October 2018
Cost figures as of: aaaDatePadPad

Cole's Bayou Marsh Restoration (TV-63)

Project Status

Approved Date: 2012 **Project Area:** 3,840 acres
Approved Funds: $25.6 M **Total Est. Cost**: aaaTEC
Net Benefit After 20 Years: 340 acres
Status: Engineering and Design
Project Type: Marsh Creation and Hydrologic Restoration
PPL #: 21

Location

This project is located in Region 3, Teche/Vermilion Basin, Vermilion Parish, east of Freshwater Bayou Canal.

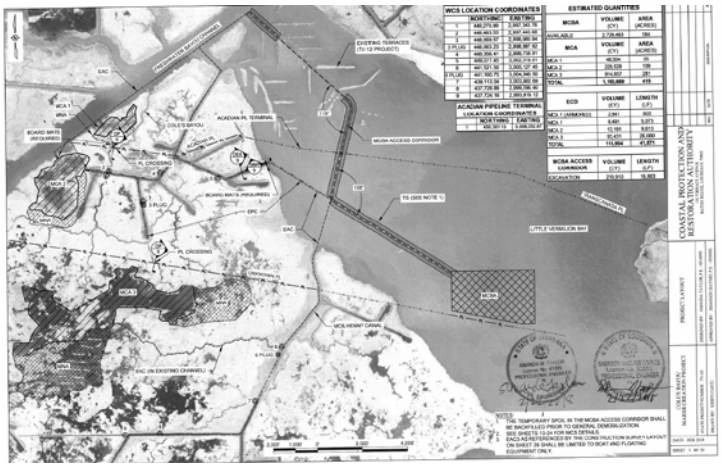
Problems

Project area wetlands are undergoing loss at -0.42 %/year based on 1983 to 2011 USGS data from the extended boundary. Wetland loss processes in this area include subsidence/sediment deficit, interior ponding and pond enlargement, and storm impacts resulting in rapid episodic losses. In addition, significant interior marsh loss has resulted from salt water intrusion and hydrologic changes associated with increasing tidal influence. As hydrology in this area has been modified, habitats have shifted to more of a floatant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in wetlands.

Restoration Strategy

The specific project goals are: 1) create and nourish 415 acres of brackish marsh in recently formed shallow open water and 2) increase freshwater and sediment inflow into interior wetlands by improving project area hydrology.

The project will create and nourish 415 acres of brackish marsh via dedicated dredging from Vermilion Bay and placement in three confined disposal areas. Containment dikes will be degraded or gapped to establish tidal connection and functions. A total of nine water control structures consisting of 22 culverts will be installed throughout the project area. Freshwater, nutrients, and sediment inflow from the Freshwater Bayou Channel to interior marshes will be re-estabished by dredging and reconnecting Cole's Bayou to interior wetlands.



The design plan for the project.

A one-way flow through system would be established. The culverts located on the northern project boundary will allow ingress of sediment, nutrients, water, and fisheries organisms into the semi-impounded project area. Culverts along the southern project boundary will be for water drainage and egress of fisheries organisms out of the marsh.

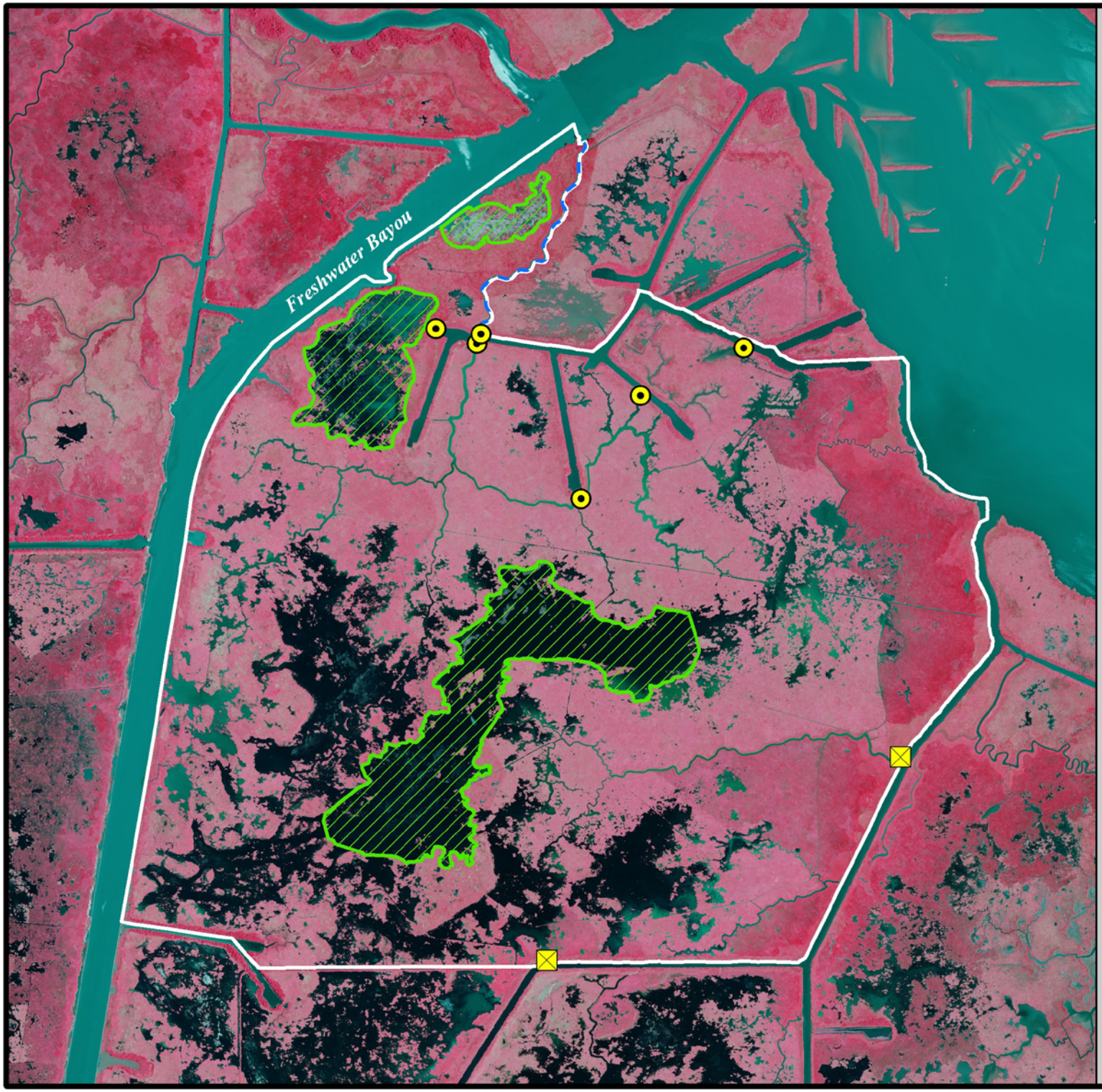
Progress to Date

The project was authorized for engineering and design on Priority Project List 21. The project was authorized for construction in January 2016. In July 2018, a construction contract was awarded to Great Lakes Dredge and Dock, LLC in the amount of $12,387,446. Construction is estimated to be completed in the spring of 2019.

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



Cole's Bayou Restoration (TV-063)

- 1, 48" culvert with sluice and flap gates *
- 2, 48" culverts with flap gates *
- Channel Improvements *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

N

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
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 2012-11-0010
Data accurate as of: August 17, 2011