

Table 8-2: Summary of requested potential take/habitat loss for Valley Floor Grassland and Vernal Pool Natural Community and associated Covered Species

Natural Community/ Covered Species (# of occurrences)	Maximum Potential Take/Habitat Loss Summary			Conservation Summary		
	Urban Development (Zone 1)	Irrigation and Flood Control Operations and Maintenance (Zone 2)	Preserve Management and Implementation (Zone 3)	Existing Conservation	Conservation under the Solano HCP	Total Anticipated Conservation
Valley Floor Grassland and Vernal Pool Natural Community	4,390 acres vernal pool and valley floor grassland and between 270-400 acres of wetlands for urban development	1,070 acres of Valley Floor Grassland and 70 acres of Vernal Pool Grassland to be converted to irrigated agriculture	Temporary impacts to 540-1200 acres for restoration and enhancement activities	12,180 acres	10,500 to 11,500 acres	Approximately 18% of the natural community and 53% of the vernal pool grasslands.
Contra Costa Goldfields	700 – 800 acres of vernal pool complexes (portions of 6 known occurrences*) within Core Population Areas and an additional 760 acres within potential habitat areas.	No known occurrences Avoidance, no conversion of habitat for Zone 2 activities	4 known occurrences <10 percent of any stand per year would be harvested for seed or adversely modified through other management activities.	550 acres 1 occurrence completely protected 2 occurrences partially protected	1,780 to 1,860 acres Portions of 9 occurrences	100% known occurrences 90% of occupied habitat (based on Conservation Measure VPG 6), between 65 to 100 percent of each Core Population Areas
Alkali Milk-Vetch (18)	270-400 acres of seasonal wetlands in 4,390 acres of Valley Floor Grassland and Vernal Pool habitat	No more than 10% percent of a stand/local population per year; 4 known occurrences	No more than 10% percent of any population/stand per year; 12 known occurrences	7 known occurrences	2 occurrences within CCGF areas and 3 occurrences within Jepson Prairie.	66% to 72% of known occurrences, or 10,500-11,500 acres of Valley Floor Grassland and Vernal Pool habitat
Bogg's Lake Hedge Hyssop (1)	270-400 acres of seasonal wetlands in 4,390 acres of Valley Floor Grassland and Vernal Pool habitat; no known occurrences	10% percent of a stand/local population per year; no known occurrences	10% percent of any population/stand per year; 4 known occurrences	1 known occurrence	2 known occurrences	80% of occurrences and 95% of remaining potential habitat areas

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Colusa grass (3)	Conversion of occupied habitat will not be allowed within a 500-foot buffer; no known occurrences	Conversion of occupied habitat will not be allowed; 1 known occurrence.	No more than 10 percent of a single population/stand, no more than once every five years; 2 occurrences	2 occurrences	restoration and establishment of new occurrences	2 out of 3 known occurrences (66%), plus any additional restored populations on new preserved land
Ferris's Milk-Vetch. (1)	270-400 acres of seasonal wetlands in 4,390 acres of Valley Floor Grassland and Vernal Pool habitat; no known occurrences	No more than 10% percent of a stand/local population per year; 1 occurrence.	No more than 10% percent of any population/stand per year; no known occurrences.	No known occurrences	At least 1 occurrence known, within the 10,500 to 11,500 acres of potential habitat areas preserved for the HCP	100% of known occurrences and 85-95% of remaining habitat
Legenere (7)	270-400 acres of seasonal wetlands in 4,390 acres of Valley Floor Grassland and Vernal Pool habitat; no known occurrences	No more than 10% percent of a stand/local population per year; no known occurrences	No more than 10% percent of any population/stand per year; 7 known occurrence	5 known occurrences	protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences	71% of the known occurrences and protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences
San Joaquin Valley Orcutt Grass (1)	Conversion of occupied habitat will not be allowed within a 500-foot buffer; no known occurrences	Conversion of occupied habitat will not be allowed; no known occurrences	No more than 10 percent of a single population/stand, no more than once every five years.	No known occurrence	1 known occurrence, plus restoration and establishment of new occurrences	100% of known occurrences (i.e., 1 occurrence) and restoration and establishment of new occurrences on new preserved habitat areas

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	Urban Development (Zone 1)	Irrigation and Flood Control Operations and Maintenance (Zone 2)	Preserve Management and Implementation (Zone 3)	Existing Conservation	Conservation under the Solano HCP	Total Anticipated Conservation
Solano Grass (2)	Conversion of occupied habitat will not be allowed within a 500-foot buffer; no known occurrences	Conversion of occupied habitat will not be allowed; 1 known occurrence	No more than 10 percent of a single population/stand, no more than once every five years; 1 known occurrence	1 known occurrences	Reestablishment of additional occurrences within potential habitat areas	50% of occurrences plus reestablishment of additional occurrences within new preserved habitat areas.
Vernal Pool Smallscale (3)	270-400 acres of seasonal wetlands in 4,390 acres of Valley Floor Grassland and Vernal Pool habitat; no known occurrences	No more than 10% percent of a stand/local population per occurrence for the life of the HCP; no known occurrences	No more than 10% percent of any population/stand per year; 3 known occurrences	3 occurrences are preserved	Protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences	100% protection of known occurrences, protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences
Delta Green Ground Beetle (3+)	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; no take of individuals or loss of known occupied habitat will not be authorized; no known occurrences	No take of individuals or loss of occupied habitat will not be authorized; no known occurrences	An unknown number of beetles may be taken as a result of restoration, management, and monitoring activities; 3 known occurrences	3 known occurrences and 2,713 acres of habitat.	2,500 acres of natural vernal pool grassland encompassing known occurrences of Delta green ground beetles within the Jepson Prairie region of the Plan Area.	100% of occurrences and protection of 6,390 acres of potential habitat areas that may contain additional occurrences
Conservancy Fairy Shrimp (10)	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; no take of individuals or loss of known occupied habitat will not be authorized; no known occurrences	No take resulting from conversion/loss of occupied habitat will be allowed; no known occurrences	Only incidental capture (with collection of voucher specimens) will be authorized under the HCP for sampling/monitoring and restoration activities; 10 known occurrences	5 known occurrences	2.5 known occurrences within potential mitigation areas.	75% preservation of known occurrences and protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences. (85%**)

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Vernal Pool Fairy Shrimp (26)	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; a portion of 3 known occurrences fall within Planned Development Areas	Avoidance and maximum 5 acres per Plan Participant (20 acres total of habitat) over the life of the HCP; 6 known occurrences	An unknown number of individuals and cysts incidental to sampling/monitoring and restoration activities by authorized individuals; 10 known occurrences	4 known occurrences	9 known occurrences	At least 50% of known occurrences and protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences. (54%**)
Mid-valley Fairy Shrimp (9)	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; no known occurrences	Avoidance and maximum 5 acres per Plan Participant (20 acres total of habitat) over the life of the HCP; 2 known occurrences	An unknown number of individuals and cysts incidental to sampling/monitoring and restoration activities by authorized individuals; 7 known occurrences	2 known occurrences	3 known occurrences	At least 55% of known occurrences and protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences
Vernal Pool Tadpole Shrimp (9)	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; 1 known occurrence	Avoidance and maximum 5 acres per Plan Participant (20 acres total of habitat) over the life of the HCP; 1 known occurrence	An unknown number of individuals and cysts incidental to sampling/monitoring and restoration activities by authorized individual; 4 known occurrences	Portions of 3.5 known occurrences	3.5 known occurrences, additional occurrences will likely be found on new protected land.	77% of known occurrences and protection of 10,500 to 11,500 acres of potential habitat areas that may contain additional occurrences. (89%**)
California Fairy Shrimp (15)	3 known occurrences within Planned Development Areas	5 acres per Plan Participant (20 acres total of habitat) over the life of the HCP; 4 known occurrences	An unknown number of individuals and cysts incidental to sampling/monitoring and restoration activities by authorized individuals; 8 known occurrences	2 known occurrences	At least 5 occurrences, known, new or restored, within the 10,500 to 11,500 acres of potential habitat areas preserved for the HCP.	50% of known occurrences or protection of 5 occurrences, known, new or restored, within the 10,500 to 11,500 acres of potential habitat areas preserved for the HCP

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California Tiger Salamander***	270-400 acres of seasonal wetlands in 4,390 acres of VPG habitat; 140 acres of Inner Coast Range habitat; 3 known occurrences	36 acres of upland habitat within the rights-of-way of SCWA facilities (33.6 acres) and MPWD facilities (2.4 acres) for regular maintenance actions; no known occurrences	Restoration, management, and monitoring will also result in take of an unknown number of California tiger salamanders; 3 populations, one in vernal pool subarea 1C, 1 in 1F and 1 in 1A	Portions of 1A on Jepson Prairie	An additional 8,700 - 9,700 acres in 1A, 700 - 760 acres in 1C, 60 acres in 1D, a minimum of 350 acres in 1F.	100% of known occurrences. More occurrences will likely be found within the 10,500 to 11,500 acres of potential habitat areas preserved for the HCP.

* One occurrence for vernal pool plants and crustaceans corresponds to an occupied area at least 0.4 kilometers (¼ mile) away from the next occupied area or separated by major barriers (roads, development etc.), corresponding to the definition of occurrence for these species in the Vernal Pool Recovery Plan (USFWS 2005).

** One additional occurrence will likely be preserved on the Potrero Hills Lane mitigation site.

*** California tiger salamanders occurrences were buffered by 0.7 miles to correspond with Objective VPG 2.16.