February 2015
Cost figures as of: March 2021

Shell Beach South Marsh Creation (PO-168)

Project Status

Approved Date: 2015 **Project Area:** 634 acres
Approved Funds: $3.17 M **Total Est. Cost**: $28.1 M
Net Benefit After 20 Years: 344 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL#: 24

Location

Region 1, Pontchartrain Basin, South Lake Borgne Mapping Unit, St. Bernard Parish, north bank of the Mississippi River Gulf Outlet (MRGO) in the vicinity of Shell Beach.

Problems

The marsh boundary separating Lake Borgne and the MRGO has undergone both interior and shoreline wetland losses due to subsidence, impacts related to construction and use of the MRGO (i.e., deep draft vessel traffic), and wind-driven waves. Although much of the project area is protected from edge erosion by shoreline protection measures, and since 2009, the MRGO has been deauthorized for deep draft navigation and maintenance, interior wetland loss due to subsidence continues to cause marsh fragmentation and pond enlargement. Wetland loss rates in the project area are estimated to be -0.60 percent a year based on USGS analysis.

Restoration Strategy

The proposed project will create and nourish 634 acres of marsh using dredged sediment from Lake Borgne. Existing high shorelines along Lake Borgne, remnants of previous containment dikes and marsh edge, would be used for containment to the extent practical. Constructed containment dikes would be breached/gapped as needed to provide tidal exchange after fill materials settle and consolidate. The project would create 346 acres of marsh and nourish at least 288 acres of existing fragmented marsh. A target fill elevation of +1.2 feet is envisioned to enhance longevity of this land form. Additionally, 187 acres of vegetative planting will occur within the newly created areas. Due to the presence of existing banklines, dredged slurry overflow could potentially be discharged immediately adjacent to the project polygons, resulting in nourishment of additional areas.

Subsidence and salt water intrusion has caused shoreline and wetland loss within the marsh boundary separating Lake Borgne and the MRGO. Dredged sediment from Lake Borgne will be pumped into open water areas which will create 346 acres of marsh and nourish 288 acres of existing fragmented marsh.

Progress to Date

This project was approved for Phase I Engineering and Design in January 2015

This project is on Priority Project List (PPL) 24.

For more information, please contact:

Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
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U.S. Environmental Protection Agency
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(214) 665-6722

Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
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Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 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 Digitial Orthophoto Quarter Quadrangle

Map Date: March 05, 2015
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