

WHAT'S GOING ON WITH THE BAYOU BIENVENUE WETLAND TRIANGLE

the Lower Ninth Ward Center for Sustainable Engagement and Development (CSED)

WHAT IS THE BAYOU BIENVENUE WETLAND TRIANGLE?

Fall 2012

Just a few decades ago, the Bayou Bienvenue Wetland Triangle served as a fishing and recreation haven for Lower Ninth Ward residents. What is now open water used to be an old growth swamp that was filled with cypress trees, water lilies, and freshwater wildlife such as fish, alligators, otters, birds, and crawfish.

Since the completion of the Mississippi River Gulf Outlet shipping channel in the 1960s, salt water has intruded into the wetland area where a now decimated population of cypress trees used to stand. This area was once a resource-rich freshwater swamp where residents could fish, go crawfishing, and explore, but now it is a saltwa-



Volunteers eating lunch at the Bayou

ter ghost swamp with few remaining cypress trees.

Bayou Bienvenue Triangle is currently bounded by the Inner Harbor Navigation Channel, Gulf Intercoastal Waterway, the 40-Arpent (30-acre) Levee, and the Mississippi River Gulf Outlet (MRGO). All of these are man-made structures that impound the area and restrict it from the sur-

rounding ecosystems on which it relies.

Due to levee construction and canal excavation, degradation in the Bayou wetlands has accelerated far too quickly. The Bayou Bienvenue Triangle went from cypress-tupelo swamp and fresh water marsh to open brackish pond in just twenty-five years.



Bayou Bienvenue Wetland Triangle, Lower Ninth Ward (Cypress Swamp)



Bayou Bienvenue Wetland Triangle, Lower Ninth Ward (Open Saltwater)

View of the MRGO channel (where it merges with the GIWW) and the Bayou Bienvenue Wetland Triangle in 1959 (left) and 2009 (right).

The picture above from MRGOMustGO.org shows wetland degradation that is mostly attributable to the MRGO, which split through the protective system of natural levees and provided the opportunity for salt-water intrusion.

Mississippi River Gulf Outlet (MRGO)

The MRGO is a 76-mile-long channel intended to provide a navigation shortcut from the Port of New Orleans to the Gulf of Mexico. Completed in 1968, the project destroyed 27,000 acres of local wetlands, including Bayou Bienvenue cypress swamp. Adding in erosion and salinity changes caused by the channel in subsequent years, the MRGO (known locally as “Mister Go”) negatively impacted a total of 600,000 acres of wetlands in the Greater New Orleans area.



We want to restore the health, vitality, and sustainability of the Bayou Bienvenue Wetland Triangle Ecosystem. As we have seen in the wake of multiple hurricanes, we cannot rely solely on levees to protect us from storm surges and flooding.

WHY WE SHOULD REBUILD THE BAYOU BIENVENUE WETLAND TRIANGLE?

Sustainable Storm Protection

Rebuilding the marsh and swamp is part of a large strategy for rebuilding and strengthening the coastal flood defense system (multiple lines of defense – see below picture from mloids.org) in Louisiana. The Mississippi River Delta’s landscape creates natural levees because the

land closest to the river is higher than the surrounding floodplain. The Bayou Bienvenue, as a part of a larger ecosystem, could thus provide flood and storm protection; a non-structural approach that offers backup and support to infrastructures such as levees, canals, and pumps.



Multi-Lines of Defense (MLOD)

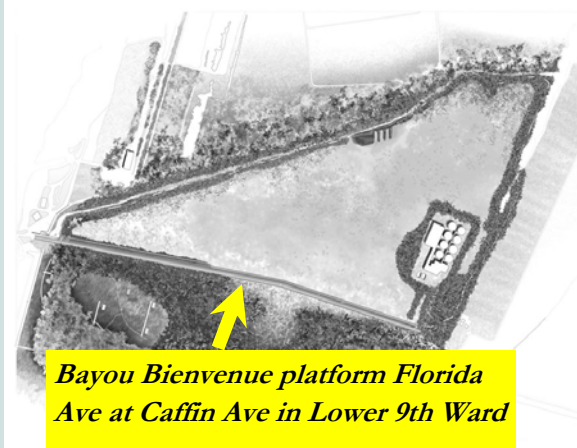
Community Rebuilding

Restoring the Bayou not only contributes to storm protection but is important for the community in other ways as well. The Lower Ninth Ward lost a considerable portion of its residents and homes to Hurricane Katrina and recovery has been a slow process. The Center for Sustainable Engagement and Development (CSED) and the Holy

Cross Neighborhood Association has been working closely with the Sierra Club and other Lower 9th Ward groups and National and Local Environmental Groups to rebuild and renew the area.

The restoration of Bayou Bienvenue is an important part of the rebuilding of the community because it can provide opportunities

for fishing, canoeing, and other activities for the local residents. It has also already started to be a place where tourists can come and learn about the environment, history and culture of the area.



The restoration of Bayou Bienvenue is an important part of the rebuilding of the community because it can provide opportunities for fishing, canoeing, and other activities for the local residents.



Here is a picture of one of the floating islands



OUR FIRST STEPS IN A PLAN FOR REBUILDING BAYOU BIENVENUE WETLAND TRIANGLE

Three current proposals for wetland restoration are:

Wastewater Assimilation

The New Orleans Sewerage and Water Board has proposed restoring the degraded cypress swamp of Bayou Bienvenue Wetland Triangle by diverting the treatment plant's partially treated effluent into the wetland. This process of wastewater assimilation may aid in the restoration of the degraded swamp by increasing inputs of nutrients and fresh water.

Potential benefits of this proposed project include increased cypress growth, decreased operating costs for the East Bank Sewage Treatment Plant, and a restored environmental resource for area residents.

Sediment Diversion

The restoration of Bayou Bienvenue cannot rely solely on wastewater assimilation. Sediment diversion, which works to redirect the flow of Mississippi River water and sediment into degraded areas, would be an important addition for the success of the bayou's

recovery and salinity reduction.

The current water depth in Bayou Bienvenue is 3-5 feet. For cypress to grow and germinate, the water must be no more than two feet most of the year with a system of annual or cyclical drying. Deep water levels and an insufficient exposure of sediment to oxygen are critical obstacles to restoring a self-sustaining cypress community. Salinity levels are higher than the optimal range for the reintroduction of cypress trees. The impending closure of

the Mississippi River-Gulf Outlet has helped to reduce salinity, but a diversion of river water is necessary to sustain salinity for cypress restoration.

Floating Island

The floating islands were an attempt made by the University of Wisconsin to bring healthy, indigenous plant life back into the Bayou. The islands are made of recycled plastic drinking bottles and marsh grasses, mimicking naturally occurring wetlands.

Help us restore and renew the Bayou

Understanding the trends of the ecosystem degradation is an important starting point for the ecosystem restoration project. We want to restore the health, vitality, and sustainability of the Bayou Bienvenue Wetland Triangle Ecosystem. As we have seen in the wake of multiple hurricanes, we cannot rely solely on levees to protect us from storm surges and flooding. It will take the restoration of the wetlands to bring us added security as well as a wonderful opportunity for community involvement.

For Lower Ninth Ward residents, this project is a source of hope and inspiration, but there are serious obstacles and numerous uncertainties with the proposed restoration solutions. Restoring the bayou is a low maintenance, long-term investment that will continue to provide protection for the New Orleans area over the years. As a result of the efforts of the CSED, the Holy Cross Neighborhood Association, the Sierra Club, the National Wildlife Federation, and others Lower 9th Ward Groups, the

Bayou Bienvenue has been included in both the Louisiana Coastal Master Plan and the Army Corps of Engineers' MRGO Ecosystem Restoration Plan, but neither has yet committed any funding to its restoration.

You can help out by contacting the CSED office and checking out the links below and advocating for a healthier bayou.

For more information, check out these resources!

To learn how to get involved and for more information visit the Lower Ninth Ward Center for Sustainable Engagement and Development at: <http://sustainthenine.org/>

For what sites to visit in the Lower Ninth Ward, the CSED has provided this interactive map:

<http://sustainthenine.org/content/tour-nine-0>

To contact the CSED by phone, please call: (504) 324-9955

- MRGO Must Go is the best website for specific information about the MRGO and it's impact on the Bayou Bienvenue: <http://www.mrgomustgo.org/>
- The Multiple Lines of Defense Strategy website has some great information for sustaining coastal Louisiana. You can visit their website at: <http://www.mlods.org>
- To read the Louisiana Master Plan, you can see it online at: <http://www.coastalmasterplan.louisiana.gov/>
- And to see the Army Corps of Engineer's MRGO Ecosystem Restoration Plan, visit their website: <http://www.mrgo.gov/>



Sustain the Nine from the River to the Bayou