rev. March 2010
Cost figures as of: March 2013

Bayou LaBranche Wetland Creation (PO-17)

Project Status

Approved Date: 1991 **Project Area:** 487 acres
Approved Funds: $3.81 M **Total Est. Cost:** $3.81 M
Net Benefit After 20 Years: 203 acres
Status: Completed October 2000
Project Type: Marsh Creation
PPL #: 1

Location

The project is bounded by U.S. Interstate 10 to the south and Lake Pontchartrain to the north. It is approximately 3 miles northeast of Norco, Louisiana, in St. Charles Parish.

Problems

Construction of Interstate 10 (with its associated construction access canals), the Illinois Central Railroad, and an abandoned agricultural development resulted in altered hydrology and increased salinity.

The primary cause of wetland loss in the area was the failure of agricultural impoundments and subsequent flooding.

An unnamed hurricane in 1915 and Hurricane Betsy (1965) caused salt water to overflow the banks of Lake Pontchartrain and flow unchecked through canals. This overflow resulted in excessive salt water in the project area marsh and a subsequent loss of intermediate marsh vegetation.

Restoration Strategy

The project's goal was to create an area of 70% land and 30% water within 5 years of construction. Depositing 2.7 million cubic yards of sediments dredged from Lake Pontchartrain within an earthen containment berm created new, emergent marsh in what had formerly been an open water area.

Project effectiveness was evaluated by monitoring emerging wetland vegetation growth, water quality, and both the elevation and compaction rates of the deposited sediment.

Aerial view looking north depicting the marsh created within the Bayou LaBranche project area. Lake Pontchartrain is in the foreground, U.S. Interstate 10 can be seen running east to west near the top, and the emergent marsh (open water prior to 1994) is the large, vegetated area in the center.

Progress to Date

Land and water analysis in 1997 showed 300 acres of open water had been converted to land 3 years after construction was completed in 1994. The project had created 80% land and 20% percent water in 3 years, which was well within the target schedule. As of January 1999, sediment elevation was within target range at all monitoring stations.

The goal of creating a shallow water habitat conducive to the natural establishment of wetland vegetation seems to have been partially met. As sediment continues to consolidate and water is maintained in the area, upland vegetation is expected to be supplanted by more oblilgate wetland species. The project goal of creating a minimum of 70% marsh and 30% open water in the project area may still be attained as sediment elevation continues to decline. The project will be monitored for 20 years.

This project is on Priority Project List 1.

For more project information, please contact:

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Local Sponsor:
Coastal Protection and Restoration Authority
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(225) 342-4736

Bayou LaBranche Wetland Creation (PO-17)

Marsh Creation Area

Project Boundary

USGS science for a changing world

Louisiana

Project Location

N

200 0 200 400 600 Feet

200 0 200 Meters

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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

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