rev. September 2015
Cost figures as of: February 2023

Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37)

Project Status

Approved Date: 2002 **Project Area:** 1,373 acres
Approved Funds: $23.3 M **Total Est. Cost:** $29.5 M
Net Benefit After 20 Years: 713 acres
Status: Completed
Project Type: Shoreline Protection and Marsh Creation
PPL #: 11

Location

The project is located in the central Barataria Basin in Lafourche Parish, Louisiana. The project area is bounded by the East and West Forks of Bayou L'Ours and the southern shoreline of Little Lake from Plum Point westward to Breton Canal.

Problems

The Little Lake mapping unit has high wetland loss caused by shoreline erosion, subsidence, and channel construction. The project is located in an area protecting approximately 3,000 acres of fragile interior marshes between the Little Lake shoreline and Bayou L'Ours Ridge. Project area wetlands are subject to high shoreline erosion rates (20 to 40 feet per year) and subsidence deteriorating interior marshes. Without construction, the project area marsh was expected to convert to mainly open water over the next 20 years.

This 24-inch dredge pipe is actively rebuilding marsh by depositing sediment dredged from the lake. As the project progresses, the placed sediment will reach an elevation conducive for growing and sustaining marsh vegetation.

Restoration Strategy

The project's goals were to: 1) prevent erosion along roughly 4 miles of Little Lake shoreline; 2) create 488 acres of intertidal wetlands along the Little Lake shoreline; 3) nourish and maintain 532 acres of intermediate marsh; and 4) reduce land loss rates by 50 percent over the 20-year life of the project.

The project consists of two major features, a shoreline protection structure and a marsh creation and nourishment area. The 25,976 ft foreshore rock dike was constructed by placing rocks on top of a geotextile foundation. The dike was constructed using three lifts and include gaps every 1,000 to 1,500 ft for fisheries access.

The marsh creation and nourishment phase of this project consisted of containment dikes, marsh creation in open water areas, and marsh nourishment over existing marsh. Approximately, 920 acres of marsh were created and nourished through placement of 3,165,121 cubic yards of sediment from Little Lake. The marsh creation area was planted with 17,000 *Spartina alterniflora* (smooth cordgrass) plugs.

Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Task Force meeting and for Phase II (construction) funding in November 2003. Construction was completed in 2007.

The project is listed on Priority Project List 11.

For more information, please contact:

Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 778-7380

Local Sponsor:
Coastal Protection and Restoration Authority
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Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37)

- Rock Dike
- Earthen Containment Dike
- Borrow Site
- Marsh Creation
- Project Boundary

USGS
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0.25 0 0.25 0.5 Kilometers

0.25 0 0.25 0.5 Miles

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

Background Imagery:
2012 Digital Orthophoto Quarter Quadrangle

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