

Table 2. Updated Summary of Environmental Impacts

Affected Resources	No Action	43-foot Channel (Least Cost Disposal)	Proposed Disposal (Sponsor Preferred)	Ecosystem Restoration
Physical				
Salinity Intrusion	No effect	Increase salinity by up to 0.5 ppt in shallow embayments and up to 5 ppt in the navigation channel under low flow conditions	Same as Least Cost	No effect
Shoreline Erosion	Erosion at former shoreline disposal sites.	Same as No Action	Same as No Action	No effect
Sediment Quality	All dredged material suitable for unconfined in-water disposal	Same as No Action	Same as No Action	Sediment testing and analysis to be performed at Bachelor Slough ecosystem restoration feature.
Water Quality	Minor turbidity & sediment suspension created by dredging/disposal	Short-term increase in turbidity & sediment suspension from initial deepening.	Same as Least Cost	Short-term increase in turbidity & sediment suspension from initial restoration implementation.
Ocean	Use of this site by the MCR project results in bathymetric & sediment changes over a 4,293-acre area.	Use of this site not anticipated.	Same as Least Cost	Creation of Lois Island and Miller-Pillar restoration features would preclude ocean disposal.
Biological				
Riverine Aquatic	Temporary, short-term habitat alteration & disturbance from dredging/disposal.	Comparable to No Action but additional bottom habitat disturbed by dredging.	Same as Least Cost	Improve water circulation at Bachelor Slough (85 ac.) and Lord-Walker/Fisher-Hump embayments (335 ac.); preserve 60 acres tidelands (Cottonwood-Howard); improve fish access to 38 tributary miles and 92 acres of backwater channel (Tenasillahe Is. Interim); restore tidal connection to ~1,800 acres (Tenasillahe Island long-term), restore 426 acres of tidal marsh-intertidal flat habitat (Miller-Pillar and Lois Island).
Ocean	Ocean disposal from MCR project would affect 4,293 acres of benthic habitat and impacts commercial fishing.	Reduced impacts to commercial fishing by beneficial use sites in the estuary during construction and first 10 years of maintenance.	Same as Least Cost	Creation of Lois Island and Miller-Pillar restoration features would preclude ocean disposal.

Riparian	Minor effects to riparian fringes at some upland disposal sites	53 acres affected at 7 disposal sites.	53 acres affected at 7 disposal sites.	Restore 33 acres of riparian habitat (Bachelor Island).
Affected Resources	No Action	43-foot Channel (Least Cost Disposal)	Proposed Disposal (Sponsor Preferred)	Ecosystem Restoration
Wetland	No effect	23 acres affected at 3 disposal sites.	16 acres affected at 2 disposal sites.	Restore 470-839 acres of emergent wetlands (Shillapoo Lake), 191 acres of tidal marsh-intertidal flat at Lois Island embayment, 235 acres of tidal marsh-intertidal flat at Miller-Pillar and 1,778 acres of intertidal marsh (Tenasillahe Is. Long-term); implement 5-yr. control program for purple loosestrife from CRM 18-52
General Wildlife	About 1,165 acres of upland habitat affected by past disposal actions.	Impacts 287 additional acres at 5 new disposal sites.	Impacts 195 additional acres at 4 new disposal sites.	Secures 650 acres of habitat for Columbian white-tailed deer (Cottonwood-Howard Is.), provides 191 acres of tidal marsh-intertidal flat at Lois Island embayment, 235 acres of tidal marsh-intertidal flat at Miller-Pillar and 1,778 acres of intertidal marsh (Tenasillahe Is. Long-term); maintains natural tidal marsh communities through implementation of 5-yr. control program for purple loosestrife from CRM 18-52.
Mitigation	None required	Mitigation for 257 acres farmland, 53 acres riparian, & 23 acres wetland losses.	Mitigation for 171 acres farmland, 53 acres riparian, & 16 acres wetland losses.	None required

Socio-Economic				
Cultural Resources	No effect	No effect	No effect	No effect
Land Use	Use existing disposal sites only.	Forested land/open space changed to disposal site use. Agricultural land changed to disposal site use at 5 locations. No change in port-industrial use.	Forested land/open space changed to disposal site use. Agricultural land changed to disposal site use at 4 locations. No change in port-industrial use	Converts agriculture land to fish & wildlife use at Shillapoo Lake.
Recreation	Minor impacts to recreational fishery.	Same as No Action	Same as No Action	Long-term fishery & waterfowl hunting improvement with implementation of features; some impact to recreational fishing at Lois Island
Aesthetics	Minor impact from upland disposal actions.	Minor additional impact in rural agricultural setting.	Same as No Action	Change of open space perspective from agriculture to wetland habitat (Shillapoo).
Air Quality	Minor impact from wind borne sand and dredge operation.	Minor additional impact at new upland disposal sites.	Same as Least Cost	No change
Noise	Minor impact from dredge operation.	Minor additional impact from dredge operation.	Same as Least Cost	No change
Commercial Fishery	Minor impact from dredging and disposal.	Minor impacts to drift fishery and crab fishing.	Same as Least Cost	Impact to Select Area Fishery at Tongue Point and drift net fishery at Miller Sands Drift.