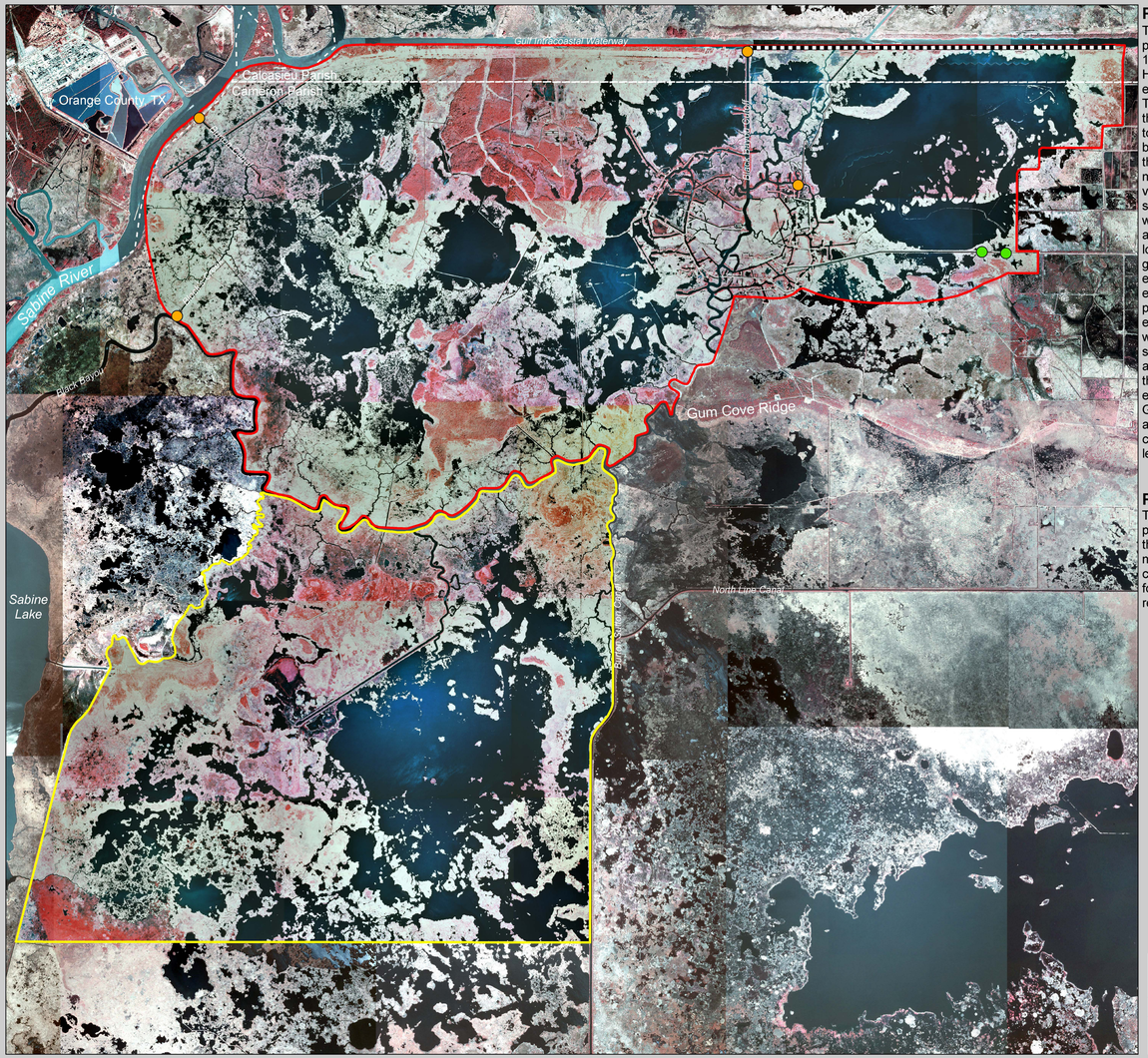
Black Bayou Hydrologic Restoration (CS-27)

Coastal Wetlands Planning, Protection and Restoration Act

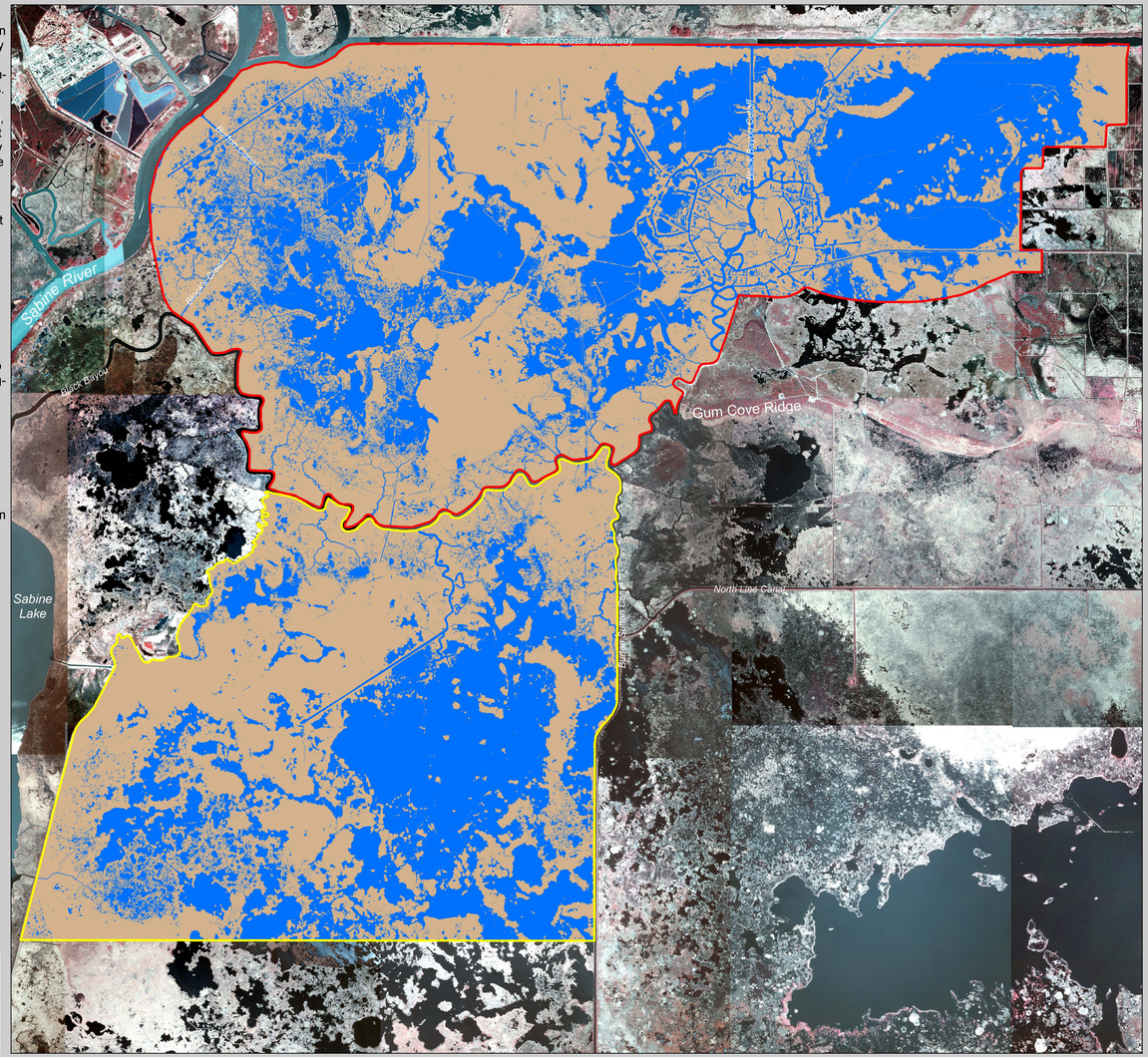
2004 Photomosaic and Land-Water Analysis

USGS science for a changing world

2004 Photomosaic



2004 Land-Water Analysis



Project Background:
The Black Bayou Hydrologic Restoration project (CS-27) is located approximately 18 miles (28.96 km) west-northwest of Hackberry, Louisiana, in northwest Cameron and southwest Calcasieu Parishes. The project is bordered to the north by the Gulf Intracoastal Waterway (GIWW), to the south by Black Bayou, to the east by Gum Cove Ridge, and to the west by the Sabine River. In the early 1900s the marshes in the project area supported vegetation typical of fresh or very low salinity conditions. The introduction of water and sedimentation into the project area was influenced by precipitation, local drainage, and water exchange generated by wind and tide. Marsh elevation was maintained through vegetative biomass production, which compensated for losses caused by subsidence and sea level rise. More recently, wetlands in the Black Bayou area have suffered a loss of an estimated 10,000 acres (4,047 ha). Contributing factors to these losses include hydrological changes; reduced freshwater inflow from the GIWW; increased frequency, duration, and magnitude of tidal fluctuations; increased salinities; and higher water levels.

Project Objectives:
The Black Bayou Hydrologic Restoration project intends to increase fresh water through structural and nonstructural measures. The construction of weirs, culverts, and rock dikes will reestablish former hydrologic pathways and flow regimes in the project area.

Project Area
Reference Area
Parish Boundary
Rock Dike
Culvert
Weir

Class	Project Acres	Reference Acres
Land	16,400	11,394
Water	11,545	8,159
TOTAL	**27,945**	**19,553**

Prepared by:
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U.S. Geological Survey
National Wetlands Research Center
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and
Louisiana Department of Natural Resources
Coastal Restoration Division
Lafayette Field Office

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Project Location

Scale = 1:43,000

3 0 3 6 Miles

3 0 3 6 9 Kilometers

Data Information:
All wetlands characterized by emergent vegetation, uplands, wetland forest, or scrub-shrub were classified as land, while nonvegetated mudflats, open water, and aquatic beds were classified as water.

Data Source:
The land-water data were derived from 1:24,000 scale, color infrared aerial photography acquired November 25, 2004. The background imagery consists of 2004 Digital Orthophoto Quarter Quadrangles.

Federal Sponsor:
National Marine Fisheries Service

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