June 2004

Mississippi River Reintroduction Into Bayou Lafourche (BA-25b)

Project Status

Approved Date: 2001
Cost: $9.7 M (Phase 1)
Project Area: 85,094 acres
Status: Engineering and Design
Net Benefit After 20 Years: 988 acres
Project Type: Freshwater Diversion

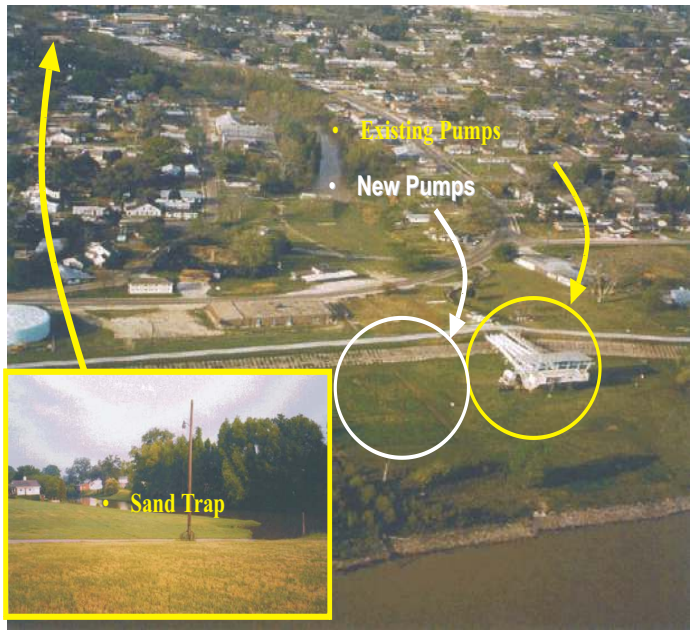
Location

The headworks structure is located at the intersection of Bayou Lafourche and the Mississippi River in Donaldsonville, Ascension Parish, Louisiana. The project's targeted marshes are located south of Donaldsonville in the Fields and Long lakes, Grand Bayou, Bayou Terrebonne, Houma Navigation Canal, Delta Farms, and Bayous Perot and Rigoletes areas.

Problems

Bayou Lafourche was cut off from the flow of the Mississippi River in 1903. The bayou was partially reconnected to the river in the 1950's with the installation of a pump/siphon station which currently averages approximately 200 cubic feet per second (cfs). Historically, the river served to counteract subsidence in the area by introducing fresh water, sediments, and nutrients.

In addition, numerous oil field canals, the Gulf Intracoastal Waterway (GIWW), and the Houma Navigation Canal have altered the natural hydrology of the area. This alteration affected the freshwater flows to area marshes, and saltwater intrusion impacted drinking water quality.



Bayou Lafourche pump/siphon station location in Donaldsonville.

Restoration Strategy

Project features include a receiving intake structure at the point of diversion in the Mississippi River; a pump/siphon system with a combined discharge capacity of 1,000 cfs; a discharge settling pond/sediment basin in Bayou Lafourche at Donaldsonville; modification of weir structures; bank stabilization along Bayou Lafourche; monitoring stations; and dredging of Bayou Lafourche.

Progress to Date

The project was initiated with a $1 million advanced engineering study to determine the feasibility of a Mississippi River pump/siphon to bring more water into Bayou Lafourche. Draft feasibility reports were distributed in September 1998 and April 2001. Estimated project costs have increased, as has the total benefited project area. These increases are due to the project changing from siphon only to year-round pumping and siphoning at 1,000 cfs with bank stabilization and dredging in order that the bayou accommodate the increased flow with no increase in water level.

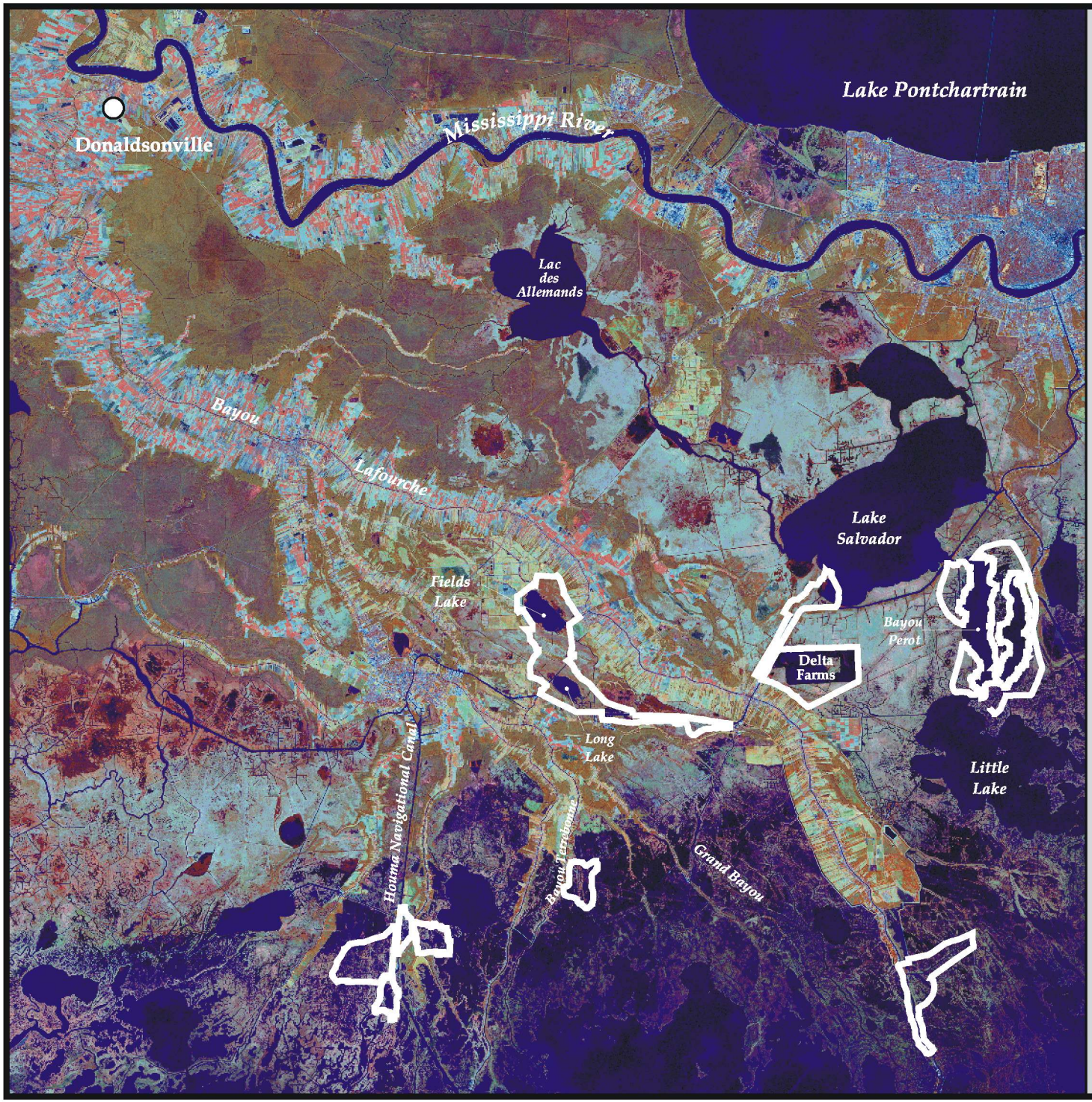
The U.S. Environmental Protection Agency has conducted preliminary engineering and design on the project with the U.S. Army Corps of Engineers that includes the collection of vibracores and soil borings to more confidently answer bank stability questions. Soil data will be collected and analyzed to provide additional information on bank stability in specific areas of concern along the narrower reaches of the bayou near Donaldsonville.

The Louisiana Coastal Wetlands Conservation and Restoration Task Force has funded the engineering and design phase (Phase 1), subject to several stipulations, including the State of Louisiana paying 50% of the cost. A decision to proceed beyond the 30% design review will be made by the Task Force and the state which will depend, in part, on reasonable assurances from the nonfederal funding partners that they will contribute the necessary cost share for project construction, including the nonwetland project components. The engineering and design phase is currently underway. It is anticipated to take approximately 18 months to reach the 30% design review and an additional 6 months to reach 95% engineering and design if a favorable decision is made to continue past the 30% design review. The project is on Priority Project List 5.1.

For more project information, please contact:

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

Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308



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Project Boundary

USGS
science for a changing world

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4 0 4 8 Miles

4 0 4 8 Kilometers

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

Background Imagery:
2000 Thematic Mapper Imagery

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