

Barataria-Terrebonne National Estuary

Louisiana

Background

South Louisiana is known throughout the United States for its abundant production of seafood along the Gulf Coast. It contains some of the most productive fisheries in the United States. It is also known for its ability to produce sugarcane and productive grazing lands because of its mild winters and fertile soils.

Bayou Corne-Grand Bayou and Bayou St. Vincent-Little Grand Bayou Watersheds are located within the Barataria-Terrebonne National Estuary. This is one of the most fragile estuaries in the country. The overall health of the Barataria-Terrebonne estuary is declining for several reasons, many of which are inter-related; they include: hydrologic modification, sediment reduction, habitat loss, eutrophication, pathogens, toxic substances, and changes in living resources. These problems originate from many sources including point and non-point sources, building levees, channelization, and runoff from urban, suburban, and agricultural areas.

The major land use within the focus area is agriculture, with Assumption Parish being one of the top sugarcane producing parishes in the state. The two watersheds consist of 23,226 acres of cropland, 46,167 acres of bottomland hardwood forest, 331 acres of pasture, and 1,870 acres of urban land.

Runoff from working lands in south Louisiana contributes to water quality concerns in the watersheds, basins, and the Gulf of Mexico. Sheet and rill erosion deposits excessive sediment in waterways, resulting in increased turbidity, phosphorus loading, and eventually eutrophication. Excess sediment in surface water also degrades animal and plant life populations and diversity by changing the depth and turbidity of the water ultimately impacting fragile coastal estuaries.

Goals / Objectives

Through this initiative, NRCS and its partners will help producers voluntarily implement a combination of core and supporting practices that: reduce the amount of agricultural related nitrogen, phosphorus, and sediment leaving the field; reduce agricultural impacts on water quantity; and enhance or maintain wildlife habitat.

Bayou Corne-Grand Bayou

HUC #080903020302

Bayou St. Vincent-Little Grand Bayou

HUC #080903020304



Resource Concern	Total Acres Needing Treatment
Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water and Excessive Nutrients and Organics in Surface Water	23,226
Water Quantity – Reduced Storage of Water Bodies by Sediment Accumulation and Reduced Capacity of Conveyances by Sediment Deposition	23,226
Soil Erosion – Classic Gully and Ephemeral Gully	14,000
Soil Condition – Organic Matter Depletion	16,000
Wildlife – Food and Cover	10,000

State Proposal - Louisiana (1 of 2)



United States Department of Agriculture
Natural Resources Conservation Service

GoMI

Actions

This initiative will focus on reducing soil erosion and improving water quality on sugarcane fields and pastureland by:

- Eliminating the old split ditch system used for drainage water management
- Reducing or eliminating tillage on field borders, roads, and turnrows by establishing a cut-off date for cultivation
- Implementing a chemical fallow period during the sugarcane rotation
- Planting a cover crop during the sugarcane rotation
- Installing grassed waterways
- Implementing precision agriculture and applying nutrients according to a nutrient management plan
- Implementing Seasonal Residue Management by not burning sugarcane residue until after February 15th, thereby leaving >90 percent residue on the fields over winter.
- Promoting energy conservation by eliminating the need for annual mechanical removal of sediment from split ditches
- Implementing grazing management
- Installing cross-fences and watering facilities to facilitate grazing distribution
- Improving sediment and nutrient filtering and wildlife habitat by designing a constructed wetland

Outcomes and Impacts

Anticipated long-term outcomes of this initiative are: a significant decrease in sediment deposited into the Gulf of Mexico, resulting in decreased turbidity, decreased levels of adsorbed nutrients, and improved dissolved oxygen content; increased water quantity in Lake Verret; improved fish and wildlife habitat; and increased community awareness about resources and best management practices to support conservation and renewal of our natural resources.



Cultivated field borders increase erosion.



Mechanically cleaned drainage ditches (split ditches) increase erosion.

Partners

The Barataria-Terrebonne National Estuary Program (BTNEP) is a partnership between Federal and State agencies, business and industry, environmental groups and scientists, and fisherman and farmers.

The Louisiana Department of Agriculture and Forestry Office of Soil and Water Conservation (LDAF/OSWC) will provide technical assistance to program participants with our OSWC field staff and local Soil and Water Conservation District technicians.

The Louisiana Department of Environmental Quality will continue to monitor water courses in the project area for nutrients, suspended sediments and pathogens.

The Lower Delta Soil and Water Conservation District and the **Louisiana Cooperative Extension Service** will hold producer meetings to promote wider adoption of precision agriculture, field borders and alternative methods to handling sugarcane crop residue.