

DRAFT
DRERIP Coarse-Level Evaluation Summary:
Restore Brackish Tidal Marsh Habitat in Suisun Marsh

Highlighted Text = Evaluator comments

Evaluation Date: July 28, 2008

Coarse-Level Evaluators:

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Action Description

Restore 20,000 acres of brackish tidal marsh in Suisun Marsh in both the north and south parts of the marsh (10,000 acres each).

Approach: The approach includes:

Team recommended: re-wording first approach item to clarify intent as--
Reconnect disconnected remnant sloughs to Suisun Bay and remove remnant slough dikes to reintroduce tidal connectivity to slough watersheds to restore tidal marsh.

2. Breach dikes to introduce tidal exchange on to restored lands.
3. Early reversal of shallowly subsided lands for subsequent restoration as marsh.
4. First restore marsh in northern Suisun Marsh to provide salinity benefits in west Delta when operations are limited to through Delta conveyance. Following completion of isolated facility, restore in southern Suisun Marsh.
5. Provide flood control for adjacent land.

Outcomes: Expected outcomes of this action include:

1. Reduced summer/fall water temperature through nocturnal thermal exchange and reintroduction of cooled water to Delta waterways.

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

2. Provide rearing habitat for splittail, juvenile salmonids, and delta and longfin smelt **Sturgeon will go into deeper sloughs, but likely on tidal flats. (M. Zoltan comment—not mentioned specifically in the models).**
3. Increased export of primary and secondary production to Suisun Bay available to all stages of delta and longfin smelt, green and white sturgeon, splittail, and salmonids.

Additional Positive Outcomes

1. Increased in-marsh primary and secondary production to Suisun Bay available to all stages of delta and longfin smelt, green and white sturgeon, splittail, and salmonids.
2. Reduction in low DO events associated with removing release of black water from seasonal wetlands
3. Unclear, but managed wetlands likely produce more Hg than tidal wetlands
4. Increase in production and reduction in fish loss associated with reduction of diversions onto managed wetlands. (flood up Oct 1-Oct 15)—discharge lots of OC with low DO. Salmon kills documented (adults)

Negative Outcomes

1. Jan Thomson says clams will eat everything you give them, so food production may not be a plus
2. Levee breaches along Suisun Bay and Honker Bay may move X2 upstream.

Other Comments

1. North Suisun Marsh (Nurse Slough complex) highly productive. Highway 12 keeps marsh from moving north. Northwest marsh is pretty industrial.
2. Fresher water in north and east, brackish from south to west.
3. Not proximate to pumps, so good place to grow organic carbon.
4. Salinity gradient is steepest in Suisun Bay among whole system.
5. Lots of inland silversides at Black hawk restoration site.

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6. Lot of regional connectivity with the Bay—about 50K acre-feet of tidal slough, 1/3 of which exchanges with Bay.
7. Put restoration along gradients of residence time in nursery slough area.

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