

Appendix B
Species Database Search Results and
Potential to Occur

Appendix B. Potential for Sensitive Plant and Wildlife Species within a 5-Mile Buffer of the Project Site or as Identified in the Nine Surrounding USGS Quads and CNDDDB, USFWS, and CNPS Records

Underground Flow Equalization System Project, Environmental Impact Report

Scientific Name	Common Name	Status*				Habitat	Potential for Occurrence
		Federal	State	CDFW	CNPS		
Plants							
<i>Acanthomintha duttonii</i>	San Mateo thorn-mint	E	E	-	1B.1	Chaparral, valley and foothill grassland, coastal scrub. Serpentine soils.	No suitable habitat is present.
<i>Allium peninsulare</i> var. <i>franciscanum</i>	Franciscan onion	-	-	-	1B.2	Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine. Dry hillsides.	No suitable habitat is present.
<i>Amsinckia lunaris</i>	Bent-flowered fiddleneck	-	-	-	1B.2	Cismontane woodland, valley, and foothill grassland.	No suitable habitat is present.
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	-	-	-	4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland.	No suitable habitat is present.
<i>Arabis blepharophylla</i>	Coast rockcress	-	-	-	4.3	Rocky, broad-leaved upland forest, coastal bluff scrub, coastal prairie, and coastal scrub.	No suitable habitat is present.
<i>Arctostaphylos andersonii</i>	Anderson's manzanita	-	-	-	1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest. Open sites, redwood forest.	No suitable habitat is present.
<i>Arctostaphylos franciscana</i>	Franciscan manzanita	-	-	-	1B.1	Serpentine outcrops in chaparral.	No suitable habitat is present.
<i>Arctostaphylos imbricata</i>	San Bruno Mountain manzanita	-	E	-	1B.1	Chaparral, coastal scrub.	No suitable habitat is present.
<i>Arctostaphylos montana</i> ssp. <i>ravenii</i>	Presidio manzanita	E	E	-	1B.1	Chaparral, coastal prairie, coastal scrub.	No suitable habitat is present.
<i>Arctostaphylos montaraensis</i>	Montara Manzanita	-	-	-	1B.2	Chaparral, coastal scrub.	No suitable habitat is present.
<i>Arctostaphylos pacifica</i>	Pacific manzanita	-	E	-	1B.2	Coastal scrub.	No suitable habitat is present.
<i>Arctostaphylos regismontana</i>	Kings Mountain manzanita	-	-	-	1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest. Granitic or sandstone outcrops.	No suitable habitat is present.
<i>Astragalus nuttallii</i> var. <i>nuttallii</i>	Ocean bluff milk-vetch	-	-	-	4.2	Coastal bluff scrub, coastal dunes.	No suitable habitat is present.
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	Coastal marsh milk-vetch	-	-	-	1B.2	Coastal dunes, coastal salt marshes.	No suitable habitat is present.
<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	-	-	-	1B.2	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands. In annual grassland or in playas or vernal pools.	No suitable habitat is present.
<i>Calandrinia breweri</i>	Brewer's calandrinia	-	-	-	4.2	Sandy or loamy disturbed sites and burns. Chaparral or coastal scrub.	No suitable habitat is present.
<i>Calochortus umbellatus</i>	Oakland star-tulip	-	-	-	4.2	Often serpentinite. Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland.	No suitable habitat is present.
<i>Castilleja ambigua</i> var. <i>ambigua</i>	Johnny-nip	-	-	-	4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pools margins.	No suitable habitat is present.
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	-	-	-	1B.2	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay.	No suitable habitat is present.
<i>Centromadia parryi</i> ssp. <i>Parryi</i>	Pappose tarplant	-	-	-	1B.2	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernal mesic, often alkaline sites.	No suitable habitat is present.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	-	-	-	1B.2	Coastal salt marsh.	No suitable habitat is present. Possibly extirpated from area.
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	San Francisco Bay spineflower	-	-	-	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Closely related to <i>C. pungens</i> . Sandy soil on terraces and slopes.	No suitable habitat is present.
<i>Chorizanthe robusta</i> var. <i>robusta</i>	Robust spineflower	E	-	-	1B.1	Cismontane woodland, coastal dunes, coastal scrub. Sandy terraces and bluffs or in loose sand.	No suitable habitat is present.
<i>Cirsium andrewsii</i>	Franciscan thistle	-	-	-	1B.2	Coastal bluff scrub, broadleaved upland forest, coastal scrub.	No suitable habitat is present.
<i>Cirsium fontinale</i> var. <i>fontinale</i>	Crystal Springs fountain thistle	E	E	-	1B.1	Valley and foothill grassland, chaparral. Serpentine seeps and grassland	No suitable habitat is present.
<i>Cirsium occidentale</i> var. <i>compactum</i>	Compact cobwebby thistle	-	-	-	1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub.	No suitable habitat is present.

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<i>Cirsium praeteriens</i>	Lost thistle	-	-	-	1A	Little information exists on this plant; it was collected from the Palo Alto area at the turn of the 20th century.	Species is considered extinct in California.
<i>Collinsia corymbosa</i>	Round-headed Chinese-houses	-	-	-	1B.2	Coastal dunes.	No suitable habitat is present.
<i>Collinsia multicolor</i>	San Francisco collinsia	-	-	-	1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus.	No suitable habitat is present.
<i>Cypripedium fasciculatum</i>	Clustered lady's-slipper	-	-	-	4.2	Typically, serpentinite seeps and streambanks. Lower montane coniferous forest and North Coast coniferous forest.	No suitable habitat is present.
<i>Dirca occidentalis</i>	Western leatherwood	-	-	-	1B.2	Broad-leafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland.	No suitable habitat is present.
<i>Elymus californicus</i>	California bottle-brush grass	-	-	-	4.3	Broad-leafed upland forest, cismontane woodland, North Coast coniferous forest, and riparian woodland.	No suitable habitat is present.
<i>Equisetum palustre</i>	Marsh horsetail	-	-	-	3	Marshes and swamps.	No suitable habitat is present.
<i>Eriophyllum latilobum</i>	San Mateo woolly sunflower	E	E	-	1B.1	Cismontane woodland. Often on road cuts, found on and off serpentine.	No suitable habitat is present.
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	-	-	-	1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches, and other wet places near the coast.	No suitable habitat is present. Species considered possibly extirpated from the area.
<i>Eryngium jepsonii</i>	Jepson's coyote thistle				1B.2	Often in clay soils. Valley and foothill grassland and vernal pools.	No suitable habitat is present.
<i>Erysimum franciscanum</i>	San Francisco wallflower	-	-	-	4.2	Often serpentinite or granitic, sometimes roadsides. Chaparral, coastal dunes, coastal scrub, and valley and foothill grassland.	No suitable habitat is present.
<i>Fritillaria biflora</i> var. <i>ineziana</i>	Hillsborough chocolate lily	-	-	-	1B.1	Cismontane woodland, valley and foothill grassland. Mostly on serpentine.	No suitable habitat is present.
<i>Fritillaria lanceolata</i> var. <i>tristulis</i>	Marin checker lily	-	-	-	1B.1	Coastal bluff scrub, coastal prairie, coastal scrub.	No suitable habitat is present.
<i>Fritillaria liliacea</i>	Fragrant fritillary	-	-	-	1B.2	Coastal scrub, valley and foothill grassland, coastal prairie. Often on serpentine; various soils reported though usually clay, in grassland.	No suitable habitat is present.
<i>Gilia capitata</i> ssp. <i>chamissonis</i>	Blue coast gilia	-	-	-	1B.1	Coastal dunes, coastal scrub.	No suitable habitat is present.
<i>Gilia millefoliata</i>	Dark-eyed gilia	-	-	-	1B.2	Coastal dunes.	No suitable habitat is present.
<i>Grindelia hirsutula</i> var. <i>maritima</i>	San Francisco gumplant	-	-	-	3.2	Sandy or serpentinite soils. Coastal bluff scrub, coastal scrub, and valley and foothill grassland.	No suitable habitat is present.
<i>Helianthella castanea</i>	Diablo helianthella	-	-	-	1B.2	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky azonal soils. Often in partial shade.	No suitable habitat is present.
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	White seaside tarplant	-	-	-	1B.2	Coastal scrub, valley and foothill grassland. Grassy valleys and hills; often in fallow fields	No suitable habitat is present.
<i>Hesperovax sparsiflora</i> var. <i>brevifolia</i>	Short-leaved evax	-	-	-	1B.2	Coastal bluff scrub, coastal dunes.	No suitable habitat is present.
<i>Hesperolinon congestum</i>	Marin western flax	T	T	-	1B.1	Chaparral, valley and foothill grassland.	No suitable habitat is present.
<i>Heteranthera dubia</i>	Water star-grass	-	-	-	2B.2	Requires a pH of 7 or higher, usually in slightly eutrophic waters. Marshes and swamps (alkaline, still or slow-moving water).	No suitable habitat is present.
<i>Horkelia cuneata</i> ssp. <i>sericea</i>	Kellogg's horkelia	-	-	-	1B.1	Closed-cone coniferous forest, coastal scrub, chaparral. Old dunes, coastal sandhills, openings.	No suitable habitat is present.
<i>Horkelia marinensis</i>	Point Reyes horkelia	-	-	-	1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub communities.	No suitable habitat is present.
<i>Iris longipetala</i>	Coast iris	-	-	-	4.2	Mesic, coastal prairie, lower montane coniferous forest, meadows and seeps.	No suitable habitat is present.
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	Perennial goldfields	-	-	-	1B.2	Coastal bluff scrub, coastal dunes, and coastal scrub.	No suitable habitat is present.

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<i>Lasthenia conjugens</i>	Contra Costa goldfields	E	-	-	1B.1	Valley and foothill grasslands, vernal pools, woodlands. Extirpated from most of its range. Vernal pools, swales, low depressions, in open grassy areas. Blooms March to June.	No suitable habitat is present.
<i>Leptosiphon ambiguus</i>	Serpentine leptosiphon	-	-	-	4B.2	Usually serpentinite soils. Cismontane woodland, coastal scrub, valley and foothill grassland.	No suitable habitat is present.
<i>Leptosiphon rosaceus</i>	Rose leptosiphon	-	-	-	1B.1	Coastal bluff scrub.	No suitable habitat is present.
<i>Lessingia arachnoidea</i>	Crystal Springs lessingia	-	-	-	1B.2	Coastal sage scrub, valley and foothill grassland, cismontane woodland. Grassy slopes on serpentine, sometimes on roadsides.	No suitable habitat is present.
<i>Lessingia germanorum</i>	San Francisco lessingia	E	E	-	1B.1	Coastal scrub.	No suitable habitat is present.
<i>Lessingia hololeuca</i>	Woolly-headed lessingia	-	-	-	3	Typically, clay and serpentinite soils. Broad-leaved upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland.	No suitable habitat is present.
<i>Lilium maritimum</i>	Coast lily	-	-	-	1B.1	Sometimes roadside, broad-leaved upland forest, closed-cone coniferous forest, coastal prairie, coastal scrub, marshes and swamps (freshwater), North Coast coniferous forest.	No suitable habitat is present. This species is presumed extirpated south of Sonoma County.
<i>Limnanthes douglasii</i> ssp. <i>ornduffii</i>	Ornduff's meadowfoam	-	-	-	1B.1	Agricultural fields, meadows, and seeps.	No suitable habitat is present.
<i>Lupinus arboreus</i> var. <i>eximius</i>	San Mateo tree lupine	-	-	-	3.2	Chaparral and coastal scrub.	No suitable habitat is present.
<i>Malacothamnus aboriginum</i>	Indian Valley bush-mallow	-	-	-	1B.2	Cismontane woodland, chaparral, Granitic outcrops and sandy bare soil, often in disturbed soils.	No suitable habitat is present.
<i>Malacothamnus arcuatus</i>	Arcuate bush-mallow	-	-	-	1B.2	Chaparral. Gravelly alluvium.	No suitable habitat is present.
<i>Malacothamnus davidsonii</i>	Davidson's bush-mallow	-	-	-	1B.2	Coastal scrub, riparian woodland, chaparral. Sandy washes.	No suitable habitat is present.
<i>Malacothamnus hallii</i>	Hall's bush-mallow	-	-	-	1B.2	Chaparral. Some populations on serpentine.	No suitable habitat is present.
<i>Micropus amphibolus</i>	Mt. Diablo cottonweed				3.2	Typically, in rocky terrain in broad-leaved upland forest, chaparral, cismontane woodland, and valley and foothill grassland.	No suitable habitat is present.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i>	Northern curly-leaved monardella	-	-	-	1B.2	Sandy, chaparral (SCR Co.), coastal dunes, coastal scrub, lower montane coniferous forest (SCR Co., ponderosa pine sandhills)	No suitable habitat is present.
<i>Monolopia gracilens</i>	Woodland woollythreads	-	-	-	1B.2	Chaparral, valley and foothill grasslands (serpentine), cismontane woodland, broad-leaved upland forests, North Coast coniferous forest; on grassy sites, sandy to rocky substrates.	No suitable habitat is present.
<i>Navarretia myersii</i> ssp. <i>myersii</i>	Pincushion navarretia	-	-	-	1B.1	Vernal pools. Clay soils within non-native grassland.	No suitable habitat is present.
<i>Pedicularis dudleyi</i>	Dudley's lousewort	-	R	-	1B.2	Chaparral, North Coast coniferous forest, valley and foothill grassland. Deep shady woods of older coast redwood forests; also in maritime chaparral.	No suitable habitat is present.
<i>Pentachaeta bellidiflora</i>	White-rayed pentachaeta	E	E	-	1B.1	Valley and foothill grassland.	No suitable habitat is present.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	Choris' popcorn-flower	-	-	-	1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites.	No suitable habitat is present.
<i>Polemonium carneum</i>	Oregon polemonium	-	-	-	2.2	Coastal prairie, coastal scrub, lower montane coniferous forest.	No suitable habitat is present.
<i>Potentilla hickmanii</i>	Hickman's cinquefoil	E	E	-	1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater).	No suitable habitat is present.
<i>Ranunculus lobbii</i>	Lobb's aquatic buttercup	-	-	-	4.2	Mesic habitats in cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pools.	No suitable habitat is present.
<i>Senecio aphanactis</i>	Chaparral ragwort	-	-	-	2B.2	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline.	No suitable habitat is present.
<i>Silene scouleri</i> ssp. <i>scouleri</i>	Scouler's catchfly	-	-	-	2B.2	Coastal bluff scrub, coastal prairie, and valley and foothill grassland.	No suitable habitat is present.
<i>Silene verecunda</i> ssp. <i>verecunda</i>	San Francisco champion	-	-	-	1B.2	Sandy, coastal bluff scrub, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Often found on mudstone, shale, or rocky outcrops.	No suitable habitat is present.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	Most beautiful jewel-flower	E	-	-	1B.2	Valley and foothill grassland. Serpentine outcrops on ridges and slopes	No suitable habitat is present.

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<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	Slender-leaved pondweed	-	-	-	2.2	Marshes and swamps. Shallow, clear water of lakes and drainage channels.	No suitable habitat is present. Extirpated from the area. Nearest known occurrence is 20 miles southwest of site from in the Franklin Point quadrangle.
<i>Suaeda californica</i>	California seablite	E	-	-	1B.1	Marshes and swamps. Margins of coastal salt marshes.	No suitable habitat is present. Extirpated from the area. Most recent occurrences within the vicinity were wetland enhancement projects; in 2008 near Robert's Landing, 10.3 miles northeast of the site and at Pier 94 in 2009, 11.9 miles north of the site.
<i>Trifolium amoenum</i>	Showy rancheria clover	E	-	-	1B.1	Valley and foothill grasslands, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently sighted on roadside and eroding cliff face.	No suitable habitat is present. Only occurrence found in the vicinity occurred in 1907 near Coloma, approximately 11.9 miles northwest of the site.
<i>Trifolium hydrophilum</i>	Saline clover	-	-	-	1B.2	Occurs in marshes and swamps, vernal pools, and valley and foothill grassland. Mesic, alkaline sites.	No suitable habitat is present. Only occurrence found in the vicinity was a collection from 1886 near Belmont Slough, 3.2 miles southwest of the site.
<i>Triphysaria floribunda</i>	San Francisco owl's-clover	-	-	-	1B.2	Coastal prairie, valley, and foothill grassland.	No suitable habitat is present. Extirpated from the area.
<i>Triquetrella californica</i>	Coastal triquetrella	-	-	-	1B.2	Coastal bluff scrub, coastal scrub valley, and foothill grasslands.	No suitable habitat is present.
<i>Tropidocarpum capparideum</i>	Caper-fruited tropidocarpum	-	-	-	1B.1	Valley and foothill grassland. Alkaline Clay.	No suitable habitat is present.
<i>Usnea longissima</i>	Methuselah's beard lichen	-	-	-	4.2	On tree branches; usually on old growth hardwoods and conifers. Broad-leaved upland forest and North Coast coniferous forest.	No suitable habitat is present.
Invertebrates							
<i>Callophrys mossii bayensis</i>	San Bruno elfin butterfly	E	-	-	-	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> .	No suitable habitat is present.
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly	T	-	-	-	Native grasslands on outcrops of serpentine soil. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> and <i>Orthocarpus purpurascens</i> are the secondary host plants.	No suitable habitat is present.
<i>Plebejus icarioides missionensis</i>	Mission blue butterfly	E	-	-	-	Inhabits grasslands of the San Francisco Peninsula. Distribution is limited by larval host lupine plants.	No suitable habitat is present.
<i>Speyeria zerene myrtleae</i>	Myrtle's silverspot butterfly	E	-	-	-	Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula; extirpated from coastal San Mateo County.	No suitable habitat is present. Extirpated from coastal San Mateo County.
Fish							
<i>Acipenser medirostris</i>	Green sturgeon	T	-	SSC	-	The green sturgeon is an anadromous fish that spawns in large rivers. In California, green sturgeon spawn primarily in the Klamath and Trinity rivers, but a small number is known to spawn in the Sacramento River. Most spawning in the Sacramento River occurs above Hamilton City, and may range as far north as Keswick Dam. Spawning in the Sacramento River occurs between March and July, when water temperatures are 8° to 14° C. Spawning occurs in deep (greater than 3 meters) water with a swift current. Preferred spawning substrate is large cobble but may include clean sand to bedrock.	No suitable habitat is present. Borel Creek is typically shallow and subject to low flows, resulting in low dissolved oxygen and warmer water temperatures—both of which are unsuitable habitat for the species. Additionally, water level control and pump structures, including the Marina Lagoon Pump Station and a water control structure on/near the O'Neil Slough/Bay Trail, downstream of the Project site, present fish passage barriers and prevent the creek from being tidally influenced.
<i>Hypomesus transpacificus</i>	Delta smelt	T	-	-	-	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewater.	No suitable habitat is present.
<i>Oncorhynchus mykiss irideus</i>	Steelhead - central California coast DPS	T	-	SSC	-	From Russian River, south to Soquel Creek and to, but excluding, Pajaro River. Also San Francisco and San Pablo Bay basins.	No suitable habitat is present. Borel Creek is typically shallow and subject to low flows, resulting in low dissolved oxygen and warmer water temperatures—both of which are unsuitable habitat for the species. Additionally, water level control and pump structures, including the Marina Lagoon Pump Station and a water control structure on/near the O'Neil Slough/Bay Trail, exist downstream of

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							the Project site, present fish passage barriers and would prevent steelhead from accessing the Project area.
<i>Spirinchus thaleichthys</i>	Longfin smelt	C	T	SSC	-	Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt but can be found in completely freshwater to almost pure seawater.	No suitable habitat is present.
Amphibians/Reptiles							
<i>Chelonia mydas</i>	Green sea turtle	T	-	-	-	Generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. Strong nesting site fidelity and often make long-distance migrations between feeding grounds and nesting beaches. Hatchlings have been observed to seek refuge and food in Sargassum rafts.	No suitable habitat is present.
<i>Emys marmorata</i>	Western pond turtle	-	-	SSC	-	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg laying.	No suitable habitat is present. Roads, walls, long culverted portions of the creek, and other infrastructure separate the site from potentially suitable habitat upstream of the site. In 2006, there were three observations of the species in Lower and Upper Crystal Springs Reservoir, roughly 3.5 miles southwest of the site. No suitable basking or breeding sites are present in Borel Creek and no individual or population of this species would persist in the creek.
<i>Rana draytonii</i>	California red-legged frog	T	-	SSC	-	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No suitable breeding or refuge habitat present in or near the site. Developed areas of San Mateo to represent barriers to dispersal from potential breeding sites in the vicinity.
<i>Thamnophis sirtalis tetrataenia</i>	San Francisco garter snake	E	E	CFP	-	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County.	No breeding habitat present in or near the site. Developed areas of San Mateo to represent barriers to dispersal from potential breeding sites in the vicinity.
Birds							
<i>Asio flammeus</i>	Short-eared owl	-	-	SSC	-	Found in swamp lands, both fresh and salt; lowland meadows; grasslands, irrigated alfalfa fields.	No suitable habitat is present.
<i>Athene cunicularia</i>	Burrowing owl	-	-	SSC	-	Open, dry annual or perennial grasslands with low-growing vegetation and on the margins of disturbed/developed habitats. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No suitable habitat is present.
<i>Brachyramphus marmoratus</i>	Marbled murrelet	T	E	-	-	Majority of their lives on the ocean but come inland to nest. Generally, nest in old-growth forests, characterized by large trees, multiple canopy layers, and moderate to high canopy closure. In California, nests are typically found in coastal redwood and Douglas-fir forests. These forests are located close enough to the marine environment for the birds to fly to and from nest sites.	No suitable habitat is present.
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	T	-	SSC	-	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	No suitable habitat is present.
<i>Circus hudsonius</i>	Northern harrier	-	-	SSC	-	Coastal salt and freshwater marshes, nesting and foraging habitats in grasslands, and agricultural fields	No suitable habitat is present.
<i>Coturnicops noveboracensis</i>	Yellow rail	-	-	SSC	-	Extensive wet sedge meadows, scrub-shrub wetlands, and sand ridges with young to mature woody growth.	No suitable habitat is present.
<i>Elanus leucurus</i>	White-tailed kite	-	-	SSC	-	Found in savanna, open woodlands, marshes, desert grassland, partially cleared lands, and cultivated fields. Generally, avoids areas with extensive winter freezes, but rainfall and humidity vary greatly throughout this bird's range.	No suitable habitat is present.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D	D	CFP	-	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Low potential to occur near structures or foraging in open areas within the Project vicinity.

Appendix B. Potential for Sensitive Plant and Wildlife Species within a 5-Mile Buffer of the Project Site or as Identified in the Nine Surrounding USGS Quads and CNDDDB, USFWS, and CNPS Records

Underground Flow Equalization System Project, Environmental Impact Report

Scientific Name	Common Name	Status*				Habitat	Potential for Occurrence
		Federal	State	CDFW	CNPS		
<i>Geothlypis trichas sinuosa</i>	Saltmarsh common yellowthroat	-	-	SSC	-	Found in woody swamp, brackish marsh, and freshwater marsh. Builds open-cup nests that are well concealed, typically near the ground in grasses, herbaceous vegetation (poison hemlock, cattails, tules), and some shrubs (e.g., coyote brush).	Marginal habitat is present in Borel Creek, but the creek generally lacks adequate emergent vegetation used by this species for nesting. The <i>sinuosa</i> subspecies is unlikely to occur near the Project site; may occur as an occasional forager during non-breeding periods.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	-	T	CFP	-	Freshwater marshes, wet meadows, and shallow margins of saltwater marshes. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	No suitable habitat is present.
<i>Melospiza melodia pusillula</i>	Alameda song sparrow	-	-	SSC	-	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 suitable habitat is present.
<i>Rallus longirostris obsoletus</i>	Ridgway's rail (formerly California clapper rail)	E	E	CFP	-	Salt water and brackish marshes with tidal sloughs. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	No suitable habitat is present.
<i>Sternula antillarum browni</i>	California least tern	E	E	CFP	-	Nests along the coast from San Francisco Bay south to northern Baja California, Mexico, on wide-open, bare, sparsely vegetated, flat substrates such as sand beaches, alkali flats, landfills, or paved areas.	No suitable habitat present.
Mammals							
<i>Antrozous pallidus</i>	Pallid bat	-	-	SSC	-	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	No suitable habitat is present.
<i>Dipodomys venustus</i>	Santa Cruz kangaroo rat	-	-	-	-	Silverleaf manzanita mixed chaparral in the Zayante Sand Hills ecosystem of the Santa Cruz mountains.	No suitable habitat is present.
<i>Neotoma fuscipes annectens</i>	San Francisco dusky-footed woodrat	-	-	SSC	-	Evergreen or live oaks and other thick-leaved trees and shrubs. Well known for their large terrestrial stick houses typically built against or straddling a log or exposed roots of a standing tree, and are often located in dense brush. Nests are also placed in the crotches and cavities of trees and in hollow logs.	No suitable habitat is present.
<i>Reithrodontomys raviventris</i>	Salt marsh harvest mouse	E	E	CFP	-	Only found in the saline emergent wetlands of San Francisco Bay and its estuaries. Pickleweed is primary habitat. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	No suitable habitat is present. This species is considered extirpated north of San Mateo bridge.
<i>Sorex vagrans halicoetes</i>	Salt marsh wandering shrew	-	-	SSC	-	Salt marshes of the south arm of San Francisco Bay.	No suitable habitat is present.

*Status:

Federal Designations:

(E) Federally Endangered, (T) Federally Threatened, (C) Candidate, (D) Delisted

State Designations:

(E) State Endangered, (T) State Threatened, (R) State Rare,

California Department of Fish and Wildlife (CDFW) Designations:

(SSC) Species of Special Concern, (CFP) Fully Protected Species

California Native Plant Society (CNPS) California Rare Plant Rank:

(1A) Presumed extinct in California; (1B) Rare, threatened, or endangered in California and elsewhere; (2) Rare, threatened, or endangered in California, but more common elsewhere; (3) More information is needed; (4) Limited distribution, watch list

Threat Rank:

- 0.1 Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat).
- 0.2 Fairly threatened in California (20 to 80% occurrences threatened/moderate degree and immediacy of threat).
- 0.3 Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).