

Jourdan River Mississippi

Rotten Bayou
HUC #031700091002
Bayou La-Terre
HUC #031700091001

Background

South Mississippi is known for its rich heritage and abundant production of seafood along the Gulf Coast. It is home to some of the most productive fisheries in the United States.

The environmental health of the delta ecosystem is under threat from population growth, point and non-point sources of nutrients, and contaminants, sediment, poor benthic conditions, and eutrophication.

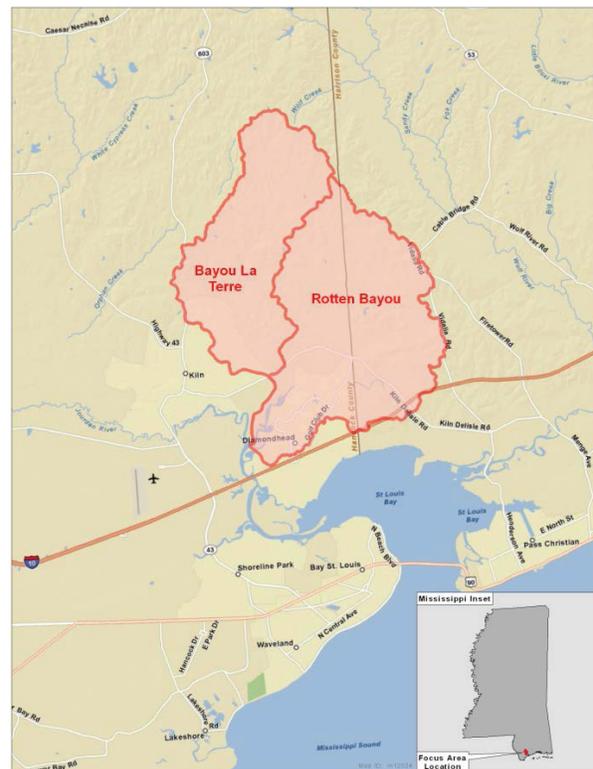
Sediment and nutrient-rich runoff associated with agricultural production negatively impacts water quality in Mississippi bayous, lakes, and the Gulf of Mexico. Some of the cultural practices used for hay and cattle production result in soil erosion and the movement of nutrients and sediments into adjacent waterways. Many of these practices are due to economics and some to tradition. The application of modern technology and the use of Best Management Practices (BMPs) as a result of the requested funding can make these grazing lands more environmentally friendly while maintaining the level of production.

The Rotten Bayou and Bayou La-Terre Watersheds consist of 47,671 acres. The major land uses are timberland, pastureland, and non-agricultural, including both urban and industrial uses. Agricultural run-off from these watersheds flow through drainage ditches, canals and bayous and eventually enters Bay St. Louis, which drains into the Gulf of Mexico. This point of entry into the Gulf of Mexico is known as a source of deposits of both sediments and nutrients significantly contributing to the hypoxic zone.

Mississippi Department of Environmental Quality listed Rotten Bayou and Bayou La-Terre on the 2006 303(d) as having impairments of low dissolved oxygen, turbidity, nutrients, and organic enrichment.

Goals / Objectives

This initiative will encourage adoption of a system of conservation practices aimed at reducing runoff and nutrient rich sediments leaving pasture land, and limit cattle access to streams. These practices will assist in preventing nitrogen and phosphorus from contributing to impairments in Bay St. Louis and the Gulf of Mexico. The reduction in sediment will decrease turbidity and slow the process of sedimentation, which will improve aquatic habitat and reduce environmental stresses associated with higher temperatures and lower dissolved oxygen content.



Resource Concern	Total Acres Needing Treatment
Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water and Excessive Nutrients and Organics in Surface Water	13,395
Water Quality – Harmful Levels of Pathogens in Surface Water	16,547
Soil Erosion – Classic Gully and Ephemeral Gully	1,000
Wildlife – Food & Cover	7,530

State Proposal - Mississippi

Actions

- Increase adoption of residue and tillage management, cover crops, and conservation crop rotations to reduce sediments and nutrients in runoff
- Stabilize eroding gullies
- Create model farms on grazing operations for field days and tours
- Promote the use of precision agriculture techniques to apply nutrients
- Promote the use of prescribed grazing systems
- Develop and encourage adoption of a plan to address all resource concerns with the latest technology and BMPs at the tract level
- Restore longleaf pine habitat
- Promote the establishment of permanent vegetation
- Improve wildlife habitat

Outcomes and Impacts

Anticipated long-term outcomes of this initiative are: a significant decrease in sediment deposited into Rotten Bayou, Bayou La-Terre and the Gulf of Mexico, resulting in decreased turbidity, decreased levels of adsorbed nutrients, and improved dissolved oxygen content; an increased awareness of the benefits of adopting conservation plans, and the effect on sustaining the natural resource base; and a renewed cooperative relationship between NRCS and operators in planning, implementing, evaluating, and potential customization of conservation practices to meet conservation needs.



The NRCS has helped producers to utilize prescribed grazing to minimize the agricultural footprint in local watersheds.



Cross-fencing and cattle guards to facilitate resource management systems to reduce sediment and pathogen input in local watersheds.

Partners

Mississippi Soil and Water Conservation Commission (MSWCC) will provide technical assistance to program participants with our MSWCC field staff and local Soil and Water Conservation District technicians.

Mississippi Department of Environmental Quality (MDEQ) will continue to monitor water sources in the project area for nutrients, suspended sediments, and pathogens.

Harrison County Soil and Water Conservation District will provide technical assistance to program participants.

Hancock County Soil and Water Conservation District will provide technical assistance to program participants.

Coastal Plains Resource Conservation and Development Council (CPRC&D) will provide technical assistance to program participants.

The Nature Conservancy will provide technical assistance to program participants.

Wildlife Mississippi will provide technical assistance to program participants.