January 2002

Highway 384 Hydrologic Restoration (CS-21)

Project Status

Approved Date: 1993
Project Area: 650 acres
Net Benefit After 20 Years: 384 acres
Project Type: Hydrologic Restoration
Cost: $700,700
Status: Completed Jan. 2000

Location

This project is located in Cameron Parish, Louisiana. It surrounds the community of Grand Lake in the northeastern portion of Calcasieu Lake. It is bordered to the north and east by the Gulf Intracoastal Waterway (GIWW), and to the west by Calcasieu Lake. The project encompasses approximately 1,125 acres of intermediate-to-brackish marsh.

Problems

Marsh loss in this area has been caused by saltwater intrusion, rapid tidal fluctuations, tidal scour, and shoreline erosion.

Restoration Strategy

This project consists of the installation of a rock plug, two water control structures, and the rehabilitation of perimeter embankments. The structures are operated in a manner that restores the historical hydrology within the project area.

Progress to Date

Construction was completed January 7, 2000. Minor maintenance measures were installed at the water control structure in November 2000. The monitoring plan has been finalized and approved and post-construction monitoring initiated.

Structure operations begun on March 26, 2000 have greatly reduced tide-driven fluctuations in water level and moderated water salinity in the project area ponds. Maintenance on the rock plug located near the Calcasieu Lake shoreline is currently being implemented. In addition, an aquatic plant retention fence is being installed on the intake side of the freshwater introduction structure near the GIWW.

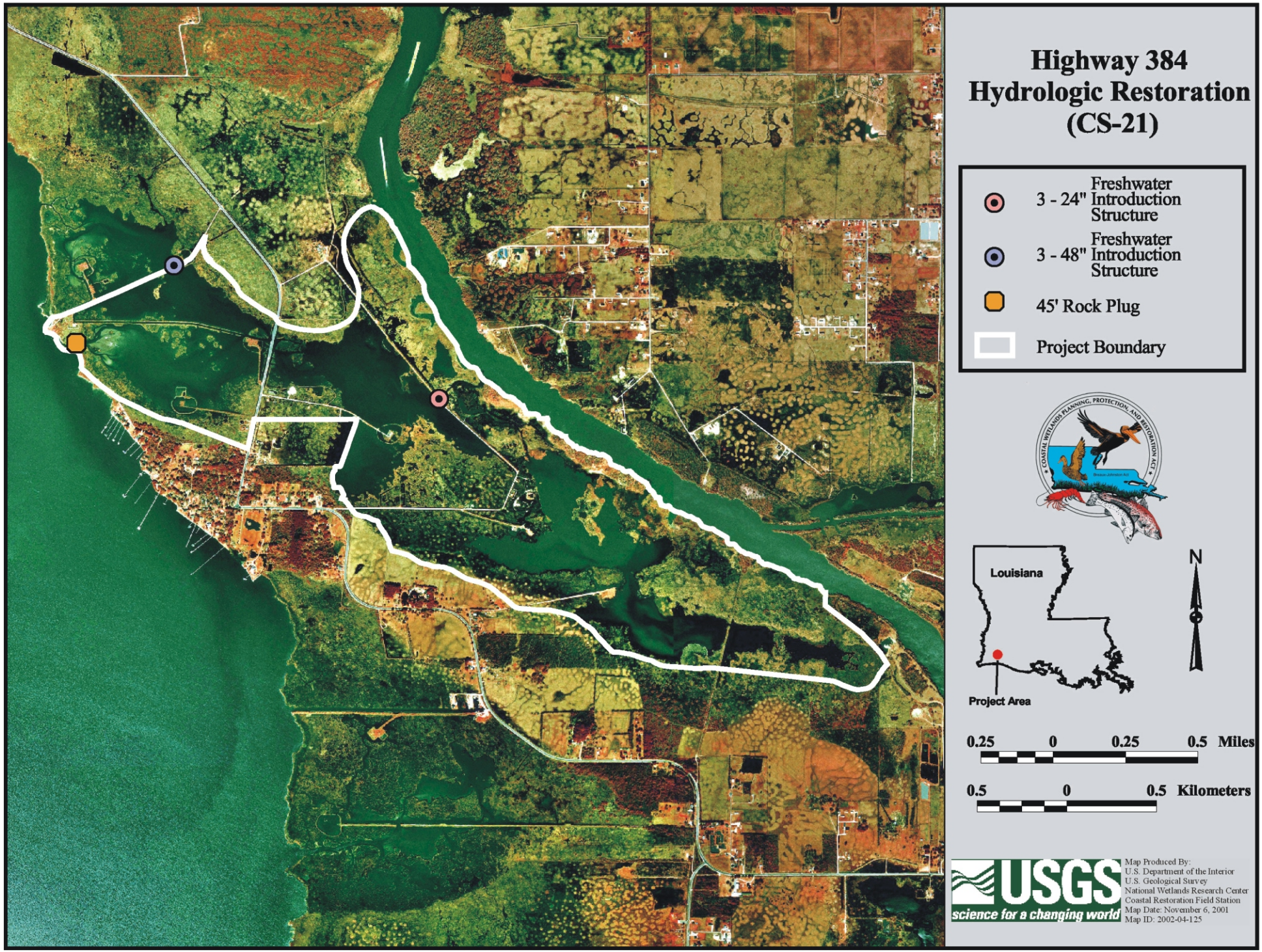
Flap gates on this structure are automatically operated and are opened when salinities allow according to a water management schedule.

This structure allows the insertion of stop-logs within the openings to regulate water passage. During certain times, such as storms or hurricanes, stop-logs are removed to prevent damage to the structure and adjoining embankments from high water levels.

For more project information, please contact:

Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7816

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


Highway 384
Hydrologic Restoration
(CS-21)
Freshwater Introduction Structure
3 - 24"
Freshwater Introduction Structure
3 - 48"
45' Rock Plug
Project Boundary
COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT
Louisiana
Project Area
N
0.25 0 0.25 0.5 Miles
0.5 0 0.5 Kilometers
USGS
science for a changing world
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Map Date: November 6, 2001
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