June 2021
Cost figures as of: February 2023

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16)

Project Status

Approved Date: 1991 **Project Area:** 3,800 acres
Approved Funds: $1.68 M **Total Est. Cost**: $1.68 M
Net Benefit After 20 Years: 1,550 acres
Status: Completed May 1996
Project Type: Hydrologic Restoration
PPL#: 1

Location

The project is located in Orleans Parish, approximately 10 miles north of Chalmette, Louisiana. It is bordered by Bayou Sauvage to the north and northwest and by the Gulf Intracoastal Waterway to the south. Both U.S. Interstate 10 and U.S. Highway 90 provide access to the refuge.

Problems

The construction of U.S. Highway 90, canals, railroad lines, and hurricane protection levees has left the historically brackish marsh hydrologically isolated.

Inadequate water inflow and poor drainage subjected the area to periods of prolonged flooding and occasional drying, causing a loss of wetland habitat.

Restoration Strategy

Two 48-inch pumps were installed in northern and southern units of the project area to drain surplus water caused by excess rainfall, promoting the growth of fresh marsh vegetation. A weir in Bayou Thomas will allow the units to be managed independently.

A Bayou Sauvage pump station in operation, facing west. It is removing water from the project area, depicted in the upper portion of the image.

Progress to Date

Project effectiveness was monitored by measuring water levels and vegetative growth in both units against those of a reference area over spring-summer and fall-winter periods.

Water levels in the north unit were within target range approximately 57% of the time. Water levels in the south unit, where mechanical problems with the pumps impeded management efforts, were within target range less than 10% of the time. Water levels were below the target range in both units mostly because of drought-induced low water conditions.

Habitat analysis from aerial photography taken 7 months after project construction shows that 297 acres were converted from open water to fresh marsh between 1993 and 1996. Emergent marsh vegetation increased between 1996 and 1997 based on monitoring surveys. Forested wetlands, including black willow habitat, increased by 35 acres. This increase is supported by increases in marsh vegetation measured from ground surveys.

The pumps were not operated for several years following Hurricane Katrina, levee improvements, and pump replacement. The Task Force granted a 6-year extension to the project life. The project will expire in 2022.

The pumps are rarely used and are no longer needed for management of the impoundment. The FWS is able to manage the unit via gravity drainage.

This project is on Priority Project List 1.

For more information, please contact:

Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100

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

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16)

- Pump
- Weir
- Project Boundary

USGS science for a changing world

N

0.5 0 0.5 Miles

0.5 0 0.5 Kilometers

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

Map Date: July 1, 2002
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