

### Solano HCP Compliance Monitoring Table

Project Design, Review, and Approval Avoidance and Minimization Measure Requirements for Callippe Silverspot Butterfly	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
<b>CALLIPPE SILVERSPOT BUTTERFLY: DESIGN, REVIEW, AND APPROVAL AVOIDANCE AND MINIMIZATION MEASURE IN SECTION 6.3.4.1</b>			
<p><b>General Measure Notes:</b> The following avoidance and minimization measures apply to portions of the Inner Coast Range Natural Community identified as the Callippe Silverspot Butterfly Conservation Area (Figure 4-13).</p> <p><b>CSB DES 1: Site Design Standards in Core Breeding Habitat-</b> The following site design standards shall apply where core breeding habitat occurs within the Callippe Silverspot Butterfly Conservation Area (Figure 4-13).</p> <ol style="list-style-type: none"> <li>1. All core breeding areas shall be avoided to the maximum extent practicable. Core breeding habitat is defined as a patch or series of small patches comprising approximately 0.1 acre in size with minimum <i>Viola pedunculata</i> density greater than 1 percent cover or 0.1 plant per square yard. Core breeding habitat shall be determined based on the survey requirements contained in Section 6.2.2.4.</li> </ol>			
<ol style="list-style-type: none"> <li>2. Core breeding habitat shall be determined based on a minimum of 1 year of field surveys/mapping at a site.</li> </ol>			
<ol style="list-style-type: none"> <li>3. Direct loss of core breeding habitat shall be limited to no more than 20 percent of any breeding habitat area.</li> </ol>			
<ol style="list-style-type: none"> <li>4. All preserves established in core breeding habitat shall have a minimum 300 feet buffer consisting of upland grassland or other natural vegetation (i.e., oak savanna/woodland or riparian habitats if applicable) between the outer edge of the core breeding habitat area and incompatible uses. Breeding areas with buffers less than 300 feet will be considered to be impacted.</li> </ol>			
<ol style="list-style-type: none"> <li>5. All avoided breeding habitat shall have natural corridors at least 300 feet wide that are oriented along hilltops and ridgelines.</li> </ol>			
<ol style="list-style-type: none"> <li>6. All avoided areas, including breeding habitat as well as associated corridor and buffer areas, shall be preserved in perpetuity and managed consistent with the requirements described in Section 7.3 and 10.5.</li> </ol>			
<b>CALLIPPE SILVERSPOT BUTTERFLY: IMPLEMENTATION AND CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURE IN SECTION 6.3.4.2</b>			
<p><b>General Measure Notes:</b> The following avoidance and minimization measures apply to portions of the Inner Coast Range Natural Community identified as the Callippe Silverspot Butterfly Conservation Area (Figure 4-13).</p> <p><b>CSB CON 2: Best Management Practices to be Implemented During O&amp;M and Construction Activities-</b></p> <ol style="list-style-type: none"> <li>1. Within the 300 feet buffer zone around core breeding habitat, all ground disturbance activities that</li> </ol>			

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could harm Johnny jump-up stands and adult nectar sources shall be limited to the period of August and April, when the Callippe silverspot butterfly is not active.			
2. Prior to the start of work, temporary construction fencing and appropriate warning signs shall be placed a minimum of 300 feet from the habitat. Exclusion fencing shall be installed 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 at least 3 feet in height. 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 of highly visible materials. Exclusion fencing shall be inspected and repaired on a weekly basis during construction work.			
<p>3. Firebreak Construction and Maintenance</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 wetlands and other significant habitat areas such as Callippe silverspot butterfly aquatic habitat, 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 wetland ("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 wetlands, aquatic habitat, 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 area.</li> <li>4) In addition, prior to firebreak construction "No Disk" zones will be established with the above requirements within 50 feet of any Johnny jump-up stands and adult nectar sources.</li> </ul> </li> </ul>			

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<b>CALLIPPE SILVERSPOT BUTTERFLY: MITIGATION MEASURES IN SECTION 6.4.4</b>			
<p><b>General Mitigation Measures Note:</b> The following mitigation measures shall be implemented for impacts in the Callippe Silverspot Butterfly Conservation Area (Figure 4-13).</p> <p><b>CSB MIT 1: Mitigation for Direct, Indirect, and Temporary Impacts to Non-Breeding Habitat in the Callippe Silverspot Butterfly Conservation Area-</b> Mitigation for the conversion of non-breeding habitats in the Callippe Silverspot Butterfly Conservation Area shall be provided as described below. This measure shall be implemented concurrently with RLF MIT 1. All preserved lands shall meet the management and funding requirements identified in Sections 7.3 and 10.5.</p>			
<b>CSB MIT 1- Direct Impacts:</b> Suitable habitat shall be preserved and managed at a <b>3:1 ratio</b> . All habitat preservation shall occur in the Callippe Silverspot Butterfly Conservation Area.			
<b>CSB MIT 1- Indirect Impacts:</b> Indirect impacts resulting from new development within 300 feet of upland habitat in the Callippe Silverspot Butterfly Conservation Area shall provide an additional <b>1.5:1 ratio</b> with preservation of known occupied non-breeding habitat in the Callippe Silverspot Butterfly Conservation Area.			
<b>CSB MIT 1- Temporary Impacts:</b> Temporary impacts to non-breeding habitat in the Callippe Silverspot Butterfly Conservation Area shall not require direct compensation for the temporary loss of habitat provided Covered Activities are conducted within specified work windows and are consistent with CSB CON 2, and all temporarily disturbed habitat is restored within 1 year at a minimum <b>1:1 ratio</b> .			
If work cannot be completed in one year, mitigation shall be provided at half the habitat-specific ratio and conditions as specified above (in CSB MIT 1) for direct impacts to non-breeding habitat: <b>Non-Breeding Habitat in the Callippe Silverspot Butterfly Conservation Area:</b> Suitable habitat shall be preserved and managed at a <b>1.5:1 ratio</b> for direct impacts.			
<p><b>CSB MIT 2: Mitigation for Direct, Indirect, and Temporary Impacts to Breeding Habitat in the Callippe Silverspot Butterfly Conservation Area-</b> Impacts to larval host plant stands known as Johnny jump-up, adult nectar sources, and associated buffer habitats in the Callippe Silverspot Butterfly Conservation Area shall meet the following mitigation requirements. All preserved lands shall meet the management and funding requirements identified in Sections 7.3 and 10.5.</p> <p>1. <b>Preservation Component:</b> Mitigation for direct, indirect, and temporary impacts to known or potential breeding habitat shall be provided as described below.</p>			
<b>CSB MIT 2- Direct Impacts:</b> Compensatory mitigation for the conversion/loss of known or potential breeding habitat (i.e., a core breeding area) in the Callippe Silverspot Butterfly Conservation Area shall provide an additional <b>3:1 ratio</b> with preservation of known occupied habitat in the Callippe Silverspot Butterfly Conservation Area. Permanent loss of core breeding habitat shall be limited to no more than 20 percent of any breeding habitat. Core breeding habitat is defined as a patch or series of small patches			

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comprising approximately 0.1 ac in size with minimum <i>Viola pedunculata</i> density greater than 1 percent cover or 0.1 plant per square yard. Core breeding habitat shall be determined based on the survey requirements contained in Section 6.2.2.4.			
<b>CSB MIT 2- Indirect Impacts:</b> Indirect impacts resulting from new development within 300 feet of known or potential breeding habitat in the Callippe Silverspot Butterfly Conservation Area shall provide an additional <b>1.5:1 ratio</b> with preservation of known occupied habitat in the Callippe Silverspot Butterfly Conservation Area.			
<b>CSB MIT 2- Temporary Impacts:</b> Temporary impacts to breeding habitat in the Callippe Silverspot Butterfly Conservation Area shall not require direct compensation for the temporary loss of habitat provided Covered Activities are conducted within specified work windows and are consistent with CSB CON 2, and all temporarily disturbed habitats shall be restored to original conditions within 1 year at a minimum <b>1:1 ratio</b> .			
If work cannot be completed in one year, mitigation shall be provided at half the habitat-specific ratio and conditions as specified above (in CSB MIT 2) for direct impacts to breeding habitat:			
<b>Breeding Habitat in the Callippe Silverspot Butterfly Conservation Area:</b> Suitable habitat shall be preserved and managed at a <b>1.5:1 ratio</b> for direct impacts.			
2. <b>Restoration Component:</b> Both direct and indirect (within 300 feet) impacts to core Johnny jump-up host plant stands and direct impacts to adult nectar sources in the Callippe Silverspot Butterfly Conservation Area shall develop and fund additional restoration/enhancement of host plant ( <i>Viola pedunculata</i> ) and nectar plant habitat at a minimum <b>3:1 ratio</b> . An endowment fund or other approved funding source shall be provided to implement management plans for restored lands into perpetuity.			

BA = Biological Assessment  
CDFW = California Department of Fish and Wildlife  
DPS = Distinct Population Segment  
HCP = Habitat Conservation Plan  
MPWD = Maine Prairie Water District  
NPDES = National Pollutant Discharge Elimination System  
RD 2068 = Reclamation District 2068  
RWQCB = Regional Water Quality Control Board  
SID = Solano Irrigation District  
USFWS = United States Fish and Wildlife Service

BMP = Best Management Practices  
Dixon RCD = Dixon Resource Conservation District  
ESU = Evolutionarily Significant Unit  
MMP = Mitigation and Monitoring Plan  
NOAA NMFS = National Oceanic Atmospheric Association National Marine Fisheries Service  
O&M = Operation and Maintenance  
RSM = Riparian, Stream, and Freshwater Marsh  
SCWA = Solano County Water Agency  
SWPPP = Storm Water Pollution Prevention Plan