February 2012
Cost figures as of: March 2013

Oyster Bayou Marsh Restoration (CS-59)

Project Status

Approved Date: 2012 **Project Area:** 809 acres
Approved Funds: $3.16 M **Total Est. Cost:** $29.7 M
Net Benefit After 20 Years: 489 acres
Status: Engineering and Design
Project Type: Marsh Creation and Terracing
PPL #: 21

Location

This project is in Region 4, Calcasieu-Sabine Basin, located west of the Calcasieu Ship Channel and south of the west fork of the Calcasieu River.

Problems

Altered hydrology, drought stress, saltwater intrusion and hurricane induced wetland losses have caused the area to undergo interior marsh breakup. Recent impacts from Hurricane Rita in 2005 and Hurricane Ike in 2008 have resulted in the coalescence of Oyster Lake with interior water bodies increasing wave/wake related erosion. Based on USGS hyper temporal data analysis (1984 to 2011), land loss for the area is -0.75% per year. The subsidence rate is estimated at 0.0 to1.0 ft per century (Coast 2050, Mud Lake mapping unit).

Restoration Strategy

The project boundary encompasses 809 acres. Specific goals of the project are: 1) create 510 acres of saline marsh in recently formed shallow open water; 2) nourish 90 acres of existing saline marsh; 3) create 14,140 linear feet of terraces; and, 4) reduce wave/wake erosion.

Approximately 510 acres of marsh would be created and 90 acres would be nourished. Sediment needed for the fill would be mined approximately one and a half miles offshore in the Gulf of Mexico. Half of the created acres would be planted. Tidal creeks and ponds would be constructed prior to placement of dredged material and retention levees would be gapped to support estuarine fisheries access to achieve a functional marsh. Approximately 14,140 linear feet of earthen terraces would be constructed and planted.

Example of a newly completed marsh creation cell located within an interior marsh site. This site has similar characteristics as the Oyster Bayou Marsh Creation site.

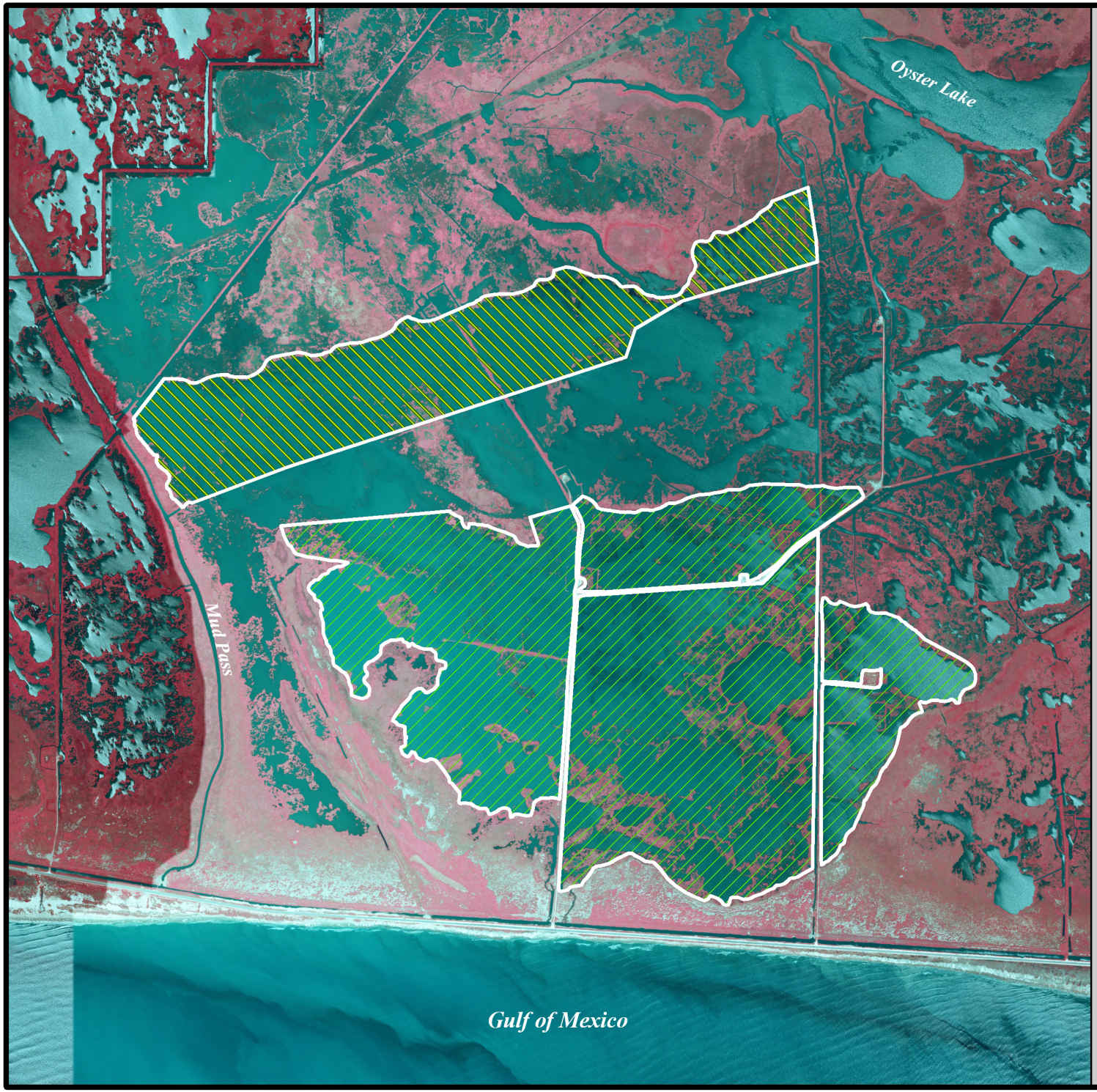
Progress to Date

This project is on Priority Project List 21.

For more project information, please contact:

Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 389-0508

Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Oyser Bayou Restoration (CS-059)

Terrace Field *

Marsh Creation/Nourishment *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.1 0 0.1 0.2 Kilometers

0.1 0 0.1 0.2 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:
2010 NAIP Photography

Map Date: January 31, 2012
Map ID: USGS-NWRC 2012-11-0011
Data accurate as of: September 02, 2011