

DRAFT
BDCP Conservation Land Targets
[Preliminary, [Version 2](#)]

Note to Reviewers: This table provides SAIC proposed acreage targets for natural communities [to be assessed in the BDCP Effects Analysis](#). [This table has been revised from the version presented at the February 4, 2010 Steering Committee meeting](#). The draft natural community conservation targets presented in this table are preliminary and are subject to change based on determination of proposed conveyance facilities, completion of the effects and conservation assessment, and application of avoidance and minimization measures.

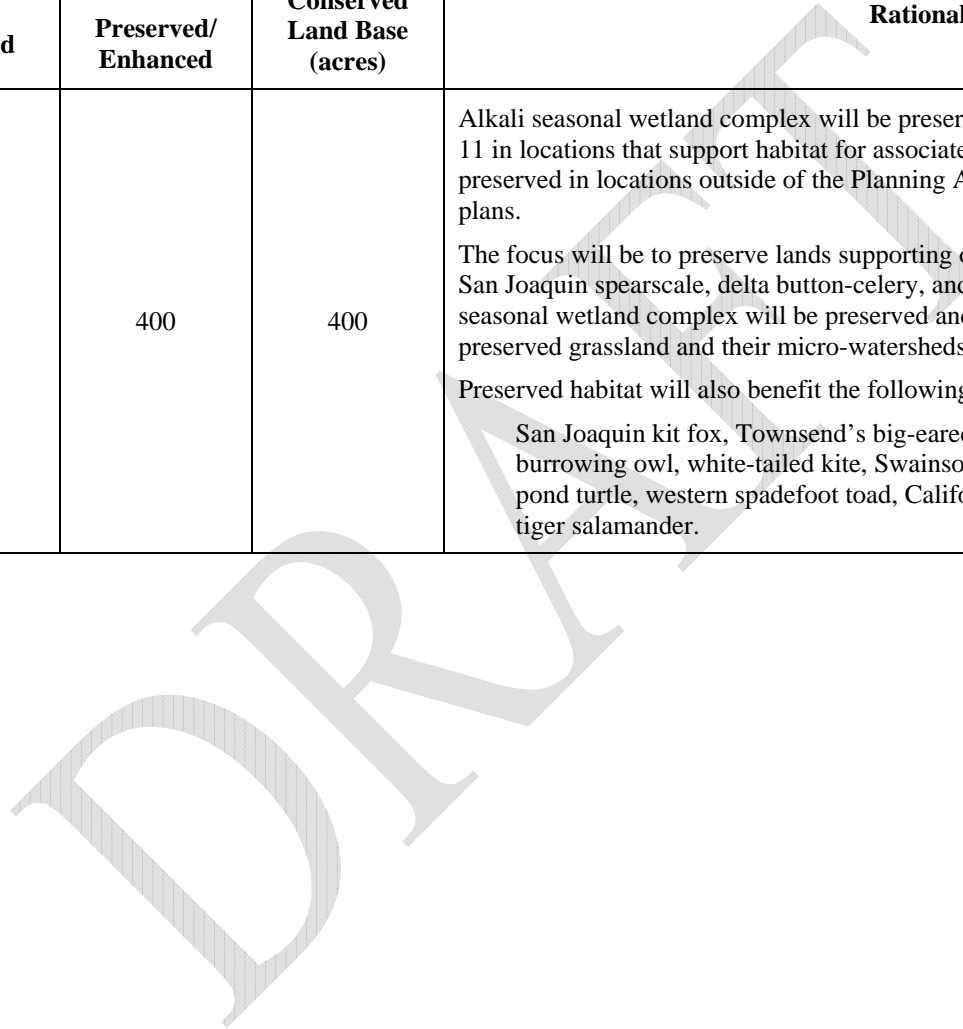
Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
	Restored	Preserved/Enhanced		
Tidal	65,000	0	65,000	Steering Committee target to provide conservation benefits for covered fish species, including food production and rearing habitat. Restored and preserved tidal habitats will be designed and managed to support habitat for the following covered species: Chinook salmon (all runs), steelhead, delta smelt, longfin smelt, splittail, salt marsh harvest mouse, Townsend's western big-eared bat, Suisun shrew, tricolored blackbird, Suisun song sparrow, California black rail, California clapper rail, giant garter snake, western pond turtle, Suisun thistle, soft bird's-beak, delta tule pea, Mason's lilaeopsis, delta mudwort, and Suisun marsh aster.
Valley/foothill riparian	5,000	0	5,000	Steering Committee target to provide conservation benefits for covered fish species, including food production and shaded riverine habitat. Restored and preserved valley/foothill riparian habitats will be designed and managed to support habitat for the following covered species: Chinook salmon (all runs), steelhead, splittail, riparian woodrat, riparian brush rabbit, Townsend's big-eared bat, yellow-breasted chat, white-tailed kite, Swainson's hawk, western pond turtle, and valley elderberry longhorn beetle. Though not a conservation target, patches of additional riparian habitat are expected to be preserved within other preserved land cover types (e.g., agricultural lands).

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Grassland	2,000 (restored within transitional upland and protected grassland)	8,000	8,000	<p>Preservation is directed at protecting and enhancing high quality existing grassland habitats at elevations that will not be affected by sea level rise over the term of the BDCP. Grassland will be preserved and managed in conjunction with preserved vernal pool and alkali seasonal wetland complexes. Restored grassland will be associated with restored in patches of poor quality grassland within preserved grassland and in transitional uplands adjacent to restored tidal habitats. Preserved grassland be located in Conservation Zones 1, 2, and 8 or may be preserved in locations outside of the Planning Area consistent with other conservation plans to benefit the following species:</p> <p>San Joaquin kit fox, Townsend's big-eared bat, tricolored blackbird, western burrowing owl, white-tailed kite, Swainson's hawk, giant garter snake, western pond turtle, western spadefoot toad, California red-legged frog, and California tiger salamander.</p> <p>Though not a conservation target, patches of additional grassland habitat are expected to be preserved within other preserved land cover types (e.g., agricultural lands).</p>

Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
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Nontidal freshwater permanent emergent wetland	<u>200-400</u> (with nontidal perennial aquatic)	0	200	<p>Nontidal freshwater permanent emergent wetland would be restored in conjunction with open water habitat (non-tidal perennial aquatic community) to restore non-tidal freshwater marsh supporting a mosaic of open water, aquatic and emergent vegetation, and transitional upland habitats. Marshes will be design to support high function and value habitat for associated covered wildlife species and waterfowl and shorebirds.</p> <p>Restored habitat will be distributed in Conservation Zones 1, <u>and 2, and 4</u> in patches of at least 25 acres within or near occupied giant garter snake habitat or may be preserved in locations outside of the Planning Area consistent with other conservation plans.</p> <p>Restored habitat will also benefit the following covered species: Townsend's big-eared bat, tricolored blackbird, giant garter snake, and western pond turtle.</p> <p>Restored non-tidal marsh will also be designed and managed to support waterfowl foraging, resting, and brood habitat and shorebird foraging and roosting habitat. Restored habitat will include preserved transitional upland habitat to provide upland habitat for giant garter snake and western pond turtle, and nesting habitat for waterfowl.</p> <p>Though not a conservation target, patches of existing nontidal freshwater permanent emergent wetland present on lands acquired to protect other natural communities will also be protected and enhanced to improve habitat functions and values for covered and other native species.</p>

Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
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Nontidal perennial aquatic	200-400 (with nontidal freshwater permanent emergent wetland)	3 rangeland ponds	3 rangeland ponds	<p>Nontidal perennial aquatic habitat will be restored as described for freshwater permanent emergent wetland.</p> <p>Preservation of 3 stock ponds is directed at providing California tiger salamander and California red-legged frog breeding habitat in occupied habitat within Conservation Zones 1 and 8. These ponds may also be preserved in occupied habitats outside of the Planning Area consistent with other conservation plans. Ponds will be managed to sustain water through the breeding period and will be managed to be free of non-native salamander and frog predators. Pond habitat conditions will be surveyed and, if indicated by surveys, actions may be implemented to improve cover and prey production habitat conditions.</p> <p>Preserved habitat will also benefit the following covered species: Townsend's big-eared bat and western pond turtle.</p> <p>Restored non-tidal marsh will also be designed and managed to support waterfowl foraging, resting, and brood habitat and shorebird foraging and roosting habitat. Restored habitat will include preserved transitional upland habitat to provide upland habitat for giant garter snake and western pond turtle, and nesting habitat for waterfowl.</p> <p>Though not a conservation target, open water habitats present on lands acquired to protect other natural communities (e.g., farm ponds, conveyance ditches) will also be protected and enhanced to improve habitat functions and values for covered and other native species.</p>

Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
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Alkali seasonal wetland complex	0	400	400	<p>Alkali seasonal wetland complex will be preserved in Conservation Zones 1, 2, 8, and 11 in locations that support habitat for associated covered plant species or may be preserved in locations outside of the Planning Area consistent with other conservation plans.</p> <p>The focus will be to preserve lands supporting occurrences of brittlescale, heartscale, San Joaquin spearscale, delta button-celery, and Carquinez goldenbush. Alkali seasonal wetland complex will be preserved and managed in conjunction with preserved grassland and their micro-watersheds will be protected.</p> <p>Preserved habitat will also benefit the following covered species:</p> <p>San Joaquin kit fox, Townsend's big-eared bat, tricolored blackbird, western burrowing owl, white-tailed kite, Swainson's hawk, giant garter snake, western pond turtle, western spadefoot toad, California red-legged frog, and California tiger salamander.</p>



Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
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Vernal pool complex	200	300	500	<p>Vernal pool complex will be preserved in Conservation Zones 1, 2, and 8 in locations that support habitat for associated obligate covered wildlife and plant species or may be preserved in locations outside of the Planning Area consistent with other conservation plans. The focus will be to preserve lands occupied by California tiger salamander and covered vernal pool shrimp species, and supporting occurrences of alkali milkvetch, San Joaquin spearscale, Boggs Lake hyssop, legenere, and Heckard's peppergrass. Vernal pool complex will be preserved and managed in conjunction with preserved grassland and their micro-watersheds will be protected.</p> <p>Vernal pool complex, including their miro-watersheds, will be restored in historical vernal pool terrain that maintains supporting hydrology. Vernal pool complex will be restored in Conservation Zones 1, 2, and 8 or may be preserved in locations outside of the Planning Area consistent with other conservation plans and will be designed to support breeding habitat for California tiger salamander and vernal pool fairy.</p> <p>Preserved habitat will also benefit the following covered species:</p> <p style="padding-left: 40px;">San Joaquin kit fox, Townsend's big-eared bat, tricolored blackbird, western burrowing owl, white-tailed kite, Swainson's hawk, giant garter snake, western pond turtle, western spadefoot toad, and California red-legged frog.</p>
Other natural seasonal wetlands	0	0	0	Other natural seasonal wetlands are artifacts of agricultural operations. Habitat functions and values associated with any natural seasonal wetlands present on BDCP preserved lands will be protected and enhanced or converted to agricultural or native habitat types that provide habitat value for covered wildlife species.
Inland dune scrub	To be determined.	To be determined.	To be determined.	To be determined.

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Managed wetlands	<u>Up to 5,000¹ (created) To be determined.</u>	<u>Up to 2,000¹ To be determined.</u>	<u>Up to 7,000¹ To be determined.</u>	<p><u>Preservation of managed wetland habitats will be directed at enhancing the habitat functions supported by existing managed wetlands in Suisun Marsh (Conservation Zone 11) for associated covered species, wintering and resident waterfowl, and migrant shorebirds. Created managed wetlands would be located in Conservation Zones 5 and/or 6 and designed and managed to provide higher per acre habitat functions for waterfowl and shorebirds than is typically associated with managed wetlands in Suisun Marsh. The strategy for conserved managed wetlands, in conjunction with restored tidal, non-tidal wetland, grassland, vernal pool complex, and agricultural habitats, is to ensure no loss of habitat functions for waterfowl and shorebirds in the Planning Area and Suisun Marsh. Consequently, the targets for managed wetland are currently expressed as a range based on estimated impacts of tidal marsh restoration on managed wetlands in Suisun Marsh. Final targets will be based on results of the assessment of BDCP effects on waterfowl and shorebird habitat functions within the Planning Area and Suisun Marsh.</u></p> <p><u>Covered species habitat supported by managed wetland include:</u></p> <p><u>Tricolored blackbird, white-tailed kite, Swainson's hawk, and greater sandhill crane. To be determined.</u></p>

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Agriculture	0 To be determined.	20,770- 20,770-37,935 ¹ To be determined.	20,770- 20,770-37,935 ¹ To be determined.	<p><u>The extent of preserved agricultural habitat is directed at preserving sufficient Swainson's hawk foraging habitat to conserve the species (because this species has the largest agricultural habitat spatial requirements), maintaining wildlife habitat functions supported by rice fields (because these rice fields support giant garter snake, waterfowl, and shorebird habitat) that could be affected by operation of a modified Fremont Weir, and preserving greater sandhill crane foraging habitat in core use areas. Non-rice agricultural lands would be managed in crop types that support Swainson's hawk foraging habitat. Preserved agricultural lands will be managed to preserve and enhance habitat functions for the following covered species:</u></p> <p><u>San Joaquin kit fox, Townsend's western big-eared bat, tricolored blackbird, greater sandhill crane, western burrowing owl, white-tailed kite, giant garter snake, and western pond turtle.</u></p> <p><u>Habitat will be preserved in all conservation zones such that the individual strategies to provide conservation of associated covered species are achieved. Agricultural lands will be managed to maintain and enhance agricultural wetland habitats that support giant garter snake and western pond turtle, foraging habitats for the remaining associated covered species, foraging and nesting habitat for waterfowl, and foraging habitat for migrant shorebirds. Natural habitats that support equivalent habitat functions may be preserved in lieu of agricultural habitats and preserved agricultural habitats may be preserved in locations outside of the Planning Area consistent with other conservation plans.</u></p> <p><u>Inclusions of non-agricultural habitats within agricultural preserves (e.g., patches of riparian vegetation, ponds, field border habitats) will also be maintained and enhanced to benefit covered and other native species.</u>To be determined.</p>

Natural Community	Conservation Target (acres)		Total Conserved Land Base (acres)	Rationale
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Total	<u>Up to 75,400</u>	<u>Up to 30,470-45,635</u>	TBD (-79,100 without conservation of agricultural, managed wetland, and inland dune communities) <u>Up to 105,870-121,035</u>	
<p>¹ <u>The agricultural habitat preservation target is expressed as a range because preserved habitat requirements is dependent on the foraging habitat functions supported by different types of crops. The lower preservation target could be achieved by only preserving lands farmed to support the highest value forage crop types and the higher preservation target represents the extent that would need to be preserved if all preserved lands were farmed in crop types supporting the lowest permissible Swainson's hawk foraging habitat value.</u></p>				