

APPENDIX 5.2E

Botanical Survey Results

CPVVS Botanical Survey Results
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Background

Field surveys of the proposed CPVVS project site, including the construction laydown area, substation, electrical transmission line, and natural gas pipeline were conducted by Botanist Virginia Dains and Michael Clary on May 29, 2008. The purpose of the survey was to determine habitat suitability for sensitive plant species within the 1-mile radius of the proposed facility (Table 5.2-1a) and within the facility footprint (Table 5.2-2a). All of the CPVVS proposed work areas, were surveyed on foot. Habitats within the substation, electrical transmission line, natural gas pipeline, and private inaccessible lands within 1-mile of the CPVVS site were surveyed from the roadway. A 1 inch=2,000 foot scale true color aerial photograph of the project vicinity was also used to assess habitats and rare plant potentials. Specific attention was given to wet agricultural ditches, manmade seasonal wetlands and known historic locations for special status plants in the area. A list of plant species observed during the field survey is attached.

Findings

No sensitive plant species were observed during the late May field survey and none are expected to occur within any the CPVVS work areas. As indicated in Table 5.2-1a, 34 special status plant species have some potential to occur within 1-mile of the CPVVS facility. None of these species have potential habitat within the project footprint (Table 5.2-2a). In general, the project site is disturbed agricultural land and irrigated or dryland pasture lacking natural topography. Several of the species on the target list require specific seasonal wetland habitats such as vernal pools or playa lakes which are not found in the area. While vastly different in character, all wetland areas within the project footprint including agricultural and roadside ditches and the railroad siding were surveyed for rare species.

An attempt to re-locate a 1960's recorded population of Baker's navarretia along the railroad siding at the far western edge of the project vicinity. No navarretia was found and habitats currently developed along the siding are inappropriate for this species. Changes in land management (mowing, disking) or drainage patterns for agricultural development may have altered habitats for this population.

A historic population of the federally listed Showy Indian clover (*Trifolium amoenum*) is recorded from collections in the Elmira area from 1892 and was last seen in 1909. According to the California Native

Plant Society¹, showy Indian clover is considered to be extirpated in Solano County. When collected, the plant was recorded as growing in "rich swales". No habitat similar to this was seen in the project area.

Summary

No special status plants are expected to be found in the CPVVS work areas, and there is only limited potential for rare plant species to be found in 1-mile of the project area. No mitigation or additional botanical surveys should be required for this project.

¹ California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08b). California Native Plant Society. Sacramento, CA. Accessed on Wed, Jun. 18, 2008 from <http://www.cnps.org/inventory>

TABLE 5.2E-1
Regional Special-Status Plant Species

Scientific Name	Range/ Habitat requirements	1 mile potential	Rationale
Plants			
Apiaceae			
<i>Lilaeopsis masonii</i>	Marshes and swamps (brackish or freshwater), Riparian scrub. Blooms April-November. Elevation 0 to 10 feet. (CNPS 2008)	None	No suitable habitat occurs within 1 mile of the project site.
<i>Lomatium repostum</i>	Chaparral, Cismontane woodland/serpentine. Blooms March-June. Elevation 90 to 830 feet.	None	No suitable habitat occurs within 1 mile of the project site.
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	Broadleaved upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools/vernally mesic. Blooms June-October. Elevation 0 to 365 feet.	Low	Potential habitat manmade or degraded within the 1-mile survey area
Asteraceae			
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/sometimes serpentine. Blooms March-June. Elevation 90 to 1400 feet.	None	Known elevation range is above 1-mile survey area elevation.
<i>Blepharizonia plumosa</i>	Valley and foothill grassland. Blooms July-October. Elevation 30 to 505 feet.	Low	Degraded and manmade habitat occurs within the 1-mile survey area
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Valley and foothill grassland(alkaline). Blooms May-Oct(Nov). Elevation 1 to 230 feet.	Moderate	Suitable habitat occurs within the 1-mile survey area
<i>Centromadia parryi</i> ssp. <i>parryi</i>	Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps(coastal salt), Valley and foothill grassland(vernally mesic)/often alkaline. Blooms May-November. Elevation 2 to 420 feet.	Moderate	Suitable habitat occurs within the 1-mile survey area
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Valley and foothill grassland, Vernal pools/alkaline, vernally mesic, seeps, sometimes roadsides. Blooms May-October. Elevation 0 to 100 feet.	Moderate	Suitable habitat occurs within the 1-mile survey area
<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>	Marshes and swamps(salt). Blooms June-September. Elevation 0 to 1 feet.	None	No suitable habitat occurs within 1 mile of the project site. Known elevation is below the 1-mile survey area elevation
<i>Erigeron biolettii</i>	Broadleaved upland forest, Cismontane woodland, North Coast coniferous forest/rocky, mesic. Blooms June-October. Elevation 30 to 1100 feet.	None	No suitable habitat occurs within 1 mile of the project site.
<i>Grindelia stricta</i>	Tidal flats, marshes, dunes and sea bluffs	None	No suitable habitat occurs within the 1-mile survey area
<i>Hesperavax caulescens</i>	Valley and foothill grassland(mesic, clay), Vernal pools(shallow). Blooms March-June. Elevation 0 to 505 feet.	Low	Potential habitat degraded and manmade occurs within the 1-mile survey area
<i>Isocoma arguta</i>	Valley and foothill grassland(alkaline). Blooms August-December. Elevation 1 to 20 feet.	Low	Potential habitat degraded or manmade occurs within the 1-mile survey area
<i>Lasthenia conjugens</i>	Cismontane woodland, Playas(alkaline), Valley and foothill grassland, Vernal pools/mesic. Blooms March-June. Elevation 0 to 470 feet.	None	No suitable habitat found within the 1-mile survey area.
<i>Lasthenia ferrisiae</i>	Vernal pools(alkaline, clay). Blooms February-May. Elevation 20 to 700 feet.	Low	Degraded or manmade habitat may occur within private inaccessible areas within the 1-mile survey area.
<i>Lessingia hololeuca</i>	Broadleaved upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland/clay, serpentine. Blooms June-October. Elevation 15 to 305 feet.	None	No suitable habitat occurs within the 1-mile survey area
<i>Micropus amphibolus</i>	Broadleaved upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland/rocky. Blooms March-May. Elevation 45 to 825 feet.	None	No suitable habitat occurs within the 1-mile survey area
<i>Microseris sylvatica</i>	Chaparral, Cismontane woodland, Great Basin scrub, Pinyon and juniper woodland, Valley and foothill grassland(serpentine). Blooms March-June. Elevation 45 to 1500 feet.	None	No suitable habitat occurs within the 1-mile survey area
<i>Psilocarphus brevisimus</i> var. <i>multiflorus</i>	Vernal pools. Blooms May-June. Elevation 10 to 500 feet.	Low	Degraded or manmade habitat may occur within private inaccessible areas within the 1-mile survey area.
<i>Senecio aphanactis</i>	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline. Blooms January-April. Elevation 15 to 800 feet.	None	No suitable habitat occurs within 1 mile of the project site.
<i>Symphotrichum lentum</i>	Marshes and swamps(brackish and freshwater). Blooms May-November. Elevation 0 to 3 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Boraginaceae			
<i>Arabis modesta</i>	Chaparral, Lower montane coniferous forest. Blooms March-July. Elevation 120 to 800 feet.	None	No suitable habitat occurs within 1 mile of the project site.
<i>Lepidium latipes</i> var. <i>heckardii</i>	Valley and foothill grassland(alkaline flats). Blooms March-May. Elevation 10 to 200 feet.	Low	Degraded or manmade habitat occurs within the 1-mile survey area
<i>Plagiobothrys hystriculus</i>	Valley and foothill grassland(mesic), Vernal poolsmargins/often vernal swales. Blooms April-May. Elevation 0 to 52 feet.	Low	Degraded or manmade habitat occurs within the 1-mile survey area
Campanulaceae			
<i>Downingia pusilla</i>	Valley and foothill grassland(mesic), Vernal pools. Blooms March-May. Elevation 1 to 445 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
<i>Legenere limosa</i>	Vernal pools. Blooms April-June. Elevation 1 to 880 feet. This species has been reported within 1 mile of the project vicinity, but the occurrence is presumed extirpated.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
Chenopodiaceae			
<i>Atriplex cordulata</i>	Chenopod scrub, Meadows and seeps, Valley and foothill grassland(sandy)/saline or alkaline. Blooms April-October. Elevation 1 to 375 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
<i>Atriplex coronata</i> var. <i>coronata</i>	Chenopod scrub, Valley and foothill grassland, Vernal pools/alkaline. Blooms March-October. Elevation 1 to 590 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area

TABLE 5.2E-1
Regional Special-Status Plant Species

Scientific Name	Range/ Habitat requirements	1 mile potential	Rationale
<i>Atriplex depressa</i>	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay. Blooms May-October. Elevation 1 to 320 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
<i>Atriplex joaquiniana</i>	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline. Blooms April-October. Elevation 1 to 835 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
<i>Atriplex persistens</i>	Vernal pools(alkaline). Blooms June-October. Elevation 10 to 115 feet.	Low	Suitable habitat may occur within private inaccessible areas within the 1-mile survey area.
Fabaceae			
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Meadows and seeps(vernally mesic), Valley and foothill grassland(subalkaline flats). Blooms April-May. Elevation 5 to 75 feet.	Low	Manmade or degraded habitat occurs within the 1-mile survey area
<i>Astragalus tener</i> var. <i>tener</i>	Playas, Valley and foothill grassland(adobe clay), Vernal pools/alkaline. Blooms March-June. Elevation 1 to 60 feet.	Low	Suitable habitat occurs within the 1-mile survey area
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Marshes and swamps(freshwater and brackish). Blooms May-Jul(Sep). Elevation 0 to 4 feet.	None	No suitable habitat found within the 1-mile survey area.
<i>Trifolium amoenum</i>	Coastal bluff scrub, Valley and foothill grassland(sometimes serpentinite). Blooms April-June. Elevation 5 to 415 feet.	None	This species was recorded from the Elmira area between 1892-1909 and has not been reported within the 1-mile survey area since then. Occurrence is presumed extirpated by CNPS.
<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	Marshes and swamps, Valley and foothill grassland(mesic, alkaline), Vernal pools. Blooms April-June. Elevation 0 to 300 feet.	Low	Degraded or manmade habitat may occur within the 1-mile survey area
Geraniaceae			
<i>Erodium macrophylla</i>	Cismontane woodland, Valley and foothill grassland/clay. Blooms March-May. Elevation 15 to 1200 feet.	Low	Degraded or manmade habitat may occur within the 1-mile survey area
Grossulariaceae			
<i>Ribes victoris</i>	Broadleaved upland forest, Chaparral/mesic, shady. Blooms March-April. Elevation 100 to 750 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Iridaceae			
<i>Iris longipetala</i>	Coastal prairie, Lower montane coniferous forest, Meadows and seeps/mesic. Blooms March-May. Elevation 0 to 600 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Juglandaceae			
<i>Juglans hindsii</i>	Riparian forest, Riparian woodland. Blooms April-May. Elevation 0 to 440 feet.	Moderate	Suitable riparian habitat occurs within the 1-mile survey area
Lamiaceae			
<i>Monardella viridis</i> ssp. <i>viridis</i>	Broadleaved upland forest, Chaparral, Cismontane woodland. Blooms June-September. Elevation 100 to 1010 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Liliaceae			
<i>Calochortus pulchellus</i>	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland. Blooms April-June. Elevation 30 to 840 feet.	Low	Limited riparian habitat occurs within the 1-mile survey area
<i>Fritillaria liliacea</i>	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland/often serpentinite. Blooms February-April. Elevation 3 to 410 feet.	Low	Degraded grassland/pasture habitats occur within the 1-mile survey area.
<i>Fritillaria pluriflora</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/often adobe. Blooms February-April. Elevation 60 to 705 feet.	Low	Degraded grassland/pasture habitats occur within the 1-mile survey area.
<i>Triteleia lugens</i>	Broadleaved upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest. Blooms April-June. Elevation 100 to 1000 feet.	None	No suitable habitat occurs within 1 mile of the project site.
<i>Hesperolinon breweri</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/usually serpentinite. Blooms May-July. Elevation 30 to 900 feet.	None	No suitable habitat occurs within the 1-mile survey area
Malvaceae			
<i>Hibiscus lasiocarpus</i>	Marshes and swamps(freshwater). Blooms June-September. Elevation 0 to 120 feet.	Low	Manmade marsh habitat/water features unlikely to be potential habitat within the 1-mile survey area.
Poaceae			
<i>Tuctoria mucronata</i>	Valley and foothill grassland(mesic), Vernal pools. Blooms April-August. Elevation 5 to 10 feet.	None	No suitable habitat within the 1-mile survey area.
<i>Neostapfia colusana</i>	Vernal pools(adobe, large). Blooms May-August. Elevation 5 to 200 feet.	None	No suitable habitat within the 1-mile survey area.
<i>Orcuttia inaequalis</i>	Vernal pools. Blooms April-September. Elevation 10 to 755 feet.	None	No suitable habitat within the 1-mile survey area.
Polemoniaceae			
<i>Navarretia cotulifolia</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/adobe. Blooms May-June. Elevation 4 to 1830 feet.	Low	Degraded grassland/pasture habitat occurs within the 1-mile survey area
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools/mesic. Blooms April-July. Elevation 5 to 1740 feet.	Low	This species was reported in 1962 within the 1-mile survey area. Field surveys in 2008 failed to locate the population or appropriate habitat. Occurrence is presumed extant.
Polygonaceae			
<i>Eriogonum truncatum</i>	Chaparral, Coastal scrub, Valley and foothill grassland/sandy. Blooms April-Sep(November-Dec). Elevation 4 to 350 feet.	Moderate	Suitable habitat occurs within the 1-mile survey area
<i>Polygonum marinense</i>	Marshes and swamps(coastal salt or brackish). Blooms (Apr)May-Aug(Oct). Elevation 0 to 10 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Ranunculaceae			
<i>Delphinium recurvatum</i>	Chenopod scrub, Cismontane woodland, Valley and foothill grassland/alkaline. Blooms March-June. Elevation 3 to 750 feet.	Low	Degraded grassland/pasture habitat occurs within the 1-mile survey area

TABLE 5.2E-1

Regional Special-Status Plant Species

Scientific Name	Range/ Habitat requirements	1 mile potential	Rationale
<i>Myosurus minimus</i> ssp. <i>apus</i>	Valley and foothill grassland, Vernal pools(alkaline). Blooms March-June. Elevation 20 to 640 feet.	Low	Degraded or manmade seasonal wetlands habitat occurs within the 1-mile survey area
<i>Ranunculus lobbii</i>	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools/mesic. Blooms February-May. Elevation 15 to 470 feet.	Low	Degraded or manmade habitat occurs within the 1-mile survey area
Rhamnaceae			
<i>Ceanothus purpureus</i>	Chaparral, Cismontane woodland/volcanic, rocky. Blooms February-June. Elevation 120 to 640 feet.	None	No suitable habitat occurs within 1 mile of the project site.
Scrophulariaceae			
<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	Meadows and seeps, Playas, Valley and foothill grassland/alkaline. Blooms June-September. Elevation 1 to 155 feet.	None	No suitable habitat occurs within the 1-mile survey area
<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	Marshes and swamps(coastal salt). Blooms July-November. Elevation 0 to 3 feet.	None	No suitable habitat occurs within the 1-mile survey area.
<i>Gratiola heterosepala</i>	Marshes and swamps(lake margins), Vernal pools/clay. Blooms April-August. Elevation 10 to 2375 feet.	Low	Suitable habitat unlikely to occur within private inaccessible areas within the 1-mile survey area.
<i>Limosella subulata</i>	Marshes and swamps. Blooms May-August. Elevation 0 to 3 feet.	None	No suitable habitat occurs within the 1-mile survey area.

Notes:

Federal Status

FE = federally listed as endangered

FT = federally listed as threatened

State Status

SE = state listed as endangered

ST = state listed as threatened

California Native Plant Society (CNPS) Status

1A = plants presumed extinct in California

1B = plants rare, threatened, or endangered in California, but more common elsewhere

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

Solano Habitat Conservation Plan (SHCP)

Yes = covered species

No = not a covered species

NE = narrow endemic species

TABLE 5 2E-2

Potential Special Status Plant Species in the 1-mile Survey Area

Scientific Name	Range/ Habitat requirements	Site potential	Rationale
Plants			
Apiaceae			
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	Broadleaved upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools/vernally mesic. Blooms June-October. Elevation 0 to 365 feet.	None	No suitable habitat occurs within the VEC project site.
Asteraceae			
<i>Blepharizonia plumosa</i>	Valley and foothill grassland. Blooms July-October. Elevation 30 to 505 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Valley and foothill grassland(alkaline). Blooms May-Oct(Nov). Elevation 1 to 230 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Centromadia parryi</i> ssp. <i>parryi</i>	Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps(coastal salt), Valley and foothill grassland(vernally mesic)/often alkaline. Blooms May-November. Elevation 2 to 420 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Valley and foothill grassland, Vernal pools/alkaline, vernally mesic, seeps, sometimes roadsides. Blooms May-October. Elevation 0 to 100 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Grindelia stricta</i>	Too common for CNPS listing, considered but rejected	None	No suitable habitat occurs within the VEC project site.
<i>Hesperevax caulescens</i>	Valley and foothill grassland(mesic, clay), Vernal pools(shallow). Blooms March-June. Elevation 0 to 505 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Isocoma arguta</i>	Valley and foothill grassland(alkaline). Blooms August-December. Elevation 1 to 20 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Lasthenia conjugens</i>	Cismontane woodland, Playas(alkaline), Valley and foothill grassland, Vernal pools/mesic. Blooms March-June. Elevation 0 to 470 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Lasthenia ferrisiae</i>	Vernal pools(alkaline, clay). Blooms February-May. Elevation 20 to 700 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Lessingia hololeuca</i>	Broadleaved upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland/clay, serpentinite. Blooms June-October. Elevation 15 to 305 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Micropus amphibolus</i>	Broadleaved upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland/rocky. Blooms March-May. Elevation 45 to 825 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Microseris sylvatica</i>	Chaparral, Cismontane woodland, Great Basin scrub, Pinyon and juniper woodland, Valley and foothill grassland(serpentinite). Blooms March-June. Elevation 45 to 1500 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Psilocarphus brevissimus</i> var. <i>multiflorus</i>	Vernal pools. Blooms May-June. Elevation 10 to 500 feet.	None	No suitable habitat occurs within the VEC project site.
Boraginaceae			
<i>Lepidium latipes</i> var. <i>heckardii</i>	Valley and foothill grassland(alkaline flats). Blooms March-May. Elevation 10 to 200 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Plagiobothrys hystriculus</i>	Valley and foothill grassland(mesic), Vernal poolsmargins/often vernal swales. Blooms April-May. Elevation 0 to 52 feet.	None	No suitable habitat occurs within the VEC project site.
Campanulaceae			
<i>Downingia pusilla</i>	Valley and foothill grassland(mesic), Vernal pools. Blooms March-May. Elevation 1 to 445 feet.	None	No suitable habitat occurs within the VEC project site.
Chenopodiaceae			
<i>Atriplex cordulata</i>	Chenopod scrub, Meadows and seeps, Valley and foothill grassland(sandy)/saline or alkaline. Blooms April-October. Elevation 1 to 375 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Atriplex coronata</i> var. <i>coronata</i>	Chenopod scrub, Valley and foothill grassland, Vernal pools/alkaline. Blooms March-October. Elevation 1 to 590 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Atriplex depressa</i>	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay. Blooms May-October. Elevation 1 to 320 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Atriplex joaquiniana</i>	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline. Blooms April-October. Elevation 1 to 835 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Atriplex persistens</i>	Vernal pools(alkaline). Blooms June-October. Elevation 10 to 115 feet.	None	No suitable habitat occurs within the VEC project site.
Fabaceae			
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Meadows and seeps(vernally mesic), Valley and foothill grassland(subalkaline flats). Blooms April-May. Elevation 5 to 75 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Astragalus tener</i> var. <i>tener</i>	Playas, Valley and foothill grassland(adobe clay), Vernal pools/alkaline. Blooms March-June. Elevation 1 to 60 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Marshes and swamps(freshwater and brackish). Blooms May-Jul(Sep). Elevation 0 to 4 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Trifolium amoenum</i>	Coastal bluff scrub, Valley and foothill grassland(sometimes serpentinite). Blooms April-June. Elevation 5 to 415 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	Marshes and swamps, Valley and foothill grassland(mesic, alkaline), Vernal pools. Blooms April-June. Elevation 0 to 300 feet.	None	No suitable habitat occurs within the VEC project site.
Geraniaceae			
<i>Erodium macrophylla</i>	Cismontane woodland, Valley and foothill grassland/clay. Blooms March-May. Elevation 15 to 1200 feet.	None	No suitable habitat occurs within the VEC project site.

TABLE 5 2E-2

Potential Special Status Plant Species in the 1-mile Survey Area

Scientific Name	Range/ Habitat requirements	Site potential	Rationale
Juglandaceae			
<i>Juglans hindsii</i>	Riparian forest, Riparian woodland. Blooms April-May. Elevation 0 to 440 feet.	None	No suitable habitat occurs within the VEC project site.
Liliaceae			
<i>Calochortus pulchellus</i>	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland. Blooms April-June. Elevation 30 to 840 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Fritillaria liliacea</i>	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland/often serpentinite. Blooms February-April. Elevation 3 to 410 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Fritillaria pluriflora</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/often adobe. Blooms February-April. Elevation 60 to 705 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Hesperolinon breweri</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/usually serpentinite. Blooms May-July. Elevation 30 to 900 feet.	None	No suitable habitat occurs within the VEC project site.
Malvaceae			
<i>Hibiscus lasiocarpus</i>	Marshes and swamps(freshwater). Blooms June-September. Elevation 0 to 120 feet.	None	No suitable habitat occurs within the VEC project site.
Poaceae			
<i>Tuctoria mucronata</i>	Valley and foothill grassland(mesic), Vernal pools. Blooms April-August. Elevation 5 to 10 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Neostapfia colusana</i>	Vernal pools(adobe, large). Blooms May-August. Elevation 5 to 200 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Orcuttia inaequalis</i>	Vernal pools. Blooms April-September. Elevation 10 to 755 feet.	None	No suitable habitat occurs within the VEC project site.
Polemoniaceae			
<i>Navarretia cotulifolia</i>	Chaparral, Cismontane woodland, Valley and foothill grassland/adobe. Blooms May-June. Elevation 4 to 1830 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools/mesic. Blooms April-July. Elevation 5 to 1740 feet.	None	No suitable habitat occurs within the VEC project site.
Polygonaceae			
<i>Eriogonum truncatum</i>	Chaparral, Coastal scrub, Valley and foothill grassland/sandy. Blooms April-Sep(November-Dec). Elevation 3 to 350 feet.	None	No suitable habitat occurs within the VEC project site.
Ranunculaceae			
<i>Delphinium rotcurvatum</i>	Chenopod scrub, Cismontane woodland, Valley and foothill grassland/alkaline. Blooms March-June. Elevation 3 to 750 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Myosurus minimus</i> ssp. <i>apus</i>	Valley and foothill grassland, Vernal pools(alkaline). Blooms March-June. Elevation 20 to 640 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Ranunculus lobbii</i>	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools/mesic. Blooms February-May. Elevation 15 to 470 feet.	None	No suitable habitat occurs within the VEC project site.
Scrophulariaceae			
<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	Meadows and seeps, Playas, Valley and foothill grassland/alkaline. Blooms June-September. Elevation 1 to 155 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	Marshes and swamps(coastal salt). Blooms July-November. Elevation 0 to 3 feet.	None	No suitable habitat occurs within the VEC project site.
<i>Gratiola heterosepala</i>	Marshes and swamps(lake margins), Vernal pools/clay. Blooms April-August. Elevation 10 to 2375 feet.	None	No suitable habitat occurs within the VEC project site.

Notes:

Federal Status

FE = federally listed as endangered

FT = federally listed as threatened

State Status

SE = state listed as endangered

ST = state listed as threatened

California Native Plant Society (CNPS) Status

1A = plants presumed extinct in California

1B = plants rare, threatened, or endangered in California, but more common elsewhere

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

Solano Habitat Conservation Plan (SHCP)

Yes = covered species

No = not a covered species

NE = narrow endemic species