February 2008 (rev)
Cost figures as of: March 2013

# Boston Canal/Vermilion Bay Bank Protection (TV-09)

## Project Status

**Approved Date:** 1992 **Project Area:** 466 acres
**Approved Funds:** $1.68 M **Total Est. Cost:** $1.04 M
**Net Benefit After 20 Years:** 378 acres
**Status:** Completed Nov. 1995
**Project Type:** Shoreline Protection and Vegetative Planting
**PPL #:** 2

## Location

The project encompasses 466 acres of brackish marsh along approximately 16 miles of Vermilion Bay's northern shoreline adjacent to Boston Canal. Running from the Oaks Canal to Mud Point, the project is located roughly 6 miles southeast of Intracoastal City, Louisiana, in Vermilion Parish.

## Problems

Construction of the Gulf Intracoastal Waterway, Boston Canal, and oilfield canals has greatly increased tidal exchange between Vermilion Bay and the adjacent marshlands to the north, particularly near their confluence with Vermilion Bay. This tidal exchange, combined with the effects of wave action from the bay and boat wake from traffic on the canal, has contributed to significant shoreline erosion along the Vermilion Bay shoreline. This same set of problems has also caused shoreline erosion along Boston Canal, particularly near its confluence with Vermilion Bay.

## Restoration Strategy

Rock dikes configured as sediment traps were constructed along the shoreline at the mouth of Boston Canal to promote sediment deposition and protect the shoreline and adjacent wetlands from continued wave-induced erosion.

Vegetation was planted along 14 miles of the Vermilion Bay shoreline to act as a wave buffer and decrease shoreline erosion rates.

Planted smooth cordgrass (*Spartina alterniflora*) protecting the Vermilion Bay shoreline.

## Progress to Date

Following the construction of the rock dikes, as much as 4.5 feet of sediment has vertically accreted in the lee, or wind-sheltered regions, of the structures. The dikes and vegetative plantings have increased vegetation cover, resulting in 57 acres of land growth.

The shoreline has been stabilized at the mouth of Boston Canal.

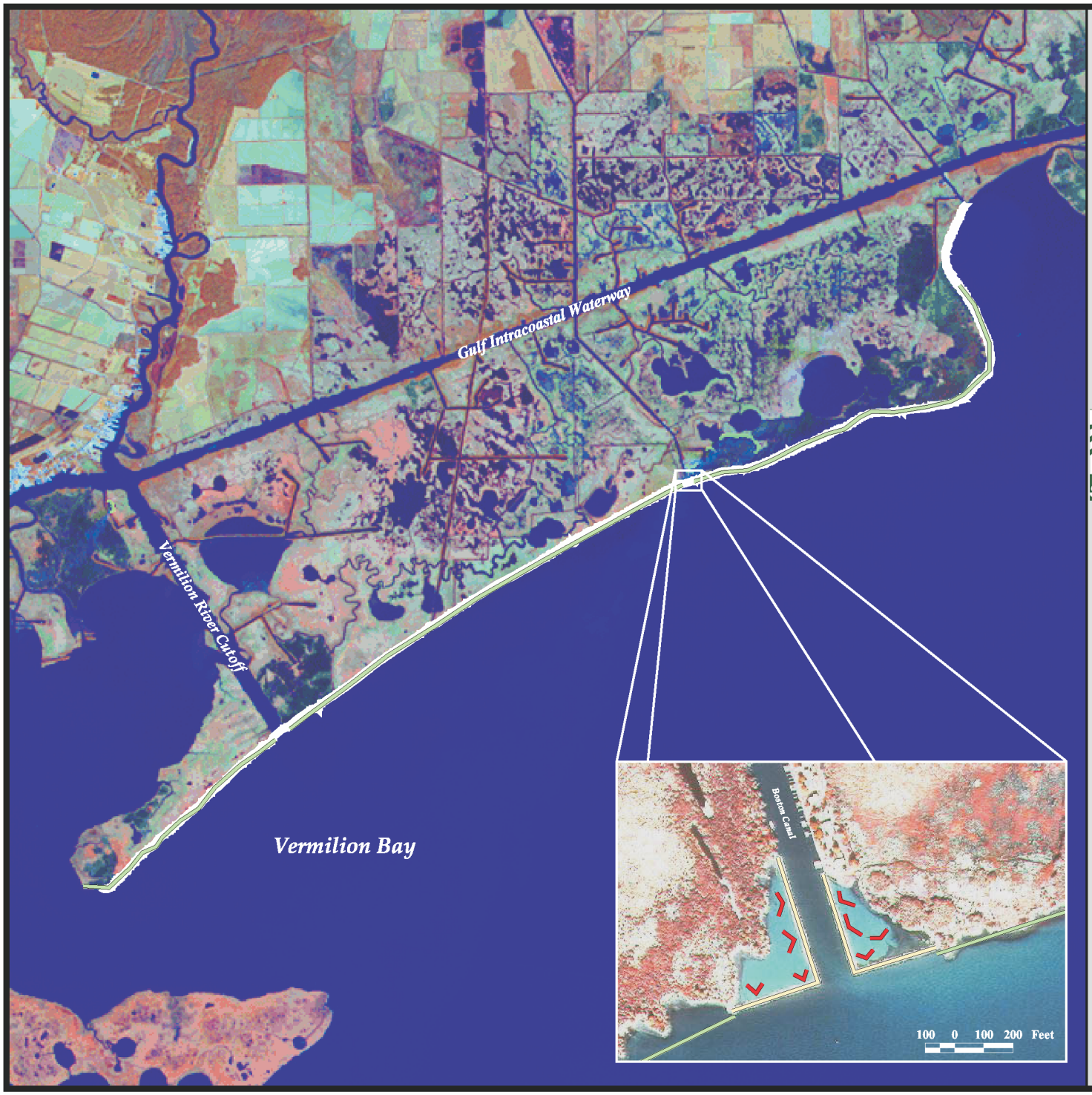
The survivorship and vegetation cover percentage along the shoreline were more pronounced in areas where native vegetation did not exist. Survivorship and percent cover were least pronounced when marshhay cordgrass (*Spartina patens*) was planted in established stands of roseau cane (*Phragmites australis*). Overall survivorship of planted smooth cordgrass (*Spartina alterniflora*) was over 90% after 12 months. Current coverage is nearing 100%. The 2005 OM&M Report concluded the sediment build-up behind the dike on the east and west sides is continuing and vegetation has taken over the exposed mud flats. Elevation data show an increase in sedimentation behind the rock breakwater. This project is on Priority Project List 2.

*For more project information, please contact:*

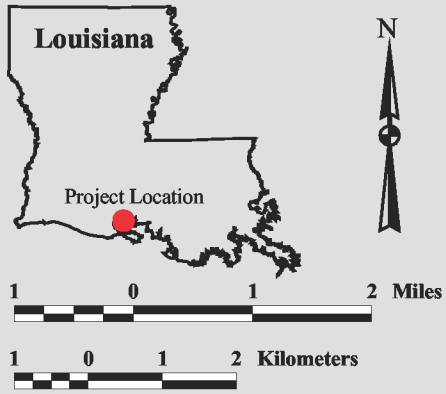
**Federal Sponsor:**
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

**Local Sponsor:**
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

# Boston Canal/ Vermilion Bay Bank Protection (TV-09)




- Containment Dike
- Vegetative Plantings
- Sediment Fence
- Project Boundary




Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
Map Image: Thematic Mapper Satellite Imagery 2000
Inset Image: 1994 Color Infrared Aerial Photography

Map Date: September 3, 2002
Map ID: 2002-11-741
Data accurate as of: September 3, 2002