2.11 SELECTED REMEDY

This section provides a detailed description of the selected remedy, a summary of the estimated remedy costs, and a discussion of the expected outcomes of the remedial action.

Selected Remedy for the Nearshore/Elevated Risk Offshore areas

The Selected Remedy for the nearshore/elevated-risk offshore area is alternative NS/ER-5, Dredging and Disposal. This alternative envisions installing a shoring system to protect the landfill cap during sediment removal, removing ail landfill debris and all contaminated sediment exceeding recommended PRGs, dewatering the removed materials, treating and discharging dewatering fluids to the bay, disposing the solids in the McAllister Point Landfill and appropriately permitted off-base landfills, and refilling the dredged area back to the original grade. To implement this remedy, the following activities would be required:

Pre-Design Investigation

A Pre-Design Investigation (PDI) would be performed to gather information needed to complete the final remedial design. The PDI would include a series of soil borings, and sediment and elutriate samples to confirm the nature and extent of contamination and determine the treatment requirements for fluids to be generated during dredging and dewatering. Approximately 35 soil borings would be needed to confirm the extent of sediment contamination and define the area for sediment removal. Borings would also be used to gather geotechnical information needed to select the dredging methods best suited for the materials present and determine the type and amount of shoring needed to ensure the stability of the landfill during dredging close to the revetment. The PDI would also include a detailed evaluation of the McAllister Point Landfill as a potential site for disposal of contaminated sediment.

Sedimentation Controls

Engineering controls would be installed around the perimeter of the area to be excavated, dredged to minimize sediment migration. A floating silt curtain, temporary coffer dam, or other appropriate particulate resuspension/turbidity control features would be placed around the perimeter of the construction area during implementation of this alternative. This would help minimize potential adverse environmental effects associated with sediment suspension.

Comparison of Offshore remedial alternatives for this criterion

Both the no action (OS-1) and limited action (OS-2) alternatives are readily implementable. They would require no construction activities. Both Alternative OS-3 and Alternative OS-4 would require coordination and agreement with regulatory agencies regarding marine dredging and filling operations and potential effects on fisheries, endangered species, aquatic habitat, and historical and coastal resources, As noted above, mitigation measures for the inevitable destruction of eelgrass habitat that would result from pursuing Alternative OS-3 or OS-4 would be difficult to implement.

The implementation of Alternative OS-3 would also be difficult because of 1) the location of the contaminated marine sediment to be contained/capped, and 2) the performance standards the cap must meet (it must be designed, constructed, and maintained to withstand washing out within the dynamic marine environment of the bay). Alternative OS-4 may be somewhat harder to implement than OS-3 because of the likely difficulty in finding adequate disposal capacity for the large volume of sediments that would be removed.

Cost

This criterion evaluates the capital, annual operations and maintenance (O&M), and present worth costs for each alternative, and includes a cost sensitivity analysis that illustrates how the cost would change if the volume of contaminated materials that require removal is greater or less than the estimated volume. Present worth costs were developed for a 30 year period at a 7 percent discount rate.

Comparison of Near-Shore/Elevated-Risk Offshore Remedial Alternatives for this Criterion

Costs	**Alt. NS/ER-1: No Action**	**Alt. NS/ER-2: Limited Action**	**Alt. NS/ER-3: Capping**	**Alt. NS/ER-4: Capping with Dredging**	**Alt. NS/ER-5: Dredging and Disposal**
Capital ($)	0	$25,000	$11,976,000	$17,172,000	$22,339,000
O&M and Monitoring ($/yr)	0	$94,600 (yrs 1-5) and 5-yr intervals $8,800 (yrs 6-30)	$120,800 (yrs 1-5) and 5-yr intervals $35,000 (rem. yrs)	$120,800 (yrs 1-5) and 5-yr intervals $35,000 (rem. yrs)	$105,300 (yrs 1, 2, & 5)
5-Year Reviews	$21,500/ 5 yr	$21,500/5 yr	$21,500/5 yr	$21,500/5 yr	$21,500/5 yr (Year 5 Only)
NET PRESENT WORTH	$46,000	$656,000	$12,933,000	$18,129,000	$22,619,000
SENSITIVITY ANALYSIS					
Net Present Worth: + 20% Vol.	No Change	No Change	$14,829,000	$20,365,000	$26,606,000
Net Present Worth: - 30% Vol.	No Change	No Change	$10,088,000	$14,775,000	$17,420,000

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