September 2007 (rev)
Cost figures as of: February 2017

Terrebonne Bay Shore Protection Demonstration (TE-45)

Project Status

Approved Date: 2001 **Project Area:** N/A
Approved Funds: $2.74 M **Total Est. Cost**: aaaTEC
Net Benefit After 20 Years: N/A
Status: Completed
Project Type: Demonstration: Shoreline Protection
PPL #: 10

Location

The project is located along the northern shore of Lake Barre in Terrebonne Parish, Louisiana.

Problems

Erosion of bay shore marshes results in substantial losses of saline marsh allowing higher salinities and increased wave action to intrude northward, ultimately threatening low-salinity habitats at the northern ends of the area's interdistributary basins.

Restoration Strategy

Maintenance of shoreline integrity along Terrebonne Bay is a regional strategy in the Coast 2050 plan. Given the great linear distances involved in implementing this strategy, techniques less costly than traditional rip-rap armoring will likely be needed to effectively address this problem. This demonstration project would seek to demonstrate the cost and effectiveness of alternative shore protection methods including artificial oyster reefs. Each protection measure would be installed near or on marsh shorelines to provide wave-protection.

Three techniques have been chosen based on anticipated effectiveness and cost (gabion mats, concrete onshore armor units, and foreshore triangle units). Three replicates of each technique will be installed in random order as per Louisiana Department of Natural Resources monitoring personnel. To better assess the effect of the oyster reef techniques, monitoring will be conducted over an 8-year period, rather than the usual 5 years.

Progress to Date

The Feasibility and Preliminary Design Report was completed in November 2002. Techniques to be tested and final site selections were made at that time and were based on the surveys, geotechnical investigations and preliminary engineering and design presented in that report. Construction approval was granted in August 2003 with a notice to proceed dated August 22, 2007 and an actual start date of September 13, 2007. Completion of this project should be mid November 2007.

This project is on Priority Project List 10.

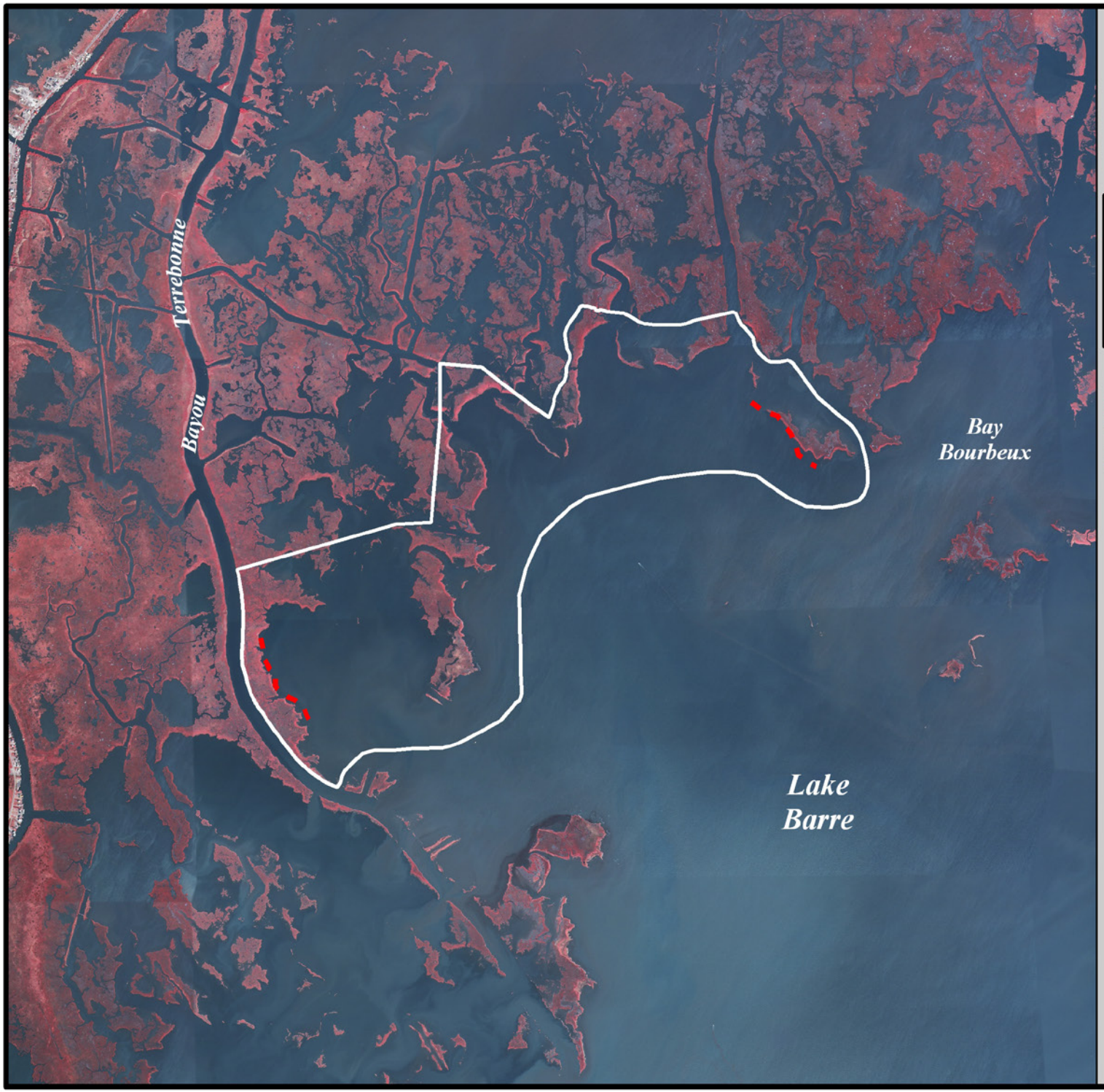
Installation of Gabion Mats (one of the three techniques being used on this project) along the north shore of Lake Barre.

Installed Gabion Mats along the north shore of Lake Barre.

For more information, please contact:

Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100

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



Terrebonne Bay Shore Protection Demonstration (TE-45)

Shoreline Protection *

Project Boundary

*denotes proposed features

USGS science for a changing world

Louisiana

Project Location

N

0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 Miles

Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La.

Background Imagery:
2005 Digital Orthophoto Quarter Quadrangle

Map Date: September 24, 2007
Map ID: USGS-NWRC 2007-11-0367
Data accurate as of: September 24, 2007