

Sensitive Plants Species Reported within the Regional Study Area and Potential to Occur

Scientific Name	Common Name	Listing Status ¹			ECCC HCP/ NCCP Status ²	Blooming Period	Habitat Association	Likelihood of Occurrence within Local Study Area
		Federal	State	CNPS				
<i>Amsinckia grandiflora</i>	Large-flowered fiddleneck	FE	SE	1B.1	-	Apr-May	Cismontane woodland, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.
<i>Amsinckia lunaris</i>	Bent-flowered fiddleneck	-	-	1B.2	-	Mar-Jun	Coastal bluff scrub, cismontane woodland, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.

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<i>Anomobryum julaceum</i>	Slender silver moss	-	-	2.2	-		Broad-leafed upland forest, lower montane coniferous forest, north coast coniferous forest/damp rock and soil on outcrops, usually on road-cuts	Not likely; there is no suitable habitat for this species within the local study area.
<i>Arctostaphylos auriculata</i>	Mount Diablo manzanita	-	-	1B.3	covered	Jan-Mar	Chaparral (sandstone), cismontane woodland	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Arctostaphylos manzanita ssp. laevigata</i>	Contra Costa manzanita	-	-	1B.2	-	Jan-Mar (Apr)	Chaparral (rocky)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Astragalus tener var. tener</i>	Alkali milk-vetch	-	-	1B.2	-	Mar-Jun	Playas, valley and foothill grassland (adobe clay), vernal pools/alkaline	Not likely; there is no suitable habitat for this species within the local study area.
<i>Atriplex cordulata</i>	Heartscale	-	-	1B.2	-	Apr-Oct	Chenopod scrub, meadows and seeps, valley and foothill grassland (sandy) /saline or alkaline	Not likely; species was not observed during the September 16, 2011 survey and the majority of alkaline soils occur throughout the East Tank Farm and South Tank Farm, which are subject to vegetation abatement activities.

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<i>Atriplex depressa</i>	Brittlescale	-	-	1B.2	covered	Apr-Oct	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools/ alkaline, clay	Not likely; very limited and marginal habitat exists along the pipeline alternatives. Species was not observed during the September 16, 2011 survey.
<i>Atriplex joaquiniana</i>	San Joaquin spearscale	-	-	1B.2	covered	Apr-Oct	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/ alkaline	Not likely; very limited and marginal habitat exists along the pipeline alternatives. Species was not observed during September 16, 2011 survey.

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<i>Atriplex persistens</i>	Vernal pool smallscale	-	-	1B.2	-	Jun-Oct	Vernal pools (alkaline)	Not likely; there are no vernal pools or depressional seasonal wetlands within the local study area.
<i>Blepharizonia plumosa</i>	Big tarplant	-	-	1B.1	covered	Jul-Oct	Valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives but the species was not observed during the September 16, 2011 field survey.
<i>California macrophylla</i>	Round-leaved filaree	-	-	1B.1	covered	Mar-May	Cismontane woodland, valley and foothill grassland/ clay	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6, 2012 special-status plant survey.

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<i>Calochortus pulchellus</i>	Mount Diablo fairy-lantern	-	-	1B.2	covered	Apr-Jun	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.
<i>Campanula exigua</i>	Chaparral harebell	-	-	1B.2	-	May-Jun	Chaparral (rocky, usually serpentinite)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>	Pink creamsacs	-	-	1B.2	-	Apr-Jun	Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland/ serpentinite	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	-	-	1B.2	-	May-Oct (Nov)	Valley and foothill grassland (alkaline)	Not likely; suitable habitat exists along the pipeline alternatives but the species was not observed during the September 16, 2011 field survey.
<i>Centromadia parryi</i> ssp. <i>parryi</i>	Pappose tarplant	-	-	1B.2	-	May-Nov	Chaparral, Coastal prairie, meadows and seeps, marshes and swamps (coastal salt), valley and foothill grassland (vernally mesic)/often alkaline	Not likely; suitable habitat exists along the pipeline alternatives but the species was not observed during the September 16, 2011 field survey.

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<i>Chloropyron molle ssp. hispidum</i>	Hispid bird's-beak	-	-	1B.1	-	Jun-Sep	Meadows and seeps, playas, valley and foothill grassland/alkaline	Not likely; suitable habitat exists along the pipeline alternatives but the species was not observed during the September 16, 2011 field survey.
<i>Chloropyron molle ssp. molle</i>	Soft bird's-beak	FE	SR	1B.2	-	Jul-Nov	Marshes and swamps (coastal salt)	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the August 29, 2012 special-status plant survey.
<i>Cicuta maculata var. bolanderi</i>	Bolander's water-hemlock	-	-	2.1	-	Jul-Sep	Marshes and swamps, coastal, fresh or brackish water	Not likely; suitable habitat exists within the permanent wetland habitat and along the proposed pipeline, however, the species was not found during the June 8 or August 29, 2012 special-status plant surveys.

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<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>	Suisun thistle	FE	-	1B.1	-	Jun-Sep	Marshes and swamps (salt)	Not likely; suitable habitat exists within the permanent wetland habitat but the species was not observed during the September 16, 2011 survey.
<i>Cordylanthus nidularius</i>	Mount Diablo bird's-beak	-	SR	1B.1	-	Jul-Aug	Chaparral (serpentinite)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Cryptantha hooveri</i>	Hoover's cryptantha	-	-	1A	-	Apr-May	Inland dunes, valley and foothill grassland (sandy)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Delphinium californicum</i> ssp. <i>interius</i>	Hospital Canyon larkspur	-	-	1B.2	-	Apr-Jun	Chaparral (openings), cismontane woodland (mesic), coastal scrub	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Didymodon norrisii</i>	Norris' beard moss	-	-	2.2	-		Cismontane woodland, lower montane coniferous forest/ intermittently mesic, rock	Not likely; there is no suitable habitat for this species within the local study area.
<i>Downingia pusilla</i>	Dwarf downingia	-	-	2.2	-	Mar-May	Valley and foothill grassland (mesic), vernal pools	Not likely; there is no suitable habitat for this species within the local study area.
<i>Eriastrum brandegeae</i>	Brandegee's eriastrum	-	-	1B.2	-	Apr-Aug	Chaparral, cismontane woodland/volcanic, sandy	Not likely; there is no suitable habitat for this species within the local study area.
<i>Eriogonum nudum var. psychicola</i>	Antioch Dunes buckwheat	-	-	1B.1	-	Jul-Oct	Inland dunes	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Eriogonum nudum var. regirivum</i>	Kings River buckwheat	-	-	1B.2	-	Aug-Nov	Cismontane woodland (carbonate, rocky)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Eriogonum truncatum</i>	Mount Diablo buckwheat	-	-	1B.1	-	Apr-Sep (Nov), (Dec)	Chaparral, coastal scrub, valley and foothill grassland/ sandy	Not likely; there is no suitable habitat for this species within the local study area.
<i>Erysimum capitatum var. angustatum</i>	Contra Costa wallflower	FE	SE	1B.1	-	Mar-Jul	Inland dunes	Not likely; there is no suitable habitat for this species within the local study area.
<i>Eschscholzia rhombipetala</i>	Diamond-petaled California poppy	-	-	1B.1	-	Mar-Apr	Valley and foothill grassland (alkaline, clay)	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6, 2012 special-status plant survey.

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<i>Fritillaria liliacea</i>	Fragrant fritillary	-	-	1B.2	-	Feb-Apr	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/ often serpentinite	Not likely; there is no suitable habitat for this species within the local study area.
<i>Helianthella castanea</i>	Diablo helianthella	-	-	1B.2	covered	Mar-Jun	Broad-leafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.

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<i>Hesperolinon breweri</i>	Brewer's western flax	-	-	1B.2	covered	May-Jul	Chaparral, cismontane woodland, Valley and foothill grassland/ usually serpentinite	Not likely; there is no suitable habitat for this species within the local study area.
<i>Isocoma arguta</i>	Carquinez goldenbush	-	-	1B.1	-	Aug-Dec	Valley and foothill grassland (alkaline)	Not likely; suitable habitat exists along the pipeline alternatives but the species was not observed during the September 16, 2011 survey.
<i>Lasthenia conjugens</i>	Contra Costa goldfields	FE	-	1B.1	-	Mar-Jun	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/ mesic	Not likely; there is no suitable habitat for this species within the local study area and the species is known from roughly 12 occurrences.

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<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	-	-	1B.2	-	May-Jul (Sep)	Marshes and swamps (freshwater and brackish)	Present; suitable habitat exists within the onsite permanent wetland and along the shoreline. A population was found intertwined in a blackwood acacia tree (<i>Acacia melanoxylon</i>) about 130 feet west of the existing dock.
<i>Legenere limosa</i>	Legenere	-	-	1B.1	-	Apr-Jun	Vernal pools	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Lessingia hololeuca</i>	Woolly-headed lessingia	-	-	3	-	Jun-Oct	Broad-leaved upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland/ clay, serpentinite	Not likely; there is no suitable habitat for this species within the local study area.
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	-	SR	1B.1	-	Apr-Nov	Marshes and swamps (brackish or freshwater), riparian scrub	Not likely; suitable habitat exists within the onsite permanent wetland habitat, however, the species was not found during the April 6, June 8, or August 29, 2012 special-status plant surveys.

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<i>Limosella subulata</i>	Delta mudwort	-	-	2.1	-	May-Aug	Marshes and swamps	Not likely; suitable habitat exists within the onsite permanent wetland habitat, however, the species was not found during the April 6, June 8, or August 29, 2012 special-status plant surveys.
<i>Madia radiata</i>	Showy golden madia	-	-	1B.1	covered	Mar-May	Cismontane woodland, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.
<i>Malacothamnus hallii</i>	Hall's bush-mallow	-	-	1B.2	-	May-Sep(Oct)	Chaparral, Coastal scrub	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Micropus amphibolus</i>	Mount Diablo cottonweed	-	-	3.2	-	Mar-May	Broad-leaved upland forest, chaparral, cismontane woodland, valley and foothill grassland/ rocky	Not likely; there is no suitable habitat for this species within the local study area.
<i>Monardella villosa ssp. globosa</i>	Robust monardella	-	-	1B.2	-	Jun-Jul(Aug)	Broadleaved upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, valley and foothill grassland	Not likely; suitable habitat exists along the pipeline alternatives, however, the species was not found during the June 8, 2012 special-status plant survey.

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<i>Monolopia gracilens</i>	Woodland woolythreads	-	-	1B.2	-	(Feb), Mar-Jul	Broad-leaved upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland/serpentine	Not likely; there is no suitable habitat for this species within the local study area.
<i>Navarretia gowenii</i>	Lime Ridge navarretia	-	-	1B.1	-	May-Jun	Chaparral	Not likely; there is no suitable habitat for this species within the local study area.
<i>Neostapfia colusana</i>	Colusa grass	FT	SE	1B.1	-	May-Aug	Vernal pools (adobe, large)	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Oenothera deltoides ssp. howellii</i>	Antioch Dunes evening-primrose	FE	SE	1B.1	-	Mar-Sep	Inland dunes	Not likely; there is no suitable habitat for this species within the local study area.
<i>Phacelia phacelioides</i>	Mount Diablo phacelia	-	-	1B.2	-	Apr-May	Chaparral, cismontane woodland/rocky	Not likely; there is no suitable habitat for this species within the local study area.
<i>Plagiobothrys hystriculus</i>	Bearded popcorn-flower	-	-	1B.1	-	Apr-May	Valley and foothill grassland (mesic), vernal pools margins/often vernal swales	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Sanicula saxatilis</i>	Rock sanicle	-	SR	1B.2	-	Apr-May	Broad-leaved upland forest, chaparral, valley and foothill grassland/ rocky	Not likely; there is no suitable habitat for this species within the local study area.
<i>Senecio aphanactis</i>	Chaparral ragwort	-	-	2.2	-	Jan-Apr	Chaparral, cismontane woodland, coastal scrub/ sometimes alkaline	Not likely; there is no suitable habitat for this species within the local study area.
<i>Sidalcea keckii</i>	Keck's checkerbloom	FE	-	1B.1	-	Apr-May (Jun)	Cismontane woodland, valley and foothill grassland/ serpentinite, clay	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Streptanthus albidus ssp. peramoenus</i>	Most beautiful jewel-flower	-	-	1B.2	-	(Mar), Apr-Sep (Oct)	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite	Not likely; there is no suitable habitat for this species within the local study area.
<i>Streptanthus hispidus</i>	Mount Diablo jewel-flower	-	-	1B.3	-	Mar-Jun	Chaparral, valley and foothill grassland/rocky	Not likely; there is no suitable habitat for this species within the local study area.
<i>Stuckenia filiformis</i>	Slender-leaved pondweed	-	-	2.2	-	May-Jul	Marshes and swamps (assorted shallow freshwater)	Not likely; suitable habitat exists within the onsite permanent wetland habitat, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.

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<i>Symphyotrichum lentum</i>	Suisun Marsh aster	-	-	1B.2	-	May-Nov	Marshes and swamps (brackish and freshwater)	Present; suitable habitat exists within the onsite permanent wetland and along the shoreline. Roughly 30 to 40 plants were identified between approximately 40 feet and 215 feet east of the existing dock. Another 15 to 20 plants were found between about 100 feet and 140 feet west of the existing dock.
<i>Trifolium hydrophilum</i>	Saline clover	-	-	1B.2	-	Apr-Jun	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools	Not likely; suitable habitat exists within the onsite permanent wetland habitat, however, the species was not found during the April 6 or June 8, 2012 special-status plant surveys.
<i>Triquetrella californica</i>	Coastal triquetrella	-	-	1B.2	-		Coastal bluff scrub, coastal scrub/soil	Not likely; there is no suitable habitat for this species within the local study area.

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<i>Tropidocarpum capparideum</i>	Caper-fruited tropidocarpum	-	-	1B.1	-	Mar-Apr	Valley and foothill grassland (alkaline hills)	Not likely; there is no suitable habitat for this species within the local study area.
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	-	-	2.3	-	May-Jun	Chaparral, cismontane woodland, lower montane coniferous forest	Not likely; there is no suitable habitat for this species within the local study area.

Sources: CNPS, 2011; CDFG, 2011

¹Federal Listing

FT: Federally threatened

FE: Federally endangered

State Listing

SE: State endangered

SR: State Rare

California Native Plant Society Listing

1A: Presumed extinct in California

1B: Rare, threatened, and endangered in California and elsewhere

2: Rare, threatened, or endangered in California, but more common elsewhere

3: CNPS review list

²East Contra Costa County Habitat Conservation Plan/Natural Communities Conservation Plan, 2006

Sources

California Department of Fish and Wildlife (CDFG). 2011. *California Natural Diversity Database (CNDDDB), Rarefind 3.1.0*. Data collected September 9, 2011.

California Native Plant Society (CNPS). 2011. *Inventory of Rare and Endangered Plants of California (online edition, v8)*. Online: <http://www.rareplants.cnps.org/advanced.html>. Site visited September 9, 2011.