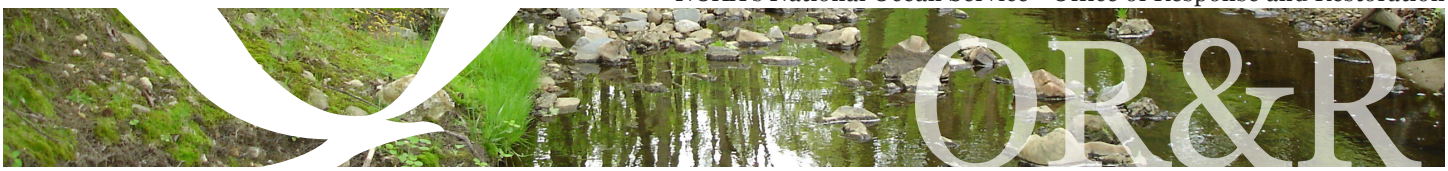


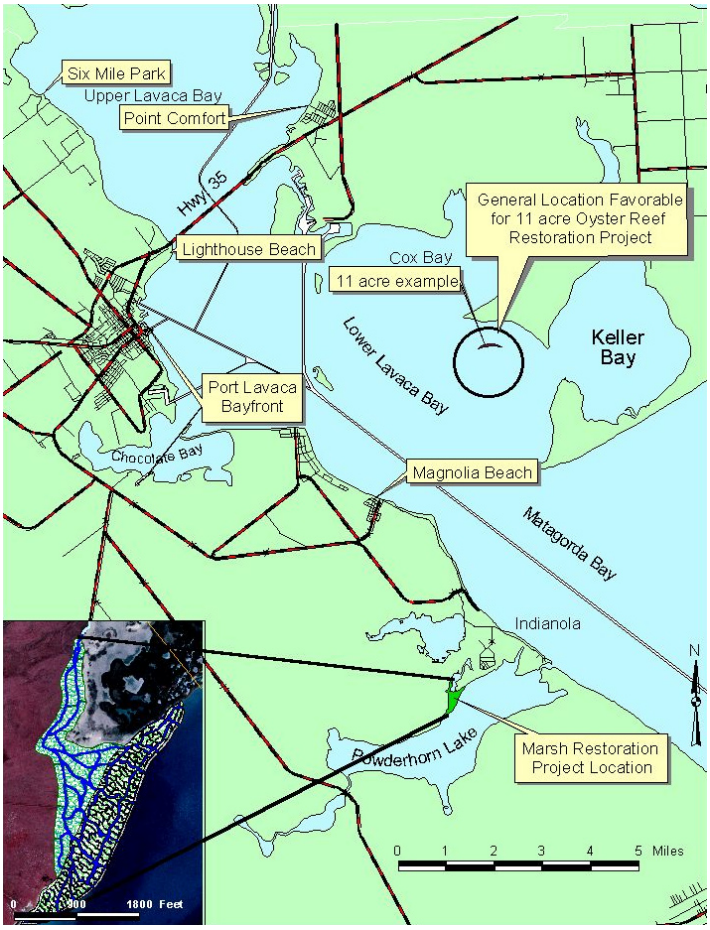
Restoration in Lavaca Bay, Texas

An Example of the Benefits of Cooperative Assessment

The Point Comfort/Lavaca Bay site was an active bauxite refinery and aluminum smelter located on the Texas coast halfway between Houston and Corpus Christi. It operated from the 1940s to the 1990s. In the late 1960s through 1977, the facility produced caustic soda in a mercury cell chlor-alkali plant for use in the refinery from locally available raw materials. Mercury was released from plant operations and wastewater discharges to Lavaca Bay.

In 1994, the Lavaca Bay Superfund Site was placed on the National Priorities List due to the risk posed by elevated levels of mercury and hydrocarbons in sediment. The National oceanic and Atmospheric Administration (NOAA) worked with the Environmental Protection Agency (EPA) and the state of Texas trustees to integrate natural resource damage assessment and restoration planning into the Remedial Investigation and Risk Assessment (RI/RA). The RI/RA documented the nature and extent of site contamination. Trustees and the potentially responsible party, Alcoa, recognized that it would be possible to use the environmental observations gathered in the RI/RA to assess natural resource damages due to the similarity of the data requirements. Ultimately, simultaneous investigations of risk and injury were conducted, effectively combining remediation with restoration planning.

The streamlined, integrated Natural Resource Damage Assessment (NRDA) incorporates compromise by all parties to develop "reasonable worst case" conservative measures of injury and restoration scale. The "reasonable worst case" approach considers the "costs" to conduct additional investigations against costs of conservatively scaled additional, "acres" of restoration. "Conservative" means that the value of each parameter in question would tend to favor the natural resource and the public's interests in injured natural resources when used in the analysis. The assumed value, therefore, tends to an upper-end estimate of how much injury occurred or how much restoration is required. The use of conservative assumptions in the final analysis, rather than in developing more precise point estimates, resulted in an overall cost savings to the potentially responsible parties while still protecting the public's interest in obtaining sufficient restoration for the injuries.



Another benefit of cooperative assessment is increased public participation and awareness. Public outreach is a fundamental element of the remedial process under CERCLA (Superfund). By participating in both the remediation and restoration, the trustees were able to capitalize on this opportunity and involve the community in their decision-making. In particular, the trustees were able to review the potential restoration project alternatives during these meetings and select projects with a high potential for success and public approval.

Cooperative Assessment and Restoration Projects

The cooperative agreements between potentially responsible party (PRP) and trustees avoided costly and time-consuming litigation and resulted in accelerated investigations and restoration of natural resources and lost services. Under the cooperative universal Superfund settlement, the PRP was required to clean up the contaminated sediments and provide compensation though

preservation of 729 acres of land in a U.S. Fish and Wildlife Service refuge, creation of 70 acres of intertidal salt marsh within that refuge, and creation of 11 acres of oyster reef habitat in Lavaca Bay.

The cooperative assessment also considered fishing closures in the area. Construction of these projects will begin spring 2005. The parties ultimately agreed to a set of reasonable, conservative assumptions of natural resource injuries and losses based upon available information rather than expending additional time and money on more focused assessment. To offset the recreational losses in the area, the PRP will construct three lighted 300-foot fishing piers, as well as some boat ramps, docks and harbor fixtures.

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