May 2023
Cost figures as of: aaaDatePadPad

Northwest Little Lake Marsh Creation (BA - 268)

Project Status

Approved Date: 2023
Approved Funds: $3.45 M
Net Benefit After 20 Years:
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 32

Project Area: 370 acres
Total Est. Cost: $43.6 M

Location

This project is located in Region 2, Barataria Basin, Lafourche Parish, northwest Little Lake shoreline.

Problems

Until 2021, the project area was relatively stable and experienced very little interior marsh loss. Shell deposits along the Little Lake shoreline provided for a stable shoreline feature with low erosion rates. A land change analysis conducted by USGS for 254 coastal subunits indicates a 1985-2020 land change rate of 0.09%/yr for the Delta Farms Subunit, which encompasses the project site. However, in August 2021, the central and western Barataria Basin experienced thousands of acres of land loss with the passage of Hurricane Ida. One of the areas hardest hit by the storm was the northwestern shoreline of Little Lake. Prior to Hurricane Ida, the 370-acre project area consisted of 80%-90% marsh. Post storm, only 24 acres of marsh remain. The most recent land-change analysis, which includes Hurricane Ida marsh loss and shoreline erosion, indicates a land change rate of -0.84% per year (1984 to 2021) for the project area.

Remnants of the Little Lake shoreline along the BA-268 project boundary. Hurricane Ida destroyed most of the shoreline and interior marsh within the project boundary.

Restoration Strategy

The primary goals of the project are: 1) restore marsh habitat in an area significantly impacted by Hurricane Ida and 2) restore the shoreline across an approximate 3,300-ft gap in the northwestern Little Lake shoreline. The specific project goals are: 1) create 346 acres of marsh, 2) nourish 24 acres of marsh, and 3) restore/protect approximately 7,100 linear feet (LF) of Little Lake shoreline.

Sediments from Little Lake will be hydraulically dredged and pumped via pipeline to create/nourish approximately 370 acres of marsh. A full containment system will be utilized with containment dikes gapped at the end of construction or no later than three years post construction. Vegetation will be planted on the exterior slopes of the northern and western containment dikes to reduce erosion from wave energy. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range. Marine mattresses will be placed along 5,456 LF of the lakeshore containment dike.

Progress to Date

The project was approved for Phase I Engineering and Design in January 2023.

The project is on Priority Project List 32.

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) 342-4733

Northwest Little Lake Marsh Creation (BA-268)

Marsh Creation *

Project Boundary *

*denotes proposed features

USGS science for a changing world

Louisiana

Project Location

N

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
Wetland and Aquatic Research Center
Baton Rouge, La.

Background Imagery:
2019 NAIP Photography

Map Date: March 1, 2023
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