March 2022

Cost figures as of: February 2023

Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection (BA-206)

Project Status

Approved Date: 2018 **Project Area:** 793 acres
Approved Funds: $36.2 M **Total Est. Cost**: $37.5 M
Net Benefit After 20 Years: 536 acres
Status: Engineering and Design
Project Type: Marsh Creation and Shoreline Protection
PPL #: 27

Location

This project is located in Region 2, Barataria Basin, Jefferson Parish, northeast of Turtle Bay.

Problems

The project area is part of a critical landbridge which has historically functioned as a partial barrier between the fresh to intermediate marshes and swamps to the north and the tidally influenced brackish to saline marshes and estuaries to the south. Historic wetland loss in the area occurs in the form of shoreline erosion along Turtle Bay and interior marsh loss. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals. Based on analysis conducted by the USGS, loss rates in the area are estimated to be -1.10% per year for the period 1984 to 2020. Shoreline erosion along the northeast shore of Turtle Bay, in the area addressed by this project, averages approximately 5 feet per year. While this rate may not seem excessive, this reach of shoreline is very narrow and loss of this shoreline would connect Turtle Bay to a large lagoon, greatly altering the hydrology of the marsh.

The very narrow critical area of shoreline that separates Turtle Bay from a large interior lagoon

Restoration Strategy

The proposed project would hydraulically dredge an estimated 2.8 million cubic yards of material from Turtle Bay and pump that material into 793 acres of open water and fragmented marsh within five marsh creation areas. The marsh creation areas will be fully contained with earthen containment dikes which will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Originally the project included a breakwater for shoreline protection along the critical area of shoreline. As an alternative, marsh creation along the shoreline will be expanded to provide a buffer between Turtle Bay and the interior marsh and lagoon system. The earthen containment dike along the Turtle Bay shoreline will be left in place and planted during construction to provide additional protection. The remaining earthen containment dikes will be gaped no later than Year 3, and tidal creeks and ponds will be constructed if they do not form naturally. In case the marsh platform does not re-vegetate on its own, the maintenance cost includes planting 15% of the created marsh at Year 3.

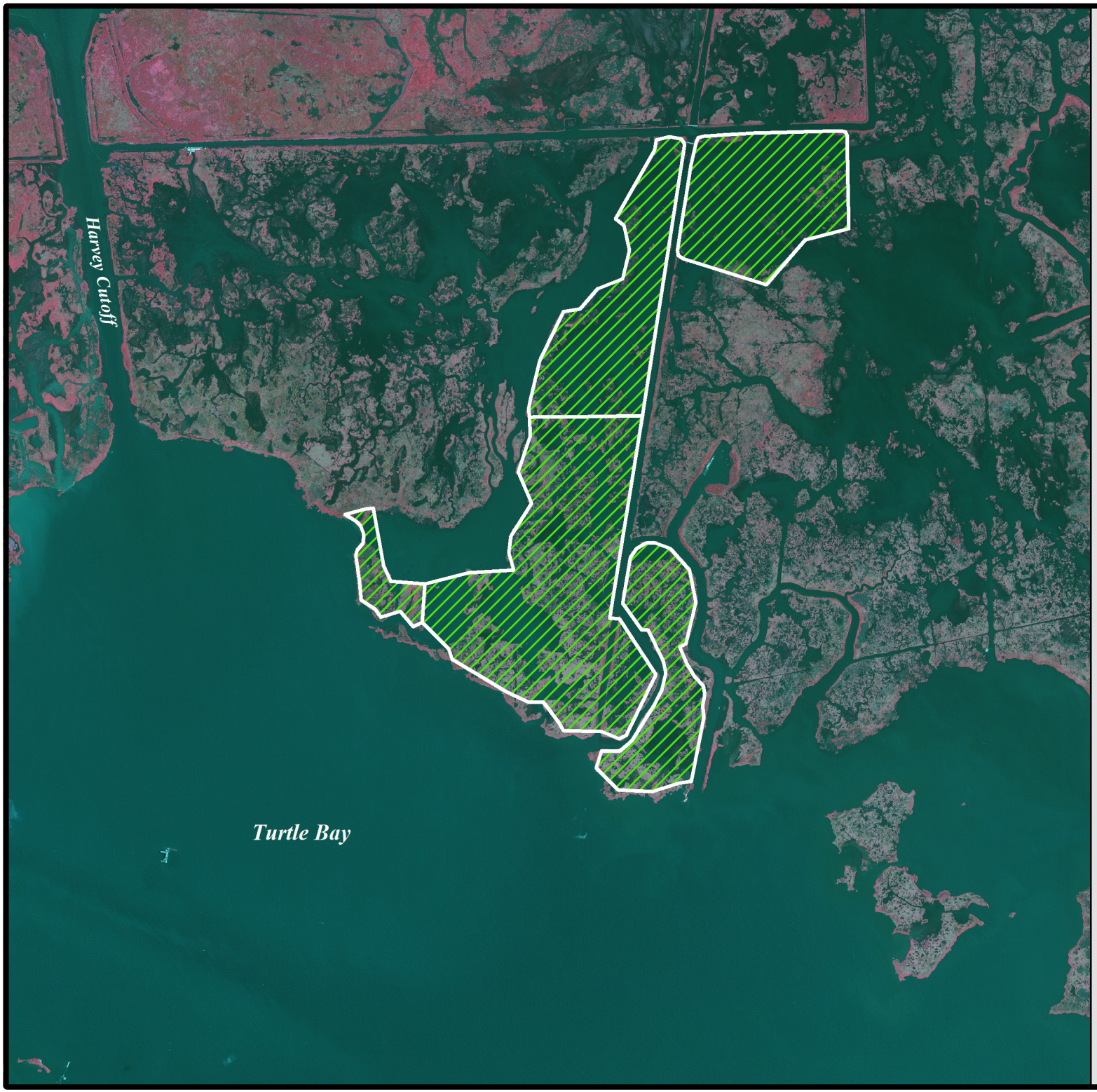
Progress to Date

This project was approved for Phase I Engineering and Design on February 9th, 2018. A 95% Design Review Conference was held on October 6, 2021. This project was awarded Phase 2, Construction funding on January 27, 2022.

For more information, please contact:

Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

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



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Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.25 0 0.25 0.5 Kilometers

0.25 0 0.25 0.5 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:
2019 NAIP

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