May 2025

Eastern Terrebonne Landbridge Restoration (TE-181)

Cost figures as of: July 2025

Project Status

Approved Date: 2025 **Project Area:** 585 acres
Approved Funds: **Total Est. Cost**:
Net Benefit After 20 Years: 310 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 34

Location

This project is located in Region 3, Terrebonne Basin, Lafourche and Terrebonne Parishes, LA.

Problems

Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to 130,000 acres during the next 20 years. One-third of the Terrebonne Basin's remaining wetlands will be lost to open water by 2040. Historic aerial photography indicates significant marsh loss resulting increased areas of open water. Hurricane-induced losses, subsidence, canal dredging, saltwater intrusion, and altered hydrology (levees) are all important factors contributing to the loss of marsh habitat within and surrounding the project area. Many of Terrebonne Parish's cultural heritage communities remain outside the Morganza to the Gulf Levee systems and are increasingly threatened by wave fetch, tidal flooding, and storm surge. The eastern Terrebonne Basin has total subsidence rate of 11.7 mm/year. (i.e., median deep and shallow subsidence). Project-specific wetland loss rates range from -1.61%/year to -1.70%/year based on USGS hyper-temporal data from 1984 to 2024.

Restoration Strategy

The primary goal of this effort is to conduct a preliminarily assessment of the location, cost, and overall feasibility of constructing a landbridge from Bayou Lafourche to immediately west of Isle de Jean Charles consisting of multiple project feature alignments and borrow areas. The landbridge will include primarily marsh creation but may also include some bank stabilization, terraces, and strategic shoreline protection construction. Evaluations will include alternatives optimizing features and alignments for cost and available borrow. The alternatives analyses will result in a recommended landbridge alignment.

Upon selection of the landbridge alignment, the initial increment will be designed. The specific goals of the initial landbridge increment will be to 1) create/nourish up to 416 acres of marsh with material dredged from an inland waterbody to be determined, 2) create approximately 10,780 linear feet (LF) of earthen terraces (8 marsh acres), and/or utilize up to 9,204 LF of bank stabilization as required.

The preliminary analyses and design will recommend the first landbridge alignment increment for design, and also recommend two additional incremental projects similarly scaled.

These analyses and preliminary design efforts will aid in locating an alignment through a more informed understanding of the cost, feasibility, and strategy of designing and constructing an Eastern Terrebonne Landbridge. This effort will benefit multiple implementing agencies, stakeholders, and coastal program administrators. The investment in this preliminary design work will pay dividends for future planning and design efforts. The recommendation of the subsequent two project increments will unify efforts and save time and money by providing advanced data allowing an incremental implementation of this large-scale restoration concept.

Progress to Date

This project was approved for Phase I Engineering and Design in January 23, 2025.

This project is on Priority Project List 34.

For more information, please contact:

Lead Federal Sponsor:
National Marine Fisheries Service
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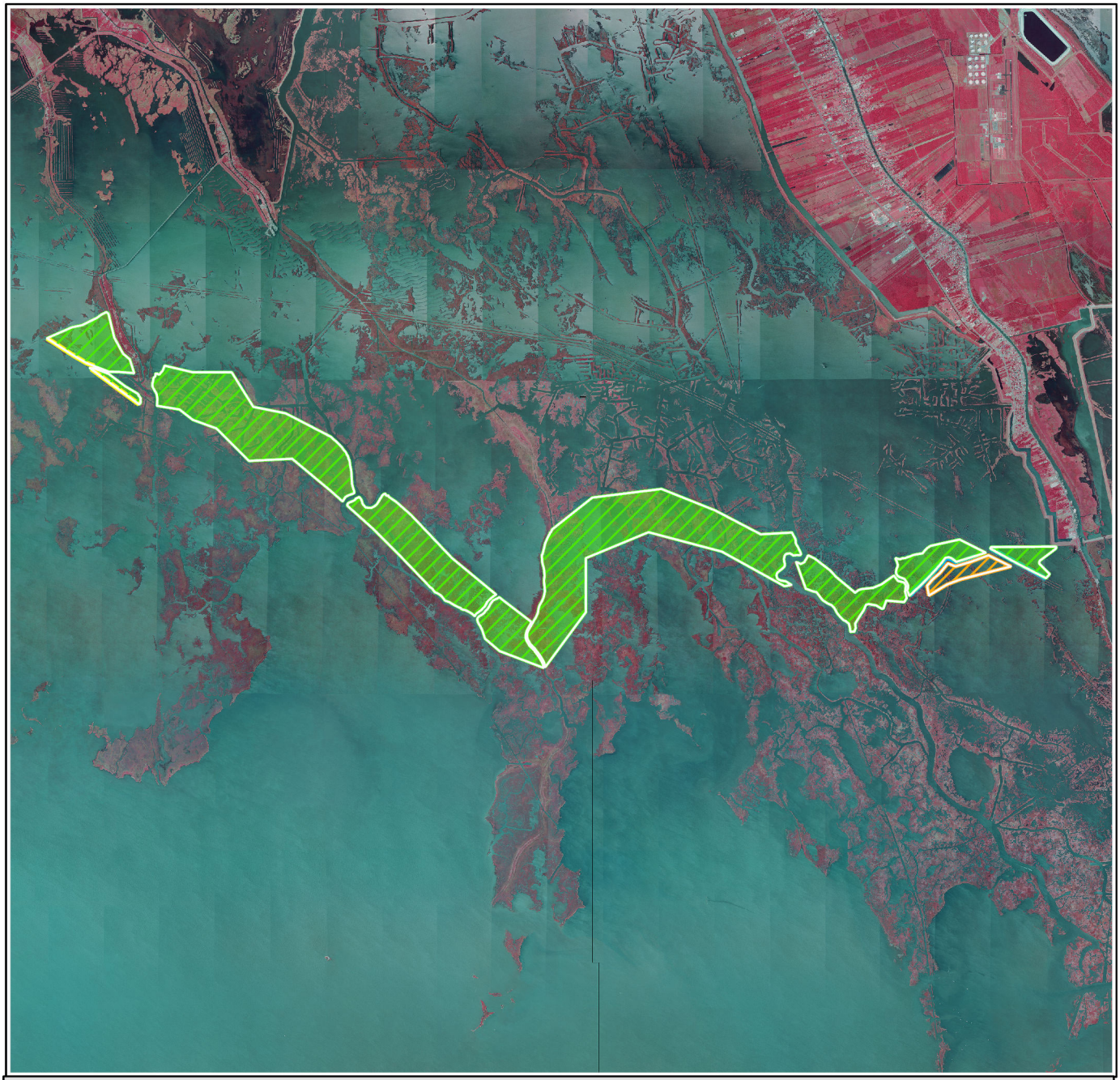
Collaborative Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-2200

Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4733



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Marsh Creation

Terrace Field

Bank Stabilization

Project

Note: All features are proposed.

Scale: 1:150,000

USGS science for a changing world

Map Produced By:
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U.S. Geological Survey
Wetland and Aquatic Research Center
Lafayette, La.

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