Appendix 8.5
Table 4.3-1
Potentially Occurring Biological Species

Table 4.3-1. Potential for special status species to occur in the Route 238 Bypass Corridor Project Area. List compiled from September 2007 searches of California Department of Fish and Game Natural Diversity Database (CDFG 2007), U.S. Fish and Wildlife Service Species Lists (USFWS 2007), and the California Native Plant Society Electronic Inventory (CNPS 2006) for the Hayward, Oakland East, Las Trampas Ridge, Dublin, Niles, Diablo, San Leandro, Redwood Point, and Newark USGS 7.5' quadrangles, and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Mammals			
salt-marsh wandering shrew *Sorex vagrans halicoetes*	CSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among Salicornia.	**No Potential.** Salt marsh habitat not present within the Project Area.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	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.	**High Potential.** Woodlands near creek corridors throughout the Project Area provide suitable habitat for this species.
riparian (=San Joaquin Valley) woodrat *Neotoma fuscipes riparia*	FE, CSC, RP	Riparian areas along the San Joaquin, Stanislaus, and Tuolumne Rivers. Need areas with mix of brush and trees. Need suitable nesting sites in trees, snags or logs.	**No Potential.** The only verified population of this species is located approximately 46 miles to the east on the San Joaquin River (USFWS 1998).
pallid bat *Antrozous pallidus*	CSC, WBWG	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Present.** CNDDB records show this species to be present in the Hayward area. Trees, abandoned buildings, and other structures within the Project Area may provide roosting habitat. Presence of this species may also indicate suitable habitat for other sensitive bats.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Townsend's big-eared bat *Corynorhinus townsendii*	CSC, WBWG	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Very sensitive to human disturbance.	**Moderate Potential.** Unoccupied buildings within the Project Area may provide roosting habitat for this species.
western mastiff bat *Eumops perotis californicus*	CSC, WBWG, BLM	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	**Moderate Potential.** Historical records of this species exist near or within the Project Area. Suitable roosting and foraging habitat exists in open areas and a quarry site within the Project Area.
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Found 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.	**No Potential.** Salt marsh habitat not present within the Project Area.
San Joaquin kit fox *Vulpes macrotis mutica*	FE, ST, RP	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**Unlikely.** There is a possibility of this species occurring within the Project Area west of Garin Regional Park where undeveloped grassy slopes are contiguous with the undeveloped East Bay Hills. This species is generally considered to inhabit the San Joaquin Valley, further southeast from the Project Area.
American badger *Taxidea taxus*	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely.** Most potential burrowing habitat for this species within the Project Area is disced and lacks suitable prey. There are no records of this species in the vicinity of the Project Area.
Birds			

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
California Brown Pelican *Pelecanus occidentalis californicus*	FE, SE, CFP	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.	**No Potential.** Project Area is far from potential coastal island habitat or open water foraging habitat.
Cooper's Hawk *Accipiter cooperii*	CSC	Associated with open or interrupted woodland and riparian habitats in the Coast ranges and foothills surrounding the Central Valley. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also nests in live oaks.	**High Potential.** Woodlands and riparian corridors provide suitable nesting habitat, and foraging habitat is available both within the Project Area and in open space to the east.
Sharp-shinned Hawk *Accipiter striatus*	CSC	This species is a fairly common migrant and winter visitor throughout California and is found in a variety of habitats, especially woodlands. It usually nests in dense small-tree stands of conifers near water. Preferred roost sites are within intermediate to high-canopy forest areas.	**High Potential.** Isolated riparian woodlands may provide nesting habitat, and foraging habitat is present in isolated grasslands and open areas. This species nested about 2 miles east of the Project Area in 1994 (CNDDB 2007).
Golden Eagle *Aquila chrysaetos*	BCC, CSC, CFP, CDF, BLM	Rolling foothills and mountainous areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Moderate Potential.** This species is unlikely to nest in the Project Area but may forage over undeveloped hillsides contiguous with open space to the east. This species nested about 2 miles east of the Project Area in 1994 (CNDDB 2007).
Ferruginous Hawk *Buteo regalis*	BCC, CSC, BLM	(Wintering) Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats. Preys on lagomorphs, ground squirrels and mice. Population trends may follow lagomorph population cycles.	**Moderate Potential.** This species would not nest within the Project Area, but may forage in the East Bay hills during winter months.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Northern harrier *Circus cyaneus*	CSC	Nests and forages in grassland habitats, usually in association with coastal salt and freshwater marshes. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. May also occur in alkali desert sinks.	**Moderate Potential.** This species is unlikely to find suitable nesting habitat within the Project Area, but is likely to be found in the vicinity year-round and may forage in isolated open areas.
White-tailed Kite *Elanus leucurus*	CFP	Year-long resident of coastal and valley lowlands; rarely found away from agricultural areas. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**High Potential.** Woodlands and riparian corridors provide suitable nesting habitat, especially in more isolated portions of the Project Area adjacent to open space to the east. Grasslands and open areas within and adjacent to the Project Area provide suitable foraging habitat.
American Peregrine Falcon *Falco peregrinus anatum*	FD, SE, CFP, BCC	Winters throughout Central Valley. Requires protected cliffs and ledges for cover. Feeds on a variety of birds, and some mammals, insects, and fish.	**Unlikely.** Cliff habitat suitable for nesting is not present within the Project Area. Species is locally uncommon.
Prairie falcon *Falco mexicanus*	BCC, CSC	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Unlikely.** Cliff habitat suitable for nesting is not present within the Project Area. Species is locally uncommon.
California black rail *Laterallus jamaicensis coturniculus*	ST, BCC, CFP	Mainly inhabits salt-marshes bordering larger bays. Occurs in tidal salt marsh heavily grown to pickleweed; also in fresh-water and brackish marshes, all at low elevation.	**No Potential.** Salt marsh habitat not present within the Project Area.
California clapper rail *Rallus longirostris obsoletus*	FE, SE, CFP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Require dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on molluscs and crustaceans.	**No Potential.** Salt marsh habitat not present within the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Western snowy plover *Charadrius alexandrinus nivosus*	FT, CSC, BCC, RP	Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees and shores of large alkali lakes. Requires sandy, gravelly or friable soils for nesting.	**No Potential.** The project Area is over 3.5 miles from San Francisco Bay and contains no suitable nesting habitat or open water areas for foraging.
California least tern *Sterna antillarum browni*	FE, SE, CFP	Nests along the coast from San Francisco Bay south to northern Baja California. Breeding colonies in San Francisco Bay found in abandoned salt ponds and along estuarine shores. Colonial breeder on barren or sparsely vegetated, flat substrates near water.	**No Potential.** The project Area is over 3.5 miles from San Francisco Bay and contains no suitable nesting habitat or open water areas for foraging.
Long-eared Owl *Asio otus*	CSC	Inhabits riparian bottom lands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	**Moderate Potential.** This species may be present in the vicinity of the Project Area year-round, although it is unlikely to nest there. Marginal habitat for this species is present along isolated, wooded creek corridors.
Burrowing Owl *Athene cunicularia*	CSC, BCC	Frequents open grasslands and shrublands with perches and burrows. Preys upon insects, small mammals, reptiles, birds, and carrion. Nests and roosts in old burrows of small mammals.	**Unlikely.** Discing of open spaces within the Project Area has drastically reduced the potential for this species to occur. Burrowing owls are often found in association with ground squirrels, and no ground squirrels or burrows were observed within the Project Area.
Loggerhead Shrike *Lanius ludovicianus*	BCC, CSC	Inhabits 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.	**Present.** WRA biologists observed a single shrike in agricultural grassland north of East 16th Street. Suitable nesting and foraging habitat is found throughout much of the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
California horned lark *Eremophila alpestris actia*	CSC	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Moderate Potential.** This species is known to frequent grassy open space near the Project Area. It may forage in the Project Area but is unlikely to nest there due to discing and other disturbance.
Bank Swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Nests in riparian areas with vertical cliffs and bands with fine-textured or sandy soils in which to nest.	**Unlikely.** Suitable bank habitat not observed within the Project Area. The nearest documented occurrence of this species is approximately 5 miles to the south.
Yellow Warbler *Dendroica petechia brewsteri*	CSC	Yellow warblers prefer dense riparian vegetation for breeding. Yellow warbler populations have declined due to brood parasitism by brown-headed cowbirds (*Molothrus ater*) and habitat destruction. Diet is primarily insects supplemented with berries.	**High Potential.** This species has been documented in a creek corridor that runs through the Project Area. The occurrence was roughly two miles to the northeast. Suitable riparian habitat is present along a number of creeks within the Project Area.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	CSC, BCC	Frequents low, dense vegetation near water including fresh to saline emergent wetlands. Brushy habitats used in migration. Forages among wetland herbs and shrubs for insects primarily.	**Moderate Potential.** Creek corridors containing willow trees may provide habitat for this species. It has been documented in numerous locations of the South Bay as close as two miles from the Project Area.
Alameda song sparrow *Melospiza melodia pusillula*	BCC, CSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits *Salicornia* marshes; nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia*.	**No Potential.** This species is generally restricted to salt marsh habitat, which is not present within or near the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Tricolored Blackbird *Agelaius tricolor*	CSC, BCC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs.	**Unlikely.** Habitat suitable for this species is generally absent within the Project Area. Isolated patches of dense wetland vegetation near standing open water were rare or nonexistent.
Reptiles and Amphibians			
California tiger salamander *Ambystoma californiense*	FT, CSC	Inhabits annual grass habitat and mammal burrows. Seasonal ponds and vernal pools crucial to breeding.	**Unlikely.** Suitable breeding locations and upland estivation sites were not observed within the Project Area. The urban, fragmented nature of most of the Project Area makes it unsuitable as habitat for this species. Discing and landscaping activities in almost all open areas have removed suitable estivation and refugia sites. Stock ponds and other depressions that hold water for a sufficient length of time to allow breeding were not observed.
California red-legged frog *Rana aurora draytonii*	FT, CSC, RP	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.	**Moderate Potential.** Suitable habitat for this species exists along creeks, and occurrences have been reported nearby.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
foothill yellow-legged frog *Rana boylii*	CSC	Found in or near rocky streams in a variety of habitats. Feed on both aquatic and terrestrial invertebrates.	**Unlikely.** Very few occurrence records exist for this species in the East Bay, and it may be locally extirpated. Creeks within the Project Area are generally lower-gradient, more degraded, and have a higher degree of siltation than typical FYLF habitat.
western pond turtle *Actinemys 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.	**Moderate potential.** Suitable habitat for this species is present in perennial creeks within the Project Area.
coast horned lizard *Phrynosoma coronatum frontale*	CSC, FS	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.	**Moderate Potential.** The Project Area contains marginal habitat for this species. Occurrence records suggest that this species may be locally extirpated (Jennings and Hayes 1994, CNDDB 2007), although it is known to be present as close as Livermore.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Inhabits chaparral and foothill-hardwood habitats in the eastern Bay Area. Prefers south-facing slopes and ravines with rock outcroppings where shrubs form a vegetative mosaic with oak trees and grasses and small mammal burrows provide basking and refuge.	**Unlikely.** The majority of the Project Area is unsuitable for this species, although AWS has been recorded to occur near the Project Area. Critical habitat for this species has been designated less than 1 mile to the east. Small areas of undisturbed grassland contiguous with Garin Regional Park may be used by AWS, although this species is likely to stay within the higher-quality habitat in the park. Extensive trapping in 1996 and 1997 did not result in the finding of this species within the Project Area (Caltrans 2000), and habitat assessments found little potential for occurrence.
Fishes			

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Central California Coastal steelhead *Oncorhynchus mykiss irideus*	FT, CSC, NMFS	Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean	**Present.** *O. mykiss* have been recently documented in San Lorenzo Creek (Leidy et al. 2003), and the USFWS would likely consider these to be the protected oceangoing species. However, barriers to movement and spawning as well as minimal and degraded habitat make San Lorenzo Creek and adjoining tributaries only marginal habitat.
coho salmon - central CA coast ESU *Oncorhynchus kisutch*	FE, NMFS	Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	**Unlikely.** This species was believed to be present in San Lorenzo Creek through the 1960's (Leidy et al. 2003), but barriers to movement and spawning as well as minimal and degraded habitat make this species unlikely to utilize the creek today.
Invertebrates			
Lum's micro-blind harvestman *Microcina lumi*		Rocky grassland areas with serpentine soil near south San Francisco Bay.	**Unlikely.** Serpentine soils are rare or absent within the Project Area.
Conservancy fairy shrimp *Branchinecta conservatio*	FE, SSI, RP	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Unlikely.** Seasonal wetland depressions and vernal pools required for this species were not observed during site visits. Undisturbed bottom land where such wetlands might form is generally absent within the Project Area.
longhorn fairy shrimp *Branchinecta longiantenna*	FE, SSI, RP	Endemic to the eastern margin of the central coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	**Unlikely.** Seasonal wetland depressions and vernal pools required for this species were not observed during site visits. Undisturbed bottom land where such wetlands might form is generally absent within the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
vernal pool fairy shrimp *Branchinecta lynchi*	FT, SSI, RP	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Unlikely.** Seasonal wetland depressions and vernal pools required for this species were not observed during site visits. Undisturbed bottom land where such wetlands might form is generally absent within the Project Area.
vernal pool tadpole shrimp *Lepidurus packardi*	FE, SSI, RP	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**Unlikely.** Seasonal wetland depressions and vernal pools required for this species were not observed during site visits. Undisturbed bottom land where such wetlands might form is generally absent within the Project Area.
California linderiella *Linderiella occidentalis*	SSI	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and TDS.	**Unlikely.** Seasonal wetland depressions and vernal pools required for this species were not observed during site visits. Undisturbed bottom land where such wetlands might form is generally absent within the Project Area.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT, SSI, RP	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberrry 2 to 8 inches in diameter; some preference shown for "stressed" elderberry.	**No Potential.** The Project Area is far outside the known range of this species (USFWS 1991).
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, SSI, RP	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 *O. purpurscens* are the secondary host plants.	**Unlikely.** Host plant not observed. This species has not been documented to occur in the vicinity. Suitable grassland habitat is minimal or nonexistent within the Project Area.
San Bruno elfin butterfly *Incisalia (=Callophrys) mossii bayensis*	FE, SSI, RP	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tried to the distribution of the larval host plant, *Sedum spathulifolium*.	**No Potential.** Project Area is far outside the accepted range for this species. Host plant not observed.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
monarch butterfly *Danaus plexippus*	SSI	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**Moderate Potential**. Suitable roost habitat is present within the project Area, and a roost site has been documented 4 miles to the south.
Plants			
Amsinckia lunaris bent-flowered fiddleneck	List 1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3-500 meters(m). Blooms March-June.	**Low Potential.** Disturbed grassland and woodland habitat available, but there are very few recorded occurrences in the Project Area vicinity or in Alameda County.
Anomobryum julaceum slender silver-moss	List 2	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest/damp rock and soil on outcrops, usually on roadcuts. 100-1000 m.	**No Potential.** No appropriate forest habitat present. Existing roadcuts and outcrops are in exposed, sunny locations and are heavily invaded by exotic plants such as pampas grass.
Arctostaphylos auriculata Mt. Diablo manzanita	List 1B	Chaparral (sandstone). 135-650 m. Blooms January-March.	**No Potential.** No chaparral habitat is present in the Project Area, and no manzanita species were observed during site assessment.
Arctostaphylos manzanita ssp. *laevigata* Contra Costa manzanita	List 1B	Chaparral (rocky). 500-1100 m. Blooms January-February.	**No Potential.** No chaparral habitat or appropriate elevations are present in the Project Area, and no manzanita species were observed during site assessment.
Arctostaphylos pallida pallid manzanita	FT, SE, List 1B	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub/siliceous shale, sandy or gravelly. 185-465 m. Blooms December-March.	**No Potential.** No suitable habitat is present in the Project Area, and no manzanita species were observed during site assessment.
Astragalus tener var. *tener* alkali milk-vetch	RP, List 1B	Playas, valley and foothill grassland (adobe clay), vernal pools/alkaline. 1-60 m. Blooms March-June.	**Low Potential.** Areas that would support appropriate seasonal wetland/alkaline habitat are disced or otherwise heavily disturbed.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Atriplex joaquiniana San Joaquin spearscale	List 1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/ alkaline. 1-835 m. Blooms April-October.	**Low Potential.** Areas that would support appropriate seasonal wetland/alkaline habitat are disced or otherwise heavily disturbed.
Balsamorhiza macrolepis var. *macrolepis* big-scale balsamroot	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/ sometimes serpentinite. 90-1400 m. Blooms March-June.	**Low Potential.** Several occurrences recorded nearby, and grassland and woodland habitats available, although disturbed and largely lacking native herbaceous or grassland species. No serpentine present in the Project Area.
Calochortus pulchellus Mt. Diablo fairy-lantern	List 1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 30-840 m. Blooms April-June.	**Low Potential.** Riparian, woodland, and grassland habitats available, but species is typically found at higher elevations and the only confirmed occurrences are near Mount Diablo.
Campanula exigua chaparral harebell	List 1B	Chaparral (rocky, usually serpentinite). 275-1250 m. Blooms May-June.	**No Potential.** No chaparral or serpentine habitat is present in the Project Area.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	List 1B	Valley and foothill grassland (alkaline). 1-230 m. Blooms May-October.	**Low Potential.** Areas that would support appropriate seasonal wetland/alkaline habitat are disced or otherwise heavily disturbed.
Chorizanthe robusta var. *robusta* robust spineflower	FE, List 1B	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub/ sandy or gravelly. 3-300 m. Blooms April-September.	**No Potential.** Openings in woodland areas are disturbed by grading and invasive species; so suitable natural areas with sandy/gravelly substrate are present. Only known occurrence in the vicinity may be extirpated.
Clarkia franciscana Presidio clarkia	FE, SE, List 1B	Coastal scrub, valley and foothill grassland (serpentinite). 25-335 m. Blooms May-July.	**No Potential.** No serpentine habitat is present in the Project Area; species is extremely rare.
Cordylanthus maritimus ssp. *palustris* Point Reyes bird's-beak	List 1B	Marshes and swamps (coastal salt). 0-10 m. Blooms June-October.	**No Potential.** Salt marsh habitat is not present in the Project Area. Only recorded occurrence in the vicinity is near Redwood City.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Dirca occidentalis western leatherwood	List 1B	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland/ mesic. 50-395 m. Blooms January-March.	**Moderate Potential.** Suitable habitat present, but no recorded occurrences in the Hayward Hills or vicinity. Most known occurrences are located farther north in the Oakland Hills.
Eriogonum luteolum var. *caninum* Tiburon buckwheat	List 3	Chaparral, coastal prairie, valley and foothill grassland/ serpentinite. 10-500 m. Blooms June-September.	**No Potential.** No suitable habitat or serpentine soils are present in the Project Area. Not observed during September site assessment.
Eriogonum truncatum Mt. Diablo buckwheat	List 1B	Chaparral, coastal scrub, valley and foothill grassland/ sandy. 3-350 m. Blooms April-September.	**No Potential.** Any suitable habitat in the Project Area is highly disturbed; species is known mostly from Mount Diablo.
Erodium macrophyllum (California macrophylla) round-leaved filaree	List 1B	Cismontane woodland, valley and foothill grassland/clay. 15-1200 m. Blooms March-May.	**Low Potential.** Suitable but somewhat disturbed habitat available. Only records in the vicinity are from the 1800's.
Fritillaria liliacea fragrant fritillary	List 1B	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/ often serpentinite. 3-410 m. Blooms February-April.	**Low Potential.** Disturbed grassland, scrub, and oak/bay woodland habitat available, but no serpentine areas.
Helianthella castanea Diablo helianthella	List 1B	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. 60-1300 m. Blooms March-June.	**Moderate Potential.** Several occurrences in the vicinity, but typically found in chaparral-associated habitat not available in Project Area. Project Area oak/bay woodlands and grasslands do not have ideal characteristics for this species because of dense forest canopy or disturbance by invasives, grazing, and historic uses.
Hesperolinon breweri Brewer's western flax	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/ usually serpentinite. 30-900 m. Blooms May-July.	**Low Potential.** Disturbed grassland and oak/bay woodland habitat available, but no serpentine areas.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Hoita strobilina Loma Prieta hoita	List 1B	Chaparral, cismontane woodland, riparian woodland/ usually serpentinite, mesic. 30-860 m. Blooms May-July.	**Low Potential.** Riparian oak/bay woodland habitat available, but no serpentine areas. The only record in the vicinity is from the late 1800's.
Holocarpha macradenia Santa Cruz tarplant	FT, SE, List 1B	Coastal prairie, coastal scrub, valley and foothill grassland/ often clay, sandy. 10-220 m. Blooms June-October.	**Low Potential.** Grassland and scrub habitats available, although disturbed. Only known occurrence in the vicinity is from the 1800's and is likely extirpated. Not observed during September site assessment, during peak blooming period.
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	List 1B	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub/ sandy or gravelly, openings. 10-200 m. Blooms April-September.	**No Potential.** No suitable habitat available in the Project Area. Coastal scrub habitats are highly disturbed and heavily invaded by annual grasses and other exotics.
Juglans hindsii Northern California black walnut	List 1B	Naturally-occurring stands in riparian forest and riparian woodland. 0-440 m. Blooms April-May.	**Low Potential.** Several specimens found in low elevations in the Project Area, in vacant lots (non-riparian areas), but these are most likely naturalized. Low potential to find any natural occurrences in the intact riparian corridors in the Project Area. Natural stands not known to Alameda County.
Lasthenia conjugens Contra Costa goldfields	FE, RP, List 1B	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/ mesic. 0 to 470 m. Blooms March-June.	**No Potential.** No vernal pools or similar habitat is present. Areas that would support appropriate seasonal wetland habitat have been disced.
Malacothamnus hallii Hall's bush mallow	List 1B	Chaparral, coastal scrub. 10-760 m. Blooms May-September.	**No Potential.** Coastal scrub habitat in the Project Area is on highly disturbed, often graded slopes. No significant remnant natural stands of scrub are present, and no chaparral is present.
Meconella oregana Oregon meconella	List 1B	Coastal prairie, coastal scrub. 250-620 m. Blooms March-April.	**No Potential.** Coastal scrub in the Project Area is highly disturbed, often on graded slopes. No significant remnant natural stands of scrub are present, and no coastal prairie or suitable elevations are present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Micropus amphibolus Mt. Diablo cottonweed	List 3	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland/ rocky. 45-825 m. Blooms March-May.	**No Potential.** Rocky grassland and woodland habitats are only available in highly disturbed forms, often graded or regularly mowed.
Monardella antonina ssp. *antonina* San Antonio Hills monardella	List 3	Chaparral, cismontane woodland. 500-1000 m. Blooms June-August.	**No Potential.** No suitable habitat or elevations present in the Project Area.
Monardella villosa ssp. *globosa* robust monardella	List 1B	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, valley and foothill grassland. 100-915 m. Blooms June-July.	**Low Potential.** Scrub, woodland openings, and grasslands are heavily invaded with exotics or disturbed by urban development. Local occurrences are in native, relatively intact coastal scrub and chaparral not available in the Project Area.
Navarretia myersii ssp. *myersii* pincushion navarretia	List 1B	Vernal pools/often acidic. 20-330 m. Blooms May.	**No Potential.** No vernal pool habitat present in the Project Area. Areas that would support appropriate wetland habitat have been disced.
Phacelia phacelioides Mt. Diablo phacelia	List 1B	Chaparral, cismontane woodland/rocky. 500-1370 m. Blooms April-May.	**No Potential.** No suitable habitat or elevations present in the Project Area.
Plagiobothrys diffusus San Francisco popcorn-flower	SE, List 1B	Coastal prairie, valley and foothill grassland. 60-360 m. Blooms March-June.	**Low Potential.** Grassland habitat is abundant but disturbed by invasives, grazing and discing of fuel breaks and flat areas. Species generally known to more coastal sites and identification is challenging; occurrence in Alameda County is questionable.
Plagiobothrys glaber hairless popcorn-flower	List 1A	Meadows and seeps (alkaline), marshes and swamps (coastal salt). 15-180 m. Blooms March-May.	**No Potential.** No coastal salt marsh or un-disturbed alkaline wetlands available. Believed to be extirpated from California.
Potamogeton filiformis slender-leaved pondweed	List 2	Marshes and swamps (assorted shallow freshwater). 300-2150 m. Blooms May-July.	**Low Potential.** Shallow freshwater marsh habitat available but limited and somewhat disturbed in the Project Area. Occurs at higher elevations than in the Project Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Sanicula maritima adobe sanicle	SR, List 1B	Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland/ clay, serpentinite. 30-240 m. Blooms February-May.	**Low Potential.** Disturbed grassland and seep wetland habitat available, but no serpentine areas. Only known occurrence in vicinity has been extirpated.
Sanicula saxatilis rock sanicle	SR, List 1B	Broadleafed upland forest, chaparral, valley and foothill grassland/ rocky. 620-1175 m. Blooms April-May.	**No Potential.** No suitable habitat or elevations present in the Project Area.
Streptanthus albidus ssp. *peramoenus* most beautiful jewel-flower	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/ serpentinite. 94-1000 m. Blooms April-September.	**Low Potential.** Disturbed grassland and oak/bay woodland habitat available, but no serpentine areas.
Streptanthus hispidus Mt. Diablo jewel-flower	List 1B	Chaparral, valley and foothill grassland/ rocky. 365-1200 m. Blooms March-June.	**No Potential.** Rocky grassland habitat is only available in highly disturbed forms, often graded or regularly mowed. Occurs at higher elevations than in the Project Area.
Suaeda californica California seablite	FE, List 1B	Marshes and swamps (coastal salt). 0-15 m. Blooms July-October.	**No Potential.** No coastal salt marsh habitat present in the Project Area. Believed to be extirpated from the San Francisco Bay Area.
Trifolium depauperatum var. *hydrophilum* saline clover	List 1B	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. 0- 300 m. Blooms April-June.	**Low Potential.** Only disturbed seasonal wetland and marsh habitat is present in the Project Area. Only CNDDB record in the vicinity is near Redwood City.
Triquetrella californica coastal triquetrella	List 1B	Moss growing on soils in coastal bluff scrub or coastal scrub. 10-100 m.	**No Potential.** Coastal scrub habitat is disturbed and primarily consists of dense annual grassland invaded by coyote brush.
Viburnum ellipticum oval-leaved viburnum	List 2	Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400 m. Blooms May-June.	**Low Potential.** Woodland habitat available but limited and somewhat disturbed in the Project Area. Occurs at higher elevations than in the Project Area.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened

FD	Federal De-listed
SE	State Endangered
ST	State Threatened
SR	State Rare
BCC	USFWS Birds of Conservation Concern
RP	Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
NMFS	Species under the Jurisdiction of the National Marine Fisheries Service
BLM	Bureau of Land Management sensitive species
FS	USDA Forest Service sensitive species
CSC	CDFG Species of Special Concern
CFP	CDFG Fully Protected Animal
SSI	G Special Status Invertebrates
WBWG	Western Bat Working Group High Priority species
CDF	CDF Sensitive: CA Department of Forestry and Fire Protection– warrant special protection during timber operations
List 1A	CNPS List 1A: Plants presumed extinct in California
List 1B	CNPS List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2	CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3	CNPS List 3: Plants about which CNPS needs more information (a review list)