January 2016
Cost figures as of: February 2017

East Leeville Marsh Creation and Nourishment (BA-194)

Project Status

Approved Date: 2016 **Project Area:** 484 acres
Approved Funds: $4.02 M **Total Est. Cost:** $35.0 M
Net Benefit After 20 Years: 322 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 25

Location

Region 2, Barataria Basin, Lafourche Parish (primary)
Region 3, Terrebonne Basin, Lafourche Parish

Problems

There is widespread historic and continued rapid land loss within the project site and surrounding areas resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for is -1.53%/year based on USGS data from 1984 to 2015. Furthermore, the limits of Southwestern Louisiana Canal are difficult to determine in some areas because land loss is causing the coalescence of the canal with adjacent water bodies. Natural tidal flow and drainage patterns which once existed are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.

The East Leeville Marsh Creation and Nourishment project would restore the structural framework of marshes to promote coastal wetland habitat and afford some protection for the community of Leeville.

Restoration Strategy

The project goal is to create approximately 358 acres and nourish 124 acres of saline marsh east of Leeville.

After consideration of three potential alternatives, features and an alignment were selected to establish an arc of wetlands along the north side of Southwestern Canal, Lake Jesse, and the west side of South Lake. This is to begin rebuilding the structural framework of wetlands east of Leeville and provide protection for Leeville from southeasterly winds and tides. A robust engineering and design cost was included for full flexibility during Phase 1 to expand the project if cost allows or to assess alternative configurations, if necessary. The proposed features consist of hydraulically mining sediment from a borrow source in Little Lake west of Leeville and pumping dredged material to create and nourish marsh east of Leeville. The disposal areas would be fully contained during construction and gapped no later than three years post construction to facilitate establishment of tidal connection and function. Additionally, a portion of the created marsh acres would be planted with smooth cordgrass following construction to help stabilize the created platform by increasing the rate of colonization.

Progress to Date

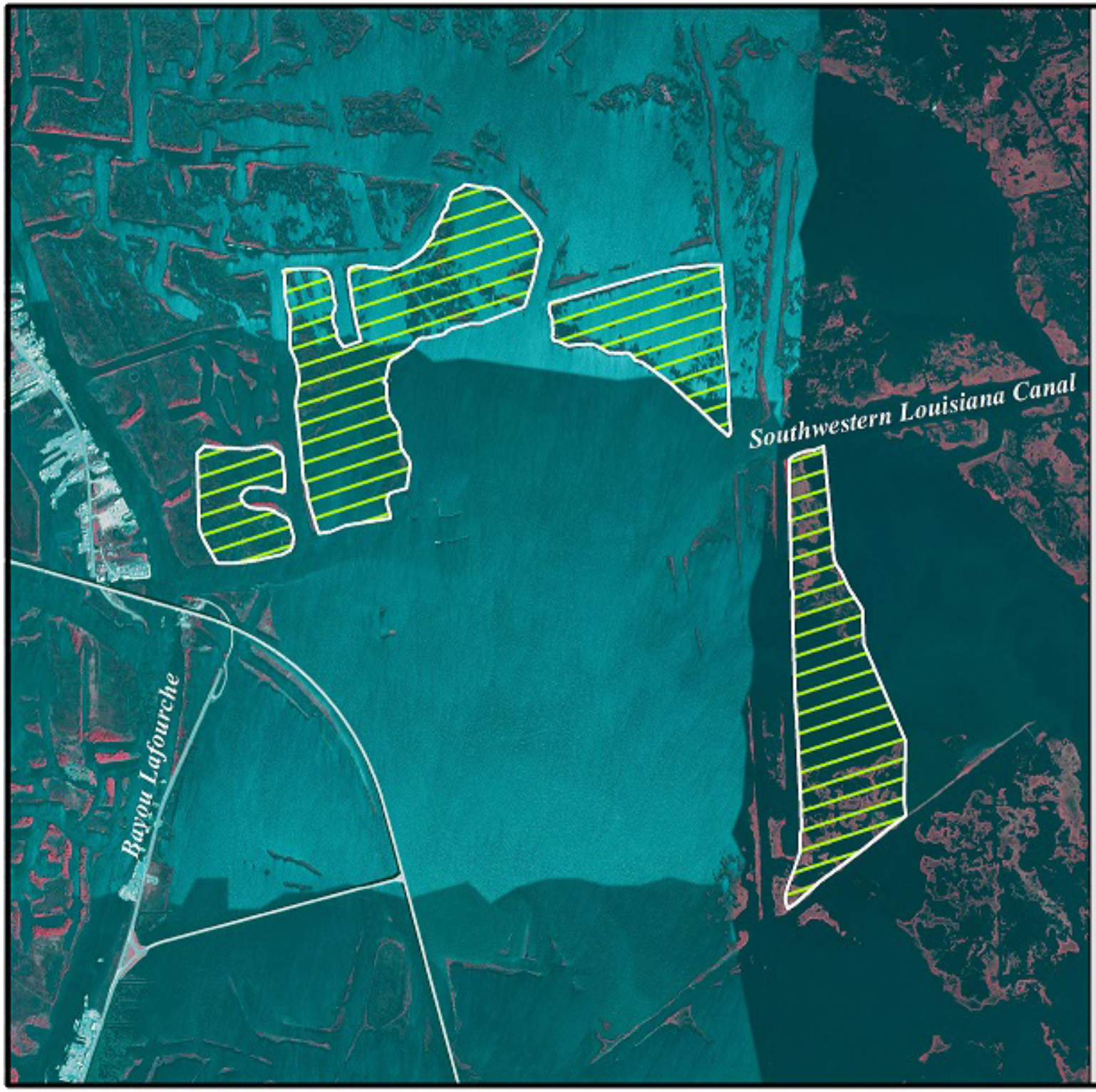
This project was approved for Phase I Engineering and Design in January 2016.

This project is on Priority Project List (PPL) 25.

For more 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



East Leeville Marsh Creation and Nourishment (BA-194)

Marsh Creation

Project Boundary

0.15 0 0.15 0.3 Kilometers

0.15 0 0.15 0.3 Miles

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

Background Imagery:
2013 NAIP Photography

Map Date: February 10, 2016
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