February 2005

White Ditch Resurrection and Outfall Management (BS-12)

Project Status

Approved Date: 2005 **Project Area:** 8,224 acres
Approved Funds: $ 1.6 M **Total Est. Cost:** $14.8 M
Net Benefit After 20 Years: 189 acres
Status: Engineering and Design
Project Type: Water Diversion and Outfall Management

Location

The project area is located east of the Mississippi River in the vicinity of Belair, Louisiana, in Plaquemines Parish.

Problems

The historically intermediate to brackish marshes in the area have completely converted to a brackish classification. These marshes are deteriorating due to a lack of freshwater input. A siphon built in 1963 at White Ditch that used to deliver the fresh water and sediment needed to maintain the area's wetlands has ceased operation due to age and various other complications. The natural banks of River Aux Chenes block any fresh water that may be provided by the Caernarvon Freshwater Diversion, a water control structure north of the project area. Currently, rainfall provides the only source of freshwater input to the area.

This project will help restore the highly degraded marshes of the area.

Restoration Strategy

The goal of this project is to reduce the erosion rate by introducing fresh water, nutrients, and sediment into the marsh.

This will be accomplished through the rehabilitation or replacement of the existing siphon at White Ditch and the construction of an additional siphon of similar size. Each siphon will be capable of delivering approximately 250 cubic feet per second (cfs) of fresh water for a combined total of 500 cfs of fresh water entering into the project area. The project's proposed strategies also include installing a water control structure in the White Ditch outfall channel at the junction with River Aux Chenes in order to force water into the interior marsh.

The project area is subdivided into Areas A and B in order to delineate zones of direct and indirect impact from the siphons. Area A, which will be directly impacted, is estimated to have the land loss rate reduced by 50 percent, whereas the indirect impact in Area B is estimated to yield a 30 percent reduction of land loss.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their February 2005 meeting.

This project is on Priority Project List 14.

For more project information, please contact:

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

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

White Ditch Resurrection and Outfall Management (BS-12)

- Culvert
- Siphon
- Siphon*
- Water Control Structure*
- Project Boundary

* denotes proposed features

USGS
science for a changing world

N

0.5 0 0.5 Miles

0.5 0 0.5 Kilometers

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

Map Date: January 10, 2005
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