

Wetlands Protection



Wetlands are found all over the planet from the tundra to the tropics. They provide many benefits, including food and habitat for fish and wildlife; flood protection; shoreline erosion control; natural products for human use; water quality improvement; and opportunities for recreation, education and research. In Louisiana, the products from wet-

lands identifies our economy and our culture. From ducks and rice to cypress and alligators, the bounty from our wetlands distinguishes us from other regions.

Wetlands also provide benefits in ways that are less obvious, particularly in East Baton Rouge Parish. Beyond the swamps, we have many wetlands that are dry or appear dry for a good part of the year. This condition is like that of a giant sponge able to receive a large amount of water on short notice, detain it, and then release it back into the environment over time. This capability protects humans and their property from flood damage by absorbing floodwaters and dissipating their destructive energy flows. It filters the water of contaminants prior to returning it to water tables, surface waters, and aquifers—the sources of essential drinking water.

East Baton Rouge Parish Wetlands Program

Recognizing the importance of wetlands and other ecosystems, the Conservation and Environmental Resource Element of the Horizon Plan identifies the need to preserve and protect these environmentally sensitive lands. The City-Parish Planning Commission is the lead agency which works to ensure that sensitive areas are identified and considered in land use planning and future development scenarios. In order to achieve this goal, a wetlands program was established. In 1999, a Steering Committee comprised of environmental professionals was established to guide the process. Funding assistance from the U.S. Environmental Protection Agency (EPA) was awarded, and the Planning Commission began implementation.

Wetlands Restoration and Nonpoint Source Demonstration Project

To demonstrate that a balance between development and environmental conservation can be achieved, the Planning Commission and the Baton Rouge Recreation and Parks Commission (BREC) worked together to restore a wetland area at the Burbank Park Soccer Complex.

The project shows how restoration of the original hydrological structures on a previously drained site can bring a wetlands system back to life.

After reconstruction of the topography and return of the water, native wetland trees and vegetation were planted. A retention pond receives runoff from the soccer fields, parking lots and roadways. The pond feeds the wetlands, which acts as a buffer between the developed area and downstream water systems such as Bayou Fountain and Bayou Manchac. Impacts from fertilizers, pesticides and sediments are reduced and on-site water storage and habitat values are increased.

Wetlands Identification and Characterization Project

Conservation planning is complicated by the fact that Baton Rouge’s non-coastal wetlands are not easily identifiable since they are not always wet.

Many acres of natural wetlands have been drained and cleared for agricultural use. Some have been developed for



commerce. In addition, we have many wetlands that are dry for most of the year.

Considering the complexities involved in identification and the importance of establishing a valid and verifiable methodology, the Planning Commission turned to Louisiana State University’s Wetlands Biogeochemistry Institute (WBI). With a second grant from EPA, the Planning Commission undertook a pilot project to establish a means of identifying and mapping wetlands in the parish.

Using existing data from aerial photos, soil maps, and wetlands inventories, three sites were selected as probable wetlands. After soils and vegetation were verified, a hydrological model was designed to deduce the probability that the saturation occurs for the specified duration. Each site was indexed as to its hydrological, biogeochemical, and biotic functional capacities. The characterization layers have been added to the Planning Commission's Geographic Information System to juxtapose the identified wetlands with existing and future land use data.

Mitigating Nonpoint Source Pollution in Urban Watersheds

The Planning Commission is continuing its momentum with a grant from the EPA under Section 319 of the Clean Water Act, to devise strategies to mitigate nonpoint source pollution. Best Management Practices (BMPs), including using wetlands, are being studied to improve water quality in East Baton Rouge Parish.

Louisiana State University was contracted to provide expert assistance in the establishment and monitoring of field sites, computer modeling, and evaluation of current BMPs. The grant is again guided by a Steering Committee comprised of members of the development community, regulatory agencies, and environmental specialists.

Educational Outreach

The Planning Commission has organized an educational outreach program to promote an understanding of wetlands and environmental values. Designed to reach a diverse audience, the outreach campaign uses a variety of events and information channels to make learning about the environment not only fun and interesting, but also constructive and challenging. Planning Commission sponsored events to date have included:

- **American Planning Association Mobile Workshop** Delegates from across the United States attended a full day workshop at Bluebonnet Swamp Nature Center and ending at Alligator Bayou and Bluff Swamp Wildlife Refuge.
- **Car-Free Day** The Planning Commission Staff joined the Sierra Club, the Office of the Mayor-President and other groups in using alternative transportation. The entire office, wearing Earth Day T-shirts walked to lunch at a nearby eatery instead of driving. This simple event saved an estimated 40 miles' worth of vehicular emissions and enlivened a neighborhood that is not used to seeing many pedestrians.
- **Wetlands Education Booth at Earth Day** Three interactive stations offered opportunities to learn about wetlands. The children's station presented "Knee Deep in Louisiana Wetlands," with songs, pictures, and videos about wetlands. The other two stations challenged high school students and adults to learn about the impacts of urbanization on the watershed and how design can be used to mitigate these impacts. By taking a test, participants won an Earth Day T-shirt. Since 2004, Planning Commission Staff demonstrated the effects of nonpoint source pollution with a visually inter-

active landscape model called an Enviroscope.

- **Walk to Lunch Day** Planning Commission Staff walked to lunch to promote the use of alternative methods of transportation in May of 2004 and 2005.
- **American Wetlands Month** The City-Parish declared May to be American Wetlands Month. The proclamation recognizes the value of wetlands to the community and establishes a civic commitment to their protection and preservation.
- **Developers' Roundtable** The development community met to discuss the benefits of and impediments to sustainable development practices. Facilitator Dr. Rod Emmer, Baton Rouge's FEMA representative, asked developers, engineers and real estate professionals for their comments about site design practices recommended to minimize the impact of development in and around wetlands.
- **Mobile Workshops** In 1999 and 2007, Planning Commissioners and Staff were invited to an afternoon at Alligator Bayou to learn about local swamps, bayous, ecotourism, and wetlands wildlife refuges and preserves. Another trip to the Atchafalaya Swamp was organized in 2004 to learn about larger watersheds.
- **Display Board** Planning Commission Staff has promoted Wetlands Preservation at numerous activities around EBRP including Earth Day, Baton Rouge Bike Day, and Family Safety Day.

Future Projects and Programs



Future projects and programs will build upon the success of the previous grants.

The Planning Commission Staff is also researching methods which promote sound development and reduce impervious surfaces. The focus of this research is on changes to the parking and street width requirements.

Wetlands play a pivotal role in the local ecosystem. While there are a host of environmental issues that the Planning Commission must deal with on a daily basis, it is important to recognize this important natural resource. Through such programs mentioned above and partnerships with other agencies and institutions and with the help of the citizens of East Baton Rouge, we can truly make a difference in protecting our community's environment.

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