rev. April 2016

Cost figures as of: December 2022

# Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)

## Project Status

**Approved Date:** 2003 **Project Area:** 471 acres
**Approved Funds:** $23.8 M **Total Est. Cost:** $23.8 M
**Net Benefit After 20 Years:** 326 acres
**Status:** Completed
**Project Type:** Marsh Creation
**PPL #:** 12

## Location

The project is located adjacent to Bayou Dupont and southeast of Cheniere Traverse Bayou in the vicinity of Ironton in Plaquemines Parish and Lafitte in Jefferson Parish, Louisiana. The general area lies west of LA Hwy 23 and just north of the Myrtle Grove Marina within the Barataria Basin.

## Problems

Marshes in the project area have degraded to open water with only scattered clumps of low-lying vegetation remaining. Marsh degradation has resulted from a combination of lack of natural fresh water and sediment input, subsidence and the dredging of oil and gas canals.

## Restoration Strategy

The proposed project included dredging sediment from the Mississippi River for marsh creation and pumping it via pipeline into an area of open water and broken marsh west of the Plaquemines Parish flood protection levee. The material was spread over the project area and ontained primarily with existing land features. Newly-constructed low containment dikes were necessary only along a limited portion of the project area. Native intertidal marsh vegetation was planted post construction.

The proximity of the project to the Mississippi River presented a prime opportunity to employ a pipeline delivery system that utilized the sediment resources from the river to restore and create wetlands. Unlike most marsh creation projects that involve borrowing fill material from adjacent shallow water areas within the landscape, this project utilized renewable river sediment, thus minimizing disruption of the adjacent water and marsh platform.

The Bayou Dupont project represents the first example of pipeline transport of sediment from the river to build marsh as a CWPPRA project. Results from this project helped demonstrate the value and efficacy of greater use of pipeline-conveyed river sediments for coastal restoration.

Aerial view of Bayou Dupont.

## Progress to Date

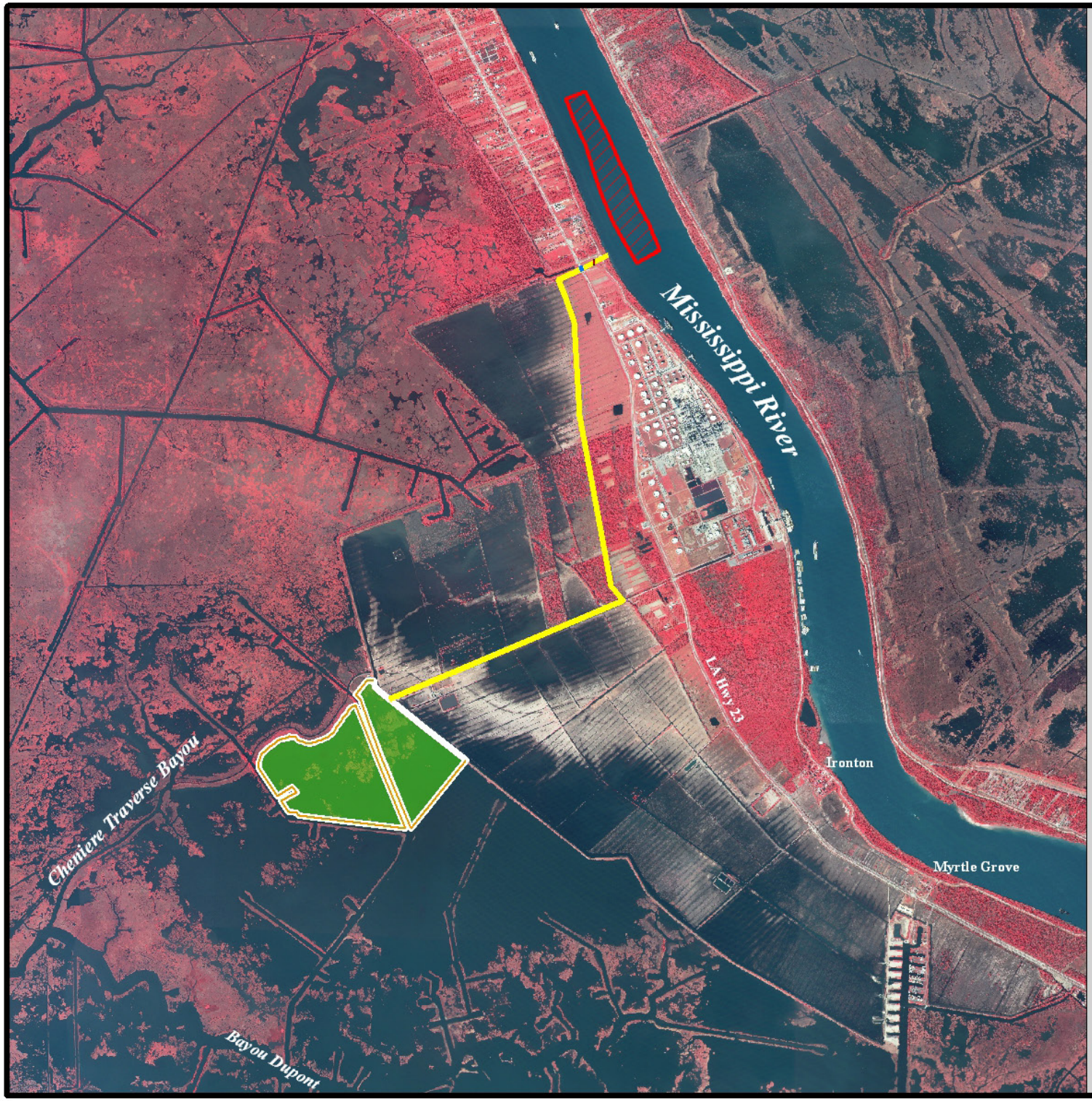
Phase 1 was approved in January 2003. The Louisiana Department of Natural Resources (LDNR) Coastal Engineering Division performed the engineering and design services. Design was completed in November 2007; Phase 2 was approved in February 2008, and construction activities began in April of 2009. Approximately 25,935 linear feet of containment dike was used to create approximately 484 acres of sustainable marsh in Marsh Creation Areas 1 and 2. Increment 2 (funded through ARRA) added approximately 84 acres of marsh within 6,241 linear feet of containment dikes. The contractor demobilized completely by May 10, 2010. Final inspection was held on May 25, 2010.

This project is on Priority Project List 12.

*For more information, please contact:*

**Federal Sponsor:**
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-6722

**Local Sponsor:**
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736




# Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)

- Railroad Crossing
- Highway Crossing
- Temporary Containment Dikes *
- Sediment Delivery System *
- Borrow Site *
- Marsh Creation *
- Project Boundary

* denotes proposed feature

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0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 Miles

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
2005 Digital Orthophoto Quarter Quadrangle

Map Date: April 16, 2009
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