

Barataria basin, bordered by the Mississippi River and Bayou Lafourche, is one of the most unique basins in the state of Louisiana. The natural ridges and levees form the perimeter of the basin, while forested wetlands, lakes, marshes and estuaries fill the basin's interior. Barataria basin contains a large portion of the nation's wetlands, with cypress tupelo forests, fresh, intermediate, brackish and saline marshes, bayous, estuaries and open bays, all which provide habitat to a very diverse population of plants, animals and people. Early settlers in the basin included the Houma Indians, the Acadians, Creoles, African Americans, Germans and Spanish, all of which settled along these rivers and bayous. The wetlands and bayous host a diversity of fish and crawfish, while the coastal areas provide shrimp, crabs and oysters, resulting in a seemingly limitless ecosystem. In addition to these natural habitats, the area also had an abundance of oil and gas reserves and cypress-tupelo forests which provided energy and lumber for cities and homes all across the United States. As these resources were utilized by the state and the nation, the quality of the waters and the wetlands of the Barataria basin began to decline because of pollution, coastal land-loss, subsidence and saltwater intrusion.



Success through Partnerships

Improving water quality and protecting special habitats and native species within the Barataria Basin will depend on the success of the partnerships that are formed between the people that live within the Basin and the agencies and non-profit organizations that are working to assist them. There has already been a lot of progress made through the cooperation of these partners, such as:

- Barataria-Terrebonne National Estuary Program
- BTNEP Management Conference Committee
- Louisiana Department of Environmental Quality
- Louisiana Department of Natural Resources
- Louisiana Department of Wildlife and Fisheries
- Nicholls State University
- Natural Resource Conservation Service
- Soil and Water Conservation Districts
- US Fish and Wildlife Service

If you would like to become involved in working with these organizations on water quality and habitat protection issues, please contact the Barataria-Terrebonne National Estuary Program, Louisiana Department of Environmental Quality or other agencies working in this basin.

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Water Quality Concerns

The most recent 305(b) Report on water quality indicates that there are only three watersheds in Barataria basin that are not fully supporting the contact recreational uses (i.e. swimming and boating), but there are quite a few watersheds in the upper portion of Barataria basin that are not meeting the fish and wildlife propagation use. The types of water quality problems that exist in those watersheds include nutrients, dissolved oxygen, non-native aquatic plants, total suspended solids and turbidity. The sources of these pollutants include natural sources, agriculture, forced drainage pumping and on-site treatment systems. The challenge within this basin, similar to those in the Terrebonne basin is to utilize the nutrients and sediments to offset subsidence and salt water intrusion in the marshes and wetlands and yet not pollute the bayous, lakes and rivers. Therefore, watershed management will require a comprehensive approach similar to what the Barataria-Terrebonne National Estuary Program has been utilizing for many years.

Restoring the Water Quality

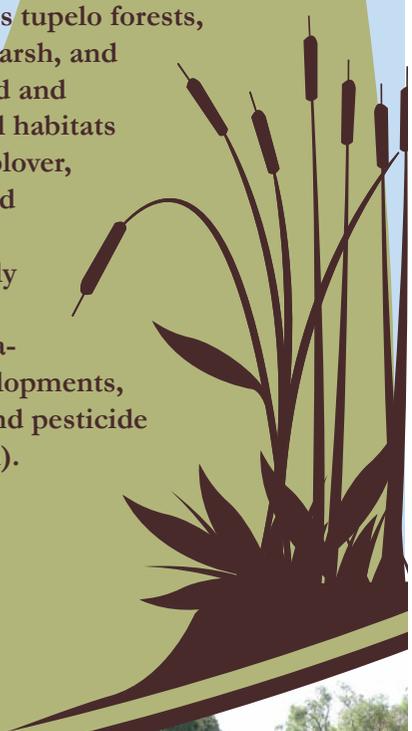
In order to improve water quality within the Barataria Basin, local stakeholders will need to assist local, state and federal agencies in implementing best management practices (BMPs) on their lands to reduce the amount of nutrients and sediments entering water bodies in the upper portion of the basin or by diverting those pollutants into wetlands where they can be utilized by trees and other plants in a beneficial manner.

Individual home sewage systems need to be maintained or replaced in order to protect drinking water supplies and the bayous and lakes for recreation. The urban communities need to manage their storm water in a way to reduce the impact on receiving waters, possibly through green infrastructure or re-direction into freshwater wetlands and marshes. The key to protecting habitat and water quality within the Barataria basin is to work together to utilize the sediments and nutrients to protect and restore wetlands and not overload the water bodies, so that fish populations are protected.

- **AGRICULTURE** – erosion and sediment control with conservation tillage and residue management, pesticide and fertilizer management, stream bank and riparian habitat protection;
- **FORESTRY** – protection of streamside management zone, riparian habitats and wetlands, selective harvesting, erosion control on forest roads;
- **URBAN STORM WATER RUNOFF** – smart growth and green infrastructure such as rain gardens, vegetative swales, constructed and natural wetlands, urban forests, urban stream protection and restoration and porous pavement;
- **SEPTIC SYSTEMS** – maintenance of existing systems and repair or replacement of failing systems;
- **ROAD AND HIGHWAY CONSTRUCTION** – sediment and erosion control practices, stream protection at bridges and stream crossings, wetland, stream bank and riparian areas;
- **HYDROMODIFICATION** – stream bank and riparian habitat protection, natural channel design and protection of wetlands.

Protecting and Restoring Native Habitats

Many of the BMPs that are utilized in urban and agricultural areas have the added benefits of protecting and restoring native habitats for rare, threatened or endangered species. Some of these special habitats in the Barataria basin include cypress tupelo forests, live oak forests, brackish and intermediate marsh, and barrier islands. “Some of the rare, threatened and endangered species that depend upon special habitats include the manatee, brown pelican, piping plover, pallid sturgeon, paddlefish, golden canna, and swamp milkweed.” Some of the stressors to these habitats include logging on permanently flooded sites, saltwater intrusion and subsidence, construction of roads, pipelines, navigation channels, industrial and residential developments, channelization of rivers, siltation, fertilizer and pesticide runoff (Louisiana Natural Heritage Program).



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