline substrates. Uses sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees and gravel bars. May forage in the salt marshes near Suisun Bay.	NO	Extremely low probability of occurrence. Evidence indicates that western snowy plovers do not use marshes in the CCWD service area for nesting. The species would occur infrequently or irregularly in the CCWD service area.
Bald eagle	Haliaeetus leucocephalus	Т	Winter visitor and migrant at reservoirs and Delta waterways in the CCWD service area. Requires large bodies of water, or free flowing rivers with abundant fish, and adjacent snags or other perches. Roosts communally in winter in dense, sheltered, remote conifer stands. Current nesting distribution is restricted to mostly mountainous habitats in the northern Sierra Nevada, Cascade Range, and northern Coast Ranges.	NO	Although potential nesting habitat is present in areas adjacent to but outside of the CCWD service area, bald eagles are not known to nest within the CCWD service area. Potential nesting habitat in the CCWD service area is of marginal quality because it lacks suitable nesting trees near reservoirs with minimal human activity. The species would occur infrequently or irregularly in the CCWD service area.

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Species				Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Birds					
Aleutian Canada goose	Branta canadensis leucopareia	D	Wintering geese forage in agricultural fields supporting pasture, corn, wheat, and rice crops and typically roost on land surrounded by water, on open water, and occasionally on open pastureland. In the San Joaquin Valley, they roost on artificially impounded waters, such as farm ponds, sewage ponds, and duck-club ponds. Winters in California's central valley, move south to the Delta as they migrate toward their nesting grounds in the Aleutian Islands.	NO	This species is not known to regularly occur in the CCWD service area and is considered an occasional winter visitor. Additionally, the Aleutian Canada goose was delisted by the Service on March 20, 2001. The species would occur infrequently or irregularly in the CCWD service area.
American peregrine falcon	Falco peregrinus anatum	D	Nests on ledges of large cliff faces and less often on city buildings and bridges. Nesting and wintering habitats include wetlands, woodlands, other forested habitats, cities, agricultural areas and coastal habitats. Current winter range includes most of California, except deserts. Breeding range includes the Channel Islands, coast of southern and central California, inland north coastal mountains, Klamath and Cascade ranges, and the Sierra Nevada.	NO	This species is not known to regularly occur in the CCWD service area and is considered an occasional winter visitor. Additionally, the American peregrine falcon was delisted by the Service on August 25, 1999. The species would occur infrequently or irregularly in the CCWD service area.
Reptiles					
Alameda whipsnake	Masticophis lateralis euryxanthus	Т	Typically found in chaparral—northern coastal sage scrub and coastal sage. Recent telemetry data indicate that, although home ranges are centered on shrub communities, the species ventures up to 500 feet into adjacent habitats, including grassland, oak savanna, and occasionally oak-bay woodland. Inhabits the inner coast range in western and central Contra Costa, Alameda, San Joaquin, and Santa Clara counties.	YES	Suitable habitat is present in the CCWD service area. CNDDB results show 42 known occurrences in the CCWD service area, in the following USGS quadrangles: Briones Valley, Walnut Creek, Clayton, Antioch South, Tassajara, Las Trampas Ridge, Byron Hot Springs, and Diablo. The CCWD service area is within designated critical habitat (Units 1 and 4) for this species.

Table B-1. Special-Status Species Considered in the Analysis for the Contra Costa Water District Proposed Long-Term Water Service Contract, Contra Costa County, California. (North State Resources, Inc., March 2004)

	ecies			Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Reptiles					
Giant garter snake	Thamnophis gigas	Т	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley. Requires adequate water during the active season (early-spring through mid-fall); emergent, herbaceous wetland vegetation for escape cover and foraging habitat during the active season; grassy banks and openings in waterside vegetation for basking; and higher elevation uplands for cover and refuge during the winter.	YES	Suitable habitat is present within the CCWD service area, and includes freshwater marshes and agricultural ditches in the Delta, east of the Antioch Bridge (Service 2000). CNDDB results show three known occurrences in the project vicinity, in the following USGS quadrangles: Jersey Island, Antioch North, and Bouldin Island. The CCWD service area is within designated critical habitat (Units 1 and 4) for this species.
Amphibians					
California red- legged frog	Rana aurora draytonii	Т	Occupies a fairly distinct habitat, combining both specific aquatic and riparian components. Adults require dense, shrubby or emergent riparian vegetation closely associated with deep still or slow moving water. Largest frog densities are associated with deep-water pools with dense stands of overhanging willows and an intermixed fringe of cattails. Locally abundant within portions of the San Francisco Bay area (including Marin County) and the central coast, but only isolated populations are documented in the Sierra Nevada, northern Coast, and northern Transverse ranges.	YES	Suitable habitat is present and the species is known to occur in the CCWD service area. CNDDB results show 146 known occurrences in the project vicinity, in the following USGS quadrangles: Briones Valley, Honker Bay, Clayton, Walnut Creek, Antioch South, Tassajara, Las Trampas Ridge, Byron Hot Springs, Benicia, Altamont, Livermore, and Diablo.

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Species				Is Species		
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area	
Amphibians						
California tiger salamander	Ambystoma californiense	PT	Restricted to grasslands and low foothill regions where lowland aquatic sites are available for breeding. Prefer natural vernal pools, vernal playas, large sag ponds, and other ephemeral ponds. Current range includes Sonoma and Santa Barbara counties, the Central Valley from southern Colusa County south to northern Kern County, and the coast ranges from Suisun Bay south to the Temblor Range.	YES	Suitable habitat is present in the CCWD service area. CNDDB results show 146 known occurrences in the CCWD service area, in the following USGS quadrangles: Antioch North, Honker Bay, Clayton, Walnut Creek, Antioch South, Tassajara, Brentwood, Byron Hot Springs, Altamont, Livermore, and Diablo. This species is discussed in further detail in Section 5.5.	
Fish						
tidewater goby	Eucyclogobius newberryi	E PD	Inhabits brackish shallow lagoons of coastal wetlands and lower stream reaches, where the water is fairly still but not stagnant. Requires backwater, marshy habitats to avoid winter flood flows. Formerly distributed along the California coast. In San Francisco Bay and its associated streams, nine of ten previously identified populations have disappeared, and a survey of streams of the Bay drainage in 1984 failed to record any populations.	NO	Although suitable habitat is present, the species is not known to occur in the CCWD service area. In addition, populations north of Orange County, California were proposed for delisting on June 24, 1999.	
Sacramento River winter-run ESU chinook salmon	Oncorhynchus tshawytscha	E	Spawn and rear in mainstem Sacramento River. Juveniles spend five to nine months in the river and Sacramento-San Joaquin Estuary before entering the ocean. Require cool year-round water temperatures, since spawning occurs during the summer. Requires deep pools and riffles, and clean gravel and cobble substrate to spawn. Sacramento River and Delta are designated as critical habitat and essential fish habitat for this species.	YES	Although it does not reside in the CCWD service area, the species migrates through the CCWD service area between upstream spawning grounds as adults, and the ocean as juveniles.	

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Species				Is Species		
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area	
Fish						
Delta smelt	Hypomesus transpacificus	Т	Lives along the freshwater edge of the mixing zone (saltwater-freshwater interface). Shortly before spawning, migrates upstream and disperses widely into river channels and tidally influenced backwater sloughs. Spawns in shallow, fresh or slightly brackish water upstream of the mixing zone. Currently found only from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties.	YES	This species is known to inhabit the CCWD service area. In addition, the CCWD service area is within designated critical habitat for the species.	
Central California Coast ESU coho salmon	Oncorhynchus kisutch	Т	The ESU includes all naturally spawned populations of coho salmon from Punta Gorda in northern California south to and including the San Lorenzo River in central California, as well as populations in tributaries to San Francisco Bay, excluding the Sacramento-San Joaquin River system.	NO	The CCWD service area is outside the species current known range.	
Central California Coast ESU steelhead	Oncorhynchus mykiss	Т	Occupies river basins from the Russian River, Sonoma County to Aptos Creek, Santa Cruz County and the drainages of San Francisco and San Pablo Bays eastward to the Napa River, excluding the Sacramento- San Joaquin River Basin.	NO	Only a very small portion of the CCWD service area overlaps with the range of this steelhead ESU. Presence of this ESU in the CCWD service area would be unlikely. Implementation of the proposed project would not likely result in adverse effects.	
Central Valley ESU steelhead	Oncorhynchus mykiss irideus	Т	Spawn and rear in Sacramento River and its tributaries and some San Joaquin tributaries. Require cool, swift shallow water; clean, loose gravel for spawning; and runs and suitable large pools in which to rear and over-summer. Sympatric and synonymous with resident, non- anadromous rainbow trout, which are abundant in Central Valley streams.	YES	This species may rear seasonally and migrates through the CCWD service area between upstream spawning grounds as adults, and the ocean as juveniles.	

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Spe	ecies			Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Fish					
Central Valley spring-run ESU chinook salmon	Oncorhynchus tshawytscha	Т	Spawn and rear in the Feather and Sacramento rivers and suitable perennial tributaries. Require cool year-round water temperatures and deep pools for over-summering habitat. Spawn in riffles with gravel and cobble substrate. Sacramento River, suitable perennial tributaries, and Delta are considered essential fish habitat for this species.	YES	This species may rear seasonally and migrates through the CCWD service area between upstream spawning grounds as adults, and the ocean as juveniles.
Invertebrates					
Lange's metalmark butterfly	Apodemia mormo langei	E	Associated with inland dune scrub habitats that support its host plant, the naked buckwheat (<i>Eriogonum nudum</i>). The species' present range is limited to approximately 15 acres of suitable habitat within the Antioch Dunes National Wildlife Refuge, where it is fully protected.	NO	Within the CCWD service area, this species is fully protected within the Antioch Dunes National Wildlife Refuge. No other populations are known or suspected to occur in the CCWD service area. Project implementation would not impact the Refuge system or this species.
Conservancy fairy shrimp	Branchinecta conservatio	Е	Vernal pools / swales and ponded seasonal wetlands. Known to occur in Colusa, Napa, Tehama, Solano, Ventura, and Merced counties.	NO	The species is not known to occur in the CCWD service area, and the CCWD service area is outside the species' current range. The CCWD service area is outside of designated critical habitat for this species.
longhorn fairy shrimp	Branchinecta Iongiantenna	E	Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales. The species is extremely rare, and are only known from three widely separated locations: the Altamont Pass area in Contra Costa and Alameda counties, and one location in San Luis Obispo County and in Merced County.	YES	CNDDB results show two occurrences in the project vicinity, in the following USGS quadrangles: Byron Hot Springs and Altamont. Although these occurrences are outside of the CCWD service area. The CCWD service area is outside of designated critical habitat for this species.

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Species				Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Invertebrates					
Vernal pool tadpole shrimp	Lepidurus packardi	E	Vernal pools, swales, and ephemeral freshwater habitats. Range includes disjunct occurrences in the Central Valley, from Shasta County to north Tulare County, and in the central coast range, from Solano County to Alameda County.	YES	CNDDB results show one known occurrence in the project vicinity, in the following USGS quadrangles: Honker Bay and Antioch North. The CCWD service area is outside of the designated critical habitat for this species.
callippe silverspot butterfly	Speyeria callippe callippe	Е	Inhabits native grasslands and associated habitats. This species' current known range is limited to San Mateo County and a city park in Alameda County.	NO	CCWD service area is outside the species' current known range. A location in Solano County recorded in the CNDDB is outside of the CCWD service area (CNDDB 2003). No other populations are known or suspected to occur in the CCWD service area.
California freshwater shrimp	Syncaris pacifica	E	Historically, the shrimp was probably common in low elevation, perennial freshwater streams in Marin, Sonoma, and Napa counties. Today, it is found in sixteen stream segments within these counties. Found only in low-elevation (less than 53-foot) and low-gradient (generally less than 1 percent) streams.	NO	The species is not known to occur in the CCWD service area, and the CCWD service area is outside the species' current range.
Vernal pool fairy shrimp	Branchinecta lynchi	Т	Vernal pools, swales, and ephemeral freshwater habitats. Range includes disjunct occurrences in the Central Valley, from Shasta County to Tulare County, and in the central and southern coast ranges, from northern Solano County to Ventura County. Additional occurrences have been identified in southern California and in Oregon.	YES	CNDDB results show nine known occurrence in the project vicinity, in the following USGS quadrangles: Altamont, Livermore, Clifton Court Forebay, Woodward Island, Brentwood, Antioch South, and Antioch North. The CCWD service area is outside of designated critical habitat for this species.

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Species				Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Invertebrates					
Valley elderberry longhorn beetle	Desmocerus californicus dimorphus	T	Inhabits elderberry trees or shrubs associated with riparian forests along rivers and streams. Current distribution is patchy throughout the remaining riparian forests of the Central Valley, from Redding, Shasta County, to Bakersfield, Kern County.	YES	The CCWD service area is outside the species' known range and there are no records of this species from the CCWD service area. However, suitable habitat for the species (i.e., elderberry shrubs) has been recorded in the CCWD service area (i.e., north and east of Mount Diablo and east of Pittsburg) and could occur elsewhere along perennial and intermittent streams, levees, stockponds, and foothill seeps.
Delta green ground beetle	Elaphrus viridis	Т	Species has been detected around the margins of vernal pools and in bare areas along trails and roadsides in central Solano County. The species' cryptic coloration, small size, and habit of hiding under lowgrowing vegetation can hinder detection. Adults may also occur in the surrounding grasslands. It is presently known to occur only in Solano County, northeast of the San Francisco Bay Area.	NO	The species is not known to occur in the CCWD service area, and the CCWD service area is outside the species' current range.
Plants					
large-flowered fiddleneck	Amsinckia grandiflora	E	Inhabits cismontane woodland and valley and foothill grassland on a variety of soils, from 902 to 1,805 feet in elevation. At present, two natural populations exist. One consists of two colonies in the hills east of Livermore in Alameda and San Joaquin counties. The other is a recently discovered population in San Joaquin County. Besides these extant natural populations, there are also several experimentally reintroduced populations.	NO	CNDDB results show three known occurrences in the project vicinity, in the <i>Clayton</i> and <i>Antioch South</i> USGS quadrangles. These populations were experimentally reintroduced to the Black Diamond Mines Regional Preserve, but only one has been somewhat successful. No other populations are known or suspected to occur in the CCWD service area. This location is fully protected.

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March 2004) Species				le Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Is Species Analyzed Further in the BA ² ?	Occurrence in the Service Area
Plants					
soft bird's-beak	Cordylanthus mollis ssp. mollis	Е	Inhabits coastal salt marshes and brackish marshes from northern San Francisco Bay to Suisun Bay in Napa, Solano, and Contra Costa counties.	YES	The species is known to occur in the CCWD service area. CNDDB reports eight occurrences in the project vicinity, but four of these have likely been extirpated. Remaining known populations exist in the Vine Hill, Honker Bay, and Benicia USGS quadrangles.
Palmate- bracted bird's- beak	Cordylanthus palmatus	E	Grows on seasonally-flooded, saline-alkali soils in lowland plains and basins at elevations of less than 500 feet. Seven populations of palmate-bracted bird's-beak are currently known in Colusa, Yolo, Fresno, Madera, and Alameda counties.	NO	One known location in the project vicinity is present in the Springtown Wetlands Reserve (CNDDB 2003), located north of Livermore in Alameda County. This large and genetically diverse population occurs on lands owned by the Federal Communication Commission, the City of Livermore, and private landowners. No other populations are known or suspected to occur in the CCWD service area.
Contra Costa wallflower	Erysimum capitatum ssp. angustatum	E	Grows naturally only in sand dune habitat along the San Joaquin River east of Antioch. Areas of suitable habitat (riverine or windblown sandy soils near Antioch) that do not contain visible vegetative, reproductive or senescent/dead plants may support viable seed banks.	NO	Within the CCWD service area, this species is fully protected within the Antioch Dunes National Wildlife Refuge. No other populations are known or suspected to occur in the CCWD service area. The Antioch Dunes National Wildlife Refuge protects critical habitat for this species. Project implementation would not impact the Refuge system or this species.
Plants					
Contra Costa goldfields	Lasthenia conjugens	Е	Inhabits vernal pools within open grassy areas in woodlands and valley grasslands from sea level to 1,500 feet. Currently, 13 populations are known from Napa, Contra Costa, Alameda and Solano counties.	YES	Of the five reported occurrences in the project vicinity, only one has been observed in the last fifteen years (CNDDB 2003). The CCWD service area is outside of designated critical habitat for this species.

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Sp	ecies			Is Species	
Common Name	Scientific Name	Federal Status ¹	General Habitat and Distribution	Analyzed Further in the BA ² ?	Occurrence in the Service Area
Antioch Dunes evening- primrose	Oenothera deltoides ssp. howellii	E	Endemic to loose sand and stabilized sand dunes near river margins in the vicinity of Antioch. The subspecies occurs in several locations near the confluence of the Sacramento and San Joaquin Rivers. The only natural stand exists within the sand dunes near Antioch in Contra Costa County.	NO	Known highly localized occurrences on protected land. Most of the natural dune habitat is in Antioch Dunes National Wildlife Refuge. PG&E owns the remaining habitat. The area is protected by San Francisco Bay National Wildlife Refuge and PG&E. The Antioch Dunes National Wildlife Refuge protects critical habitat for this species. Project implementation would not impact the Refuge system or this species.
pallid manzanita	Arctostaphylos pallida	Т	Occurs in Alameda and Contra Costa counties, in manzanita chaparral habitat at elevations from 656 to 1,460.	YES	The two known occurrences of this species in the CCWD service area were artificially reintroduced. However, suitable habitat for the species is present.
Santa Cruz tarplant	Holocarpha macradenia	Т	Occurs in clay soils in grasslands. Range is now limited to 12 natural occurrences in Santa Cruz and Monterey counties.	NO	In 1982, seed was introduced to 22 sites in Wildcat Canyon Regional Park and onto East Bay Municipal Utilities District (EBMUD) lands. Only one of these sites consistently has over 100 plants, and 13 of the sites have not supported any plants in the past four years. These populations are protected.
Plants					
Colusa grass	Neostapfia colusana	T	Occurs in large or deep vernal pools with substrates of high mud content. Sparingly restricted to the Sacramento and San Joaquin Valleys. Approximately 44 populations remain along a 100-mile stretch of the eastern San Joaquin Valley in Merced and Stanislaus counties; 4 populations exist in Yolo and Solano counties.	NO	The species is not known to occur in the CCWD service area, and the CCWD service area is outside the species' current range. The CCWD service area is outside of designated critical habitat for this species.

NOTES: 1 Federal Status Codes: E = Endangered; T = Threatened; P = Proposed; D = Delisted

² Final Biological Assessment - Long Term Water Service Contract Renewal, Volume 1 (March 31, 2004)