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

West Lake Boudreaux Shoreline Protection and Marsh Creation (TE-46)

Project Status

Approved Date: 2002 **Project Area:** 1,207 acres
Approved Funds: $17.7 M **Total Est. Cost**: $19.4 M
Net Benefit After 20 Years: 277 acres
Status: Completed
Project Type: Shoreline Protection and Marsh Creation
PPL #: 11

Location

The project is located in the Terrebonne Basin along the western shoreline of Lake Boudreaux in Terrebonne Parish, Louisiana.

Problems

The west bank of Lake Boudreaux has experienced high erosion rates due to wind-driven waves and high water. The entire historical lake rim is gone, exposing the organic soil of the interior marsh to high-energy
wave action. Most of the remaining shoreline is less than 100 feet in width and has been breached in several places. If this erosion is not stopped, the interior marsh and adjacent infrastructure will be compromised.
Continued shoreline loss will convert the productive shallow, open water areas behind the shoreline to a less productive, open lake habitat.

Aerial view of the interior (back) containment dikes that have been constructed to contain dredged material for the purpose of marsh creation. In order from front to back are the northern, central, and southern sections.

Restoration Strategy

The project's objectives include: reducing erosion of the west Lake Boudreaux shoreline to protect 80 acres of emergent marsh and submerged aquatic vegetation (SAV); maintaining the shallow, open water habitat, including its SAV, located west of the lake rim; and creating 284 acres of marsh along the southwestern shoreline of Lake Boudreaux and at interior marsh sites through the deposition of dredged material. Containment dikes will be used to hold the dredged material in the marsh creation areas. The borrow site, from where the dredged material will be extracted, will be located in Lake Boudreaux east of the project site.

In an effort to lessen or halt shoreline erosion, 13,000 linear feet of rock dike will be constructed in three sections along the western shoreline of Lake Boudreaux, from Hog Point south to Hog Point Canal. This will include "fish dips" for the exchange of material, nutrients, and organisms between the interior marsh and the lake's main body. Elsewhere, an earthen plug will be constructed to prevent unwanted water exchange.

The project also calls for construction of 4,000 linear feet of earthen dike.

In addition, existing openings will be enlarged and/or new openings created in the pumping station spoil bank to facilitate the exchange of water and organisms between the project area's north and south ponds.

Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Louisiana Coastal Wetlands Conservation and Restoration Task Force meeting and was approved for Phase II (construction) at the February 2006 task force meeting.

This project is listed on Priority Project List 11.

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
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West Lake Boudreaux Shoreline Protection and Marsh Creation (TE-46)

- Earthen Plug *
- Fish Dip *
- Containment Dike *
- Rock Dike *
- Marsh Creation *
- Borrow Site *
- Project Boundary

* denotes proposed feature

USGS
science for a changing world

N

150 0 150 300 Kilometers

130 0 130 260 Miles

Produced by:
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U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
2004 Digital Orthophoto Quarter Quadrangle

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