Solano HCP Compliance Monitoring Table

Project Design, Review, and Approval Avoidance and Minimization Measure Requirements for Swainson's Hawk	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
SWAINSON'S HAWK: DESIGN, REVIEW, AND APPROVAL AVOIDANCE AND MINIMIZATIO	N MEASURES IN SECTIO	ON 6.3.8.1	
General Measure Notes: The following avoidance and minimization measures are applicable to almost all Covered Activities in the Plan Area (see Swainson's Hawk Conservation Areas, Figure 4-21).			
SH DES 1: Nest Tree Protection- Trees with active Swainson's hawk nests or with historically active nests (i.e., occupied within the last 10 years) shall be avoided to the maximum extent practicable. Applicants proposing to remove an otherwise healthy nest tree shall provide written justification for the tree removal to SCWA. Sufficient rationale for tree removal shall be primarily based on declining or poor suitability of the tree as a nesting site for Swainson's hawk and/or to meet public safety needs. The justification letter shall provide a clear analysis of the biological value of the tree to Swainson's hawk under pre-project conditions and post-project conditions (if the tree were to be avoided), and will consider the presence of alternate nest sites in the vicinity of the project site. Nest trees shall only be removed if there is a biological basis that the use of the tree is unlikely under post-project conditions. SCWA, in consultation with the HCP Technical Review Committee, will be responsible for approval of the requests to remove healthy nest trees. SH DES 2: Solano Irrigation District (SID) Annexations- SID may annex additional lands into its service			
area until either a maximum of 3,000 acres has been annexed or 600 acres of annexed lands have been converted into crop types or land uses that are incompatible with Swainson's hawk foraging. Crop types and land uses incompatible with Swainson's hawk foraging include:			
 Commercial feedlots, which are defined as any open or enclosed area where domestic livestock are grouped together for intensive feeding purposes; Horticultural specialties, including sod, nursery stock, ornamental shrubs, ornamental trees, Christmas trees, or flowers; Commercial greenhouses or plant nurseries, Commercial aquaculture of aquatic plants, animals, and their byproducts; Planting orchards or vineyards for the production of fruits, nuts, or berries except in designated farmstead areas; and Cultivation of perennial vegetable crops such as artichokes and asparagus, as well as annual crops such as cotton or rice. 			
Annexations beyond the 3,000 acres maximum cap or 600 acres of cropland conversion (net total crop land conversion at the time of an annexation request) will require an amendment to the HCP (see Section 10.9.2.1).			

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SWAINSON'S HAWK: IMPLEMENTATION AND CONSTRUCTION AVOIDANCE AND MINIMIZA	TION MEASURES IN SEC	CTION 6.3.8.2	
SH CON 3: Preconstruction Nest Surveys- Between March 1 and August 3, an Approved Biologist shall conduct preconstruction surveys to identify and subsequently avoid nesting areas for Swainson's hawk. Surveys shall follow approved protocols and be of sufficient intensity to document nesting within 0.25 mile (1,320 feet) of planned work activities. A final survey shall be conducted no more than 15 days prior to the anticipated start of construction. If a lapse in project-related construction work of 15 days or longer occurs, additional preconstruction surveys shall be required before project work may be reinitiated. SH CON 4: Active Nest Buffers- Construction work (including grading, earthmoving, and any operation of construction equipment) shall not occur within a 0.25 mile buffer zone around an active Swainson's hawk nest except as provided below. Construction work may commence in the buffer zone when an Approved Biologist has confirmed that nesting activity is complete (e.g., Swainson's hawk young have fully fledged and are capable of flight and have left the nest, or adults have abandoned the nest for a minimum of 7 days and there is no evidence of renesting activity). Nest trees may be removed between September 16 and February 1 when nests are unoccupied.			
 The size of nest site buffer zones may be reduced only under the following conditions: A site-specific analysis is prepared by the Approved Biologist about the nesting pair not likely to be adversely affected by construction activities (e.g., the nest is located in an area where the hawks are habituated to human activity and noise levels are comparable to anticipated construction work). SCWA and the Resource Agencies must approve this analysis before construction may begin within 0.25 mile of a nest. Monitoring by an Approved Biologist is conducted for a sufficient time (during all construction activities for a minimum of 10 consecutive days following the initiation of construction), and the nesting pair does not exhibit adverse reactions to construction activities (e.g., changes in behavioral patterns, reactions to construction noise). Monitoring is continued at least once a week through the nesting cycle at that nest. This longer-term monitoring may be reduced to a minimum of 2 hours in the morning and 2 hours in the afternoon during construction activities; however, additional and more frequent monitoring may be required if any adverse reactions are noted. Weekly monitoring reports shall be submitted to SCWA and the Resource Agencies during construction and monitoring activities. Mote: If adverse effects are identified, construction activities shall cease immediately and construction shall not be resumed until the Approved Biologist, in consultation with SCWA, has determined that construction may continue under modified restrictions or that nesting activity is complete. SH CON 5: Post-Construction Occupied Nest Avoidance- If a nest tree becomes occupied by Swainson's			
sh CON 5: Post-Construction Occupied Nest Avoidance- If a nest tree becomes occupied by Swainson's hawk during ongoing construction activities, construction activities shall not occur within 500 feet of the nest, except where monitoring consistent with the criteria in SH CON 4 documents that adverse effects will not occur.			

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SWAINSON'S HAWK: MITIGATION MEASURES FOR FORAGING HABITAT I	N SECTION 6 4 9 1		
	N SECTION 0.4.8.1	I	1
General Notes about Mitigation Requirements: The following measures are designed to meet Goal SH 1 from Chapter 5.0 by providing foraging habitat to support the existing Swainson's hawk population in the Plan Area. Mitigation for adverse impacts to Swainson's hawk foraging habitat shall be provided through the preservation and management of suitable habitat, and mitigation requirements are based on the type, location, and duration of impacts and the value of the impacted habitat area to Swainson's hawk. Mitigation for these impacts described below through preservation and management of Swainson's hawk foraging habitat is subject to reserve management requirements specified in Sections 7.3 and 10.5.3.			
SH MIT 1: Irrigated Agriculture Foraging Habitat Conservation- Direct Impacts: Direct impacts to Swainson's hawk foraging habitat in the Irrigated Agriculture Conservation Area (Figure 4-21) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1. Mitigation shall be provided in the Irrigated Agriculture Potential Reserve Area (Figure 4-27).			
SH MIT 1- Indirect Impacts: Indirect impacts to Swainson's hawk foraging habitat within 250 feet of development shall be mitigated through the preservation and management of foraging habitats at a ratio of 0.5:1 .			
SH MIT 1- Temporary Impacts: Temporary impacts to Swainson's hawk foraging habitat shall not require direct compensation provided activities comply with SH CON 4, and all temporarily disturbed habitats shall be restored to original conditions within 1 year at a minimum 1:1 ratio.			
SH MIT 2: Valley Floor Grassland Foraging Habitat Conservation Direct Impacts: Direct impacts to Swainson's hawk foraging habitat in the Valley Floor Grassland and Vernal Pool Conservation Area (Figure 4-21) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1. Mitigation shall be provided in the Irrigated Agriculture or Valley Floor Grassland and Vernal Pool Potential Reserve Areas (Figure 4-27). Preservation of valley floor grassland habitat may be satisfied through VPG MIT 1 if the minimum 1:1 mitigation ratio for foraging habitat is achieved.			
SH MIT 2- Indirect Impacts: Indirect impacts to Swainson's hawk foraging habitat within 250 feet of development are covered under mitigation requirements for the Valley Floor Grassland and Vernal Pool Natural Community, including VPG MIT 1 requirements.			
SH MIT 2- Temporary Impacts: Temporary impacts to Swainson's hawk foraging habitat are covered under mitigation requirements for the Valley Floor Grassland and Vernal Pool Natural Community, including VPG MIT 1 requirements. Temporary impacts to Swainson's hawk foraging habitat shall not require direct compensation provided all temporarily disturbed habitats are restored to original conditions within 1 year at a minimum 1:1 ratio.			
SH MIT 3: Inner Coast Range Foraging Habitat Conservation- Direct Impacts: Direct impacts to grassland and oak savanna habitat in the Inner Coast Range Conservation Area (Figure 4-21) shall be mitigated through the preservation and management of foraging habitat at a ratio			

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Project Design, Review, and Approval Avoidance and Minimization Measure Requirements for Swainson's Hawk	Project Impact/ Applicable Condition	Applicant Proposed Mitigation	Proposal Complies With Measures or Not
of 1:1. Mitigation shall be provided in the Irrigated Agriculture, Valley Floor Grassland and Vernal Pool, or Inner Coast Range Potential Reserve Areas (Figure 4-27). Preservation of Inner Coast Range habitat may be satisfied through implementation of RLF MIT 2 and CSB MIT 1 if the minimum 1:1 ratio for foraging habitat is achieved.			
SH MIT 3 - Indirect Impacts: Indirect impacts to Swainson's hawk foraging habitat within 250 feet of development are covered under mitigation requirements for the California red-legged frog and Callippe silverspot butterfly protecting upland habitat within the Inner Coast Range Natural Community, including RLF MIT 1 and CSB MIT 1.			
SH MIT 3 - Temporary Impacts: Temporary impacts to Swainson's hawk foraging habitat are covered under mitigation requirements for the California red-legged frog and Callippe silverspot butterfly protecting upland habitat within the Inner Coast Range Natural Community. Temporary impacts to Swainson's hawk foraging habitat shall not require direct compensation provided all temporarily disturbed habitats are restored to original conditions within 1 year at a minimum 1:1 ratio.			
Note for Exemptions for SH MIT 3: Covered Activities likely to have minimal effects on the extent and quality of Swainson's hawk foraging habitat are exempt from Swainson's hawk foraging habitat mitigation requirements. Such activities include: activities related to establishment of natural habitats (e.g., aquatic, riparian, and grassland habitats), construction of in-fill developments on small, in-fill lots (less than 5 acres of contiguous habitat) and bordered by contiguous urban development at the time the HCP is adopted, and other minor public and private facilities accessed via existing roads or that impact less than 0.5 acre of potential Swainson's hawk foraging habitat (e.g., pump stations, antennae sites, new irrigation canals, buried pipelines, or utilities).			
SWAINSON'S HAWK: MITIGATION MEASURES FOR NESTING HABITAT IN	SECTION 6.4.8.2		
General Notes about Mitigation Requirements: The following measures are designed to meet Goal SH 2 by providing nesting habitat in proximity to suitable foraging habitat to support the current Swainson's hawk population in the Plan Area.			
SH MIT 4: Known Nest Trees- Covered Activities resulting in the take of a Swainson's hawk known or active nest site shall preserve an active nest site. Preservation of an active nest site may be achieved through purchase of occupied nest credits from an HCP-certified mitigation bank or approved project-specific reserve. If preserved active nest sites are unavailable, project proponents will provide funding to the HCP's Interim Nest Protection Program (see Objective SH 2.2 and Section 11.1.2). For the purposes of SH MIT 4, take of a known or active nest tree will occur if one of the following conditions is met:			
1. The Covered Activity directly removes the nest tree or involves soil compaction or grading (excavation or fill) within more than 25 percent of the root zone of the nest tree. The root zone may be determined by a qualified arborist but shall, at a minimum, be the greater of the horizontal distance from the tree at least equal to the tree's height or the outer edge of the tree canopy.			

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2. The Covered Activity affects the nest such that active, Swainson's hawks are disturbed to a degree that			
causes (a) injury to nesting birds; (b) a decrease in productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (c) nest abandonment by substantially interfering with			
normal breeding, feeding, or sheltering behavior. Covered Activities within 250 feet of an active nest are			
presumed to have long-term effects on the nest.			
Applicants affecting nests shall:			
a. Directly comply with SH MIT 4 nest preservation requirements (e.g., purchase of occupied nest			
credits from an HCP-certified mitigation bank or approved project-specific reserve); or			
b. Upon approval from SCWA and the Resource Agencies (see Section 10.4.2), the applicant will pay			
the current nest-protection impact fee and monitor the nest tree for a minimum of two nesting seasons			
following completion and occupancy of the project. If the nest remains active or is affected by a			
subsequent project, the fee, with applicable interest, will be returned to the applicant; or			
c. Demonstrate to and receive concurrence from SCWA and the Resource Agencies that the Covered			
Activity will not substantially increase disturbance to the nest site.			
Important Note for SH MIT 4: Indirect effects described under Condition 2 above do not apply to O&M			
Covered Activities conducted in compliance with SH CON 4: Active Nest Buffers. If such activities cannot			
be conducted in compliance with SH CON 4, then the above requirements will apply.			
SH MIT 4 will be accomplished through payment of fees and will be managed by SCWA through a process			
similar to that described under Objective SH 2.2, through targeted acquisition and conservation easements of			
suitable nesting habitat. Alternatively, project proponents may preserve known nest sites in Solano County			
subject to the requirements and approvals as specified in Section 10.5.			
SH MIT 5: Preservation of Important Nesting Habitat- Covered Activities in Zone 1 will provide funding (see Section 11.1.2) to contribute to targeted preservation through direct acquisition or conservation			
easement of 1,000 acres of nesting habitat for Swainson's hawk and burrowing owl in the Swainson's Hawk			
Irrigated Agriculture Potential Reserve Area (Figure 4-27).			

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

RD 2068 = Reclamation District 2068

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