

Bethel Island - Calfed Stability Project - Horseshoe Bend/Little Franks Tract

Alternative Description:

- Two scour sites addressed with levee enlarging and landside levee widening.
- Cross-cut would redirect flows while creating additional habitat.

Dredging Material:

- Estimated dredge material created is 500,000 cy. (quality and exact quantity to be determined) Placement of dredge material within the peninsula/oxbow area would convert the site from existing shallow water into inter-tidal marsh habitat, riparian forest and Shaded Riverine Aquatic (SRA) habitat.
- est. 500k cy of dredge material generated by channel cut
- est. 100k-200k cy for habitat creation
- est. 50k cy for levee widening (potential)
- excess potential of 250k cy plus - additional cost item to place + environmental
- create more in-water habitat island area
- fill landside low areas (pond and subsided area).....mitigation at borrow site
- Potential other use for a portion of dredge material (TBD) is for the landside levee widening structure for management of seepage. Additional borrow material for the levee widening will be from a Bethel Island borrow site. For cost estimating purposes, levee widening material will be calculated from Bethel Island borrow site material.
- Scour site stability will be addressed through the enlargement of the landside levee reaches at the two scour site locations to allow for natural waterside slope sloughing and stabilization to occur while keeping levee structural integrity. No in-water work required. This would avoid and minimize disturbing habitat and associated levee slopes.

Assumption:

- Dredge material quality and quantity will allow use for inter-tidal marsh habitat creation of riparian forest and SRA creation and some landside levee widening.

Feedback:

- What is the best approach for dredging without significant impacts to water, habitat?
- What is the best approach for storage?
- Is it smart to say we can assume to use direct placement for habitat?
- Do we need additional boring for sampling at the proposed habitat sites b/c of placing material over another surface? Or can we safely guess that by trends/studies of other sunken islands?
- What are the opportunities/constraints to using the material for landside berm?
- What is the schedule/timeline/milestones of LTMS? Projected deliverables?