

DRAFT
DRERIP Coarse-Level Evaluation Summary:
Prospect Island Freshwater Intertidal Marsh Restoration

Highlighted Text = Evaluator comments

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Action Description

Restore approximately 1200 acres of freshwater intertidal marsh on Prospect Island (total island acreage=1700 acres).

Evaluation Team Recommendation: *Action description not well enough defined to evaluate. Data gaps include insufficient topographic data and an assessment of the actual availability of dredge material for raising island elevations (e.g., DWSC is infrequently dredged, so availability of spoils may be limited).*

Approach

The approach includes:

1. Breach levees to provide for unimpeded tidal exchange with the Delta
2. Raise surface elevations of shallow subsided lands to intertidal elevations in the south bypass with soil from higher elevations within the island (and concomitant reduction of high elevation areas), stockpiled and future dredge spoils from the DWSC, or establishment of tules. Sediment input would also be provided from the Sacramento River when the bypass is operated.
3. Under Scenario 2, assume levees along north and west side of Prospect Island are breached to provide connectivity with DWSC bypass

Outcomes: Expected outcomes of this action include:

Note: This action is submitted for coarse-level evaluation of its likely biological performance in achieving BDCP conservation objectives. This action has not yet been evaluated for its financial or institutional feasibility.

1. Increased primary and secondary production in the marsh available to larval and juvenile splittail, delta and longfin smelt, green and white sturgeon, steelhead, and all runs of Chinook salmon.
2. Increased export of primary and secondary production to the Delta ecosystem available to all stages of delta and longfin smelt, green and white sturgeon, splittail, and salmonids.
3. Increased frequency and success of spawning by delta smelt and, in drier years, splittail.
4. Improved rearing success of larval and juvenile delta smelt, splittail, green and white sturgeon, and juvenile steelhead and Chinook salmon.
5. Reduced summer/fall water temperature through nocturnal thermal exchange and reintroduction of cooled water to Delta waterways.