Table Ap.5C-1. Sensitive Plant Species Potentially Occurring in the Project Area. <sup>1</sup>							
Common Name / Scientific Name	USFWS Status	CDFG Status	CNPS Status	Habitat in Study Area	Occurrence Potential	Observed in Field	
San Mateo Thornmint Acanthomintha duttoni	E	E	1B	Yes	Moderate	No	
Fountain Thistle Cirsium fontinale fontinale	Е	Е	1B	Yes	Low	No	
Western Leatherwood Dirca occidentalis	-	-	1B	Yes	Moderate	No	
San Mateo Sunflower Eriophyllum latilobum	E	Е	1B	Yes	Low	No	
Fragrant Fritillary Fritillaria liliacea	-	-	1B	Yes	Moderate	No	
Marin Flax Hesperolinon congestum	PT	Т	1B	Yes	Moderate	Yes	
White Rayed Pentachaeta Pentachaeta bellidiflora	PE	Е	1B	Yes	Moderate	No	
Crystal Springs Lessingia Lessingia arachnoidea	-	-	1B	Yes	Moderate	No	
San Francisco Campion Silene verecunda verecunda	-	-	1B	Yes	Moderate	No	

<sup>&</sup>lt;sup>1</sup> List was developed based upon herbaria records, CNDDB records and habitat conditions present in the Project Area.

## **Status Codes:**

U.S. Fish and Wildlife Service (USFWS) ranks are: E = Endangered

T = Threatened

PE =Proposed for Endangered Status

PT = Proposed for Threatened Status C1 = Candidate List 1; C2 = Candidate List 2

<u>California Department of Fish and Game (CDFG) ranks are:</u> E = Endangered; T = Threatened; R = Rare

California Native Plant Society (CNPS) ranks are:
1A = plant presumed extinct in California, based on 2001 inventory
1B = plants rare and endangered in California and elsewhere

2 = plants rare, threatened or endangered in California but more common elsewhere

Scientific Name ARACHNIDS	Common Name	Federal / State Status <sup>1</sup>	Habitat Requirements	Potential For Species to Occur	Have Surveys Been Conducted?	Survey Results/Documented Species Presence
Calicina minor	Edgewood Blind Harvestman	FSC/None	Found under serpentine rocks, particularly in association with serpentine grassland or woodland vegetation.	Known to occur in serpentine grasslands of Edgewood Park.	Yes. A focused survey was conducted in February 2002 (Entomological Consulting Services, Ltd., 2002)	Observed under partially buried serpentine rocks at Edgewood Park (between Existing Towers 0/2 and 0/4 and in vicinity of Existing Tower 0/6); believed to occur between Towers 0/1 to 0/5 and in the immediate vicinity of Tower 0/6 (but not between Towers 0/5 and 0/6).
Microcina edgewoodensis	Edgewood Park Microblind Harvestman	FSC/None	Found under serpentine rocks, particularly in association with serpentine grassland or woodland vegetation.	Known to occur in serpentine grass- lands of Edgewood Park.	Yes. A focused survey was conducted in February 2002 (Entomological Consulting Services, Ltd., 2002)	Observed under partially buried serpentine rocks at Edgewood Park (between Existing Towers 0/2 and 0/4 and in vicinity of Existing Tower 0/6); believed to occur between Towers 0/1 to 0/5 and in the immediate vicinity of tower 0/6 (but not between Towers 0/5 and 0/6).
INSECTS						
Adela oplerella	Opler's Longhorn Moth	FSC/None	Species is endemic to serpentine grassland habitat, where its larval food plant ( <i>Platystemon californicus</i> ) grows (Powell, 1969); Occurs at scattered localities in Marin, Alameda, San Francisco, Santa Cruz, and Santa Clara Counties.	Low potential to occur in serpentine grasslands of Edgewood Park and other serpentine outcrops.	Yes. A focused survey was conducted in March, April and May 2002 (Entomological Consulting Services, Ltd., 2002)	Food plant observed at Edgewood Park (between Existing Towers 0/3 and 0/5), the Ralston area (Near Existing Towers 4/27A and B, and 4/28), and at scattered locations between Existing Tower 7/42 and Black Mountain Road, but species not observed.
Danaus plexippus	Monarch Butterfly	None/State: overwintering sites are protected	Over-wintering sites in California are usually found within a mile of the immediate coast (Nagano and Lane, 1985); Sites are generally wooded with trees of mixed height and trunk diameter, as well as understory brush; trees, such as Blue Gum ( <i>Eucalyptus globulus</i> ), Monterey Pine ( <i>Pinus radiata</i> ), and Monterey Cypress ( <i>Cupressus macrocarpa</i> ), are most often used for roosts, although other native and introduced trees may also be used; roosting sites typically are near a source of winter-blooming nectar plants and freshwater.	Not expected to occur; no suitable overwintering habitat is present.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002)	No suitable habitat was observed. The proposed alignment is too far inland from the coastline where the butterfly's favored overwintering sites are typically found.
Euphydryas editha bayensis	Bay Checkerspot Butterfly	FT/None	Restricted to serpentine grassland habitats, especially those characterized by bunch grasses; larval food plants are <i>Plantago erecta</i> and <i>Orthocarpus densiflorus</i> ; adults nectar on <i>Layia platyglossa</i> , <i>Lomatium</i> sp., <i>Allium</i> sp., and <i>Lasthenia californica</i> .	High potential to occur in the serpentine grasslands at Edgewood Park and at the Ralston-Pulgas Ridge and Hayne Road-Black Mountain Road portion of the alignment (approximately Towers 4/26 to 6/37, and between Tower 7/42 and Black Mountain Road).	Yes. A focused survey was conducted in March and April 2002 (Entomological Consulting Services, Ltd., 2002)	Forty-two adult butterflies observed at Edgewood Park between the Jefferson Substation and Edgewood Road (between Towers 0/6 and 1/7); no adults or other life stages were observed at the Ralston-Pulgas Ridge or Haynes-Black Mountain Road area.
Hydrochara rickseckeri	Ricksecker's Water Scavenger Beetle	FSC/None	Usually found in relatively calm, shallow water of ponds, streams, marshes, or lakes; known only from the immediate San Francisco Bay Area; specific details of the species' natural history are unknown.	Potential to occur; species observed at the Pulgas Temple of the Crystal Springs Reservoir, located just west of towers 2/17 and 3/18 and the ROW. Natural habitat may be a perennial, unnammed stream which is crossed by the transmission line.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002)	Potentially suitable habitat for the Ricksecker's water beetle was identified during the habitat assessment. The habitat will not be impacted by the project; therefore, focused surveys were not conducted. Species has been previously observed at the Pulgas Water Temple (Arnold, 2002).
Hydroporus leechi	Leech's Skyline Diving Beetle	FSC/None	Known from only a handful of specimens collected at a single permanent pond in Pacifica, located near Skyline Blvd (Gordon, 1981); has not been observed at this location for several years, and its current status there is uncertain; other than its aquatic habitat, no specific information about its biology or natural history is known.	Not expected to occur; no suitable habitat is present within the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002)	Habitat similar to that which supports the only known population was not observed within the project area.
Icaricia icarioides missionensis	Mission Blue Butterfly	FE/None	Associated with coastal grasslands and coastal sage scrub habitats, where its larval food plants, three perennial species of lupine ( <i>Lupinus albifrons</i> , <i>L. variicolor</i> , and <i>L. formosus</i> ), grow; adults nectar primarily on <i>Eriogonum latifolium</i> , but will also visit <i>Chrysopsis villosa</i> , <i>Brodiaea pulchella</i> , and <i>Brodiaea laxa</i> (Arnold, 1983a).	Not expected to occur; no larval food plants were observed within project area.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002)	No life stages of the Mission blue butterfly, nor its larval food plants were observed within the project area.  Species has previously been observed near the proposed alignment in the Crystal Springs Reservoir watershed near the San Andreas Dam, west of Towers 11/70 and 11/71 (Murphy, 1985), and at various locations along Fifield and Cahill Ridges (Arnold, pers. obs.).

Scientific Name	Common Name	Federal / State Status <sup>1</sup>	Habitat Requirements	Potential For Species to Occur	Have Surveys Been Conducted?	Survey Results/Documented Species Presence
Incisalia mossii bayensis	San Bruno Elfin Butterfly	FE/ None	Occurs in association with rock outcrops in coastal sage scrub or bunch grassland habitats, where its sole larval food plant (Sedum spathulifollum) grows; adults nectar on Lomatium utriculatum, Achillea millefolium, Arabis blepharophylla, Erysimum franciscanum, Ranunculus californicus, and Fragaria californica (Arnold, 1983a).	Not expected to occur; no suitable habitat is present within the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002)	No suitable habitat nor larval food plants ( <i>Sedum spathulifolium</i> ) were observed during the habitat assessment.
Speyeria callippe callippe	Callippe Silverspot Butterfly	FE/ None	Occurs in coastal grasslands where its larval food plant ( <i>Viola pedunculata</i> ) growl. Adults are particularly fond of various thistles ( <i>Cirsium</i> sp. and <i>Silybum</i> sp.), buckeye ( <i>Aesculus</i> sp.), and mint ( <i>Monardella</i> sp.) species for nectar.	Not expected to occur; no suitable habitat is present within the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in April 2002 (Entomological Consulting Services, Ltd., 2002).	No suitable habitat was observed along the proposed alignment between the Jefferson Substation and Sneath Lane; a few dozen specimens of the larval food plant were observed at Edgewood Park, but they were widely scattered and too few in number to support a population.
FISH						
Lampetra ayresi	River Lamprey	FSC/CSC	Occurs in coastal streams from Alaska to San Francisco Bay, primarily where its principal prey (salmonids) occurs; adults spend most of their time in the lower reaches of large streams, but spawning seems to occur in small tributaries.	Likely to occur in San Mateo Creek.	No.	N/A
Oncorhynchus mykiss	Steelhead – Central California Coast	FT/None	Spawns in coastal streams from the Russian River to Soquel Creek, including tributaries to the San Francisco Bay; prefers cold, clean water flowing over graveled bottoms and deep pools.	Known to occur in San Mateo Creek.	No.	Species was captured in 1993 at several sampling points in San Mateo Creek, including Tartan Trail Road, less than a mile downstream of the alignment (Leidy, 1999). San Mateo Creek is considered critical habitat.
AMPHIBIANS						
Ambystoma californiense	California Tiger Salamander	FC/CSC	Breeds in temporary rain pools and permanent waters of grassland and open woodland habitat in low hills and valleys (Stebbins, 1985); adults spend most of the year in mammal burrows, and migrate to breeding sites at night, during or shortly after rains (Stebbins, 1985); adults may be found under objects located near water during migration.	Potentially could occur; marginal breeding habitat may occur in areas such as the Caltrans retention basins. Additionally, some upland dispersal habitat is present within the project area, adjacent to potential breeding sites.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Marginal habitat for California tiger salamanders was identified in the southern half the Project Area.  Closest known species record is more than 5 miles south of the Project Area at Lak Lagunita on the Stanford University Campus.
Rana aurora draytonii	California Red- Legged Frog	FT/CSC	Primarily associated with still or slow moving water; Uses both permanent and ephemeral streams and ponds; long-distance terrestrial movements are believed to be rare, but adults may travel short distances between oviposition and foraging sites (Jennings and Hayes, 1994).	Potentially could occur; no potential breeding sites are present within the project area, but species could use upland areas within the ROW as dispersal corridors. All Towers west of I-280 were located within Critical Habitat Unit 14.	Yes. Protocol surveys were conducted in May and August 2002 (GANDA). The survey included all aquatic habitats within 1 mile of the project area. In addition, a status review was conducted by S. McGinnis using survey data collected from the 1970s to 2000.	Two adults and seven sub-adults were observed in the Golf Course Irrigation Pond approximately 300 feet west of Existing Tower 9/61 and approximately 200 feet west of Cable Pulling Site 23 (GANDA, 2002). Two other potentially suitable habitats were identified, but these are located more than a half mile from the project area, and are separated from the project area by Highway 280.  According to the status review conducted by Dr. McGinnis, areas supporting breeding populations near the Project Area are:  The Upper Crystal Springs Reservoir south marsh (located approximately 0.7 miles from the ROW);  The Lower Crystal Springs Reservoir (LCSR) north marsh and adjacent Tracy Lake area (located approximately 0.7 miles from the ROW);  Crystal Springs Dam, in an artificial concrete pool formed by support structures of top of the dam (located approximately 0.2 miles from the ROW);  San Mateo Creek flowing east from Crystal Springs Dam (located approximately 800 linear feet downslope from the towers);  The north marsh of San Andreas Lake (defined as "adjacent to the San Francisco County Jail No.3 at the west end of Sneath Lane"); the northern finger of the marsh is between 150 and 450 feet from the western edge of the ROW. An established access road west of the ROW is 75 feet from the northern most end of the marsh Other potential breeding sites for California red-legged frogs located nearby the Project Area include:  The small, well vegetated finger bay of San Andreas Lake near existing tower 12/79 (approximately 200 feet from the ROW); and

Scientific Name	Common Name	Federal / State Status <sup>1</sup>	Habitat Requirements	Potential For Species to Occur	Have Surveys Been Conducted?	Survey Results/Documented Species Presence
Rana boylii	Foothill Yellow- Legged Frog	FSC/CSC	Found in or near rocky streams in a variety of habitats in the Sierra Nevada foothills and Coast Ranges from the Oregon border south to Los Angeles County; adults prefer riffle areas with sunny banks and rocks for basking (Stebbins, 1985); species seldom strays far from water.	Not expected to occur; no open, rocky streams are present within the project area; the streams that are present are seasonal and/or have dense riparian vegetation with little to no direct light.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	No suitable habitat was observed within the project area.
REPTILES						
Clemmys marmorata	Western Pond Turtle	FSC/CSC	Inhabit ponds, marshes, small lakes, ditches, and streams with quiet or sluggish water and a sandy or muddy bottom supporting aquatic plants (Stebbins, 1985); basking sites such as mudbanks, logs, and rocks are an important habitat component (Stebbins, 1985); potentially spend up to 70% of their time in woodland and grassland habitats; oviposition sites are typically in upland habitats.	Potentially could occur; marginal aquatic habitat is present at San Andreas Lake and Crystal Springs Golf Course, and some adjacent upland habitats are potentially suitable.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Marginally suitable habitat was identified at San Andreas Lake and the Crystal Springs Golf Course pond. No species records in San Mateo County (CNDDB).
Masticophis lateralis euryxanthus	Alameda Whipsnake	FT/ST	Inhabits dense, dry brush, rock outcrops and hilly grasslands; particularly prefers south-facing stands of coastal scrub and chaparral as well as grassy areas within oak woodland (Biosystems Analysis, 1994).	Not expected to occur; potentially suitable habitat occurs in isolated patches within the project area, but species is extremely rare.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Potentially suitable habitat was identified in isolated locations between Jefferson Substation and Highway 92, in areas of oak woodland, grassland, coastal scrub and chaparral. No species records in San Mateo County (CNDDB).
Thamnophis sirtalis tetrataenia	San Francisco Garter Snake	FE/SE	Restricted to ponds, freshwater marshes, sloughs and adjacent grasslands in San Mateo and Santa Cruz Counties; nearby upland areas may be utilized in fall and winter (Biosystems Analysis, 1994).	Potentially could occur in the area from the Crystal Springs Golf Course north, especially between Towers 13/83 and 13/84 near San Andreas Lake, and the small seasonal wetland just south of Sneath Lane (between Existing Towers 14/95 and 14/97).	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002). In addition, a status review was conducted by S. McGinnis using survey data collected from the late 1970s to 2000.	<ul> <li>Species was observed near the San Bruno Substation near Towers 14/97 and 14/9 during the CRLF surveys (GANDA, 2002).</li> <li>Breeding populations were documented at the following location within and near the alignment (McGinnis, 2002):</li> <li>North marsh San Andreas Lake with dispersal occurring around the northeast shoreline, potentially between Existing Towers 12/79 and 13/84</li> <li>Breeding populations were documented at the following locations, but are not expected to be impacted by the Project:</li> <li>Upper Crystal Springs Reservoir southern marsh and small adjacent retention basin</li> <li>Lower Crystal Springs Reservoir north marsh and adjacent Tracy Lake area</li> </ul>
RAPTORS						
Accipiter cooperii (nesting)	Cooper's Hawk	None/CSC	Nests almost throughout California, usually in riparian groves and in second-growth conifers near water (Zeiner et al., 2001); nesting activity occurs from March to August, peaking from May to July (Zeiner et al., 2001). It is an uncommon breeder in San Mateo County (SAS, 1996).	Moderate potential to nest in the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Suitable nesting habitat identified in the dense stands of Monterey pine ( <i>Pinus radiata</i> ) near Existing Tower 11/72 and between Existing Towers 12/76 and 12/82. Recorded as a possible, probable, or confirmed breeder in all seven of the SMCBB blocks traversed by the project area (SAS, 2001).
Accipiter striatus (nesting)	Sharp-Shinned Hawk	None/CSC	Nests in coniferous forest throughout California, usually in dense stands of small trees near water (Zeiner et al., 2001); nesting occurs from April to August, peaking from late May to July (Zeiner et al., 2001). It is a rare and local breeder in San Mateo County (SAS, 1996).	Moderate potential to nest in the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Suitable nesting habitat identified in the dense stands of Monterey pine ( <i>Pinus radiata</i> ) near Existing Tower 11/72 and between Existing Towers 12/76 and 12/82. Recorded as a probable or possible breeder in five of the seven SMCBBA blocks traversed by the project area (SAS, 2001).
Aquila chrysaetos (nesting and wintering)	Golden Eagle	None/CSC/ CFP	An uncommon resident or winter visitor in open, hilly habitats almost throughout California (Small, 1994; Zeiner et al., 2001); typically nests in rugged areas with canyons and escarpments (Zeiner et al., 2001); May winter in valleys and coastal areas. Nesting activity occurs from late January to August, peaking from March to July (Zeiner et al., 2001). Rare in San Mateo County, nesting only in the Santa Cruz Mountains (SAS, 1996, 2001).	Low potential to occur; No suitable nesting habitat present (known only to nest in the Santa Cruz Mountains); Some suitable wintering habitat is present in the southern portion of the project area, but the prey base is probably insufficient to support the species and the degree of disturbance probably too intensive.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Some suitable habitat was identified within the extensive grasslands in the southerr portion of the Project Area, but the prey base is probably insufficient to support the species, and the degree of disturbance is probably too intensive.

Scientific Name	Common Name	Federal / State Status <sup>1</sup>	Habitat Requirements	Potential For Species to Occur	Have Surveys Been Conducted?	Survey Results/Documented Species Presence
Buteo regalis (wintering)	Ferruginous Hawk	FSC/CSC	Winters in open, lowland habitats throughout California, especially where lagomorphs, its principal prey, are common (Zeiner et al., 2001); present in the Bay Area from September to April (Small, 1994); rare in San Mateo County, most numerous in November and December (SAS, 1996); may perch on equipment.	Low potential to occur: Marginal habitat exists near Towers 0/4 - 1/8 and 4/26 - 6/34, but the species is unlikely to occur there with any regularity.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Marginal habitat was identified south of Bunker Hill Drive in open grasslands, especially near Towers 0/4 - 1/8 and 4/26 - 6/34.
Circus cyaneus (nesting)	Northern Harrier	None/CSC	Occurs in a wide variety of open lowland habitats throughout California (Small, 1994; Zeiner et al., 2001); usually nests on the ground in shrubby vegetation on marsh edges (Brown and Amadon, 1968); nesting activity is from April to September, peaking in June and July (Zeiner et al., 2001); it is an uncommon and local, essentially coastal breeder in San Mateo County (SAS, 1996; SAS, 2001).	Moderate potential to nest within ¼ mile of the alignment between Existing Towers 12/77 and 14/95.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Potentially suitable habitat was identified at the marsh at the north end of San Andreas Lake. Recorded as a possible breeder in the SMCBBA block in the vicinity of the middle of San Andreas Lake (SAS, 2001).
Elanus caerules (nesting)	White Tailed Kite	CFP	Nests in large, dense, tree groves and windbreaks near open foraging areas such as fields and marshes in most of western California (Small, 1994; Zeiner et al., 2001); population levels fluctuate in response to prey cycles; it is a rare and local breeder on the Peninsula (SAS, 1996); nesting activity is from February to October, peaking from May to August (Zeiner et al., 2001).	Not expected to nest; no suitable habitat is present.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Within the project area, no suitable nesting habitat was identified. The combination of dense trees (especially live oaks) adjacent to farmland or marshland is lacking within project area.  The species was recorded as a possible, probable, or confirmed breeder in five of the seven San Mateo County Breeding Bird Atlas (SMCBBA) blocks traversed by the alignment (SAS, 2001).
Falco columbarius (wintering)	Merlin	None/CSC	Winters in open country almost throughout California (Small, 1994; Zeiner et al., 2001); often found near large water bodies; typically present in the Bay Area from September to April (Small, 1994); uncommon in San Mateo County (SAS, 1996).	High potential to occur near the reservoirs (especially San Andreas Lake) from fall to spring; may perch on Towers.	Yes. Species was included in the Habitat Assessment, which was con- ducted in August 2001 (GANDA, 2002)	Potentially suitable habitat was identified near the reservoirs. The species has been previously observed to perch on the transmission towers, especially near San Andrea Lake (SAS, 1996).
Haliaeetus leucocephalus (wintering)	Bald Eagle	FT/SE/CFP	Winters near large bodies of water including lakes, reservoirs, rivers, marshes, and seacoast throughout California (BioSystems Analysis, 1994; Small, 1994). It is regularly present in the Bay Area from November to March and is considered locally rare in San Mateo County (SAS, 1996).	High potential to occur; Crystal Springs Reservoir and San Andreas Lake are considered the best locations of the SF Peninsula for finding this species (SAS, 1996).	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Suitable habitat was identified near Crystal Springs Reservoir and San Andreas Lake, especially at Towers 83-87.  Most winters, one individual is present in treetops and on snags and open ground along the shorelines of these lakes, particularly Upper Crystal Springs (SAS, 1996).
OTHER AVIAN SPI	ECIES					
Chaetura vauxi (nesting)	Vaux's swift	None/CSC	A summer visitor to coniferous forests in northern California (Zeiner et al., 2001); nests in tall, hollow conifer snags, especially redwood and Douglas-fir, occasionally in chimneys (SAS, 1996; Zeiner et al., 2001); nests from early May to mid August (Zeiner et al., 2001); uncommon and extremely local in San Mateo County (SAS, 1996).	Not expected to occur; no suitable nesting sites are present within the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	No suitable nesting habitat was identified within the Project Area. Confirmed as a breeder in Hillsborough on the SMCBBA project (SAS, 2001).
Contopus cooperi	Olive-sided Flycatcher	FSC/None	An uncommon to locally fairly common breeder in extensive conifer forests and stands, exotic cypress and eucalyptus groves in hills and mountains throughout California (Fix and Bezener, 2000).	High potential to occur in the pine groves in the central part of the alignment, and in the dense oak woodlands above Upper Crystal Springs and the Filoli Estate.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Species is recorded as probably or confirmed breeders throughout the project area (SAS, 2001).
Dendroica petechia brewsteri (nesting)	California Yellow Warbler	None/CSC	A summer visitor to the coast and northern interior of California (Grinnell and Miller, 1944); now extirpated from the Central Valley (Zeiner et al., 2001); in lowland areas, nests in riparian deciduous habitats with dense understory (Zeiner et al., 2001); nests from mid April to early August, peaking in June (Zeiner et al., 2001); fairly common in San Mateo County (SAS, 1996), with breeding activity concentrated in the south (SAS, 2001).	Moderate potential to occur in the wetland near Tower 14/95 and on the shore of San Andreas Lake.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Potential habitat identified within the willows in the small wetland northwest of Tower 14/95, and on the shore of San Andreas Lake near Tower 13/83. Recorded as a possible or probable breeder in three of the seven SMCBBA blocks traversed (SAS, 2001).
Empidonax difficilis	Pacific-slope Flycatcher	FSC/None	A fairly common to abundant breeder in well-shaded, moist woodlands, mixed and coniferous forests, canyons, and ravines throughout the coast ranges and Sierra Nevada foothills (Fix and Bezener, 2000).	High potential to occur in the pine groves in the central part of the alignment, and in the dense oak woodlands above Upper Crystal Springs and the Filoli Estate.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Species is recorded as probably or confirmed breeders throughout the project area (SAS, 2001).

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Geothylpis trichas	San Francisco Common Yellowthroat	FSC/CSC	Resident in the vicinity of San Francisco Bay; winters south along the coast to San Diego (Grinnell and Miller, 1944); nests in fresh and, to a lesser extent, saltwater marshes, favoring tall grasses, tule patches, and willow thickets (Grinnell and Miller, 1944); nesting activity occurs from early April to mid July, peaking in May and June (Zeiner et al., 2001); gravitates more towards saltwater and brackish habitats in winter (Grinnell and Miller, 1944); fairly common and breeding locally in San Mateo County (SAS, 1996).	Moderate potential to occur in the wetland near of New Tower 14/95 and near Existing Tower 13/83.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Several individuals were heard in the wetland northwest of New Tower 14/95 during habitat assessment. Additionally, suitable habitat was identified near Existing Towe 13/83. There are several CNDDB records from Upper Crystal Springs Reservoir. Recorded as a possible, probable, or confirmed breeder in five of the seven SMCBBA blocks traversed (SAS, 2001).
Progne subis (nesting)	Purple Martin	None/CSC	Nests in open forest and woodland throughout California, often using snags in multi-layered old-growth habitats (Zeiner et al., 2001); nesting activity is from April to early August, peaking in June (Zeiner et al., 2001); rare and local in San Mateo County (SAS, 1996).	Not expected to occur; no suitable nesting sites are present in the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	No suitable nesting habitat was identified during the habitat assessment surveys. Known to be a rare but regular visitor in spring and summer at the north end of Lower Crystal Springs Reservoir (SAS, 1996); Additionally, purple martins have bee documented nesting at Pilarcitos Lake approximately 2 miles west of the project are (SAS, 1996, 2001).
Selasphorus sasin	Allen's Hummingbird	FSC/None	A common breeder along the entire coast of northern California in nearly any well-vegetated area with plenty of flowers (Fix and Bezener, 2000); Habitats include riparian and oak woodlands, canyons and ravines, and suburban parks and gardens.	High potential to occur where the alignment runs adjacent to residential areas and oak woodlands.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002).	Known to breed throughout most of the project area (SAS, 2001).
MAMMALS			· · · · · · ·			
Myotis evotis	Long-eared Myotis	FSC/None	Occurs year-round throughout the coast and mountains of California, apparently preferring coniferous habitats (Zeiner et al., 2001); roosts in a variety of sites including buildings, crevices, snags, and under bark (WBWG, 1998; Zeiner et al., 2001).	Low potential to occur in the stands of trees near the reservoirs.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Moderate quality habitat was identified in the stands of Monterey Pine near the reservoirs.
Myotis thysanodes	Fringed Myotis	FSC/None	Widespread in California in many habitats outside the Central Valley and deserts (Zeiner et al., 2001); hardwoods and mixed woodlands in foothills seem to be preferred habitats (Zeiner et al., 2001); roosts in caves, mines, buildings, and crevices (Zeiner et al., 2001).	Not expected to occur; no caves or mines are present within the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Potentially suitable habitat for fringed myotis occurs in the oak woodlands located mainly in the southern portion of the project area. No potential roosting sites were identified in the immediate vicinity of any project towers.
Myotis volans	Long-legged Myotis	FSC/None	Occurs in hilly and mountainous areas throughout California (Zeiner et al., 2001); forages in various wooded and shrubby habitats (Zeiner et al., 2001); roosts in a very wide variety of sites (WBWG, 1998; Zeiner et al., 2001); probably uncommon in the Bay Area (Zeiner et al., 2001).	Low potential to occur; some suitable roosting habitat may be present in the project area, but this species is not expected to occur in areas where construction activities will occur.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	No specific locations with suitable roosting habitat were identified during the survey.
Corynorhinus (=Plecotus) townsendii townsendii	Townsend's Big- eared Bat	FSC/CSC	Found throughout California except at very high altitudes; prefers mesic habitats (Zeiner et al., 2001); roosts exclusively in caves and anthropogenic sites (WBWG, 1998; Zeiner et al., 2001).	Not expected to occur; no roosting habitat present.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	No suitable roosting habitat was observed during the survey. No species records in San Mateo County (CNDDB).
Antrozous pallidus	Pallid Bat	None/CSC	Found at low elevations throughout California, especially in areas of dry, open woodland with rocky sites for roosting (Zeiner et al., 2001); roosts in caves, mines, crevices, and occasionally trees (Zeiner et al., 2001).	Low potential to occur in the oak wood- land area location in the southern portion of the project area; no suitable roosting habitat was identified in the northern portion of the project area.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Some suitable roosting habitat was identified in the oak woodlands in the southern portion of the Project Area.
Eumops perotis	Western Mastiff Bat	None/CSC	Found from the Bay Area south on the coast, throughout the deserts, and the length of the Sierra Nevada and Cascade foothills (Zeiner et al., 2001); occurs in many open, dry habitats (Zeiner et al., 2001); considered a cliff-roosting species (WBWG, 1998).	Not expected to occur; no roosting habitat present.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	No suitable roosting habitat was observed during the survey. No species records in San Mateo County (CNDDB).
Neotoma fuscipes annectens	San Francisco Dusky-footed Woodrat	FSC/CSC	Inhabits forest and chaparral throughout the Bay Area (CDFG, 2001c; Zeiner et al., 2001); prefers a moderate canopy and brushy understory (Zeiner et al., 2001); builds conspicuous stick houses on the ground and in trees; Houses may be hundreds of years old.	High potential to occur in oak woodland, which is concentrated south of San Mateo Creek, especially around Existing Towers 2/13, 2/15 - 2/16, 2/18, 3/22, and 6/36 - 6/38.	Yes. Species was included in the Habitat Assessment, which was conducted in August 2001 (GANDA, 2002)	Two stick houses were observed near Existing Tower 3/22; Although no trapping was conducted to confirm species identification, it is believed that the stick houses represent occupied habitat for this species.

## References

- Arnold, R.A. 1983a. Ecological studies of six endangered butterflies (Lepidoptera: Lycaenidae); island biogeography, patch dynamics, and the design of habitat preserves. Univ. of California Publ. Entomology 99:1-161.
- BioSystems Analysis, Inc. 1994. Life on the Edge. BioSystems Books, Santa Cruz, CA.
- Brown, L., and D. Amadon. 1968. Eagles, hawks and falcons of the world. Country Life Books, London, UK. California Department of Fish and Game (CDFG).
  - 2001a. California Natural Diversity Data Base, ver. 2.1,2C. Wildlife and Habitat Data Analysis Branch, Sacramento.
  - 2001b. State and federally listed endangered and threatened animals in California. Wildlife and Habitat Data Analysis Branch, Sacramento.
  - 2001c. Special animals. Wildlife and Habitat Data Analysis Branch, Sacramento.
- Fix, D. and A. Bezener. 2000. Birds of Northern California. Lone Pine Publishers. Edmonton.
- Gordon, R.D. 1981. New species of North American *Hydroporus*, *niger-tenebrosus* group (Coleoptera: Dytiscidae). Pan-Pac. Entomol. 57:105-123.
- Grinnell, J., and A. H. Miller. 1944. *The Distribution of the Birds of California*. Cooper Ornithological Club, Berkeley (reprinted 1986 by Artemisia Press, Lee Vining).
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Sacramento.
- Leidy, R. A. 1999. Robert A. Leidy fish survey 1992-1998: Bay Area stream fishes. San Francisco Estuary Institute Web site,. http://www.sfei.org/ecoatlas/Animals/docs/Fish/images/basf v12.pdf.
- Nagano, C.D. and J. Lane. 1985. A survey of the location of Monarch butterfly (*Danaus plexippus* L.) overwintering roosts in the State of California, U.S.A.: first year 1984/1985. Report to the World Wildlife Fund U.S.A.
- Powell, J.A. 1969. A synopsis of nearctic adelid moths, with descriptions of new species (Incurvariidae). Journal of the Lepidopterists' Society 23:211-240.
- SAS. 1996. San Mateo County Breeding Bird Atlas. SAS, Redwood City.
- SAS. 2001. San Mateo County Breeding Bird Atlas. SAS, Redwood City.
- Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista.
- Stebbins, R. C. 1985. A Field Guide to Western Reptiles and Amphibians (second edition). Houghton Mifflin Company, Boston, MA.
- Ubick, D. and T.S. Briggs. 1989. The harvestman family Phalangodidae. 1. The new genus *Calicina*, with notes on *Sitalcina* (Opiliones: Laniatores). *Proceedings of the California Academy of Sciences* 46:95-136.
- WBWG (Western Bat Working Group). 1998. Western bat species: Regional priority matrix. Western Bat Working Group.
- Zeiner, D., W. Laudenslayer, K. Mayer, and M. White, eds. 2001. California's wildlife. CD-ROM. California Department of Fish and Game, Sacramento.

## **Status Codes:**

Federal listing: FE=Endangered; FT=Threatened; FSC=Species of Concern; FPD=Proposed for Delisting; FC=Candidate Species

California listing: CE=Endangered; CT=Threatened; CSC=Species of Concern; CFP=Fully Protected