Technical Appendices

Appendix C – Biological Resources

Pacific Municipal Consultants. Species Commonly Occurring in Santa Clara County. 2005.

Pacific Municipal Consultants. Arborist Report & Tree Inventory Summary. June 29, 2005

Table 3.4-1: Species Commonly Occuring in Santa Clara County.

Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
Amphibians/Reptiles					
California slender salamander	*Batrachoseps attenuatus*	ensatina	*Ensatina eschscholtzii*	western fence lizard	*Sceloporus occidentalis*
coast horned lizard	*Phrynosoma coronatum*	gopher snake	*Pituophis catenifer*	western rattlesnake	*Crotalus oreganus (=viridis)*
common garter snake	*Thamnophis sirtalis*	Pacific treefrog	*Pseudacris (=Hyla) regilla*	western toad	*Bufo boreas*
common kingsnake	*Lampropeltis getula*	red-legged frog	*Rana aurora*		
common side-blotched lizard	*Uta stansburiana*	tiger whiptail	*Cnemidophorus tigris*		
Birds					
acorn woodpecker	*Melanerpes formicivorus*	Cooper's hawk	*Accipiter cooperii*	red-shouldered hawk	*Buteo lineatus*
American coot	*Fulica americana*	double-crested cormorant	*Phalacrocorax auritus*	red-winged blackbird	*Agelaius phoeniceus*
American goldfinch	Carduelis tristis	downy woodpecker	*Picoides pubescens*	ring-billed gull	*Larus delawarensis*
Anna's hummingbird	*Calypte anna*	European starling	*Sturnus vulgaris*	sanderling	*Calidris alba*
barn owl	*Tyto alba*	great blue heron	*Ardea herodias*	sharp-shinned hawk	*Accipiter striatus*
belted kingfisher	*Ceryle alcyon*	great horned owl	*Bubo virginianus*	song sparrow	*Melospiza melodia*
Bewick's wren	*Thryomanes bewickii*	greater yellowlegs	*Tringa melanoleuca*	spotted sandpiper	*Actitis macularia*
black phoebe	*Sayornis nigricans*	house finch	*Carpodacus mexicanus*	spotted towhee	*Pipilo maculatus*
brown pelican	*Pelecanus occidentalis*	house sparrow	*Passer domesticus*	tree swallow	*Tachycineta bicolor*
bushtit	*Psaltriparus minimus*	killdeer	*Charadrius vociferus*	turkey vulture	*Cathartes aura*
California gull	*Larus californicus*	lark sparrow	*Chondestes grammacus*	western bluebird	*Sialia mexicana*
California quail	*Callipepla californica*	lesser goldfinch	*Carduelis psaltria*	western meadowlark	*Sturnella neglecta*
California thrasher	*Toxostoma redivivum*	mallard	*Anas platyrhynchos*	western scrub-jay	*Aphelocoma californica*
California towhee	*Pipilo crissalis*	mourning dove	*Zenaida macroura*	western tanager	*Piranga ludoviciana*
Canada goose	*Branta canadensis*	northern flicker	*Colaptes auratus*	white-crowned sparrow	*Zonotrichia leucophrys*
cedar waxwing	*Bombycilla cedrorum*	northern harrier	*Circus cyaneus*	white-tailed kite	*Elanus leucurus*
chestnut-backed chickadee	*Poecile rufescens*	northern mockingbird	*Mimus polyglottos*	wrentit	*Chamaea fasciata*
cinnamon teal	*Anas cyanoptera*	Pacific loon	*Gavia pacifica*	yellow-rumped warbler	*Dendroica coronata*
common raven	*Corvus corax*	red-tailed hawk	*Buteo jamaicensis*		
Mammals					
big brown bat	*Eptesicus fuscus*	common raccoon	*Procyon lotor*	ornate shrew	*Sorex ornatus*
black rat	Rattus rattus	coyote	*Canis latrans*	pallid bat	*Antrozous pallidus*
black-tailed jackrabbit	*Lepus californicus*	desert cottontail	*Sylvilagus audubonii*	striped skunk	*Mephitis mephitis*
Botta's pocket gopher	*Thomomys bottae*	house mouse	*Mus musculus*	western gray squirrel	*Sciurus griseus*
broad-footed mole	*Scapanus latimanus*	little brown bat	*Myotis lucifugus*	Yuma myotis	*Myotis yumanensis*
California ground squirrel	*Spermophilus beecheyi*	mule deer	*Odocoileus hemionus*		
California vole	*Microtus californicus*	Norway rat	*Rattus norvegicus*		

Source: Sierra Club Online Database for the California Bay-Delta Area, Including Santa Clara County (winter season)

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
alkali milk-vetch	*Astragalus tener var. tener*	FSC;–;1B	Alkali playa, valley and foothill grassland, vernal pools; low ground, alkali flats, and flooded lands; in annual grassland, playas, or vernal pools.	Unlikely	The majority of the project location consists of urban and agricultural habitats. A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. Therefore, it is unlikely alkali milk-vetch would be present at the project location.
arcuate bush mallow	*Malacothamnus arcuatus (=fasciculat)*	–;–;1B;SLC	Chaparral; gravelly alluvium.	Unlikely	The majority of the project location consists of urban and agricultural habitats. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely arcuate bush mallow would be present at the project location.
Ben Lomond buckwheat (=naked buckwheat)	*Eriogonum nudum var. decurrens*	FSC;–;1B	Chaparral, cismontane woodland, lower montane coniferous forest; ponderosa pine sand hills in Santa Cruz County (known only from Contra Costa and Santa Cruz Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Ben Lomond buckwheat would be present at the project location.
big-scale (=California) balsamroot	*Balsamorhiza macrolepis var. macrolepis*	–;–;1B;SLC	Valley and foothill grassland, cismontane woodland; sometimes on serpentine.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the project site has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely big-scale balsamroot would be present at the project location.
Brandegee's woolly-star (=eriastrum)	*Eriastrum brandegeeae*	FSC;–;1B	Chaparral, cismontane woodland; on barren volcanic soils; often in open areas.	Unlikely	The majority of the project area consists of urban and agricultural habitats. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Brandegee's woolly-star would be present at the project location.
California sea blite	*Suaeda californica*	FE;–;1B	Marshes and swamps; margins of coastal salt marshes.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, no marsh or swamp areas were noted during the site inspection at or immediately surrounding the project location. Therefore, it is unlikely California sea blite would be present at the site.
caper-fruited tropidocarpum	*Tropidocarpum capparideum*	FSC;–;1A	Valley and foothill grassland; alkaline clay.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely caper-fruited tropidocarpum would be present at the project location.
chaparral harebell (=bellflower)	*Campanula exigua*	–;–;1B;SLC	Chaparral; rocky sites, usually on serpentine in chaparral.	Unlikely	The majority of the project area consists of urban and agricultural habitats. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely chaparral harebell would be present at the project location.
clustered lady's slipper	*Cypripedium fasciculatum*	FSC;–;4	North Coast coniferous forest, lower montane coniferous forest; in serpentine seeps and moist stream banks.	Unlikely	The majority of the project area consists of urban and agricultural habitats. The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, has barren concrete banks. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely clustered lady's slipper would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
Congdon's tarplant	*Centromadia parryi ssp. congdonii*	FSC;–;1B	Valley and foothill grassland; alkaline soils, sometimes described as heavy white clay.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Congdon's tarplant would be present at the project location.
Contra Costa goldfields	*Lasthenia conjugens*	FE;–;1B	Valley and foothill grassland, vernal pools, cismontane woodland; vernal pools, swales, low depressions, in open grassy areas (extirpated from most of its range; extremely endangered).	Unlikely	The majority of the project location consists of urban and agricultural habitats. A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. Therefore, it is unlikely Contra Costa goldfields would be present at the project location.
coyote ceanothus	*Ceanothus ferrisiae*	FE;–;1B	Chaparral, valley and foothill grassland, coastal scrub; serpentine sites in the Mt. Hamilton range (endemic to Santa Clara County).	Unlikely	Coyote ceanothus is recorded on the CNDDB within one mile of the project location. A small area of annual grassland, comprised mainly of invasive species, is present at the project site, but has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Coyote ceanothus would be present at the project location.
curly-leaved (=curlyleaf) monardella	*Monardella undulata*	FSC;–;4	Chaparral, coastal dunes, coastal scrub, lower montane coniferous forest; ponderosa pine sand hills; sandy soils.	Unlikely	The majority of the project area consists of urban and agricultural habitats. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely curly-leaved monardella would be present at the project location.
Delta tule-pea	*Lathyrus jepsonii var. jepsonii*	FSC;–;1B	Freshwater and brackish marshes; often found with *Typha, Astyer lentus, Rosa californica, Juncus ssp., Scirpus,* etc.; usually on marsh and slough edges (most of distribution restricted to the Sacramento/San Joaquin River Delta).	Unlikely	The majority of the project site consists of urban and agricultural habitats. No marsh or swamp areas were noted during the site inspection at or immediately surrounding the project location. In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Delta tule-pea would be present at this location.
fragrant fritillary (=prairie bells)	*Fritillaria liliacea*	FSC;–;1B	Coastal scrub, valley and foothill grassland, coastal prairie; often on serpentine; various soils reported though usually clay in grassland.	Unlikely	A small area of annual grassland, comprised mainly of invasive species, is present at the project site, but has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). In addition, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely fragrant fritillary would be present at the project location.
Franciscan onion	*Allium peninsulare var. franciscanum*	–;–;1B;SLC	Cismontane woodland, valley and foothill grassland; clay soils; often on serpentine; dry hillsides.	Unlikely	A small area of annual grassland, comprised mainly of invasive species, is present at the project site, but has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). In addition, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Franciscan onion would be present at the project location.
Gairdner's yampah	*Perideridia gairdneri ssp. gairdneri*	FSC;–;4	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools; adobe flats or grasslands, wet meadows and vernal pools, under *Pinus radiata* along the coast; mesic sites.	Unlikely	The majority of the project location consists of urban and agricultural habitats. A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. Therefore, it is unlikely Gairdner's yampah would be present at the project location.
Greene's popcorn flower	*Plagiobothrys reticulatus var. rossianorum*	FSC;–;–	Foothill woodland, valley grassland; slopes; clay.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Greene's popcorn flower would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
hairless allocarya (=popcorn-flower)	*Plagiobothrys glaber*	FSC;–;1A	Meadows and seeps, marshes and swamps; coastal salt marshes and alkaline meadows.	Unlikely	The majority of the project site consists of urban and agricultural habitats. Also, no marsh or swamp areas were noted during the site inspection at or immediately surrounding the project location. Therefore, it is unlikely hairless allocarya would be present at this location.
Hall's bush mallow	*Malacothamnus hallii (=fasciculatus)*	–;–;1B;SLC	Chaparral; some populations on serpentine.	Unlikely	The majority of the project area consists of urban and agricultural habitats. Also, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Hall's bush mallow would be present at the project location.
Hoover's button-celery	*Eryngium aristulatum var. hooveri*	FSC;–;1B	Vernal pools; alkaline depressions, vernal pools, roadside ditches, and other wet places near the coast (most historical populations from San Benito, Santa Clara, and San Luis Obispo Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. In addition, adjacent roadways are level with the project site, without any significant roadside depressions or ditches. Therefore, it is unlikely Hoover's button-celery would be present at the project location.
interior California (Hospital Canyon) larkspur	*Delphinium californicum ssp. interius*	FSC;–;1B	Cismontane woodland, chaparral; in wet, boggy meadows, openings in chaparral and in canyons.	Unlikely	The majority of the project site consists of urban and agricultural habitats. Also, no wet or boggy meadows were noted during the site inspection at or immediately surrounding the project location. Therefore, it is unlikely interior California larkspur would be present at this location.
Kings Mountain manzanita	*Arctostaphylos regismontana*	–;–;1B;SLC	Broadleaved upland forest, chaparral, north coast coniferous forest; granitic or sandstone outcrops (endemic to Santa Cruz and San Mateo Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Kings Mountain manzanita would be present at the project location.
large-flowered (=flower) linanthus	*Linanthus grandiflorus*	FSC;–;–	Foothill woodland, northern coastal scrub, coastal sage scrub, closed-cone pine forest, valley grassland, coastal prairie; coastal dunes.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the project site has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely large-flowered linanthus would be present at the project location.
legenere	*Legenere limosa*	–;–;1B	Vernal pools; in beds of vernal pools (many historical occurrences are extirpated).	Unlikely	The majority of the project location consists of urban and agricultural habitats. A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. Therefore, it is unlikely legenere would be present at the project location.
Loma Prieta hoita	*Hoita strobilina*	FSC;–;1B	Chaparral, cismontane woodland, riparian woodland; serpentine; mesic sites.	Unlikely	The majority of the project area consists of urban and agricultural habitats. Also, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Loma Prieta hoita would be present at the project location.
maple-leaved checkerbloom	*Sidalcea malachroides*	–;–;1B;SLC	Broadleaved upland forest, coastal prairie, coastal scrub, north coast coniferous forest; woodlands and clearings near the coast; often in disturbed areas.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely maple-leaved checkerbloom would be present at the site.
Metcalf Canyon jewel-flower	*Streptanthus albidus ssp. albidus*	FE;–;1B	Valley and foothill grassland; relatively open areas in dry grassy meadows on serpentine soils; also on serpentine balds (endemic to Santa Clara County).	Unlikely	Metcalf Canyon jewel-flower is recorded on the CNDDB within one mile of the project location. A small area of annual grassland, comprised mainly of invasive species, is present at the project site, but has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). In addition, a soil survey of Santa Clara County defines native soil in the vicinity of the project site as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Metcalf Canyon jewel-flower would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
Monterey spineflower	*Chorizanthe pungens var. pungens*	FT;–;1B	Coastal dunes, chaparral, cismontane woodland, coastal scrub; sandy soils in coastal dunes or more inland within chaparral or other habitats (only known from Monterey and Santa Cruz Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Monterey spineflower would be present at the project location.
most beautiful (uncommon) jewel-flower	*Streptanthus albidus ssp. peramoenus*	FSC;–;1B	Chaparral, valley and foothill grassland, cismontane woodland; serpentine outcrops, on ridges and slopes.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. The topography of the site is flat (no ridges or slopes) from years of agricultural use. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely most beautiful jewel-flower would be present at the project location.
Mt. Diablo cottonweed	*Micropus amphibolus*	–;–;3	Valley and foothill grassland, cismontane woodland, broadleaved upland forest; bare, grassy, or rocky slopes.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. The topography of the site is flat (no ridges or slopes) from years of agricultural use. Therefore, it is unlikely Mt. Diablo cottonweed would be present at the project location.
Mt. Diablo phacelia	*Phacelia phacelioides*	FSC;–;1B	Chaparral, cismontane woodland; adjacent to trails, on rock outcrops and talus slopes; sometimes on serpentine.	Unlikely	The majority of the project location consists of urban and agricultural habitats. The topography of the site is flat (no outcrops or slopes) from years of agricultural use. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Mt. Diablo phacelia would be present at the project location.
Mt. Hamilton coreopsis	*Coreopsis hamiltonii*	FSC;–;1B	Cismontane woodland; on steep shale talus with open southwestern exposure (only known from Santa Clara and Stanislaus Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. The topography of the site is flat (no slopes) from years of agricultural use. Therefore, it is unlikely Mt. Hamilton coreopsis would be present at the project location.
Mt. Hamilton (=Sharesmith's) harebell	*Campanula sharsmithiae*	FSC;–;1B	Chaparral; serpentine barrens (only known from Santa Clara and Stanislaus Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Mt. Hamilton harebell would be present at the project location.
Mt. Hamilton jewel-flower	*Streptanthus callistus*	–;–;1B;SLC	Chaparral, cismontane woodland, open talus slopes on shale with grey pine and/or black oak (endemic to Santa Clara County).	Unlikely	The majority of the project location consists of urban and agricultural habitats. The topography of the site is flat (no slopes) from years of agricultural use. Therefore, it is unlikely Mt. Hamilton jewel-flower would be present at the project location.
Mt. Hamilton lomatium	*Lomatium observatorium*	–;–;1B;SLC	Cismontane woodland; open to partially shaded spaces in *Pinus coulteri* and oak woodland; sedimentary Franciscan rocks and volcanics (endemic to the Mt. Hamilton range, mostly around Mt. Hamilton itself).	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Mt. Hamilton lomatium would be present at the project location.
Mt. Hamilton thistle	*Cirsium fontinale var. campylon*	FSC;–;1B	Cismontane woodland, chaparral, valley and foothill grassland; in seasonal and perennial drainages on serpentine.	Unlikely	Mt. Hamilton thistle is recorded on the CNDDB within one mile of the project location. The majority of the project area consists of urban and agricultural habitats. A small area of annual grassland, comprised mainly of invasive species, is present at the project site, but has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, has barren concrete banks. In addition, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Mt. Hamilton thistle would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
northcoast (=Point Reyes) bird's-beak	*Cordylanthus maritimus ssp. palustris*	FSC;–;1B	Coastal salt marsh; usually in coast salt marsh with *Salicornia, Distichlis, Jaumea, Spartina,* etc.	Unlikely	The majority of the project location consists of urban and agricultural habitats. No marsh or swamp areas were noted during the site inspection at or immediately surrounding the project site. Therefore, it is unlikely northcoast bird's-beak would be present at this location.
Oregon meconella (=white fairypoppy)	*Meconella oregana*	FSC;–;1B	Coastal prairie, coastal scrub; open, moist places.	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). No marsh or other wetland areas were noted during the site inspection at or immediately surrounding the project site. Therefore, it is unlikely Oregon meconella would be present at the project location.
Pacific cordgrass (=California cordgrass)	*Spartina foliosa*	–;–;–;SLC	Coastal salt marsh.	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). No marsh or other wetland areas were noted during the site inspection at or immediately surrounding the project site. Therefore, it is unlikely Pacific cordgrass would be present at the project location.
rayless ragwort	*Senecio aphanactis*	–;–;2	Cismontane woodland, coastal scrub; drying alkaline flats.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely rayless ragwort would be present at the site.
robust monardella	*Monardella villosa ssp. globosa*	–;–;1B	Broadleaved upland forest, chaparral, cismontane woodland, valley and foothill grassland; openings.	Unlikely	The majority of the project area consists of urban and agricultural habitats. A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the project site has been disturbed by agricultural activities since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely robust monardella would be present at the project location.
robust spineflower	*Chorizanthe robusta var. robusta*	FE;–;1B	Cismontane woodland, coastal dunes, coastal scrub; sandy terraces and bluffs or in loose sand.	Unlikely	The majority of the project location consists of urban and agricultural habitats. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely robust spineflower would be present at the project site.
rock sanicle	*Sanicula saxatilis*	FSC;CR;1B	Broadleaved upland forest, chaparral, valley and foothill grassland; bedrock outcrops and talus slopes in chaparral or oak woodland habitat (known only from Contra Costa and Santa Clara Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats. The topography of the site is flat (no outcrops or slopes) from years of agricultural use. Therefore, it is unlikely rock sanicle would be present at the project location.
Salinas Valley (=hooked) popcornflower	*Plagiobothrys uncinatus*	FSC;–;1B	Chaparral, cismontane woodland, valley and foothill grassland, coastal bluff scrub; sandstone outcrops and canyon sides; often in burned or disturbed areas.	Unlikely	The majority of the project area consists of urban and agricultural habitats. A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the topography of the site is flat (no outcrops or slopes) from years of agricultural use. Therefore, it is unlikely Salinas Valley popcornflower would be present at the project location.
San Francisco Bay spineflower	*Chorizanthe cuspidata var. cuspidata*	FSC;–;1B	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub; closely related to *Chorizanthe pungens*; sandy soil on terraces and slopes.	Unlikely	The majority of the project location consists of urban and agricultural habitats with flat topography (no terraces or slopes) from years of farming activity. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely San Francisco Bay spineflower would be present at the project site.
San Francisco collinsia	*Collinsia multicolor*	–;–;1B	Closed-cone coniferous forest, coastal scrub; on decomposed shale (mudstone) mixed with humus.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely San Francisco collinsia would be present at the site.

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Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
San Francisco wallflower	*Erysimum franciscanum*	FSC;–;4	Coastal dunes, coastal scrub, valley and foothill grassland; often occurs on serpentine soils or outcrops; sometimes granite; occasionally on grassy, rocky slopes (endemic to the greater San Francisco Bay area).	Unlikely	The majority of the project site consists of urban and agricultural habitats. A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the topography of the site is flat (no outcrops or slopes) from years of farming activity and the native soil is Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely San Francisco wallflower would be present at the project location.
San Joaquin spearscale (=saltbush)	*Atriplex joaquiniana*	FSC;–;1B	Chenopod scrub, alkali meadow, valley and foothill grassland; in seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata, Frankenia,* etc.	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have occurred at this site since at least 1917 (Twining Laboratories 2005). A small area of annual grassland is present within the project area, but is comprised mainly of invasive species. No wetland areas were noted during the site inspection at or immediately surrounding the project area. Therefore, it is unlikely San Joaquin spearscale would be present at this location.
Santa Clara Valley dudleya	*Dudleya setchellii*	FE;–;1B	Valley and foothill grassland, cismontane woodland; on rocky serpentine outcrops and on rocks within grassland or woodland (endemic to serpentines of Santa Clara County).	Unlikely	The majority of the project site consists of urban and agricultural habitats. A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. In addition, the topography of the site is flat (no outcrops or slopes) from years of farming activity and the native soil is Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Santa Clara Valley dudleya would be present at the project location.
Santa Cruz clover	*Trifolium buckwestiorum*	–;–;1B	Coastal prairie, broadleaved upland forest, cismontane woodland; moist grassland (endemic to Santa Cruz County).	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present in this area since at least 1917 (Twining Laboratories 2005). In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Santa Cruz clover would be present at the project location.
Santa Cruz manzanita	*Arctostaphylos andersonii*	–;–;1B;SLC	Broadleaved upland forest, chaparral, north coast coniferous forest; open sites, redwood forest (known only from the Santa Cruz Mountains).	Unlikely	The majority of the project location consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). In addition, the project site is outside of the known range for this species. Therefore, it is unlikely Santa Cruz manzanita would be present within the project area.
Santa Cruz Mountains beardtongue	*Penstemon rattanii var. kleei*	–;–;1B;SLC	Chaparral, lower montane coniferous forest; sandy shale slopes; sometimes in the transition between forest and chaparral (known only from Santa Clara and Santa Cruz Counties).	Unlikely	The majority of the project location consists of urban and agricultural habitats with flat topography (no slopes) from years of farming activity. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Santa Cruz Mountains beardtongue would be present at the project site.
Santa Cruz Mountains pussypaws	*Calyptridium parryi var. hesseae*	–;–;3	Chaparral, cismontane woodland; in bare granite or fine textured soil.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Santa Cruz Mountains pussypaws would be present at the site.
serpentine bedstraw	*Galium andrewsii ssp. gatense*	–;–;4;SLC	Chaparral, cismontane woodland, lower montane coniferous forest; dry, rocky places in serpentine soil.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely serpentine bedstraw would be present at the site.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
Sharsmith's onion	*Allium sharsmithae*	FSC;–;1B	Cismontane woodland; rocky, serpentine slopes (endemic to the Mt. Hamilton range).	Unlikely	The majority of the project location consists of urban and agricultural habitats with flat topography (no slopes) from years of farming activity. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Sharsmith's onion would be present at the project site.
Shevock's copper-moss	*Schizymenium shevockii*	–;–;1B;SLC	Cismontane woodland; moss on metamorphic rocks, mesic sites; on rocks along roads, in same habitat as *Mielichhoferia elongata*.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, no rocky areas supporting moss species were noted during the site inspection. Therefore, it is unlikely Shevock's copper-moss would be present at the site.
showy Indian clover	*Trifolium amoenum*	FE;–;1B	Valley and foothill grassland, coastal bluff scrub; sometimes on serpentine soil, open sunny sites, swales; most recently sited on roadside and eroding cliff face.	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of invasive species. The topography of the site is flat (no swales or cliffs) from years of agricultural use. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely showy Indian clover would be present at the project location.
smooth lessingia	*Lessingia micradenia var. glabrata*	FSC;–;1B	Chaparral; serpentine; often on roadsides (endemic to Santa Clara County).	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely smooth lessingia would be present at the project site.
South Bay clarkia (=Santa Clara red ribbons)	*Clarkia concinna ssp. automixa*	FSC;–;4	Cismontane woodland, chaparral; on slopes and near drainages.	Unlikely	The majority of the project location consists of urban and agricultural habitats with flat topography (no slopes) from years of farming activity. The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, has barren concrete banks. Therefore, it is unlikely South Bay clarkia would be present at the project location.
talus fritillary	*Fritillaria falcata*	FSC;–;1B	Chaparral, cismontane woodland, lower montane coniferous forest; on shale, granite, or serpentine talus.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). The topography of the site is flat (no outcrops or slopes) from years of farming activity and the native soil is Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely talus fritillary would be present at the site.
Tiburon buckwheat	*Eriogonum luteolum var. caninum*	–;–;3;SLC	Chaparral, valley and foothill grassland, coastal prairie; serpentine soils (known from the greater Bay Area).	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of ruderal invasive species. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Tiburon buckwheat would be present at the project location.
Tiburon Indian paintbrush	*Castilleja affinis ssp. neglecta*	FE;CT;1B	Valley and foothill grassland; rocky serpentine sites (known only from Marin, Napa, and Santa Clara Counties).	Unlikely	A small area of annual grassland is present at the project location, but is comprised mainly of ruderal invasive species. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely Tiburon Indian paintbrush would be present at the project location.
Tracy's eriastrum	*Eriastrum tracyi*	–;CR;1B	Chaparral, cismontane woodland; gravelly shale or clay; often in open areas.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely Tracy's eriastrum would be present at the project site.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Plants					
water sack (=saline) clover	*Trifolim depauperatum var. hydrophilum*	FSC;–;1B	Marshes and swamps, valley and foothill grassland, vernal pools; mesic, alkaline sites.	Unlikely	The majority of the project site consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). A small area of annual grassland, comprised of mainly invasive species, showed no indications of supporting vernal pools during the site inspection. Also, no marsh or swamp areas were noted at or immediately surrounding the project location. Therefore, it is unlikely water sack clover would be present at the site.
western leatherwood	*Dirca occidentalis*	–;–;1B;SLC	Broadleaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland; on brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Therefore, it is unlikely western leatherwood would be present at the project site.
woolly-headed lessingia	*Lessingia hololeuca*	–;–;3	Coastal scrub, lower montane coniferous forest, valley and foothill grassland; clay, serpentine; roadsides, fields.	Unlikely	The majority of the project area consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). A small area of annual grassland is present at the project location, but is comprised mainly of ruderal invasive species. Also, a soil survey of Santa Clara County defines native soil in the project vicinity as Arbuckle gravelly loam (USDA 1971). Therefore, it is unlikely woolly-headed lessingia would be present at the project site.
Invertebrates					
Bay checkerspot butterfly	*Euphydryas editha bayensis*	FT;–;X	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay; *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *Orthocarpus purpurscens* are the secondary host plants.	Unlikely	The Kirby critical habitat unit, which supports one of the largest populations of Bay checkerspot butterfly, is located within one mile of the project location. The project area is well within the adult dispersal range (up to 4.7 miles has been documented) for this species (USFWS 1998a) however, the primary and secondary host plants for this species were not noted during the site inspection. Due to ongoing agricultural activities and the lack of host plants at the site, it is unlikely Bay checkerspot butterfly are residents at the project location.
California linderiella fairy shrimp	*Linderiella occidentalis*	FSC;–;–	Seasonal pools in unplowed grasslands with alluvial soils underlain by hardpan or in sandstone depressions; water in the pools has very low alkalinity, conductivity, and total dissolved solids.	Unlikely	The majority of the project site consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, no indications of vernal/seasonal pools were noted during the site inspection. Therefore, it is unlikely California linderiella fairy shrimp would be present at the project location.
Edgewood blind harvestman	*Calicina (=sitalcina) minor*	FSC;–;–	Open grassland in areas of serpentine bedrock; found on the underside of moist serpentine rocks near permanent springs.	Unlikely	Edgewood blind harvestman is recorded on the CNDDB within one mile of the project location. Blind harvestmen in this area are primarily found in serpentine areas under medium to large rocks that have been in contact with the soil for a prolonged period (USFWS 1998a). Serpentine soils/rocks are not expected to occur static onsite, since the area has been historically disturbed by agricultural practices. Therefore, it is unlikely that Edgewood blind harvestman would be present at the project location.
Hom's microblind harvestman	*Microcina homi*	FSC;–;–	Serpentine soils (San Francisco Bay area).	Unlikely	With one exception, Hom's microblind harvestman has been found underneath rocks with moist surfaces on serpentine slopes often adjacent to running water (USFWS 1998a). The soil and topography of the project site have been disturbed from years of agricultural activities. In addition, the nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, only accepts season drainage (no consistent running water) from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Therefore, it is unlikely Hom's microblind harvestman would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Invertebrates					
Jung's microblind harvestman	*Microcina jungi*	FSC;–;–	Serpentine soils (San Francisco Bay area).	Unlikely	Only one population of Jung's microblind harvestman is known, located on rocky serpentine grassland (co-located with Hom's microblind harvestman) over one mile north of the project site (USFWS 1998a). Due to the on-going agricultural activity within the project area, it is unlikely Jung's microblind harvestman would be present at the project location.
Opler's longhorn moth	*Adela oplerella*	FSC;–;–	From Marin County and the Oakland area on the inner coast ranges south to Santa Clara County, one record from Santa Cruz County; all but Santa Cruz site is on serpentine grassland; larvae feed on California cream cups (*Platystemon californicus).*	Unlikely	A large population of Opler's longhorn moth is recorded on the CNDDB approximately .75-miles from the project site. This population is located on Coyote Ridge at the Kirby Canyon Butterfly Reserve mitigation area (USFWS 1998a). Opler's longhorn moth is typically found within a few yards of California cream cups, commonly on potential nectar plants such as goldfields (Lasthenia sp.), tidy tips (Layia sp.), and linanthus (Linanthus sp.). No California cream cups were noted in the immediate area during the site inspection; and due to on-going agricultural activities at the project site, it is unlikely this plant is present. In addition, current studies suggest this species' lack of strong flying ability limits their distribution potential to no more than .6 miles (USFWS 1998a). Therefore, it is unlikely Opler's longhorn moth would be present at the project location.
Ricksecker's water scavenger beetle	*Hydrochara ricksecker*i	FSC;–;–	Aquatic (known from the San Francisco Bay area).	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage (no consistent water) from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Therefore, it is unlikely Ricksecker's water scavenger beetle, an aquatic species, would be present at the project location.
unsilvered fritillary butterfly	*Speyeria adiaste adiaste*	FSC;–;–	Fern-dominated grassland, wetland areas; forages on *Viola sp.* (known from Santa Cruz Mountains and Santa Cruz County).	Unlikely	No ferns or wetland areas were noted during the site inspection. In addition, the project is located in Santa Clara County. Therefore, it is unlikely the unsilvered fritillary butterfly would be present at the project location.
vernal pool fairy shrimp	*Branchinecta lynchi*	FT;–;–	In astatic rain-filled pools; inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools (endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains).	Unlikely	The majority of the project site consists of urban and agricultural habitats, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, no indications of vernal/seasonal pools were noted during the site inspection. Therefore, it is unlikely vernal pool fairy shrimp would be present at the project location.
Fish					
Central California coastal steelhead	*Oncorhynchus mykiss irideus*	FT;–;–	From Russian River, south to Soquel Creek and to, but not including, Pajaro River; also San Francisco and San Pablo Bay basins.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely Central California coastal steelhead would be present at the project location.
Central Valley fall/late fall-run chinook salmon	*Oncorhynchus tshawytscha*	FC;CSC;X	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely Central Valley fall/late fall-run chinook salmon would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Fish					
Central Valley spring-run chinook salmon	*Oncorhynchus tshawytscha*	FT;CT;–	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel; water temperatures greater than 27 degrees Celsius lethal to adults; federal listing refers to populations spawning in the Sacramento River and tributaries.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely Central Valley spring-run chinook salmon would be present at the project location.
Central Valley steelhead	*Oncorhynchus mykiss irideus*	FT;–;–	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely Central Valley steelhead would be present at the project location.
coho salmon (central California coast)	*Oncorhynchus kisutch*	FT;CE;–	Federal listing refers to populations between Punta Gorda and San Lorenzo River; state listing refers to populations south of Punta Gorda; require beds of loose, silt-free, coarse gravel for spawning; also need cover, cool water and sufficient dissolved oxygen.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely coho salmon would be present at the project location.
delta smelt	*Hypomesus transpacificus*	FT;CT;–	Sacramento-San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay; seldom found at salinities greater than 10 parts per trillion; most often at salinities less than 2 parts per trillion.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely delta smelt would be present at the project location.
green sturgeon	*Acipenser medirostris*	FC;CSC;–	Spawn in the Sacramento River and the Klamath River; spawn at temperatures between 8 to 14 degrees Celsius; preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely green sturgeon would be present at the project location.
longfin smelt	*Spirinchus thaleichthys*	FSC;CSC;–	Euryhaline, nektonic, and anadromous; found in open waters of estuaries, mostly in the middle or bottom of water column; prefers salinities of 15 to 30 parts per trillion, but can be found in completely freshwater to almost pure seawater.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely longfin smelt would be present at the project location.
Sacramento splittail	*Pogonichthys macrolepidotus*	FSC;CSC;–	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes; slow moving river sections, dead end sloughs; requires flooded vegetation for spawning and foraging for young.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely Sacramento splittail would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Fish					
South Central California steelhead	*Oncorhynchus mykiss irideus*	FT;–;–	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely South Central California steelhead would be present at the project location.
tidewater goby	*Eucyclogobius newberryi*	FE;CSC;–	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River; found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely tidewater goby would be present at the project location.
winter-run chinook salmon	*Oncorhynchus tshawytscha*	FE;CE;–	Sacramento River below Keswick Dam; spawns in the Sacramento River but not in tributary streams; requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees Celsius for spawning.	Unlikely	The nearest waterway, the Santa Clara Valley Water District Cochrane Channel located along the west side of the project site, accepts only season drainage from Highway 101 and a few surrounding areas such as the project site (SCVWD 2004). Furthermore, no consistent source of water or perminent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely winter-run chinook salmon would be present at the project location.
Amphibians and Reptiles					
Alameda whipsnake	*Masticophis lateralis euryxanthus*	FT;CT;X	Restricted to valley-foothill hardwood habitat of the coast ranges between the vicinity of Monterey and North San Francisco Bay; inhabits south-facing slopes and ravines where shrubs form a vegetative mosaic with oak trees and grasses.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely Alameda whipsnake would be present at the project location.
California red-legged frog	*Rana aurora draytonii*	FT;CSC;PX	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation; requires 11 to 20 weeks of permanent water for larval development; must have access to estivation habitat.	Unlikely	Annual grassland located at the project site has moderate suitability for reproduction, cover, and foraging of this species. However, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Therefore, it is unlikely California red-legged frog would be present at the project location.
California tiger salamander	*Ambystoma californiense*	FT;CSC;PX	Species now listed as threatened statewide; populations in Santa Barbara and Sonoma Counties formerly listed as endangered; need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Unlikely	The westernmost section of the project location is recorded on the CNDDB as within the range of California tiger salamander. Annual grassland and burrows noted onsite (during the site inspection) provide high suitability for cover and foraging of this species. However, the project area would not be suitable for reproduction due to the absence of breeding pools, ongoing agricultural activites and the majority of the recorded range being located on the other side of Highway 101.
coast (California) horned lizard	*Phrynosoma coronatum (frontale)*	FSC;CSC;–	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Unlikely	Habitat at the project site provides low suitability for reproduction, cover, and foraging of this species. Therefore, it is unlikely coast horned lizard would be present at the project location.
foothill yellow-legged frog	*Rana boylii*	FSC;CSC;–	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats; needs at least some cobble-sized substrate for egg-laying; needs at least 15 weeks to attain metamorphosis.	Unlikely	Habitat at the project site provides low suitability for reproduction, cover, and foraging of this species. Therefore, it is unlikely foothill yellow-legged frog would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Amphibians and Reptiles					
northwestern pond turtle	*Emys (=Clemmys) marmorata marmorata*	FSC;CSC;–	Associated with permanent or nearly permanent water in a wide variety of habitats; requires basking sites; nests sites may be found up to 0.5 kilometers from water.	Unlikely	Annual grassland located at the project site provides moderate suitability for reproduction, cover, and foraging of this species. However, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Furthermore, the project site is at this species' typical maximum dispersal distance (approximately .3 miles) from a permanent water source (Coyote Creek). Therefore, it is unlikely northwestern pond turtle would be present at the project location.
San Francisco garter snake	*Thamnophis sirtalis tetrataenia*	FE;CE;–	Vicinity of freshwater marshes, ponds, and slow moving streams; prefers dense cover and water depths of at least one foot; upland areas near water are also very important (in San Mateo County and extreme northern Santa Cruz County).	Unlikely	Annual grassland located at the project site provides high suitability for reproduction, cover, and foraging of this species. However, no consistent source of water, permanent water feature, or hydrophitic vegetation was noted (during the site inspection) within or immediately adjacent to the project area. Furthermore, the project site is outside of the known range for this species. Therefore, it is unlikely San Francisco garter snake would be present at the project location.
San Joaquin coachwhip (=whipsnake)	*Masticophis flagellum ruddocki*	FSC;CSC;–	Open, dry habitats with little or no tree cover; found in valley grassland and saltbush scrub in the San Joaquin Valley; needs mammal burrows for refuge and oviposition sites.	Unlikely	Due to ongoing agricultural activities, habitat at the project site provides low suitability for reproduction, cover, and foraging of this species. Therefore, it is unlikely San Joaquin coachwhip would be present at the project location.
silvery legless lizard	*Anniella pulchra pulchra*	FSC;CSC;–	Sandy or loose loamy soils under sparse vegetation; soil moisture is essential; they prefer soils with a high moisture content.	Unlikely	Due to ongoing agricultural activities, habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely silvery legless lizard would be present at the project location.
southwestern pond turtle	*Emys (=Clemmys) marmorata pallida*	FSC;CSC;–	Inhabits permanent or nearly permanent bodies of water in many habitat types; below 6,000 foot elevation; requires basking sites such as partially submerged logs, vegetation mats, or mud bank; need suitable nesting sites.	Unlikely	Annual grassland located at the project site provides moderate suitability for reproduction, cover, and foraging of this species. However, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Furthermore, the project site is at this species' typical maximum dispersal distance (approximately .3 miles) from a permanent water source (Coyote Creek). Therefore, it is unlikely southwestern pond turtle would be present at the project location.
western pond turtle	*Emys (=Clemmys) marmorata*	–;CSC;–	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation; need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying.	Unlikely	Annual grassland located at the project site provides moderate suitability for reproduction, cover, and foraging of this species. However, no consistent source of water or permanent water feature was noted (during the site inspection) within or immediately adjacent to the project area. Furthermore, the project site is at this species' typical maximum dispersal distance (approximately .3 miles) from a permanent water source (Coyote Creek). Therefore, it is unlikely western pond turtle would be present at the project location.
western spadefoot toad	*Spea hammondii*	FSC;CSC;–	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands; vernal pools are essential for breeding and egg-laying.	Unlikely	Annual grassland and burrows noted onsite (during the site inspection) provide high suitability for cover and foraging of this species. However, the project area would not be suitable for reproduction due to the absence of vernal pools or other appropriate water source (the Cochrane channel is devoid of vegetation with steep concrete banks). In addition, the CWHR reports that this toad rarely travels extensively from breeding areas. Therefore, it is unlikely western spadefoot toad would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Birds					
Alameda (South Bay) song sparrow	*Melospiza melodia pusillula*	FSC;CSC;–	Resident of salt marshes bordering the south arm of San Francisco Bay; inhabits *Salicornia* marshes; nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia*.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely Alameda song sparrow would be present at the project location.
Allen's hummingbird	*Selasphorus sasin*	FSC;–;–	Woods, thickets, gardens, parks.	Likely	Urban areas within and surrounding the project site provide high suitability for reproduction, cover, and foraging of this species during summer months. Therefore, it is likely Allen's hummingbird would be present at the project location during the summer.
American bittern	*Botaurus lentiginosus*	FSC;–;–	Freshwater and slightly brackish marshes; also in coastal saltmarshes; dense reed beds.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely American bittern would be present at the project location.
American peregrine falcon	*Falco peregrinus anatum*	FD;CE;–	(Nesting) Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures; nest consists of a scrape on a depression or ledge in an open site.	Unlikely	Although habitat within and surrounding the project area could provide high suitability for reproduction, cover, and foraging of this species, the City of Morgan Hill General Plan states that breeding habitat for peregrine falcon is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely American peregrine falcon would be present at the project location.
bald eagle	*Haliaeetus leucocephalus*	FT;CE;–	(Nesting and Wintering) Ocean shore, lake margins, and rivers for both nesting and wintering; most nests within one mile of water; nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine; roosts communally in winter.	Unlikely	Habitat at the project site provides low suitability for foraging of this species, but is not typically suitable for reproduction or cover. Therefore, it is unlikely bald eagle would be present at the project location.
Bell's sage sparrow	*Amphispiza belli belli*	FSC;CSC;–	(Nesting) Nests in chaparral dominated by fairly dense stands of chamise; found in coastal sage scrub in south of range; nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground; territories about 50 yards apart.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely Bell's sage sparrow would be present at the project location.
black skimmer	*Rynchops niger*	FSC;CSC;–	(Nesting colony) Nests along the north and south ends of the Salton Sea; also, on salt pond dikes of south San Diego Bay; nests on gravel bars, low islets, and sandy beaches, in unvegetated sites; nesting colonies usually less than 200 pairs.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely black skimmer would be present at the project location.
black swift	*Cypseloides niger*	FSC;CSC;–	(Nesting) Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely (coastal belt of Santa Cruz and Monterey Counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains).	Possible	Habitat within and surrounding the project site provides moderate forage suitability for this species during summer months. Therefore, it is possible black swift would be present at the project location during the summer.
California black rail	*Laterallus jamaicensis cotumiculus*	–;CT;–	Mainly inhabits salt-marshes bordering larger bays; occurs in tidal salt marsh heavily grown to pickleweed; also in freshwater and brackish marshes, all at low elevation.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely California black rail would be present at the project location.
California brown pelican	*Pelecanus occidentalis californicus*	FE;CE;–	(Nesting colony) Colonial nester on coastal islands just outside the surf line; nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely California brown pelican would be present at the project location.
California clapper rail	*Rallus longirostris obsoletus*	FE;CE;–	Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay; associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely California clapper rail would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Birds					
California least tern	*Sterna antillarum (=albifrons) browni*	FE;CE;–	(Nesting colony) Nests along the coast from San Francisco Bay south to northern Baja, California; colonial breeder on bare or sparsely vegetated, flat substrates, sand beaches, alkali flats, land fills, or paved areas.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely California least tern would be present at the project location.
California thrasher	*Toxostoma redivivum*	FSC;–;–	Chaparral.	Possible	Urban areas within and surrounding the project site provide moderate suitability for reproduction, cover, and foraging of this species. Therefore, it is possible California thrasher would be present at the project location.
Costa's hummingbird	*Calypte costae*	FSC;–;–	Desert areas.	Possible	Urban areas within and surrounding the project site provide high suitability for reproduction, cover, and foraging of this species during summer months. Therefore, it is possible Costa's hummingbird would be present at the project location during the summer.
ferruginous hawk	*Buteo regalis*	FSC;CSC;–	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; mostly eats lagomorphs, ground squirrels, and mice; population trends may follow lagomorph population cycles.	Likely	Habitat within and surrounding the project area provides high suitability for cover and foraging of this species during winter months. Therefore, it is likely ferruginous hawk would be present at the project location during winter months.
golden eagle	*Aquila chrysaetos*	–;CSC;–	(Nesting and wintering) Rolling foothills, mountain areas, sage-juniper flats, desert; cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Unlikely	Although habitat within and surrounding the project area could provide high foraging suitability for this species, the City of Morgan Hill General Plan states that breeding habitat for golden eagle is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely golden eagle would be present at the project location.
great blue heron	*Ardea herodias*	–;–;–	(Rookery) Colonial nester in tall trees, cliff sides, and sequestered spots on marshes; rookery sites in close proximity to foraging areas; marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Possible	Habitat within and surrounding the project area provides high cover and foraging suitability for this species. Therefore, it is possible that great blue heron would be present at the project location.
Lawrence's goldfinch	*Carduelis lawrencei*	FSC;–;–	(Nesting) Nests in open oak or other arid woodland and chaparral, near water; nearby herbaceous habitats used for feeding; closely associated with oaks.	Likely	Habitat within and surrounding the project area provides high foraging suitability for this species. Therefore, it is likely Lawrence's goldfinch would be present at the project location.
least Bell's vireo	*Vireo bellii pusillus*	FE;CE;–	(Nesting) Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet; nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, or mesquite.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely least Bell's vireo would be present at the project location.
Lewis' woodpecker	*Melanerpes lewis*	FSC;–;–	Dry open woods, orchards, farmlands, foothills.	Possible	Habitat within and surrounding the project area provides high foraging suitability for this species. Therefore, it is possible Lewis' woodpecker would be present at the project location.
loggerhead shrike	*Lanius ludovicianus*	FSC;CSC;–	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes; prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Likely	Habitat within and surrounding the project area provides high cover and foraging suitability for this species. Therefore, it is likely loggerhead shrike would be present at the project location.
long-billed curlew	*Numenius americanus*	FSC;CSC;–	(Nesting) Breeds in upland shortgrass prairies and wet meadows in northeastern California; habitats on gravelly soils and gently rolling terrain are favored over others.	Likely	Habitat within and surrounding the project area provides high cover and foraging suitability for this species. Therefore, it is likely long-billed curlew would be present at the project location.
marbled godwit	*Limosa fedoa*	FSC;–;–	Summers on moist grasslands; winters along coast.	Unlikely	Habitat at the project site provides low suitability for cover and foraging of this species, but is not typically suitable for reproduction. Therefore, it is unlikely marbled godwit would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Birds					
marbled murrelet	*Brachyramphus marmoratus*	FT;CE;–	(Nesting) Feeds near-shore; nests inland along coast, from Eureka to Oregon border and Half Moon Bay to Santa Cruz; nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas firs.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely marbled murrelet would be present at the project location.
mountain plover	*Charadrius montanus*	FSC;CSC;–	(Wintering) Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms; short vegetation, bare ground and flat topography; prefer grazed areas and areas with burrowing rodents.	Unlikely	Although habitat at the project site is suitable for cover and foraging of this species, the project is located outside the typical range of this species. Therefore, it is unlikely mountain plover would be present at the project location.
olive-sided flycatcher	*Contopus cooperi*	FSC;–;–	(Nesting) Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine; most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes, or other terrain.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely olive-sided flycatcher would be present at the project location.
red-breasted sapsucker	*Sphyrapicus ruber*	FSC;–;–	Moist woodlands.	Possible	Urban habitat within and surrounding the project area provides high suitability for reproduction, cover, and foraging of this species during winter months. Therefore, it is possible red-breasted sapsucker would be present at the project location during winter months.
red knot	*Calidris canutus*	FSC;–;–	Summers on tundra; winters on coastal beaches and mudflats.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely red knot would be present at the project location.
rufous hummingbird	*Selasphorus rufus*	FSC;–;–	(Nesting) Breeds in transition life zone of northwest coastal area from Oregon border to southern Sonoma County; nests in berry tangles, shrubs, and conifers; favors habitats rich in nectar-producing flowers.	Likely	Urban habitat within and surrounding the project area provides moderate suitability for cover and high suitability for foraging of this species, which migrates through the area. Therefore, it is likely rufous hummingbird would be present at the project location as a migrant.
saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	FSC;CSC;–	In fresh and salt water marshes; requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting (resident of the San Francisco Bay region).	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely saltmarsh common yellowthroat would be present at the project location.
tricolored blackbird	*Agelaius tricolor*	FSC;CSC;–	(Nesting colony) Highly colonial species, most numerous in Central Valley and vicinity; largely endemic to California; requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Unlikely	Although habitat within and surrounding the project area could provide high foraging suitability for this species, the City of Morgan Hill General Plan states that breeding habitat for tricolored blackbird is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely tricolored blackbird would be present at the project location.
Vaux's swift	*Chaetura vauxi*	FSC;CSC;–	(Nesting) Redwood, Douglas fir, and other coniferous forests; nests in large hollow trees and snags; often nests in flocks; forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Likely	Urban habitat within and surrounding the project area provides high suitability for foraging of this species during summer months. Therefore, it is likely Vaux's swift would be present at the project location during the summer.
western burrowing owl	*Athene cunicularia hypugaea*	FSC;CSC;–	(Burrow sites) Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Likely	Western burrowing owl is recorded on the CNDDB at the project location. Habitat within and surrounding the project area provides high suitability for reproduction, cover, and foraging of this species. Therefore, it is likely western burrowing owl would still be present at the project location.
western snowy plover	*Charadrius alexandrinus nivosus*	FT;CSC;–	(Nesting) Federal listing applies only to the Pacific coastal population; sandy beaches, salt pond levees and shores of large alkali lakes; needs sandy, gravelly or friable soils for nesting.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely western snowy plover would be present at the project location.
whimbrel	*Numenius phaeopus*	FSC;–;–	Summers on tundra; winters along fresh or salt water and on agricultural fields.	Possible	Habitat within and surrounding the project area provides moderate suitability for foraging of this species during winter months. Therefore, it is possible whimbrel would be present at the project location during the winter.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Birds					
white-tailed (=black-shouldered) kite	*Elanus leucurus*	FSC;–;–	(Nesting) Rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland; open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Likely	Habitat within and surrounding the project area provides high suitability for reproduction, cover, and foraging of this species. Therefore, it is likely white-tailed kite would still be present at the project location.
willow flycatcher	*Empidonax traillii*	–;CE;–	(Nesting) Inhabits extensive thickets of low, dense willows on the edge of wet meadows, ponds, or backwaters; requires dense willow thickets for nesting/roosting; low, exposed branches are used for singing posts/hunting perches.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely willow flycatcher would be present at the project location.
Mammals					
American badger	*Taxidea taxus*	–;CSC;–	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils; need sufficient food, friable soils and open, uncultivated ground; preys on burrowing rodents; digs burrows.	Possible	Habitat at the project site provides moderate foraging suitability for this species. Therefore, it is possible American badger would be present at the project location.
fringed myotis bat	*Myotis thysanodes*	FSC;–;–	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer; uses caves, mines, buildings, or crevices for maternity colonies and roosts.	Unlikely	Habitat at the project site provides low suitability for foraging of this species, but is not typically suitable for reproduction or cover due to human disturbance. Therefore, it is unlikely fringed myotis bat would be present at the project location.
greater western mastiff-bat	*Eumops perotis californicus*	FSC;CSC;–	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Unlikely	Although habitat at the project site could provide moderate foraging suitability for this species, the City of Morgan Hill General Plan states that breeding habitat for California matiff bat is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely greater western mastiff-bat would be present at the project location.
long-eared myotis bat	*Myotis evotis*	FSC;–;–	Found in all brush, woodland, and forest habitats from sea level to about 9,000 feet; prefers coniferous woodlands and forests; nursery colonies in buildings, crevices, spaces under bark, and snags; caves used primarily as night roosts.	Possible	Habitat at the project site provides moderate foraging suitability for this species. Therefore, it is possible long-eared myotis bat would be present at the project location.
long-legged myotis bat	*Myotis volans*	FSC;–;–	Most common in woodland and forest habitats above 4,000 feet; trees are important day roosts, caves and mines are night roosts; nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	Unlikely	Habitat at the project site provides low suitability for foraging of this species, but is not typically suitable for reproduction or cover. Therefore, it is unlikely long-legged myotis bat would be present at the project location.
Pacific (=Townsend's) western big-eared bat	*Corynorhinus (=Plecotus) townsendii townsendii*	FSC;CSC;–	Humid coastal regions of Northern and Central California; roost in limestone caves, lava tubes, mines, buildings, etc.; will only roost in the open, hanging from walls and ceilings; roosting sites limiting; extremely sensitive to disturbance.	Unlikely	Habitat at the project site provides low suitability for foraging of this species, but is not typically suitable for reproduction or cover due to human disturbance. Therefore, it is unlikely Pacific western big-eared bat would be present at the project location.
riparian brush rabbit	*Sylvilagus bachmani riparius*	FE;CE;–	Riparian areas on the San Joaquin River in northern Stanislaus County; dense thickets of wild rose, willows, and blackberries.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely riparian brush rabbit would be present at the project location.
salt marsh harvest mouse	*Reithrodontomys raviventris*	FE;CE;–	Only in the saline emergent wetlands of San Francisco Bay and its tributaries; pickleweed is primary habitat; do not burrow, build loosely organized nests; require higher areas for flood escape.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely salt marsh harvest mouse would be present at the project location.
salt marsh vagrant (=wandering) shrew	*Sorex vagrans halicoetes*	FSC;CSC;–	Salt marshes of the south arm of San Francisco Bay; medium high marsh 6 to 8 foot above sea level where abundant driftwood is scattered among *Salicornia*.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely salt marsh vagrant shrew would be present at the project location.

Table 3.4-2: Listed and Proposed Species Potentially Occurring in the Project Area.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Rationale
Mammals					
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	FSC;CSC;–	Forest habitats of moderate canopy and moderate to dense understory; also in chaparral habitats; constructs nests of shredded grass, leaves, and other material; may be limited by availability of nest-building materials.	Unlikely	Habitat at the project site is not typically suitable for reproduction, cover, or foraging of this species. Therefore, it is unlikely San Francisco dusky-footed woodrat would be present at the project location.
San Joaquin kit fox	*Vulpes macrotis mutica*	FE;CT;–	Annual grasslands or grassy open stages with scattered shrubby vegetation; need loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely	Habitat within and surrounding the project site is moderately suitable for reproduction, cover, and foraging of this species. However, residential areas situated between the project site and Anderson Lake may prohibit distribution of the fox to the project site. Furthermore, the City of Morgan Hill General Plan states that breeding habitat for San Joaquin kit fox is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely that San Joaquin kit fox would be present at the project location.
small-footed myotis bat	*Myotis ciliolabrum*	FSC;–;–	Rock outcrops, open grasslands, canyons, woodlands; roosts in cracks, crevices in cliffs, beneath tree bark, in mines or caves, and the occasional human dwelling.	Likely	Urban habitat within and adjacent to the project site provides high suitability for reproduction and cover as well as moderate suitability for foraging of this species. Therefore, it is likely small-footed myotis bat would be present at the project location.
Yuma myotis bat	*Myotis yumanensis*	FSC;–;–	Optimal habitats are open forests and woodlands with sources of water over which to feed; distribution is closely tied to bodies of water; maternity colonies in caves, mines, buildings, or crevices.	Possible	Urban habitat within and adjacent to the project site provides moderate suitability for reproduction, cover, and foraging of this species. Therefore, it is possible Yuma myotis bat would be present at the project location.
Critical Habitat					
serpentine bunchgrass	NA	–;–;–	Serpentine bunchgrass.	Unlikely	Habitat at the project site consists of urban and agricultural types, which have been present at this location since at least 1917 (Twining Laboratories 2005). Also, serpentine bunchgrass was not observed within the project area during the site inspection.
sycamore alluvial woodland	NA	–;–;–	Sycamore alluvial woodland.	Unlikely	Sycamore alluvial woodland is recorded on the CNDDB approximately .9-miles from the project location and occurs in association with a tributary north of Coyote Creek. The project area is located approximately .5-miles south of Coyote Creek. Habitat at the project site consists of urban and agricultural types, which have been present at this location since at least 1917 (Twining Laboratories 2005). Sycamore alluvial woodland was not observed within the project area during the site inspection.

Notes

1A *CNPS listed plants believed extinct*
1B *CNPS listed rare, threatened, or endangered plants in California or elsewhere*
2 *CNPS listed rare, threatened, or endangered plants in California, but more numerous el*
3 *CNPS listed plants which need more information*
4 *CNPS listed plants with limited distribution*
CE *California endangered*
CNPS *California Native Plant Society*
CR *California rare*
CSC *California species of concern*
CT *California threatened*
CWHR *California Wildlife Habitat Relationship system*
DFG *California Department of Fish and Game*
FC *Federal candidate*
FD *Federal delisted; species will be monitored for five years*
FE *Federal endangered*
FSC *Federal species of concern*
FT *Federal threatened*
PX *Proposed critical habitat*
Mt. *Mount*
NA *Not applicable*
SLC *Species of local concern*
X *Critical habitat designated for this species*

Table 3.4-3: Listed and Proposed Species Potentially Occurring in the Project Area Potentially Needing Study.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Potential for Occurrence
Invertebrates					
Bay checkerspot butterfly	*Euphydryas editha bayensis*	FT;–;X	Seasonal pools in unplowed grasslands with alluvial soils underlain by hardpan or in sandstone depressions; water in the pools has very low alkalinity, conductivity, and total dissolved solids.	Unlikely	The project area is centrally located between three critical habitat areas for the Bay checkerspot butterfly (one each to the northeast, northwest, and southwest). All three areas are within 2 miles of each other, which is well within the adult dispersal range (up to 4.7 miles has been documented) for this species (USFWS 1998a) however, the primary and secondary host plants for this species were not noted during the site inspection. Due to ongoing agricultural activities and the lack of host plants at the site, it is unlikely Bay checkerspot butterfly are residents at the project location.
Amphibians and Reptiles					
California tiger salamander	*Ambystoma californiense*	FT;CSC;PX	Species now listed as threatened statewide; populations in Santa Barbara and Sonoma Counties formerly listed as endangered; need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Unlikely	California tiger salamander range in this area, as recorded on the CNDDB, is bisected by Highway 101, which separates the project site (east of the highway) from the majority of the range (west of the highway). Because of this separation, the lack of suitable breeding pools, and ongoing agricultural activities, it is unlikely California tiger salamander are residents at the project site.
Birds					
raptors (birds of prey, such as falcons, hawks, owls) and other migratory and resident birds	NA	MBTA;§3503 .5 DFG Code;–	Various habitats.	Likely	Trees (primarily *Juglans nigra*) within the project area provide potential nest sites for raptors. Also, foraging or transient migratory and resident birds have a potential for occurrence in the project area.
Allen's hummingbird	*Selasphorus sasin*	FSC;–;–	Woods, thickets, gardens, parks.	Likely	Allen's hummingbird forages on nectar, insects, and at hummingbird feeders. This bird also uses sprinklers, birdbaths, and other water sources provided by humans for drinking and bathing. This species mostly winters in Mexico, but migrates north to nest from mid-February through early August. Therefore, Allen's hummingbird is a likely resident of areas within and/or surrounding the project site.
black swift	*Cypseloides niger*	FSC;CSC;–	(Nesting) Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely (coastal belt of Santa Cruz and Monterey Counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains).	Possible	Black swifts nest on steep, rocky cliffs, but will forage long-distances over many habitats for flying insects. This species is present within the project vicinity from May through September. Therefore, it is possible black swift forage on insects that occur at the project location.

Table 3.4-3: Listed and Proposed Species Potentially Occurring in the Project Area Potentially Needing Study.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Potential for Occurrence
Birds					
California thrasher	*Toxostoma redivivum*	FSC;–;–	Chaparral.	Possible	California thrasher forages on the ground for insects, small lizards, fruits and berries. In addition, this species often uses bird feeders and birdbaths provided by humans in urban areas. These birds nest and take cover in riparian thickets, supported by local waterways. Therefore, it is possible California thrasher are residents of surrounding areas and forage within the project site.
Costa's hummingbird	*Calypte costae*	FSC;–;–	Desert areas.	Possible	Costa's hummingbird arrives in the project vicinity mid-March and stays until late September when it migrates south. This species prefers dry environments, but is found in valley foothill riparian areas like those along local waterways. Costa's hummingbird eats nectar, spiders, insects, and visits feeders in an urban environment. Therefore, it is possible Costa's hummingbird forages within the project site and adjacent areas from March through September.
ferruginous hawk	*Buteo regalis*	FSC;CSC;–	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; mostly eats lagomorphs, ground squirrels, and mice; population trends may follow lagomorph population cycles.	Likely	Ferruginous hawk are fairly common residents of grasslands and agricultural areas in California from September through mid-April. Therefore, it is likely Ferruginous hawk utilizes the project area during this timeframe.
great blue heron	*Ardea herodias*	–;–;–	(Rookery) Colonial nester in tall trees, cliff sides, and sequestered spots on marshes; rookery sites in close proximity to foraging areas; marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Possible	Great blue heron prefer habitats near wetland areas, such as marshes, swamps, and river or lake edges. They forage in shallow water on a variety of prey, such as fish, amphibians, and insects, but also hunt in open fields for small mammals. Since Coyote Creek and Anderson Lake are in areas surrounding the project site, it is possible great blue heron occasionally forage and/or find cover at the project location.
Lawrence's goldfinch	*Carduelis lawrencei*	FSC;–;–	(Nesting) Nests in open oak or other arid woodland and chaparral, near water; nearby herbaceous habitats used for feeding; closely associated with oaks.	Likely	Lawrence's goldfinch forages on the ground and in low grasses for seeds and insects as well as at bird feeders for sunflower and thistle seeds. Therefore, it is likely Lawrence's goldfinch forages within and surrounding the project area.
Lewis' woodpecker	*Melanerpes lewis*	FSC;–;–	Dry open woods, orchards, farmlands, foothills.	Possible	Lewis' woodpecker forages mainly on insects, but also eats acorns, nuts, fruits, and seed from bird feeders. Therefore, it is possible Lewis' woodpecker forages within and surrounding the project area.

Table 3.4-3: Listed and Proposed Species Potentially Occurring in the Project Area Potentially Needing Study.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Potential for Occurrence
Birds					
loggerhead shrike	*Lanius ludovicianus*	FSC;CSC;–	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes; prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting	Likely	Loggerhead shrike is a common resident of California that is often found in open cropland. Therefore, it is likely loggerhead shrike would be found within grassland and agricultural areas at the project site.
long-billed curlew	*Numenius americanus*	FSC;CSC;–	(Nesting) Breeds in upland shortgrass prairies and wet meadows in northeastern California; habitats on gravelly soils and gently rolling terrain are favored over others.	Likely	Long-billed curlew are found in central California from late-June through mid-April. This species is commonly found in coastal estuaries, but also forages on grasslands and fields for prey such as insects, worms, spiders, berries, and snails. Therefore, grassland and dryland grain crop at the project location is likely to provide cover and forage for the long-billed curlew.
red-breasted sapsucker	*Sphyrapicus ruber*	FSC;–;–	Moist woodlands.	Possible	Red-breasted sapsucker occurs most frequently in moist woodlands, such as those found along Coyote Creek. This species nests and roosts in tree cavities and forages on the soft tissues of trees and insects. Therefore, it is possible to find red-breasted sapsucker utilizing trees within and surrounding the project site.
rufous hummingbird	*Selasphorus rufus*	FSC;–;–	(Nesting) Breeds in transition life zone of northwest coastal area from Oregon border to southern Sonoma County; nests in berry tangles, shrubs, and conifers; favors habitats rich in nectar-producing flowers.	Likely	Rufous hummingbird is a common migrant species throughout California. This species forages on nectar, insects, spiders, and sap from holes drilled by sapsuckers as well as visits hummingbird feeders. Therefore, it is likely rufous hummingbirds would forage and find cover within the project site as it migrates through the area.
Vaux's swift	*Chaetura vauxi*	FSC;CSC;–	(Nesting) Redwood, Douglas fir, and other coniferous forests; nests in large hollow trees and snags; often nests in flocks; forages over most terrains and habitats but shows a preference for foraging over rivers and lakes	Likely	Vaux's swift is a common summer resident of northern California. This species forages for insects over most terrains and habitats, especially near rivers. Due to the proximity of the project site to Coyote Creek, it is likely Vaux's swift forage within the area.
western burrowing owl	*Athene cunicularia hypugaea*	FSC;CSC;–	(Burrow sites) Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Likely	Small mammal burrows noted onsite during the site inspection provide suitable cover and nest areas for this owl. The CNDDB records previous sightings of this species at the project location. Therefore, it is likely western burrowing owls are utilizing the project area.

Table 3.4-3: Listed and Proposed Species Potentially Occurring in the Project Area Potentially Needing Study.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Potential for Occurrence
Birds					
whimbrel	*Numenius phaeopus*	FSC;–;–	Summers on tundra; winters along fresh or salt water and on agricultural fields.	Possible	Whimbrel winter mainly along fresh or marine wetlands, where they forage for crustaceans and mollusks. However, whimbrel also forage on adjacent agricultural fields for insects and spiders. Therefore, it is possible whimbrel forage within and near the project location during the winter.
white-tailed (=black-shouldered) kite	*Elanus leucurus*	FSC;–;–	(Nesting) Rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland; open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Likely	White-tailed kite is a common yearlong resident of coastal and valley California. This species is most often found near agricultural areas, where it preys mainly on voles and other small mammals as well as birds, insects, reptiles, and amphibians. Therefore, it is likely white-tailed kite would utilize the project site.
Mammals					
American badger	*Taxidea taxus*	–;CSC;–	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils; need sufficient food, friable soils and open, uncultivated ground; preys on burrowing rodents; digs burrows.	Possible	American badgers are found throughout California, except for the extreme northwest. Badgers are somewhat tolerant of human activities, but do not survive in cultivated areas. They prey on fossorial rodents, such as ground squirrels, and use burrows for cover. Uncultivated portions of the surrounding areas could support American badger, which then would possibly forage at the project location.
long-eared myotis bat	*Myotis evotis*	FSC;–;–	Found in all brush, woodland, and forest habitats from sea level to about 9,000 feet; prefers coniferous woodlands and forests; nursery colonies in buildings, crevices, spaces under bark, and snags; caves used primarily as night roosts.	Possible	Long-eared myotis bats forage along habitat edges, in open habitats, and over water. Therefore, due to the proximity of water features (Coyote Creek and Anderson Lake) as well as site characteristics (open, agricultural land), it is possible long-eared myotis forage over the project location.
San Joaquin kit fox	*Vulpes macrotis mutica*	FE;CT;–	Annual grasslands or grassy open stages with scattered shrubby vegetation; need loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely	San Joaquin kit fox are found in a variety of habitats, including row crop, vineyard, pasture, and grasslands. Distributional records for this species show the presence of kit fox near Anderson Lake about 10 miles from the project site. Home ranges of up to 12 miles have been recorded for this fox (USFWS 1998b). However, residential areas situated between the project site and Anderson Lake may prohibit distribution of the fox to the project site. In addition, the City of Morgan Hill General Plan states that breeding habitat for San Joaquin kit fox is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely that San Joaquin kit fox utilize the project location.

Table 3.4-3: Listed and Proposed Species Potentially Occurring in the Project Area Potentially Needing Study.

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/Possible/Unlikely)	Potential for Occurrence
Mammals					
small-footed myotis bat	*Myotis ciliolabrum*	FSC;–;–	Rock outcrops, open grasslands, canyons, woodlands; roosts in cracks, crevices in cliffs, beneath tree bark, in mines or caves, and the occasional human dwelling.	Likely	Small-footed myotis bats occur in a wide variety of habitats, usually near water. They roost and seek cover in several areas, including buildings, crevices, under bridges, and under bark. This species often forages among trees and over water sources, such as streams, ponds, springs, and stock tanks. Therefore, small-footed myotis is likely to either be roosting in structures at the project site and/or foraging over the project site.
Yuma myotis bat	*Myotis yumanensis*	FSC;–;–	Optimal habitats are open forests and woodlands with sources of water over which to feed; distribution is closely tied to bodies of water; maternity colonies in caves, mines, buildings, or crevices.	Possible	Yuma myotis bats are common throughout most of California, especially near water sources over which they can feed. The current project setting is moderately suitable as foraging habitat for this species, especially considering the project's proximity to Coyote Creek (approximately .5-miles north of the site). Additionally, abandoned wooden buildings on the property could provide roost and/or cover sites for this species. Therefore, it is possible Yuma myotis would be present within and/or foraging over the project location.

Notes

CE	California endangered
CNDDB	California Natural Diversity Database
CSC	California species of concern
CT	California threatened
DFG	California Department of Fish and Game
FD	Federal delisted; species will be monitored for five years
FE	Federal endangered
FSC	Federal species of concern
FT	Federal threatened
MBTA	Migratory Bird Treaty Act
PX	Proposed critical habitat
USFWS	US Fish and Wildlife Service
X	Critical habitat designated for this species