

Comparison of DRAFT BDCP Wildlife and Plant Goals and Objectives with Adjacent Plans

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
All					<p>Objective RSM 2.10. Prevent the destruction and disturbance of active nests of covered bird species during construction for new projects and during operation and maintenance activities on existing facilities.</p>	<p>Goal 5 – Enhance habitat to support covered species within the SSHCP Study Area</p> <p>Goal 6 – Maintain viable populations of SSHCP covered species in the SSHCP Study Area</p> <p>Goal 7 – Aid in the recovery of SSHCP covered plant species by establishing outlier populations in the Study Area</p> <p>Goal 8 - Avoid and minimize impacts to SSHCP covered species</p> <p>Objective 8.1: Avoid and minimize impacts to SSHCP covered species by establishing appropriate spatial and temporal buffers while covered species are particularly vulnerable to disturbances.</p>
San Joaquin Kit Fox	<p>Goal SJKF1: Provide sufficient habitat to support the abundance and distribution of San Joaquin kit fox populations in the Planning Area to contribute to its conservation.</p> <p>Objective SJKF1.1: Maintain or increase the extent of San Joaquin kit fox habitat within the Planning Area.</p>	None species-specific	<p>Goal 12: Increase availability of burrows within grassland for San Joaquin kit fox, California tiger salamander, California red-legged frog, and western burrowing owl</p> <p>Objective 12.1. Increase the number and distribution of California ground squirrel burrows</p> <p>Goal 13: Preserve the most important movement routes and core habitat for San Joaquin kit fox</p> <p>Objective 13.1. Preserve 2,500 acres of annual grassland in Deer, Horse, and Lone Tree Valleys (Subzones 2e, 2f, and 2h) to protect, to the extent feasible, the two most important movement routes for San Joaquin kit fox between Black Diamond Mines Regional Preserve and Cowell Ranch State Park</p> <p>Objective 13.2. Preserve an important movement route for San Joaquin kit fox between Alameda County and Contra Costa County by protecting habitat in Zone 5 between the County line, the Byron Airport Habitat Mitigation Lands,</p>	Not covered	Not covered	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
San Joaquin Kit Fox			and the Los Vaqueros Watershed Objective 13.3. Preserve 5,300 acres of annual grassland and 750 acres of alkali grassland in Subzones 5a, 5c, and 5d as suitable core habitat			
Riparian Woodrat	<p>Goal RIWO1: Preserve and protect the abundance and distribution of riparian woodrat and increase the extent of its habitat to contribute to conservation of its populations in the Planning Area.¹</p> <p>Objective RIWO1.1: Increase the extent of riparian woodrat habitat near occupied habitats within the Planning Area.</p> <p>Objective RIWO1.2: Avoid mortality of riparian woodrat and removal or degradation of occupied habitat associated with implementation of covered activities and conservation measures.</p>	None species-specific	Not covered	Not covered	Not covered	Not covered
Salt Marsh Harvest Mouse	<p>Goal SMHM1: Preserve and protect the abundance and distribution of salt marsh harvest mouse and provide sufficient habitat to support the abundance and distribution of its populations in Suisun Marsh and the Planning Area to contribute to its conservation in these areas.²</p> <p>Objective SMHM1.1: Increase the extent of tidal salt marsh harvest mouse habitat within Suisun Marsh.</p> <p>Objective SMHM1.2: Restore tidal marsh in portions of the Planning Area that may support salt marsh harvest mouse habitat in future years with sea level rise.</p>	Not covered	Not covered	Not covered	<p>Objective CM 2.5. Provide for a net increase in the quality and quantity of suitable marsh habitat for salt marsh harvest mice within the Plan Area.</p>	Not covered

¹ The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of riparian woodrat only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

² The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of salt marsh harvest mouse only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
Salt Marsh Harvest Mouse	Objective SMHM1.3: Avoid mortality of salt marsh harvest mouse associated with implementation of covered activities and conservation measures.					
Riparian Brush Rabbit	<p>Goal RIBR1: Preserve and protect the abundance and distribution of riparian brush rabbit and increase the extent of its habitat to contribute to conservation of its populations in the Planning Area.³</p> <p>Objective RIBR1.1: Increase the extent of riparian brush rabbit habitat near occupied habitats within the Planning Area.</p> <p>Objective RIBR1.2: Avoid mortality of riparian brush rabbit and removal or degradation of occupied habitat associated with implementation of covered activities and conservation measures.</p>	None species specific	Not covered	Not covered	Not covered	Not covered
Townsend's Western Big-eared Bat	<p>Goal TBEB1: Provide sufficient habitat to support the abundance and distribution of Townsend's big-eared bat populations in the Planning Area to contribute to its conservation.</p> <p>Objective TWBB1.1: Increase the extent of Townsend's western big-eared bat foraging habitat within the Planning Area.</p>	None species-specific	<p>Goal 14: Maintain or increase population size and distribution of Townsend's western big-eared bat in the Preserve System</p> <p>Objective 14.1. Preserve hibernacula and maternity roosts of Townsend's western big-eared bat</p> <p>Objective 14.2. Enhance roosting habitat by protecting any abandoned mine, cave, or building in the Preserve System and, if feasible, creating artificial hibernacula</p>	Not covered	Not covered	Not covered
Suisun Shrew	<p>Goal SUSH1: Provide sufficient habitat to support the abundance and distribution of Suisun shrew populations in Suisun Marsh and the Planning Area to contribute to the conservation of the Suisun shrew in these areas.</p> <p>Objective SUSH1.1: Increase</p>	Not covered	Not covered	Not covered	None species specific	Not covered

³ The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of riparian brush rabbit only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
Suisun Shrew	the extent of tidal Suisun shrew habitat within Suisun Marsh. Objective SUSH1.2: Restore tidal marsh in portions of the Planning Area that may support Suisun shrew habitat in future years with sea level rise.					
Tricolored Blackbird	Goal TRBB1: Provide sufficient habitat to support the abundance and distribution of tricolored blackbird in the Planning Area and Suisun Marsh to contribute to its conservation in these areas. Objective TRBB1.1: Increase the extent of tricolored blackbird nesting habitat within the Planning Area and Suisun Marsh. Objective TRBB1.2: Maintain or increase the extent of protected tricolored blackbird foraging and nesting habitat within the Planning Area and Suisun Marsh.	None species-specific	Objective 1.5. Acquire at least seven of the 13 ponds in Subzone 2c to provide suitable breeding habitat for tricolored blackbird, California tiger salamander, California red-legged frog, and/or western pond turtle Goal 5: Enhance habitat for tricolored blackbird in the Preserve System Objective 5.1. Restore perennial wetlands so that at least 25% will provide breeding habitat Objective 5.2. Restore perennial wetlands to provide breeding habitat at least 1 mile from black-crowned night heron colonies and within flight distance of blackbird foraging habitat	<i>(Abbreviated versions of these two will follow in subsequent cells)</i> 2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: giant garter snake; tricolored blackbird ; Aleutian Canada goose; white-faced ibis; Northwestern pond turtle; California tiger salamander; western spadefoot toad; midvalley fairy shrimp; vernal pool fairy shrimp; vernal pool tadpole shrimp; delta tule pea; Sanford's arrowhead; Bogg's Lake hedge-hyssop; Colusa grass; legenera; Sacramento orcutt grass; slender orcutt grass; and delta tule pea. (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring. 3. Upland Species/ Habitat Goals and Objectives The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: Swainson's hawk; loggerhead shrike; burrowing owl; tricolored blackbird ; bank swallow; California tiger salamander; and valley elderberry longhorn beetle. (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats. (2) Ensure reserve land connectivity with	Objective RSM 2.6. Provide for a net increase in suitable nesting habitat for tri-colored black birds by mitigating for impacts to currently occupied nest habitat at a ratio of 2:1.	Objective 5.10: Enhance Tricolored Blackbird nesting habitat (Freshwater Marsh) by planting 500 Himalayan blackberry bushes within new and existing preserves in suitable locations to avoid invasion of stream corridors. Objective 6.3: Preserve six (6) Tricolored Blackbird nesting colony sites and associated foraging habitat that are known to be occupied in recent years (5-10 years).

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
Tricolored Blackbird				travel corridors for uplanddependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The upland areas should be configured to enhance natural species migration, minimize species isolation, and prevent future habitat fragmentation.		
Suisun Song Sparrow	Goal SSSP1: Provide sufficient habitat to support the abundance and distribution of Suisun song sparrow in the Planning Area and Suisun Marsh to contribute to its conservation. Objective SSSP1.1: Increase the extent of Suisun song sparrow nesting habitat within the Suisun Marsh.	Not covered	Not covered	Not covered	None species-specific	Not covered
Yellow-breasted Chat	Goal YBCH1: Provide sufficient habitat to support the abundance and distribution of yellow-breasted chat in the Planning Area to contribute to its conservation. Objective YBCH1.1: Increase the extent of yellow-breasted chat nesting habitat within the Planning Area.	None species-specific	Not covered	Not covered	None species-specific	None species-specific
Western Burrowing Owl	Goal BUOW1: Provide sufficient habitat to support the abundance and distribution of western burrowing owl in the Planning Area and Suisun Marsh to contribute to its conservation in these areas. Objective BUOW1.1: Maintain or increase the extent of protected western burrowing owl foraging and breeding habitat within the Planning Area and Suisun Marsh.	None species-specific	Goal 12: Increase availability of burrows within grassland for San Joaquin kit fox, California tiger salamander, California red-legged frog, and western burrowing owl Objective 12.1. Increase the number and distribution of California ground squirrel burrows Goal 16: Maintain or increase population size and distribution of western burrowing owl Objective 16.1. Install artificial burrows and perches as temporary attractants, where appropriate	3. Upland Species/ Habitat Goals and Objectives The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: burrowing owl ; (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats. (2) Ensure reserve land connectivity with travel corridors for uplanddependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The upland areas should be configured to enhance natural species migration, minimize species	Goal BO 1. Maintain a population level of Burrowing Owls within the Plan Area similar to current numbers and allow for populations to expand and increase throughout the Plan Area in order to contribute to the range wide recovery of the species. The following sub-goals are key components in achieving this broader conservation goal. Sub-Goal BO 1.1. Avoid, minimize, and mitigate adverse effects of Covered Activities on burrowing owls and their habitat. Sub-Goal BO 1.2. Maintain sufficient suitable foraging habitat to support a self-sustaining burrowing owl population within the Plan Area. Sub-Goal BO 1.3. Maintain sufficient suitable nesting habitat to support a self-sustaining burrowing owl population within the Plan Area.	Objective 5.11: Establish and maintain Western Burrowing Owl burrows within a two acre area on all core or landscape level preserves to encourage nesting. Objective 6.2: Preserve six (6) Western Burrowing Owl colony sites and associated foraging habitat that are known to be occupied in recent years (5-10 years).

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
Western Burrowing Owl				isolation, and prevent future habitat fragmentation.	<p>Sub-Goal BO 1.4. Contribute to the recovery of the burrowing owl population within Solano County.</p> <p>The following objectives are designed to achieve Goal BO 1 and Sub-Goals BO 1.1-1.4.</p> <p>Objective BO 1.1. Prevent the destruction and disturbance of active nest burrows during construction for new projects and during operation and maintenance activities on existing facilities.</p> <p>Objective BO 1.2. Minimize the potential for secondary poisoning of burrowing owls and the reduction of their prey populations through use of best management practices for pest control.</p> <p>Objective BO 1.3. As compensatory mitigation for the loss/conversion of 5,770 acres of agricultural foraging habitat, the Plan Participants will provide for permanent protection of a minimum of 5,770 acres of agricultural foraging habitat (a 1:1 ratio for anticipated loss of suitable irrigated agricultural habitat) through direct purchase or conservation easements.</p> <p>Objective BO 1.4. As compensatory mitigation for the loss/conversion of 4,300 acres of valley floor grassland habitat, the Plan Participants will provide for the permanent protection and enhancement of 4,300 acres of valley floor grassland habitat through direct purchase or conservation easements and establishment of management practices to promote burrowing owl foraging and nesting opportunities.</p> <p>Objective BO 1.5. As compensatory mitigation for the loss/conversion of approximately 1,000 acres of grassland and oak savanna habitat within the Inner Coast Range, the Plan Participants will provide for the permanent protection and enhancement of 1,000 acres of Swainson's hawk foraging habitat within either the Swainson's hawk Irrigated Agriculture, Valley Floor Grassland or Inner Coast Range Potential Reserve Areas, through direct purchase or conservation easements and establishment of management practices to promote burrowing owl foraging and nesting opportunities.</p> <p>Objective BO 1.6. Set aside a minimum of 71 acres of habitat within the Swainson's Hawk Irrigated Agriculture Potential Reserve Area (1 acre per 80 acre agricultural preserve) to</p>	

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Western Burrowing Owl					<p>provide nesting and cover habitat for burrowing owls.</p> <p>Objective BO 1.7. Install, monitor and maintain, 142 artificial burrow complexes within the 71 acres of habitat set aside for burrowing owls within the 5,700 acres of agricultural reserves established under the Solano HCP.</p> <p>Objective BO 1.8. Install, monitor and maintain 270 artificial burrow complexes within the 4,300 acres of valley floor grassland preserves established under the Solano HCP.</p> <p>Objective BO 1.9. As compensatory mitigation for ongoing operation and maintenance of irrigation and flood control channels, establish a minimum of 210 artificial burrow complexes within Plan Participant's irrigation and flood control rights-of-way. Artificial burrows will only be established on lands where land owners provide permission.</p> <p>Objective BO 1.10. Obtain baseline estimates of current breeding population size (number of pairs) within the Plan Area.</p> <p>Objective BO 1.11. Monitor burrowing owl breeding population (number of pairs) through standardized surveys representative of different habitats within Plan Area, in addition to monitoring of established preserves.</p>	
Greater Sandhill Crane	<p>Goal SACR1: Preserve and protect the abundance and distribution of greater sandhill crane and provide sufficient habitat to support the abundance and distribution of greater sandhill cranes that winter within the Planning Area to contribute to its conservation.⁴</p> <p>Objective SACR1.1: Maintain or increase the extent of protected greater sandhill crane roosting habitat within the Planning Area.</p> <p>Objective SACR1.2: Maintain or increase the extent of protected greater sandhill crane foraging habitat within the Planning Area.</p>	None species-specific	Not covered	Not covered	Not covered	Objective 5.6: Establish and maintain 10 food plots totaling 200 acres within an agricultural setting for Greater Sandhill Crane foraging habitat.

⁴ The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of greater sandhill crane only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	Objective SACR1.3: Avoid mortality of greater sandhill crane associated with implementation of covered activities and conservation measures.					
California Black Rail	Goal BLRA1: Preserve and protect the abundance and distribution of California black rail and provide sufficient habitat to support the abundance and distribution of its populations in Suisun Marsh and the Planning Area to contribute to its conservation in these areas.	None species-specific	Not covered	Not covered	None species-specific	Not covered
California Black Rail	Objective BLRA1.1: Increase the extent of tidal California black rail habitat within the Planning Area and Suisun Marsh. Objective BLRA 1.2: Avoid mortality of California black rail associated with implementation of covered activities and conservation measures.					
California Clapper Rail	Goal CLRA1: Preserve and protect the abundance and distribution of California clapper rail and provide sufficient habitat to support the abundance and distribution of its populations in Suisun Marsh and the Planning Area to contribute to its conservation in these areas. ⁵ Objective CLRA1.1: Increase the extent of tidal California clapper rail habitat within Suisun Marsh. Objective CLRA1.2: Restore tidal marsh in portions of the Planning Area that may support California clapper rail habitat in future years with sea level rise.	Not covered	Not covered	Not covered	None species-specific	Not covered

⁵ The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of California clapper rail only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	Objective CLRA1.3: Avoid mortality of California clapper rail associated with implementation of covered activities and conservation measures.					
White-tailed Kite	Goal WTKI1: Provide sufficient habitat to support the abundance and distribution of Swainson's hawk in the Planning Area to contribute to its conservation.	None species-specific	Not covered	Not covered	Not covered	None species-specific
White-tailed Kite	Objective WTKI1.1: Increase the extent of white-tailed kite nesting habitat within the Planning Area that is located within █ miles of white-tailed kite foraging habitat. Objective WTKI1.2: Maintain or increase the extent of protected white-tailed kite foraging habitat within the Planning Area.					
Swainson's Hawk	Goal SWHA1: Provide sufficient habitat to support the abundance and distribution of Swainson's hawk in the Planning Area to contribute to its conservation. Objective SWHA1.1: Increase the extent of Swainson's hawk nesting habitat within the Planning Area that is located within █ miles of Swainson's hawk foraging habitat. Objective SWHA1.2: Maintain or increase the extent of protected Swainson's hawk foraging habitat within the Planning Area.	None species-specific	Goal 32: Maintain or increase population size and distribution of Swainson's hawk in the inventory area Objective 32.1. Acquire land in the Preserve System that includes occupied nests and suitable nest sites Objective 32.2. Acquire at least 3,750 acres of modeled suitable foraging habitat for Swainson's Hawk near Kellogg Creek, near Marsh Creek, adjacent to Dutch Slough, or in suitable grassland areas	3. Upland Species/ Habitat Goals and Objectives The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: Swainson's hawk; (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats. (2) Ensure reserve land connectivity with travel corridors for uplanddependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The upland areas should be configured to enhance natural species migration, minimize species isolation, and prevent future habitat fragmentation.	Goal SH 1. Maintain a population level of Swainson's hawks within the Plan Area similar to current numbers (estimated to be between 120 and 130 pairs) and allow for populations to expand and increase throughout the Plan Area in order to contribute to the range wide recovery of the species. Sub-Goal SH 1.1. Minimize potential adverse effects of Covered Activities on productivity and survival of Swainson's hawks within the Plan Area. Sub-Goal SH 1.2. Maintain sufficient suitable foraging habitat to maintain the current Swainson's hawk population levels within the Plan Area. Sub-Goal SH 1.3. Maintain sufficient nesting habitat in proximity to suitable foraging habitat to support the current Swainson's hawk population levels within the Plan Area. Sub-Goal SH 1.4. Contribute to recovery of the Swainson's hawk population within Solano County. The following objectives are designed to achieve Goal SH 1 and Sub-Goals SH 1.1-1.4. Objective SH 1.1. Prevent disturbance of	Objective 5.5: Purchase approximately 10 agricultural plots totaling 2,000 acres to be owned in fee title and managed for the benefit of Swainson's Hawk foraging habitat. Objective 6.1: Maintain a minimum of 68 nesting pairs of Swainson's Hawk within the SSHCP Study Area.

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Swainson's Hawk					<p>active Swainson's hawk nests within the Plan Area (see Conservation Measure SH 4 for definition of an "active" nest).</p> <p>Objective SH 1.2. Minimize the potential for secondary poisoning of Swainson's hawk and the reduction of their prey populations through use of best management practices for pest control.</p> <p>Objective SH 1.3. As compensatory mitigation for the loss and conversion of 5,700 acres of agricultural foraging habitat, the Plan Participants will provide for permanent protection of a minimum of 5,700 acres of agricultural foraging habitat, within Swainson's hawk Irrigated Agriculture Potential Reserve Areas, through direct purchase or conservation easements and establishment of management practices to promote Swainson's hawk foraging and nesting opportunities.</p> <p>Objective SH 1.4. As compensatory mitigation for the loss and conversion of 4,300 acres of valley floor grassland habitat, the Plan Participants will provide for the permanent protection and enhancement of 4,300 acres of valley floor grassland habitat, within Swainson's hawk Valley Floor Grassland Potential Reserve Areas, through direct purchase or conservation easements and establishment of management practices to promote Swainson's hawk foraging and nesting opportunities. This objective is to be implemented concurrently with the Vernal Pool and Valley Floor Grassland Conservation Objective VPG 1.1.</p> <p>Objective SH 1.5. As compensatory mitigation for the loss and conversion of approximately 1,000 acres of grassland and oak savanna habitat within the Inner Coast Range, the Plan Participants will provide for the permanent protection and enhancement of 1,000 acres of Swainson's hawk foraging habitat within either the Swainson's hawk Irrigated Agriculture, Valley Floor Grassland, or Inner Coast Range Potential Reserve Areas through direct purchase or conservation easements and establishment of management practices to promote Swainson's hawk foraging and nesting opportunities.</p> <p>Objective SH 1.6. As compensatory mitigation for unavoidable impacts to nesting</p>	

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Swainson's Hawk					<p>habitat, the Plan Participants will plant 8,700 potential nest trees within the Swainson's hawk Irrigated Agriculture or Inner Coast Range Potential Reserve Areas. This will be achieved through a tree replacement program, administered by SCWA, designed to ensure future nesting opportunities for Swainson's hawk within the Plan Area.</p> <p>Objective SH 1.7. Monitor the long-term population trend of the number of breeding pairs (with associated confidence interval) within the County using standardized survey methods (Section 6.6.4.5).</p> <p>Objective SH 1.8. The Plan Participants will cooperate with other agencies and organizations to develop an incentive program designed to retain or establish agricultural crops that provide high quality foraging habitats.</p>	
Giant Garter Snake	<p>Goal GIGS1: Provide sufficient habitat to support the abundance and distribution of giant garter snake populations in the Planning Area to contribute to its conservation.</p> <p>Objective GIGS1.1: Increase the extent of tidal giant garter snake habitat within the Planning Area.</p> <p>Objective GIGS1.2: Maintain or increase the extent of protected non-tidal giant garter snake habitat within the Planning Area and Suisun Marsh.</p>	None species-specific	<p>Goal 6: Compensate for temporary and permanent loss of giant garter snake habitat</p> <p>Objective 6.1. Replace suitable upland and aquatic habitat at a ratio of 1:1 to 3:1 according to USFWS guidelines</p> <p>Objective 6.2. Emphasize the restoration of suitable habitat for giant garter snake on Dutch Slough</p>	<p>2. Wetland Species/Habitat Goals and Objectives</p> <p>The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: giant garter snake;</p> <p>(1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.</p> <p>(2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation.</p> <p>(3) Document population trends of Covered Species through monitoring.</p>	<p>Goal GGS 1. Promote the continued existence of a viable population of the giant garter snake in the Plan Area and contribute to the recovery of the giant garter snake through protection, management, restoration, and enhancement of suitable habitat within the Yolo Basin-Liberty Farms population area.</p> <p>Sub-Goal GGS 1.1. Maintain interconnected blocks of habitat that support natural movement patterns and provide for the potential for populations to reestablish in Solano County.</p> <p>Sub-Goal GGS 1.2. Minimize direct and indirect effects to giant garter snakes from Covered Activities.</p> <p>Sub-Goal GGS 1.3. Restore and create new aquatic habitat for giant garter snakes that will be protected and managed in perpetuity.</p> <p>Sub-Goal GGS 1.4. Contribute to the recovery of the giant garter snake within the Plan Area.</p> <p>Objective GGS 1.1. Conduct periodic trapping studies within suitable habitat areas within the Plan Area to monitor the potential reestablishment of giant garter snakes</p> <p>Objective GGS 1.2. Minimize adverse effects of operations and maintenance activities on giant garter snake habitat to the maximum extent practicable.</p> <p>Objective GGS 1.3. Municipal Plan Participants shall comply with NPDES permit requirements established by the Regional</p>	<p>Objective 5.12: Provide wintering and refugia habitat for Giant Garter Snake along stream corridors in intervals of at least 600 feet.</p>

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					Water Quality Control Boards in order to minimize increases in nonpoint source pollution both during and after construction and to reduce water quality impacts of storm water runoff for the life of a development or redevelopment project. Objective GGS 1.4. Acquire, enhance, and manage approximately 95 acres of aquatic and associated upland habitat for the giant garter snake to mitigate for unavoidable effects to giant garter snakes resulting from Covered Activities.	
Western Pond Turtle	<p>Goal WPTU1: Provide sufficient habitat to support the abundance and distribution of giant garter snake populations in the Planning Area to contribute to its conservation.</p> <p>Objective WEPT1.1: Increase the extent of western pond turtle aquatic habitat within the Planning Area and Suisun Marsh.</p> <p>Objective WEPT1.2: Maintain or increase the extent of western pond turtle upland habitat near suitable aquatic habitats within the Planning Area.</p>	None species-specific	<p>Objective 1.5. Acquire at least seven of the 13 ponds in Subzone 2c to provide suitable breeding habitat for tricolored blackbird, California tiger salamander, California red-legged frog, and/or western pond turtle</p> <p>Objective 3.4. Create ponds in-kind at a ratio of 1:1 (estimated to be 8 acres with the maximum urban development area) to support California tiger salamander, California red-legged, and/or western pond turtle</p> <p>Objective 3.6. Compensate for loss of aquatic (open water) by creating ponds at a ratio of 0.5:1 (estimated to be 9 acres of ponds with the maximum urban development area) to support California tiger salamander, California red-legged, and/or western pond turtle</p> <p>Objective 3.7. Compensate for loss of aquatic (open water) by creating ponds at a ratio of 0.5:1 (estimated to be 9 acres of ponds with the maximum urban development area) to support California tiger salamander, California red-legged, and/or western pond turtle</p> <p>Objective 4.4. Create 8 acres of ponds to support California tiger salamander, California redlegged, and/or western pond turtle</p> <p>Goal 7: Maintain or increase the population and distribution of western pond turtle</p> <p>Objective 7.1. Increase number and distribution of basking sites and underwater refugia in ponds</p>	<p>2. Wetland Species/Habitat Goals and Objectives</p> <p>The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species:</p> <p>Northwestern pond turtle:</p> <p>(1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.</p> <p>(2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation.</p> <p>(3) Document population trends of Covered Species through monitoring.</p>	<p>Objective RSM 2.7. Document the status of the foothill yellow-legged frog and western pond turtle populations in Priority Drainages within the jurisdictions of the Plan Participants.</p> <p>Objective RSM 2.9. Provide for a net increase in the quality and quantity of aquatic habitat for western pond turtles throughout the Plan Area.</p>	<p>Goal 1: Preserve habitat to support WPT populations within the plan area</p> <p>Objective 1.1: Preserve 1,003 acres of existing WPT habitat (vernal pools, and freshwater marsh).</p> <p>Objective 1.2: Preserve 31,167 acres of existing WPT upland habitat (valley grasslands).</p> <p>Goal 2: Restore habitat to support WPT populations within the plan area</p> <p>Objective 2.1: Restore 321 acres of habitat within new or existing preserves (vernal pools and freshwater marshes).</p>
Western Pond Turtle	<p>Goal RLFR1: Provide sufficient habitat to support the abundance and distribution of California red-legged frog in the Planning Area contribute to its</p>	None species-specific	<p>Objective 1.5. Acquire at least seven of the 13 ponds in Subzone 2c to provide suitable breeding habitat for tricolored blackbird, California tiger salamander, California red-legged frog, and/or western pond turtle</p>	Not covered	<p>Goal RLF 1. Protect and maintain the ecological integrity of suitable habitats within core Recovery Areas in order to promote the continued existence and expansion of a stable California red-legged frog population within</p>	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
					<p>California red-legged frogs within the Plan Area.</p> <p>RLF1.6. Protect and maintain upland habitat between suitable California red-legged frog breeding habitat within Core Recovery Areas.</p> <p>RLF1.7. Develop and implement best management practices to prevent or minimize adverse impacts to California red-legged frogs during operation and maintenance activities on existing facilities.</p> <p>RLF 1.8. Minimize activities associated with urban and agricultural land use development projects that could lead to expansion of predator (bullfrog, crayfish, and warm water fish) populations (range and numbers) into undeveloped areas in the remainder of the western portion of the County.</p>	
Western Spadefoot Toad	<p>Goal SPTO1: Provide sufficient habitat to support the abundance and distribution of western spadefoot toad in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective SPTO1.1: Maintain or increase the extent of protected western spadefoot toad breeding and upland habitats within the Planning Area and Suisun Marsh.</p>	None species-specific	Not covered	<p>2. Wetland Species/Habitat Goals and Objectives</p> <p>The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species:</p> <p>western spadefoot toad;</p> <p>(1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.</p> <p>(2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation.</p> <p>(3) Document population trends of Covered Species through monitoring.</p>	Not covered	None species-specific
	<p>Goal TISA1: Provide sufficient habitat to support the abundance and distribution of California tiger salamander in the Planning Area contribute to its conservation.</p> <p>Objective CATS1.1: Maintain or increase the extent of protected California tiger salamander breeding and upland habitats within the Planning Area.</p>	None species-specific	<p>Objective 1.5. Acquire at least seven of the 13 ponds in Subzone 2c to provide suitable breeding habitat for tricolored blackbird, California tiger salamander, California red-legged frog, and/or western pond turtle</p> <p>Objective 3.4. Create ponds in-kind at a ratio of 1:1 (estimated to be 8 acres with the maximum urban development area) to support California tiger salamander, California red-legged, and/or western pond turtle</p> <p>Objective 3.6. Compensate for loss of aquatic (open water) by creating ponds at a ratio of 0.5:1 (estimated to be 9 acres of ponds with the maximum urban development area) to support California</p>	<p>2. Wetland Species/Habitat Goals and Objectives</p> <p>The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species:</p> <p>California tiger salamander;</p> <p>(1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.</p> <p>(2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species</p>	<p>Objective VPG 2.5. Preserve a minimum of four, multiple breeding site populations of California tiger salamanders (2 or more breeding sites within 0.7 miles of each other) and 350 to 500 acres of associated upland habitat per breeding population in established and managed reserves and preserves.</p>	<p>Goal 1: Preserve habitat to support CTS populations within the plan area</p> <p>Objective 1.1: Preserve acres of breeding and foraging habitat for CTS (seasonal impoundment, seasonal wetland, and vernal pool).</p> <p>Objective 1.2: Preserve acres of wintering aestivation habitat for CTS (vernal pool grassland, oak savannah, and annual grassland).</p> <p>Goal 2: Restore habitat to support CTS populations within the plan area</p> <p>Objective 2.1: Restore 746 acres of habitat within new or existing preserves (seasonal impoundment, seasonal wetlands, vernal pool,</p>

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
California Tiger Salamander			tiger salamander, California red-legged, and/or western pond turtle Objective 3.7. Compensate for loss of aquatic (open water) by creating ponds at a ratio of 0.5:1 (estimated to be 9 acres of ponds with the maximum urban development area) to support California tiger salamander, California red-legged, and/or western pond turtle Objective 4.4. Create 8 acres of ponds to support California tiger salamander, California redlegged, and/or western pond turtle Goal 12: Increase availability of burrows within grassland for San Joaquin kit fox, California tiger salamander, California red-legged frog, and western burrowing owl Objective 12.1. Increase the number and distribution of California ground squirrel burrows	migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring. 3. Upland Species/ Habitat Goals and Objectives The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: California tiger salamander (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats. (2) Ensure reserve land connectivity with travel corridors for uplanddependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The upland areas should be configured to enhance natural species migration, minimize species isolation, and prevent future habitat fragmentation.		and open water).
California Tiger Salamander						
Valley Elderberry Longhorn Beetle	Goal VELB1: Provide sufficient habitat to support the abundance and distribution of valley elderberry longhorn beetle in the Planning Area to contribute to its conservation. Objective VELB1.1: Increase the extent of valley elderberry longhorn beetle habitat within the Planning Area.	None species-specific	Not covered	3. Upland Species/ Habitat Goals and Objectives The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: valley elderberry longhorn beetle. (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats. (2) Ensure reserve land connectivity with travel corridors for uplanddependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The upland areas should be configured to enhance natural species migration, minimize species isolation, and prevent future habitat fragmentation.	Objective RSM 2.5. Increase the available habitat for the valley elderberry longhorn beetle within the riparian areas of Alamo, Ulatis and Putah creeks by replacing impacted elderberry plants at a minimum ratio of 2:1.	Objective 5.1: Transplant elderberry bushes and establish seedlings/cuttings of elderberry to provide Valley Elderberry Longhorn Beetle (VELB) habitat within a new or exiting riparian preserves. Objective 5.2: Establish native plants associated with VELB habitat in restoration sites at a ratio of one native plant for every Elderberry shrub that is transplanted and planted (1:1).
Vernal Pool Tadpole	Goal FASH1: Provide sufficient vernal pool, vernal	None species-specific	Goal 8: Compensate for loss of occupied covered shrimp habitat	2. Wetland Species/Habitat Goals and Objectives	Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences],	None species-specific

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
Shrimp	pool complex, alkaline/saline seasonal wetland, and alkaline sink scrub habitats to support the abundance and distribution of vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, longhorn fairy shrimp, and mid valley fairy shrimp populations in the Planning Area to contribute to their conservation. Objective VPFS1.1: Maintain or increase the extent of protected vernal pool, vernal pool complex, alkaline/saline seasonal wetlands, and alkaline sink scrub habitats that support fairy shrimp within the Planning Area.		Objective 8.1. Preserve occupied habitat within the Preserve System at a ratio of 3:1 or dedicate an equivalent number of mitigation bank credits Objective 8.2. Restore suitable habitat within the Preserve System at a ratio of 2:1 or dedicate an equivalent number of mitigation bank credits	The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: vernal pool tadpole shrimp (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.	Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences], Vernal pool tadpole shrimp [40% of occurrences] , Mid-valley fairy shrimp [40% of occurrences], California fairy shrimp [40% of occurrences] within the Plan Area.	
Conservancy Fairy Shrimp		None species-specific	Not covered	Not covered	Sub-Goal VPG 1.4. Preserve areas with high species diversity including extremely rare and/or range-limited species, such as Colusa grass, Solano grass, San Joaquin Valley orcutt grass, Ferris's milk vetch, Conservancy fairy shrimp , Ricksecker's water scavenger beetle, and Delta green ground beetle. Objective VPG 2.3. Preserve 40-50% of occurrences and expand populations through restoration, when possible, of extremely rare or range-limited species. These species include: • Conservancy fairy shrimp [50% of occurrences]	Not covered
Longhorn Fairy Shrimp		None species-specific	Goal 8: Compensate for loss of occupied covered shrimp habitat Objective 8.1. Preserve occupied habitat within the Preserve System at a ratio of 3:1 or dedicate an equivalent number of mitigation bank credits Objective 8.2. Restore suitable habitat within the Preserve System at a ratio of 2:1 or dedicate an equivalent number of mitigation bank credits	Not covered	Not covered	Not covered
Vernal Pool Fairy Shrimp		None species-specific	Goal 8: Compensate for loss of occupied covered shrimp habitat Objective 8.1. Preserve occupied habitat within the Preserve System at a ratio of 3:1 or dedicate an equivalent number of mitigation bank credits Objective 8.2. Restore suitable habitat within the Preserve System at a ratio of 2:1	2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: vernal pool fairy shrimp (1) Acquire, enhance and create a mosaic of	Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences], Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences] , Vernal pool tadpole shrimp [40% of occurrences], Mid-valley fairy shrimp	Goal 1: Preserve habitat to support Vernal Pool Fairy Shrimp populations within the plan area Objective 1.1: Preserve 1,284 total acres of existing Vernal Pool Fairy Shrimp habitat (Vernal Pools). Goal 2: Restore habitat to support Vernal Pool

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
			or dedicate an equivalent number of mitigation bank credits	wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.	[40% of occurrences], California fairy shrimp [40% of occurrences] within the Plan Area.	Fairy Shrimp populations within the plan area Objective 2.1: Restore 254 acres of habitat within new or existing preserves.
Mid Valley Fairy Shrimp		None species-specific	Goal 8: Compensate for loss of occupied covered shrimp habitat Objective 8.1. Preserve occupied habitat within the Preserve System at a ratio of 3:1 or dedicate an equivalent number of mitigation bank credits Objective 8.2. Restore suitable habitat within the Preserve System at a ratio of 2:1 or dedicate an equivalent number of mitigation bank credits	2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: midvalley fairy shrimp (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.	Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences], Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences], Vernal pool tadpole shrimp [40% of occurrences], Mid-valley fairy shrimp [40% of occurrences] , California fairy shrimp [40% of occurrences] within the Plan Area.	None species-specific
Mid Valley Fairy Shrimp						
Suisun Marsh Aster	Goal SUMA1: Provide sufficient habitat to support the abundance and distribution of Suisun Marsh aster in the Planning Area and Suisun Marsh to contribute to its conservation in these areas. Objective SUMA1.1 Increase the extent of Suisun Marsh aster habitat within the Planning Area and Suisun Marsh.	None species-specific	Not covered	Not covered	Objective CM 2.3. Permanently protect populations and associated buffer habitats for salt marsh-bird's beak, Suisun thistle and Suisun Marsh aster from direct and indirect impacts and expand existing populations in order to contribute toward the recovery of these species.	Not covered
Alkali Milk-vetch	Goal ALMV 1: Provide sufficient vernal pool, vernal pool complex, alkaline/saline seasonal wetland, and alkali sink scrub habitats to support the abundance and distribution of alkali milk-vetch in the Planning Area and Suisun Marsh to contribute to its	None species-specific	Not covered	Not covered	Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences] , Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences], Vernal pool tadpole shrimp [40% of occurrences], Mid-valley fairy shrimp [40% of occurrences], California fairy shrimp [40%	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	conservation in these areas. Objective ALMV1.1: Maintain or increase the extent of protected vernal pool, vernal pool complex, alkaline/saline seasonal wetland, and alkali sink scrub habitats that support alkali milk-vetch habitat within the Planning Area and Suisun Marsh.				of occurrences] within the Plan Area.	
Heartscale	Goal HEAR1: Provide sufficient alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats to support the abundance and distribution of heartscale in the Planning Area and Suisun Marsh to contribute to its conservation in these areas. Objective HEAR1.1: Maintain or increase the extent of protected alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats that support heartscale habitat within the Planning Area and Suisun Marsh.	None species-specific	Not covered	Not covered	None species-specific	Not covered
Heartscale						
Brittlescale	Goal BRIT1: Provide sufficient vernal pool, alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats to support the abundance and distribution of brittlescale in the Planning Area and Suisun Marsh to contribute to its conservation in these areas. Objective BRIT1.1: Maintain or increase the extent of protected vernal pool, alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats that support brittlescale habitat within the Planning Area and Suisun Marsh.	None species-specific	Objective 17.2. Protect at least two occurrences of brittlescale outside currently protected public lands	Not covered	None species-specific	Not covered
San Joaquin Spearscale	Goal SJSP1: Provide sufficient vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub habitats to support the	Not covered	None species-specific	Not covered	None species-specific	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	<p>abundance and distribution of San Joaquin spearscale in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective SJSP1.1: Maintain or increase the extent of protected vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub, habitats that supports San Joaquin spearscale habitat within the Planning Area and Suisun Marsh.</p>					
Lesser Saltscare	<p>Goal LESA1: Provide sufficient vernal pool, alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats to support the abundance and distribution of lesser saltscare in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective LESA.1: Maintain or increase the extent of protected vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub, and grassland habitats that support lesser saltscare habitat within the Planning Area and Suisun Marsh.</p>	Not covered	Not covered	Not covered	Not covered	Not covered
Lesser Saltscare	<p>Goal LESA1: Provide sufficient vernal pool, alkaline/saline seasonal wetland, alkaline sink scrub, and grassland habitats to support the abundance and distribution of lesser saltscare in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective LESA.1: Maintain or increase the extent of protected vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub, and grassland habitats that support lesser saltscare habitat within the Planning Area and Suisun Marsh.</p>	Not covered	Not covered	Not covered	Not covered	Not covered
Slough Thistle	<p>Goal SLTH1: Provide sufficient fresh tidal marsh and channel habitats to support the abundance and distribution of slough thistle in the Planning Area to contribute to its conservation.</p> <p>Objective SLTH1.1 Increase the extent of slough thistle habitat within the Planning Area.</p>	None species-specific	Not covered	Not covered	Not covered	Not covered
Suisun Thistle	<p>Goal SUTH1: Provide sufficient habitat to support the abundance and distribution of Suisun thistle in Suisun Marsh and the Planning Area to contribute to its conservation in</p>	Not covered	Not covered	Not covered	Objective CM 2.3. Permanently protect populations and associated buffer habitats for salt marsh-bird's beak, Suisun thistle and Suisun Marsh aster from direct and indirect impacts and expand existing populations in order to contribute toward the recovery of	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	<p>these areas.</p> <p>Objective SUTH1.1: Increase the extent of brackish tidal habitats that support Suisun thistle in Suisun Marsh.</p> <p>Objective SUTH1.2: Restore tidal marsh in portions of the Planning Area that may support Suisun thistle habitat in future years with sea level rise.</p>				these species.	
Soft Bird's-beak	<p>Goal SOBB1: Preserve and protect the abundance and distribution of soft bird's-beak and provide sufficient brackish tidal marsh habitat to support the abundance and distribution of soft bird's-beak in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.⁶</p> <p>Objective SOBB1.1: Increase the extent of brackish tidal marsh habitats that could support soft bird's-beak habitat in Suisun Marsh.</p> <p>Objective SOBB1.2: Restore tidal marsh in portions of the Planning Area that may support soft bird's-beak habitat in future years with sea level rise.</p> <p>Objective SOBB1.3: Avoid take of soft bird's beak associated with implementation of covered activities and conservation measures.</p>	Not covered	Not covered	Not covered	<p>Objective CM 2.3. Permanently protect populations and associated buffer habitats for salt marsh-bird's beak, Suisun thistle and Suisun Marsh aster from direct and indirect impacts and expand existing populations in order to contribute toward the recovery of these species.</p> <p><i>It appears reference to salt marsh-bird's beak is synonymous with soft bird's-beak. Salt marsh bird's-beak is not a covered species of the Solano HCP, but soft bird's-beak is.</i></p>	Not covered
Delta Button Celery	<p>Goal DEBC1: Provide sufficient seasonal floodplain and alkaline sink scrub habitat to support the abundance and distribution of Delta button-celery in the Planning Area to contribute to its conservation.</p> <p>Objective DEBC1.1: Maintain or increase the extent of</p>	None species-specific	Not covered	Not covered	Not covered	Not covered

⁶ The phrase *Protect and preserve the abundance and distribution* refers to protecting and preserving the abundance and distribution of soft bird's-beak only in the context of BDCP actions and not from actions implemented by non-BDCP entities.

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	protected seasonal floodplain and alkaline sink scrub habitats that support habitat for Delta button-celery within the Planning Area.					
Boggs Lake Hedge-hyssop	<p>Goal BLHH1: Provide sufficient vernal pool and natural seasonal wetland habitats to support the abundance and distribution of Boggs Lake hedge-hyssop in the Planning Area to contribute to its conservation.</p> <p>Objective BLHH1.1: Maintain or increase the extent of protected vernal pool and natural season wetland habitats that support Boggs Lake hedge-hyssop habitat within the Planning Area.</p>	None species-specific	Not covered	<p>2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: Bogg's Lake hedge-hyssop; (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.</p>	<p>Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences], Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences], Vernal pool tadpole shrimp [40% of occurrences], Mid-valley fairy shrimp [40% of occurrences], California fairy shrimp [40% of occurrences] within the Plan Area.</p>	<p>Objective 6.4: Protect 10 occurrences each of Ahart's Dwarf Rush, Boggs Lake Hedge-Hyssop, Dwarf Downingia, and Pincushion Navarretia, located within the SSHCP study area.</p> <p>Objective 7.1: Establish five (5) outlier populations each of Ahart's Dwarf Rush, Boggs Lake Hedge-Hyssop, Dwarf Downingia, and Pincushion Navarretia, and three (3) outlier populations each of Sacramento and Slender Orcutt Grasses within the SSHCP Study Area.</p>
Carquinez Goldenbush	<p>Goal CAGO1: Provide sufficient habitat to support the abundance and distribution of Carquinez goldenbush in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective CAGO1.1: Maintain or increase the extent of protected grassland and seasonal wetlands on alkaline and saline soil habitats that support Carquinez goldenbush habitat within the Planning Area and Suisun Marsh.</p>	Not covered	Not covered	Not covered	None species-specific	Not covered
Carquinez Goldenbush	<p>Goal CAGO1: Provide sufficient habitat to support the abundance and distribution of Carquinez goldenbush in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective CAGO1.1: Maintain or increase the extent of protected grassland and seasonal wetlands on alkaline and saline soil habitats that support Carquinez goldenbush habitat within the Planning Area and Suisun Marsh.</p>	Not covered	Not covered	Not covered	None species-specific	Not covered
Delta Tule Pea	<p>Goal DETP1: Provide sufficient habitat to support the abundance and distribution of Delta tule pea in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p> <p>Objective DETP1.1: Increase the extent of delta tule pea habitat within the Planning Area and Suisun Marsh.</p>	None species-specific	Not covered	<p>2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: delta tule pea; (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.</p>	<p>Objective CM 2.2. Provide for a net increase in the quantity and quality of suitable coastal marsh habitat for populations of marsh gum plant, rose mallow, Delta tule pea, Mason's lilaepsis, Delta mudwort, Marin knotweed and where possible expand existing populations in order to contribute toward the recovery of these species.</p>	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
				(2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.		
Legenere	<p>Goal LEGE1: Provide sufficient vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub habitats to support the abundance and distribution of legenere in the Planning Area to contribute to its conservation in these areas.</p> <p>Objective LEGE1.1: Maintain or increase the extent of protected vernal pool, alkaline/saline seasonal wetland, and alkaline sink scrub habitats that supports legenere habitat within the Planning Area.</p>	None species-specific	Not covered	<p>2. Wetland Species/Habitat Goals and Objectives The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: legenere; (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area. (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation. (3) Document population trends of Covered Species through monitoring.</p>	<p>Objective VPG 2.2. Preserve populations of Alkali milk vetch [40% of occurrences], Vernal pool small scale [45% of occurrences], Boggs lake hedge-hyssop [40% of occurrences], Legenere [40% of occurrences], Vernal pool fairy shrimp [40% of occurrences], Vernal pool tadpole shrimp [40% of occurrences], Mid-valley fairy shrimp [40% of occurrences], California fairy shrimp [40% of occurrences] within the Plan Area.</p>	None species-specific
Heckard's Peppergrass Heckard's Peppergrass	<p>Goal HEPE 1: Provide sufficient vernal pool, vernal swale, alkaline/saline seasonal wetland, and alkaline sink scrub habitats to support the abundance and distribution of Heckard's peppergrass in the Planning Area to contribute to its conservation in these areas.</p> <p>Objective HEPE1.1: Maintain or increase the extent of protected vernal pool, vernal swale, alkali meadow, and alkali sink habitats that support Heckard's peppergrass habitat within the Planning Area.</p>	Not covered	Not covered	Not covered	None species-specific	Not covered
Mason's Lilaopsis	<p>Goal MALII: Provide sufficient habitat to support the abundance and distribution of Mason's lilaopsis in the Planning Area and Suisun Marsh to contribute to its conservation in these areas.</p>	None species-specific	Not covered	Not covered	<p>Objective CM 2.2. Provide for a net increase in the quantity and quality of suitable coastal marsh habitat for populations of marsh gum plant, rose mallow, Delta tule pea, Mason's lilaopsis, Delta mudwort, Marin knotweed and where possible expand existing populations in order to contribute toward the recovery of these species.</p>	Not covered

Species	BDCP	San Joaquin HCP	East Contra Costa HCP/NCCP	Natomas Basin HCP	Solano HCP	South Sacramento HCP
	Objective MALI1.1: Increase the extent of Mason's lilaepsis habitat within the Planning Area and Suisun Marsh.					
Delta Mudwort	<p>Goal DEMW1: Provide sufficient habitat to support the abundance and distribution of Delta mudwort in the Planning Area to contribute to its conservation in these areas.</p> <p>Objective DEMW1.1: Increase the extent of delta mudwort habitat within the Planning Area.</p>	None species-specific	Not covered	Not covered	<p>Objective CM 2.2. Provide for a net increase in the quantity and quality of suitable coastal marsh habitat for populations of marsh gum plant, rose mallow, Delta tule pea, Mason's lilaepsis, Delta mudwort, Marin knotweed and where possible expand existing populations in order to contribute toward the recovery of these species.</p>	Not covered
Caper-fruited Tropicarpum	<p>Goal CAFT1: Maintain occurrences of caper-fruited tropidocarpum that become established on lands managed by BDCP.</p> <p>Objective CAFT1.1: Protect occurrences of caper-fruited tropidocarpum if they establish from potentially existing seed banks in areas disturbed by BDCP actions.⁷</p>	None species-specific	Not covered	Not covered	Not covered	Not covered

⁷ Caper-fruited tropidocarpum historically occurred in the vicinity of Clifton Court Forebay, but is now considered to be extirpated from the Planning Area. This species has a long-lived seed bank that could be present in the area of the Forebay. BDCP action-related ground disturbances in this area could activate seed germination and result in reestablishment of one or more occurrences.