February 2015
Cost figures as of: February 2017

New Orleans Landbridge Shoreline Stabilization & Marsh Creation (PO-169)

Project Status

Approved Date: 2015 **Project Area:** 271 acres
Approved Funds: $1.94 M **Total Est. Cost:** $17.5 M
Net Benefit After 20 Years: 167 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 24

Location

The project is located in Region 1, Pontchartrain Basin, Orleans Parish, flanking U.S. Highway 90 along the east shore of Lake Pontchartrain and areas surrounding Lake St. Catherine.

Problems

Since 1956, approximately 110 acres of marsh has been lost along the east shore of Lake Pontchartrain between Hospital Road and the Greens Ditch. One of the greatest influences of marsh loss in the area can be attributed to tropical storm impacts. Wetland losses were accelerated by winds and storm surge caused by Hurricane Katrina, which converted approximately 70 acres of interior marsh to open water. Stabilizing the shoreline and protecting the remaining marsh would protect natural coastal resources dependent on this important estuarine lake, communities that thrive on those resources, the Fort Pike State Historical Site, and infrastructure including U.S. Highway 90. USGS land change analysis determined a loss rate of -0.35% per year for the 1984 -2011 period of analysis. Subsidence in this unit is relatively low and is estimated at 0-1foot/century (Coast 2050).

Lake Pontchartrain supports a large number of wintering waterfowl. Various gulls, terns, herons, egrets, and rails can be found using habitats associated with Lake Pontchartrain, which has been designated as an Important Bird Area by the American Bird Conservancy. Restoring these marshes will protect the Orleans Landbridge and will help to protect fish and wildlife trust resources dependent on these marsh habitats, particularly at-risk species and species of conservation concern such as the black rail, reddish egret, brown pelican, mottled duck, seaside sparrow, king rail, and the Louisiana eyed silkmoth.

Restoration Strategy

Borrow material will be dredged from areas within Lakes St. Catherine and Pontchartrain to create 169 acres and nourish 102 acres of brackish marsh. Containment dikes will be constructed around four marsh creation areas to retain sediment during pumping. The lake shorelines will be enhanced with an earthen berm to add additional protection from wind induced wave fetch. Containment dikes that are not functioning as shoreline enhancement will be degraded and/or gapped. Vegetative plantings are proposed including five rows along the crown and two rows along the front slope of the shoreline protection berm, as well as within the marsh platform area.

As a result of marsh scoured by Hurricane Katrina, a remnant shoreline east of U.S. Highway 90 offers little protection from wave energy coming from Lake St. Catherine and Rigolets Pass.

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 project 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

New Orleans Landbridge Stabilization & Marsh Creation (PO-169)

Earthen Berm *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS science for a changing world

Louisiana

Project Location

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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