

### Solano HCP Compliance Monitoring Table

Project Design, Review, and Approval, Implementation and Construction, and Mitigation Requirements for Valley Floor Grassland and Vernal Pool Natural Community	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
<b>VALLEY FLOOR GRASSLAND AND VERNAL POOL NATURAL COMMUNITY: DESIGN, REVIEW, AND APPROVAL AVOIDANCE AND MINIMIZATION MEASURES IN SECTION 6.3.2.1</b>			
<b>General Measure Requirements:</b> If a project is located in an area or contains conditions meeting one or more of the criteria identified in VPG DES 1, then VPG DES 2 and VPG DES 3 must be implemented.  <b>VPG DES 1: Habitat Avoidance-</b> In Covered Activity Zones 2 and 3 (Figure 1-4) maximum avoidance of vernal pools and other seasonal wetlands is required except for approved habitat enhancement/restoration activities described in Section 10.5.4. In Covered Activity Zone 1, maximum avoidance is required in the following locations where:			
1. The wetlands contribute to habitat quality and value or reserve/preserve lands established (or expected to be established) in perpetuity for conservation purposes			
2. The wetlands are adjacent to or contiguous with riparian or stream corridors or permanently protected lands			
3. The wetlands are located in or contiguous to High Value Vernal Pool Conservation Areas.			
Where temporary or permanent fill is proposed in any vernal pools or other seasonal wetlands in Covered Activity Zones 2 or 3 as well as the above-listed locations in Covered Activity Zone 1, the Plan Participant or eligible third-party applicant shall provide documentation explaining why avoidance isn't practicable and/or would not contribute to the conservation goals and objectives of the Habitat Conservation Plan (HCP), in accordance with the procedures in Section 10.4.1. The determination of compliance with VPG DES 1 of any proposed Covered Activity that would result in the filling of vernal pools or other seasonal wetlands will be made by SCWA in consultation with the HCP Technical Review Committee (see Sections 10.4.1 and 10.2.6).			
<b>VPG DES 2: Site Design Standards-</b> The following site design standards shall apply to all Covered Development Activities affecting Valley Floor Grassland and Vernal Pools: 1. All Locations Specified Under VPG DES 1: (a through d below)			
a. All avoided areas shall be preserved and managed consistent with the requirements in Sections 7.3 and 10.5. These areas shall also include sufficient buffers in compliance with the criteria outlined in VPG DES 3 and VPG DES 4.			
b. Development shall be designed to minimize direct and indirect impacts to wetlands and edge effects to preserved areas.			
c. The applicant shall incorporate measures into the project design to accomplish the following:			
1) Preserve and maintain sufficient unaltered watershed area to prevent significant adverse changes in water quality, and the volume and timing of inflows to preserved wetlands.			
2) Avoid changes in nutrient input from adjacent upland sources into preserved wetlands.			
3) Provide sufficient upland habitat to support associated amphibian and terrestrial fauna and vernal pool plant pollinator species.			

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4) Accommodate linkages/corridors between individual aggregations of vernal pools in a larger vernal pool complex.			
5) Provide a terrestrial buffer to protect the core wetland and associated upland habitat from edge effects associated with surrounding land uses (i.e., prohibit backyards from backing up to preserves, place firebreaks on the development side of preserve/development boundaries, provide for a vegetated buffer between roads and preserve boundaries).			
6) Minimize the potential for spread of invasive species from the development into preserved lands.			
d. Development shall not isolate existing populations or suitable habitat areas. To maintain connectivity between adjacent reserves, a corridor shall be established linking these areas. Corridor reserves shall conform to the minimum requirements specified in VPG DES 6, Corridors.			
<b>VPG DES 2:</b> The following site design standards shall apply to all Covered Development Activities affecting Valley Floor Grassland and Vernal Pools:			
<b>2. Contra Costa Goldfield Core Population Areas (High Value Vernal Pool Conservation Subareas 1B, 1C, 1D, 1E, 1F, 1G, and 1H)</b>			
a. No more than 10 percent of suitable wetland habitat for Contra Costa goldfields shall be directly impacted per project.			
b. The 10 percent of suitable habitat impacted under Condition 1 shall not contain more than 50 percent of the current or historically documented occupied habitat on the site. The extent of occupied habitat shall be determined based on at least 2 years of field surveys/mapping at the site (occupied habitat area shall be based on the total area of the hydrologically contiguous occupied wetland, not just Contra Costa goldfield cover).			
c. Implementation of Conditions 1 and 2 shall not result in preserves less than 80 contiguous acres in size.			
<b>VPG DES 3: Buffer Criteria for Covered Development Activities-</b> Vegetated buffers shall be established around preserved vernal pools and seasonal wetlands. Buffers shall be consistent with the following criteria:			
1. Vegetated buffers shall consist of valley floor grassland and vernal pool vegetation and/or other natural vegetation (i.e., oak savanna/woodland, coastal marsh or riparian habitats, if applicable)			
2. Buffers shall not contain any irrigated or landscaped lands, firebreaks, or public or maintenance access trails or roads.			
3. Habitats (vernal pools, uplands, etc.) within 250 feet of development in High and Medium Value Vernal Pool Conservation Areas and 100 feet in Low Value Vernal Pool Conservation Areas (Figure 4-8) (see potential exceptions below under VPG DES 4 for Extremely Rare and/or Range-Limited Species) will be considered to be indirectly impacted. All such indirect impacts shall be subject to mitigation			

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requirements under Section 6.4.2.			
4. Buffers shall be preserved in perpetuity and managed consistent with the HCP reserve criteria described in Sections 7.3 and 10.5.			
<b>VPG DES 4: Protection and Buffer Zones for Extremely Rare and/or Range-Limited Species-</b> Populations of the following Covered Species that occur in vernal pools shall be protected in perpetuity if they are found on a site where a Covered Development Activity is proposed: Colusa grass, Solano grass, San Joaquin Valley Orcutt grass, Ferris's milk-vetch, as well as Conservancy fairy shrimp. All development projects shall include site-specific buffer zones that encompass, at a minimum, the immediate watershed for the occupied vernal pools and a 500 foot buffer beyond the watershed boundary. Applicants shall prepare and implement management plans and provide sufficient endowments for long-term management of these areas consistent with reserve management and approval requirements described in Sections 7.3 and 10.5.3.			
<b>VPG DES 5: Design Measures for New Roads-</b> New roads or expanded existing roads meeting the following criterion shall include measures to accommodate movement by California tiger salamanders and other small animals, and to maintain hydrological connectivity for vernal pool crustacean Covered Species, vernal pool plant species, and their propagules (e.g., seeds, cysts):			
1. The new or expanded road is in a High Value Vernal Pool Conservation Area or bisects a designated corridor (Figure 4-2) that has a design traffic volume of 20 cars per hour or greater at maximum capacity.			
The design measures may include culverts, underpasses, and roadside barriers to prevent animals from accessing the roads. Crossings shall be provided in areas where concentrated movement is likely (i.e., along swales, significant slope breaks, near wetlands, and breeding sites). Plan Participants (or eligible third-party applicants) proposing road activities that meet the above criteria shall provide project plans to SCWA showing the specific crossing design measures and an analysis of how the design measures will accommodate crossing by the applicable Covered and Special Management Species. The plans and analysis will be subject to the review and approval of SCWA in consultation with the HCP Technical Review Committee (see Section 10.2.6).			
<b>VPG DES 6: Corridors-</b> Projects in the following areas shall preserve and/or establish corridors linking the vernal pool complexes and reserves:			
1. Upper Union Creek/northeastern McCoy Creek watersheds (Subareas 1B, 1C, and 1D) and Jepson Prairie (Subarea 1A).			
2. Jepson Prairie (Subarea 1A) and the Potrero Hills (Subarea 1F and 2F) (Figure 4-8).			
Corridors should have the following minimum dimensions:			
1. Corridors 500 feet or less in length shall have a minimum length of 500 feet.			
2. Corridors more than 500 feet in length but less than 1,320 feet in length shall have minimum dimensions of 1:1 (i.e., a 700-foot long corridor shall be 700 feet in length).			

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3. Corridors 1,320 feet or longer shall have a minimum width of 1,320 feet.			
All corridors shall be protected and maintained under a permanent Conservation Easement as required under Sections 7.3 and 10.5.2.			
<b>VALLEY FLOOR GRASSLAND AND VERNAL POOL NATURAL COMMUNITY: IMPLEMENTATION AND CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURES IN SECTION 6.3.2.2</b>			
<b>VPG CON 7: Best Management Practices (BMPs) to be Implemented During O&amp;M and Construction Activities in and Adjacent to Preserved and Avoided Habitats-</b>			
<b>1. Biological Monitor</b> a. An Approved Biologist shall monitor all ground-disturbing activities within 100 feet of preserved habitats (or as otherwise specified for species-specific avoidance requirements) to ensure that no unnecessary take of listed species or destruction of their habitat occurs. The biologist shall have the authority to stop all activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist shall immediately notify SCWA of any unauthorized impacts; SCWA shall report to the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) within 24 hours of notification. b. The biological monitor shall provide instructions to all on-site construction personnel regarding the presence of listed species, the measures required by law to avoid impacts to vernal pool species and their habitat, and the possible penalties for not complying with these requirements.			
<b>2. Habitat Protection During Work Activities</b> a. Vernal pool habitat and adjacent grassland/upland areas within the immediate work areas shall be identified and marked in the field prior to staging and construction/ground-disturbing activities. b. Exclusion fencing shall be installed prior to any required preconstruction surveys and maintained between project work areas and adjacent preserved habitat during all work activities. Exclusion fencing will consist of silt fabric, plywood, aluminum, or other SCWA-approved material. The base of the fence will be buried a minimum of 3 to 5 inches in the ground to prevent animals from crawling under and be a minimum of 3 feet in height above ground to serve as a barrier for animals moving on the ground surface. Exclusion fences shall also include provisions (e.g., ramps, one-way doors, or exit funnels) for California tiger salamanders and reptile and amphibian species to leave the work area. The fence will be pulled taut at each support to prevent folds or snags. Construction personnel will also install an orange plastic-mesh construction fence 1 foot on the development side of the exclusion fence to increase visibility unless the exclusion fence is composed on highly visible materials. Exclusion fencing shall be inspected weekly and repaired immediately when damage is observed during construction work. c. The following activities are prohibited, except as otherwise identified in an approved management plan, in all protected vernal pool and grassland habitat: (a) alteration of existing topography or any other alteration or uses for any purposes, including the exploration for or development of mineral			

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<p>extraction; (b) erection of any new structures; (c) dumping, burning, and/or burying of rubbish, garbage, or any other wastes or fill materials; (d) building of any new roads or trails; (e) killing, removal, or alteration of any existing native vegetation; (f) placement of storm water drains; (g) fire protection activities not required to protect existing structures at the project site except as provided for under Firebreak Construction and Maintenance (see below); and (h) use of pesticides or other toxic chemicals inconsistent with the product labeling.</p>			
<p><b>3. Firebreak Construction and Maintenance</b></p> <ul style="list-style-type: none"> <li>a. Mowing to establish fuel breaks is preferred to disking. Mowing shall generally be conducted as late as possible in the spring, reducing the herbaceous cover to less than 2 inches in height.</li> <li>b. Where mowing is not practicable or will not provide an adequate fuel break, disking may be implemented under the following conditions:               <ul style="list-style-type: none"> <li>1) Prior to firebreak construction, "No Disk" zones shall be established for all wetlands and other significant habitat areas for Covered Species, as well as areas with concentrations of fossorial mammal burrows. "No Disk" zones shall be permanently staked using metal fence posts placed at least 50 feet from the edge of the pools. A post and sign shall be installed on each side of the pool ("No Disk" zone) to warn the disk operator of the presence of habitat from each direction.</li> <li>2) At those points designated as "No Disk" zones, the disk operator shall raise the disk blades out of the soil and cross the "No Disk" zone. Not until the disk blades are beyond the "No Disk" sign on the opposite side of the sensitive habitat shall the operator be allowed to lower the blades, and in no case shall the operator allow the blades to touch the soil while in the "No Disk" zone.</li> <li>3) "No Disk" zones shall not be crossed if water is standing in a wetland or aquatic habitat area or if the soil is wet. In such cases, the operator must raise the disk blades and make a detour around the wetland or aquatic area. Operators shall consult a site map, if available, to determine the best route around this wetland or aquatic area.</li> <li>4) Where "No Disk" zones fuel levels in wetlands, aquatic habitat, and burrow areas may compromise a firebreak's effectiveness, the zone's vegetation may be mowed. The clippings shall be removed by hand, with rakes, or with equipment that lifts the cuttings off the surface without removing the surface soil. Machines that vacuum the clippings shall not be used because the vacuum action may remove seeds or eggs on the soil surface. Precautions described above for general firebreak construction shall also be followed when mowing.</li> </ul> </li> <li>c. "No Vehicle Access" areas shall also be identified. The purpose of this designation is to identify sensitive habitat areas where vehicle access shall be prohibited. Detour routes shall be identified on the site maps to allow tractors access the firebreak routes while avoiding the endangered/threatened species habitat. "No Vehicle Access" areas shall be identified in the field by temporary signs, arrows, and flagging placed at detour points, along dirt roads, and at road intersections at least 1 week prior to firebreak construction.</li> </ul>			

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<p><b>4. Dust Abatement</b></p> <p>a. The use of dust suppressant (other than water) shall be limited to those shown to have little or no toxicity to aquatic invertebrates and vegetation.</p> <p>b. Chemical dust suppressant shall only be used in a manner consistent with product label specifications and shall be applied employing the following BMPs:</p> <ol style="list-style-type: none"> <li>1) Roads and other areas to be treated shall be tight-bladed or processed (cut 2 inches and watered, then laid back with gravel and rolled [if applicable]) to bring fines to the surface.</li> <li>2) Chemical dust suppressants shall be applied such that the chemical agent remains on the treated area and does not leach into adjacent aquatic habitats.</li> <li>3) Chemical dust suppressants shall not be applied in wet weather. Wet weather is defined as when there has been 0.25 inch of rain in a 24-hour period or when the National Weather Service 72-hour weather forecast indicates a 30 percent or greater potential for rain. Chemical dust suppressants shall also not be applied during a dry-out period of 48 hours after wet weather.</li> </ol>			
<p align="center"><b>VALLEY FLOOR GRASSLAND AND VERNAL POOL NATURAL COMMUNITY: MITIGATION MEASURES IN SECTION 6.4.2.1:</b></p>			
<p><b>VPG MIT 1: Habitat Mitigation-</b> Preservation and restoration of Covered Species habitat shall occur in the same level or higher level conservation area as the direct impact occurs (i.e., impacts to habitat in High Value Conservation Areas will be mitigated in High Value Conservation Areas, but impacts to habitat in Medium Value Conservation Areas shall be mitigated in either Medium or High Value Conservation Areas). Compensation for indirect impacts will be assessed on the location/conservation value of the habitat that is indirectly impacted and not the location of project activity (i.e., if a project activity will indirectly impact a habitat for Covered Species in a High Value Conservation Area but the project is located in a Medium or Low Value Conservation Area, compensatory mitigation shall be based on the type of habitat that is being indirectly impacted [in this case High Value Conservation Area] rather than the lower value project area). All mitigation ratios are based on impacts as assessed by acreage. Additional conditions of this mitigation requirement for impacts to occupied Contra Costa goldfield habitat are described in VPG MIT 3.</p> <p>This mitigation measure is applicable to all seasonal wetlands (i.e., saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands). Conservation actions for streams and semi-permanently to permanently flooded wetlands in the Valley Floor Grassland and Vernal Pool Natural Community are addressed under the Riparian, Stream, and Freshwater Marsh Natural Community (Section 6.4.5). The intent of this measure is to promote intact ecosystems and the prescribed mitigation ratios for upland and wetland components provide guidance on the required total acreage required for mitigation. Prescribed wetland ratios are minimum values to be provided. Upland requirements are intended to preserve the matrix in which vernal pool and swale communities exist. As such, upland habitat mitigation requirements may be achieved through preservation of additional vernal pool, swale, mesic grassland, and other suitable seasonal wetlands that contribute to overall preservation requirements provided they provide</p>			

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similar functional requirements for affected Covered Species.			
<b>PROJECTS IN HIGH VALUE VERNAL POOL CONSERVATION AREAS (SUBAREAS 1A-IL)- MITIGATION RATIOS FOR VPG MIT 1-1 IN SECTION 6.4.2.1:</b>			
<b>VPG MIT 1-1- Wetland Component Direct Impacts:</b> 1. <i>Subareas 1A through 1F and 1I through 1L:</i> Preserve vernal pool and swale habitats at a <b>ratio of 9:1</b> (mitigation-to-impact), and restore vernal pool and swale habitats at a <b>ratio of 1:1</b> if restored habitats are in place and functional at the time of impact or at a <b>2:1 ratio</b> if habitats are restored concurrent with the impact.			
2. <i>Subareas 1G and 1H:</i> Preserve vernal pool and swale habitats at a <b>ratio of 6:1</b> , and restore vernal pool and swale habitats at a <b>ratio of 1:1</b> if restored habitats are in place and functional at the time of impact or at a <b>2:1 ratio</b> if habitats are restored concurrent with the impact.			
<b>VPG MIT 1-1- Wetland Component Indirect Impacts:</b> 1. <i>Subareas 1A through 1F and 1I through 1L:</i> Preserve vernal pool and swale habitats at a <b>ratio of 3:1</b> for indirect impacts to avoided wetlands within 250 feet of proposed development.			
2. <i>Subareas 1G and 1H:</i> Preserve vernal pool and swale habitats at a <b>ratio of 2:1</b> for indirect impacts to avoided wetlands within 250 feet of proposed development.			
<b>VPG MIT 1-1- Upland Component Direct Impacts:</b> 1. <i>Subareas 1A through 1F and 1I through 1L:</i> Preserve upland habitat at a <b>ratio of 3:1</b> .			
2. <i>Subareas 1G and 1H:</i> Preserve upland habitat at a <b>ratio of 2:1</b> .			
<b>VPG MIT 1-1- Upland Component Indirect Impacts (all subareas):</b> Preserve avoided uplands at a <b>ratio of 1:1</b> for indirect impacts to uplands within 250 feet of proposed development.			
<b>VPG MIT 1-1- Temporary Impacts to Seasonal wetlands and Uplands in all Conservation Areas:</b> Temporary impacts to seasonal wetlands and uplands in all Vernal Pool Conservation Areas shall be subject to the mitigation and monitoring requirements described below. Temporary impacts to wetlands shall be calculated for the entire wetland in which the impact occurs and not just the portion disturbed by the temporary impact.  1. <b>Temporary Impacts</b> All temporary impacts lasting no more than one growing season to seasonal wetlands and uplands in all vernal pool conservation areas shall be mitigated by restoring the existing wetlands and uplands to predisturbance conditions. Impacts lasting longer than one growing season shall be mitigated at the standard conservation area ratios described above under conditions within VPG MIT 1 for High, Medium, and Low Value Conservation Areas. The mitigation described above is applicable to all seasonal wetlands (i.e., saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands).			

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2. <b>Restoration and Monitoring Plan:</b> The applicant shall provide a restoration plan consistent with the requirements in Section 10.5.4, including acceptable financial assurances, for review and approval by SCWA and the Resource Agencies, to ensure successful implementation of the habitat restoration. All temporarily impacted wetland shall be monitored for a minimum of two wet seasons to document that hydrology has been restored to pre-project conditions. Additional monitoring and remedial measures may be required if hydrology is not reestablished.			
<b>PROJECTS IN MEDIUM VALUE VERNAL POOL CONSERVATION (SUBAREAS 2A- 2N) MITIGATION RATIOS FOR VPG MIT 1-2 IN SECTION 6.4.2.1:</b>			
<b>VPG MIT 1-2- Wetland Component Direct Impacts:</b> Preserve vernal pool and swale habitats at a <b>ratio of 2:1</b> , and restore vernal pool and swale habitats at a <b>ratio of 1:1</b> if restored habitats are in place and functional at the time of impact or at a <b>2:1 ratio</b> if habitats are restored concurrent with the impact.			
<b>VPG MIT 1-2- Wetland Component Indirect Impacts:</b> Preserve vernal pool and swale habitats at a <b>ratio of 1:1</b> for indirect impacts to avoided wetlands within 250 feet of proposed development.			
<b>VPG MIT 1-2- Upland Component Direct Impacts:</b> In Subareas 2C, 2E, 2F, and 2I, preserve upland habitat at a <b>ratio of 3:1</b> .			
<b>VPG MIT 1-2- Upland Component Direct Impacts:</b> In the remaining Medium Value Subareas, preserve upland habitat at a <b>ratio of 2:1</b> .			
<b>VPG MIT 1-2- Upland Component Indirect Impacts:</b> Preserve avoided upland habitat at a <b>ratio of 1:1</b> for indirect impacts to uplands within 250 feet of proposed development.			
<p><b>VPG MIT 1-2- Temporary Impacts to Seasonal wetlands and Uplands in all Conservation Areas:</b> Temporary impacts to seasonal wetlands and uplands in all vernal pool conservation areas shall be subject to the mitigation and monitoring requirements described below. Temporary impacts to wetlands shall be calculated for the entire wetland in which the impact occurs and not just the portion disturbed by the temporary impact.</p> <p>1. <b>Temporary Impacts</b> All temporary impacts lasting no more than one growing season to seasonal wetlands and uplands in all vernal pool conservation areas shall be mitigated by restoring the existing wetlands and uplands to predisturbance conditions. Impacts lasting longer than one growing season shall be mitigated at the standard conservation area ratios described above under conditions within VPG MIT 1 for High, Medium, and Low Value Conservation Areas. The mitigation described above is applicable to all seasonal wetlands (i.e., saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands).</p>			



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2. <b>Restoration and Monitoring Plan:</b> The applicant shall provide a restoration plan consistent with the requirements in Section 10.5.4, including acceptable financial assurances, for review and approval by SCWA and the Resource Agencies, to ensure successful implementation of the habitat restoration. All temporarily impacted wetland shall be monitored for a minimum of two wet seasons to document that hydrology has been restored to pre-project conditions. Additional monitoring and remedial measures may be required if hydrology is not reestablished.			
<b>PROJECTS IN LOW VALUE VERNAL POOL CONSERVATION (AREA 3)- MITIGATION RATIOS FOR VPG MIT 1-3 IN SECTION 6.4.2.1:</b>			
<b>VPG MIT 1-3- Wetland Component Direct Impacts:</b> Preserve vernal pool and swale habitats at a <b>ratio of 1:1</b> , and restore vernal pool and swale habitats at a <b>ratio of 1:1</b> if restored habitats are in place and functional at the time of impact or at a <b>2:1 ratio</b> if habitats are restored concurrent with the impact.			
<b>VPG MIT 1-3- Wetland Component Indirect Impacts:</b> Preserve vernal pool and swale habitats at a <b>ratio of 1:1</b> for indirect impacts to wetlands within 100 feet of proposed development.			
<p><b>VPG MIT 1-3- Temporary Impacts to Seasonal wetlands and Uplands in all Conservation Areas:</b> Temporary impacts to seasonal wetlands and uplands in all vernal pool conservation areas shall be subject to the mitigation and monitoring requirements described below. Temporary impacts to wetlands shall be calculated for the entire wetland in which the impact occurs and not just the portion disturbed by the temporary impact.</p> <p>1. <b>Temporary Impacts</b> All temporary impacts lasting no more than one growing season to seasonal wetlands and uplands in all vernal pool conservation areas shall be mitigated by restoring the existing wetlands and uplands to predisturbance conditions. Impacts lasting longer than one growing season shall be mitigated at the standard conservation area ratios described above under conditions within VPG MIT 1 for High, Medium, and Low Value Conservation Areas. The mitigation described above is applicable to all seasonal wetlands (i.e., saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands).</p> <p>2. <b>Restoration and Monitoring Plan:</b> The applicant shall provide a restoration plan consistent with the requirements in Section 10.5.4, including acceptable financial assurances, for review and approval by SCWA and Resource Agencies, to ensure successful implementation of the habitat restoration. All temporarily impacted wetland shall be monitored for a minimum of two wet seasons to document that hydrology has been restored to pre-project conditions. Additional monitoring and remedial measures may be required if hydrology is not reestablished.</p>			
<b>VALLEY FLOOR GRASSLAND AND VERNAL POOL NATURAL COMMUNITY: ADDITIONAL MITIGATION MEASURES IN SECTION 6.4.2.1:</b>			
<b>VPG MIT 2: Habitat Mitigation Similarity-</b> All impacted seasonal wetlands shall be characterized according to the types below and mitigated by preservation of the same category of wetland according to the ratios in VPG MIT 1:			

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<p><b>1. Seasonal wetlands categories</b></p> <ul style="list-style-type: none"> <li>a. Pools with &gt; 1 inch of standing water for &gt; 10 continuous days with short (&lt; 3 weeks) to long (&gt; 3 weeks) durations of standing water, clear to moderate turbidity, and exhibiting significant vegetation cover.</li> <li>b. Playa Pools with &gt; 1 inch of standing water for &gt; 10 continuous days with long (&gt; 3 weeks) to very long durations of standing water, moderate to high turbidity, and exhibiting sparse vegetation cover (typically found in association with Pescadero Series Soils; often referred to as playa-type pools),</li> <li>c. Swales or mesic grassland with generally &lt; 1 inch of shallow, standing water present for fewer than 10 continuous days.</li> <li>d. Alkaline flats and meadows with generally &lt; 1 inch of shallow, standing water present for &lt; 10 continuous days and exhibiting indicators of high alkalinity (salt deposits on soil surface, presence of salt-tolerant plants).</li> </ul> <p>Deviations in the required mitigation acreage by type or category may be permitted by SCWA, in consultation with the HCP Technical Review Committee, if adequate acreage of the appropriate seasonal wetland type is not available for preservation or sale in approved commercial or institutional mitigation banks or other Reserve System lands. This remainder mitigation may be achieved through one of three options:</p>			
1. Adequate funding (to be determined by SCWA) may be placed in a special fund to purchase applicable habitats when they become available; or			
2. Purchases of other mitigation types or categories may be substituted if the subject habitats are occupied by impacted Covered Species; or			
3. Less common vernal pool/seasonal wetland types are substituted for more common vernal pool/seasonal wetland types (e.g., playa pools may be substituted for pools, alkaline flats and meadows may be substituted for swales or mesic grassland).			
Under VPG MIT 2, conservation habitats shall be proportional to impacts to Covered Species (Table 4.1) and Special Management Species associations (Table 4.2) (e.g., impacts to long duration, playa-type pool species such as Conservancy fairy shrimp shall not be mitigated by preservation of more abundant swale or mesic grasslands that do not support the species).			
<b>VALLEY FLOOR GRASSLAND AND VERNAL POOL NATURAL COMMUNITY: COVERED SPECIES MITIGATION MEASURES IN SECTION 6.4.2.2</b>			
<p><b>VPG MIT 3: Mitigation for Impacts to Occupied Contra Costa Goldfield Habitat-</b></p> <p><b>Direct Impacts:</b> All direct impacts to extant stands of Contra Costa goldfields shall be mitigated by preserving occupied habitat at a <b>9:1 (mitigated-to-impacted) ratio</b> in Subareas 1A through 1F and 1I through 1L and at a <b>6:1 ratio</b> in Subareas 1G and 1H, and establishing new, self-reproducing populations of Contra Costa goldfields at a <b>ratio of 4:1</b> (acres protected to acres impacted). The occupied habitat preservation component can be done concurrently with the mitigation requirements of VPG MIT 1-1 (i.e.,</p>			

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the <b>9:1 ratio</b> for preservation is concurrent with, not in addition to). This restoration requirement may be met by establishing new Contra Costa goldfield populations at a single-project mitigation site or by purchasing credits at an approved mitigation bank authorized to sell credits for this species in an amount equal to the <b>4:1 ratio</b> .			
<b>VPG MIT 3- Indirect Impacts:</b> All indirect impacts to extant stands of Contra Costa goldfields shall be mitigated by preserving occupied habitat at a <b>2:1 ratio</b> . Refer to establishment criteria and applicable guidelines above for direct impacts.			
<b>VPG MIT 3- Temporary Impacts:</b> Temporary impacts to extant stands of Contra Costa goldfields associated with Covered Activities shall not require direct compensation provided activities comply with VPG MIT 1-1 and all temporarily disturbed extant stands shall be restored to original conditions within 1 year at a minimum <b>1:1 ratio</b> .			
Guidelines for establishing Contra Costa goldfields and the release schedule for mitigation credits at the commercial mitigation banks will be specified in the bank-enabling agreements and as certified by SCWA (see Section 10.5). Mitigation at single-project mitigation sites would be subject to the same conditions as the commercial mitigation banks. Establishment criteria shall also adhere to all the following conditions:			
1. Impacted habitat area for which mitigation is required shall be equal to the entire occupied pool/swale area, and shall not just be limited to the area with Contra Costa goldfield cover in the impacted pool.			
2. Contra Costa goldfield populations and other Covered Species (including vernal pool fairy shrimp, Conservancy fairy shrimp, and vernal pool tadpole shrimp) and Special Management Species midvalley fairy shrimp shall be established in constructed, restored, and enhanced wetlands in the known range of these species in Solano County.			
3. Seed used to establish new populations of Contra Costa goldfields may be obtained from any Core Population Area. Seed collection shall not affect more than 10 percent of an individual preserved population. Seed and top soils shall be salvaged from occupied vernal pools and other wetlands in an impacted area prior to initiation of ground-disturbing activities.			
4. Restoration may occur in existing preserved pools currently lacking Contra Costa goldfields or in restored pools and swales in other Core Population Areas (Figure 4-5). New populations must be established in currently unoccupied habitat.			
5. Reestablished populations will be considered self-reproducing when: <ul style="list-style-type: none"> <li>a. Plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding, and habitat areas contain an occupied area and flower/plant density comparable to existing occupied habitat areas in similar pool types and Core Areas.</li> </ul>			

Project Design, Review, and Approval, Implementation and Construction, and Mitigation Requirements for Valley Floor Grassland and Vernal Pool Natural Community	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
If Contra Costa goldfields cannot be established at the mitigation site within 5 years according to the conditions above, the preserved wetland restoration acreage shall be increased by 50 percent. The applicant shall provide bonds or other acceptable financial assurances, subject to approval by SCWA, to ensure implementation of such measures (see Section 10.5).			
<p><b>VPG MIT 4: Mitigation for Impacts to California Tiger Salamander Habitat-</b> Mitigation shall be required for any Covered Activity in the known or potential range of the California tiger salamander (see Figure 4-6). Mitigation shall include preservation, enhancement, and restoration/establishment of suitable upland habitat, and preservation and construction/creation of new breeding habitat consistent with the mitigation requirements specified in VPG MIT 1, subject to the following additional requirements:</p> <p><b>Breeding Habitat Mitigation: Direct impacts</b> to all suitable California tiger salamander breeding habitat in the known or potential range of the species (Figure 4-6) will be mitigated (1) by preserving known breeding habitat at a <b>3:1 ratio</b> (mitigated:impacted) and (2) creating new breeding habitat at a <b>ratio of 1:1 or 0.35 ac</b>, whichever is greater.</p> <p>All preserved and created/established breeding habitat shall be contiguous to at least 350 acres of preserved upland habitat, and created breeding habitat shall be located within 2,067 feet of known breeding habitat.</p>			
1. All new breeding habitat shall be located within 2,067 feet of a known breeding site and be situated in a contiguous reserve/preserve area of 350 acres or more of suitable habitats. This may include other parcels if the lands are protected by conservation easements and are managed consistent with the Solano HCP Reserve Criteria in Section 10.5. For some existing preserved areas/mitigation sites, this may require that management agreements and endowments be extended to these sites.			
2. New breeding habitat can consist of multiple sites within 1,300 feet of each other. For newly created breeding pond complexes with multiple ponds, each pond shall be a minimum of 0.2 acre resulting in a minimum combined area of 0.35 acre for the complex unless otherwise approved by SCWA and the Technical Review Committee.			
<p><b>VPG MIT 4- Breeding Habitat Mitigation: Indirect impacts</b> to salamander breeding habitat (impacts are within 500 feet of development) shall be mitigated by preserving breeding habitat at a <b>1:1 ratio</b>. The minimum pond size shall be 0.35 acre for all created salamander breeding habitat to ensure the long-term viability of the breeding habitat whether it is created as mitigation for direct or indirect impacts.</p>			
<p><b>VPG MIT 4- Upland Habitat Mitigation: Impacts to uplands</b> and other movement habitats (i.e., seasonal wetland swales, meadows) in the known or potential range of the California tiger salamander (Figure 4-6) shall be mitigated at the ratios as described in VPG MIT 1 subject to the following additional conditions:</p> <p>1. All upland mitigation preservation shall either be (1) within 2,067 feet of known breeding habitat itself or (2) within 1,300 feet of constructed breeding habitat if that constructed breeding habitat is within 2,067 feet of known breeding habitat.</p>			

Project Design, Review, and Approval, Implementation and Construction, and Mitigation Requirements for Valley Floor Grassland and Vernal Pool Natural Community	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
2. New breeding habitat shall be established at a <b>ratio of 0.001 acre</b> per acre of upland directly and indirectly impacted by a project.			
3. Preserves established for California tiger salamander mitigation shall include measures for restoration of upland mounds, where applicable, in order to provide increased burrowing habitat for fossorial rodents and California tiger salamanders above the shallow, rainy-season water table (see Section 10.5.4.1).			
<b>VPG MIT 4- Temporary Impact Mitigation: Temporary impacts</b> to all habitat in the known or potential range of the California tiger salamander including breeding habitat, uplands, and other movement habitats affected by Covered Activities shall not require direct compensation provided activities comply with VPG CON 7, and all temporarily disturbed habitats shall be restored to original conditions within 1 year at a minimum <b>1:1 ratio</b> .			
<p><b>VPG MIT 5: Invasive Species, Water Quality Control, Species Introductions, and Barrier Removal Enhancement Program-</b> All development projects that create new or increase impervious surfaces shall provide funding to contribute toward a grant funding program for HCP goals and objectives in Chapter 5.0 (specifically Objectives VPG 2.2 through 2.14, RLF 1.4, RSM 2.1, GGS 1.1, and CM 1.1) that implement cost-share programs to control invasive species, implement additional water quality control measures, establish new populations/occurrences of Covered Species, and remove barriers to Covered Species movement. Costs shall be calculated on a per-acre basis of new or increased impervious surface.</p> <p><b>Note:</b> This measure is intended to contribute to mitigation for unavoidable, cumulative adverse effects of increased urban development runoff on downstream receiving waters and associated Covered Species. For the Valley Floor Grassland and Vernal Pool Natural Community and associated vernal pool Covered Species, this fund will primarily be used to contribute to invasive species control and to establish new populations/occurrences of Covered Species.</p>			

BA = Biological Assessment  
BMP = Best Management Practices  
CDFW = California Department of Fish and Wildlife  
Dixon RCD = Dixon Resource Conservation District  
DPS = Distinct Population Segment  
ESU = Evolutionarily Significant Unit  
HCP = Habitat Conservation Plan  
MMP = Mitigation and Monitoring Plan  
MPWD = Maine Prairie Water District  
NOAA NMFS = National Oceanic Atmospheric Association National Marine Fisheries Service  
NPDES = National Pollutant Discharge Elimination System

O&M = Operation and Maintenance  
RSM = Riparian, Stream, and Freshwater Marsh  
RWQCB = Regional Water Quality Control Board  
SCWA = Solano County Water Agency  
SID = Solano Irrigation District  
SWPPP = Storm Water Pollution Prevention Plan  
USFWS = United States Fish and Wildlife Service  
RD 2068 = Reclamation District 2068