Cost figures as of: November 2020 / April 2024

East Leeville Marsh Creation and Nourishment (BA-194)

Project Status

Approved Date: 2016
Project Area: 275 acres
Approved Funds: $4.02 M
Total Est. Cost: $35.0 M
Net Benefit After 20 Years: 205 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 the project area is -1.2%/year based on USGS data from 1984 to 2019. 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 225 acres and nourish 50 acres of saline marsh east of Leeville.

The project features consist of an arc of wetlands along the Lake Jesse and South Lake north and south of Southwestern Louisiana Canal. This is to begin rebuilding the structural framework of wetlands east of Leeville and provide protection for Leeville from southeasterly winds and tides. The proposed features consist of hydraulically mining sediment from a borrow source in Caminada Bay and pumping dredged material along Southwestern Louisiana Canal to create and nourish marsh east of Leeville in four disposal cells. Due to site conditions, a combination of containment strategies and therefore design include: earthen containment dikes, lake dike, temporary sheet pile closures, and armoring with articulated concrete mat until the placed material consolidates and vegetates. The containment dikes would be gapped no later than three years post construction to facilitate establishment of tidal connection and function.

Progress to Date

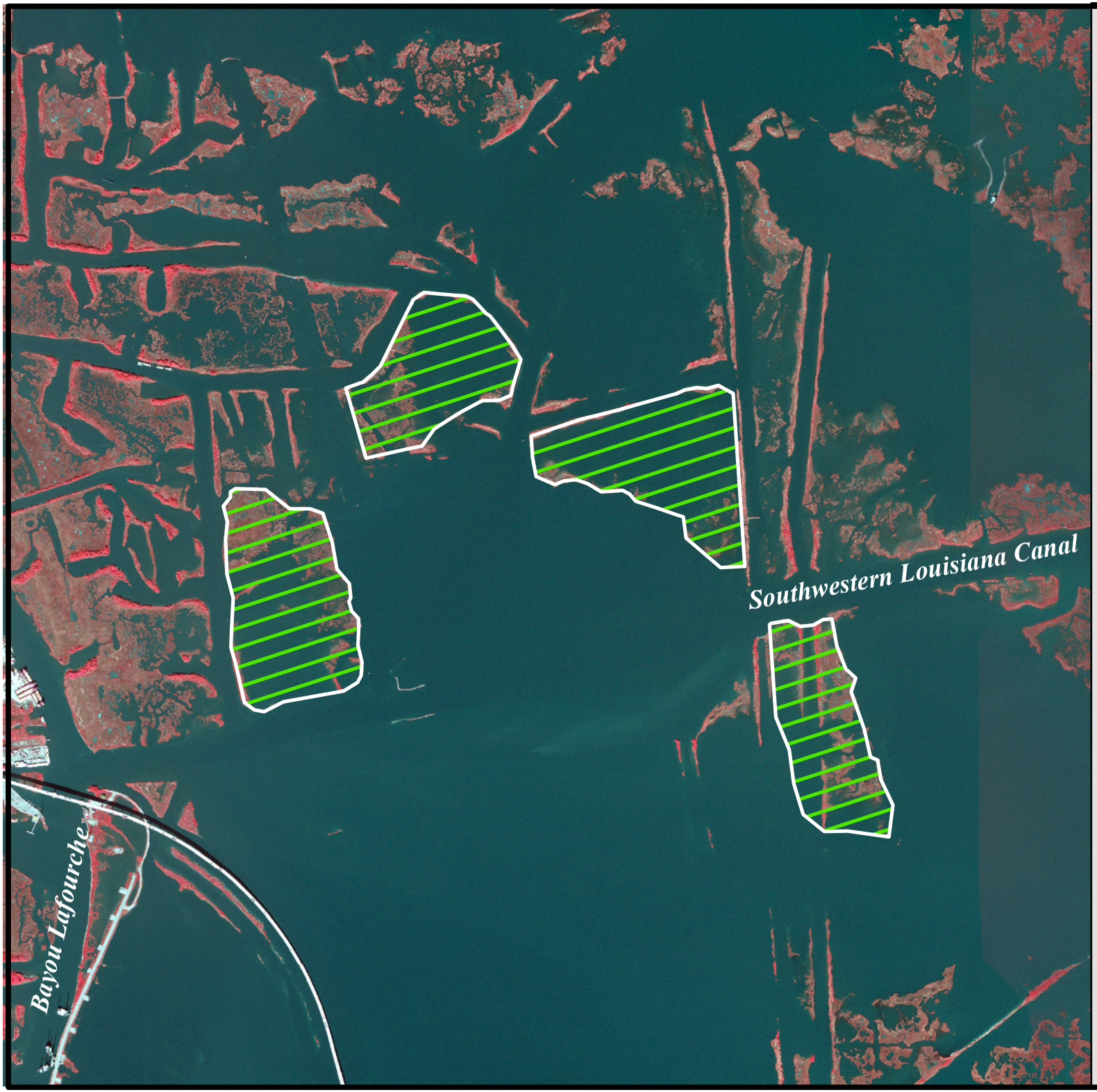
This project was approved for Phase I Engineering and Design in January 2016. A Phase 2 Construction approval and funding appropriations request is planned for December 2020/January 2021.

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) 342-4733

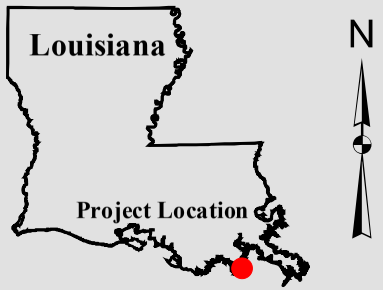


East Leeville Marsh Creation and Nourishment (BA-194)

Marsh Creation

Project Boundary

USGS
science for a changing world



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
Wetland and Aquatic Research Center
Coastal and Oceans Restoration Branch
Baton Rouge, La.

Background Imagery:
2018 DOQQ

Map Date: June 10, 2020
Map ID: USGS-NWRC 2020-11-0016
Data accurate as of: June 10, 2020