Maritime Forest Ridge Restoration at Port Fourchon, Louisiana

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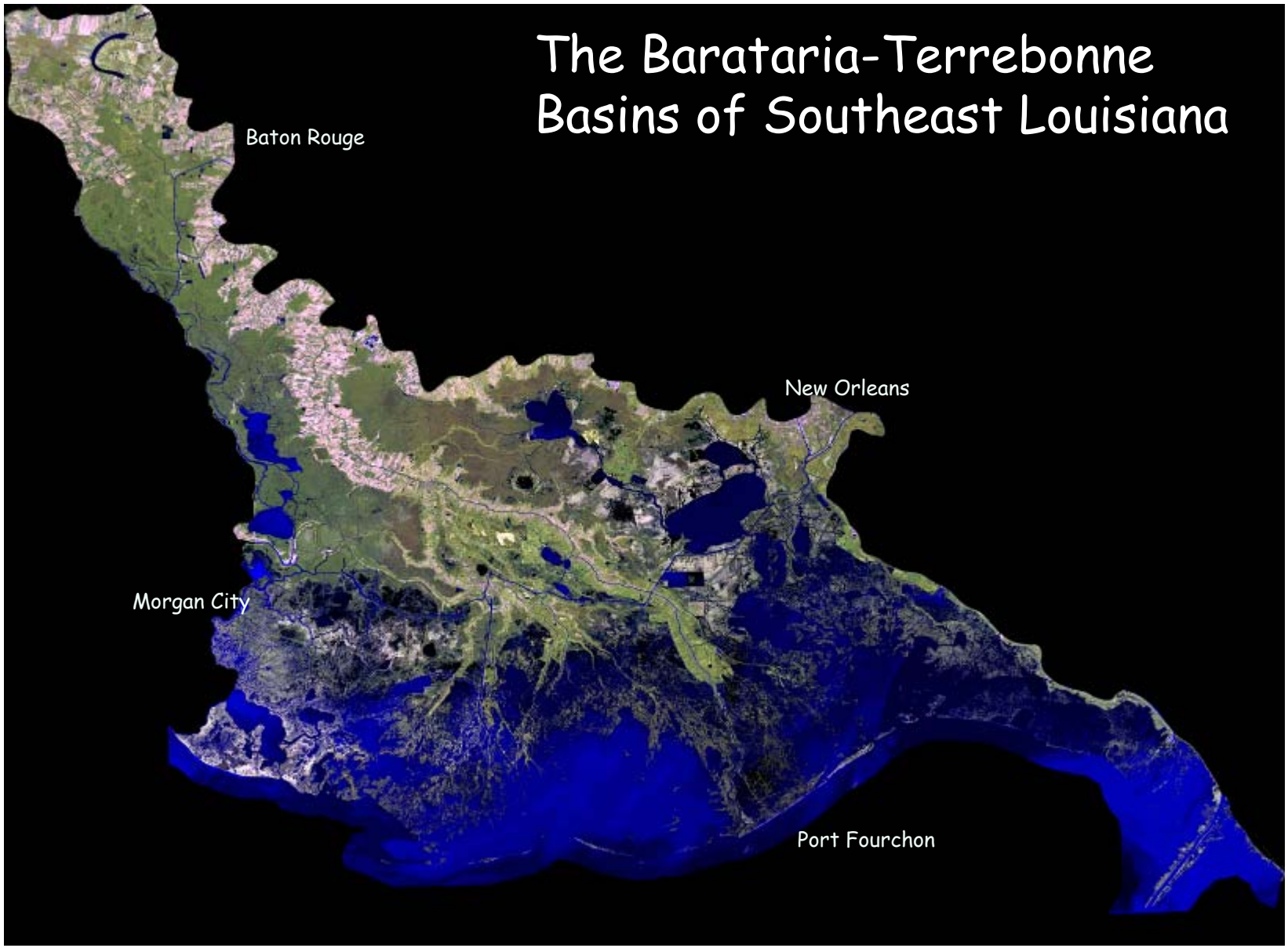
MMS Information Transfer Meeting
New Orleans

7 January 2009

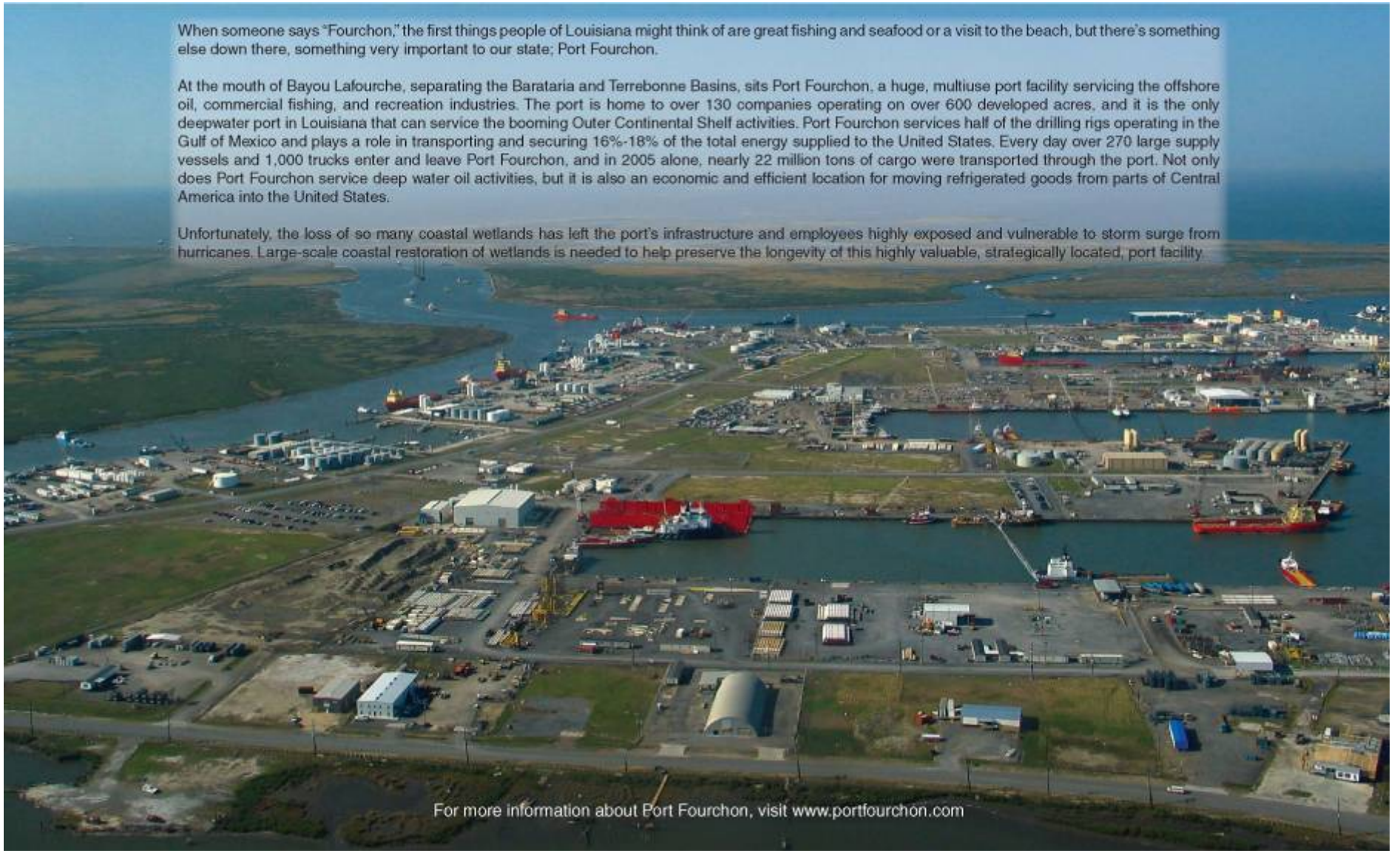
BTNEP
BARATARIA-TERREBONNE NATIONAL ESTUARY PROGRAM


The Barataria-Terrebonne Basins of Southeast Louisiana
Baton Rouge
New Orleans
Morgan City
Port Fourchon

When someone says "Fourchon," the first things people of Louisiana might think of are great fishing and seafood or a visit to the beach, but there's something else down there, something very important to our state: Port Fourchon.

At the mouth of Bayou Lafourche, separating the Barataria and Terrebonne Basins, sits Port Fourchon, a huge, multiuse port facility servicing the offshore oil, commercial fishing, and recreation industries. The port is home to over 130 companies operating on over 600 developed acres, and it is the only deepwater port in Louisiana that can service the booming Outer Continental Shelf activities. Port Fourchon services half of the drilling rigs operating in the Gulf of Mexico and plays a role in transporting and securing 16%-18% of the total energy supplied to the United States. Every day over 270 large supply vessels and 1,000 trucks enter and leave Port Fourchon, and in 2005 alone, nearly 22 million tons of cargo were transported through the port. Not only does Port Fourchon service deep water oil activities, but it is also an economic and efficient location for moving refrigerated goods from parts of Central America into the United States.

Unfortunately, the loss of so many coastal wetlands has left the port's infrastructure and employees highly exposed and vulnerable to storm surge from hurricanes. Large-scale coastal restoration of wetlands is needed to help preserve the longevity of this highly valuable, strategically located, port facility.

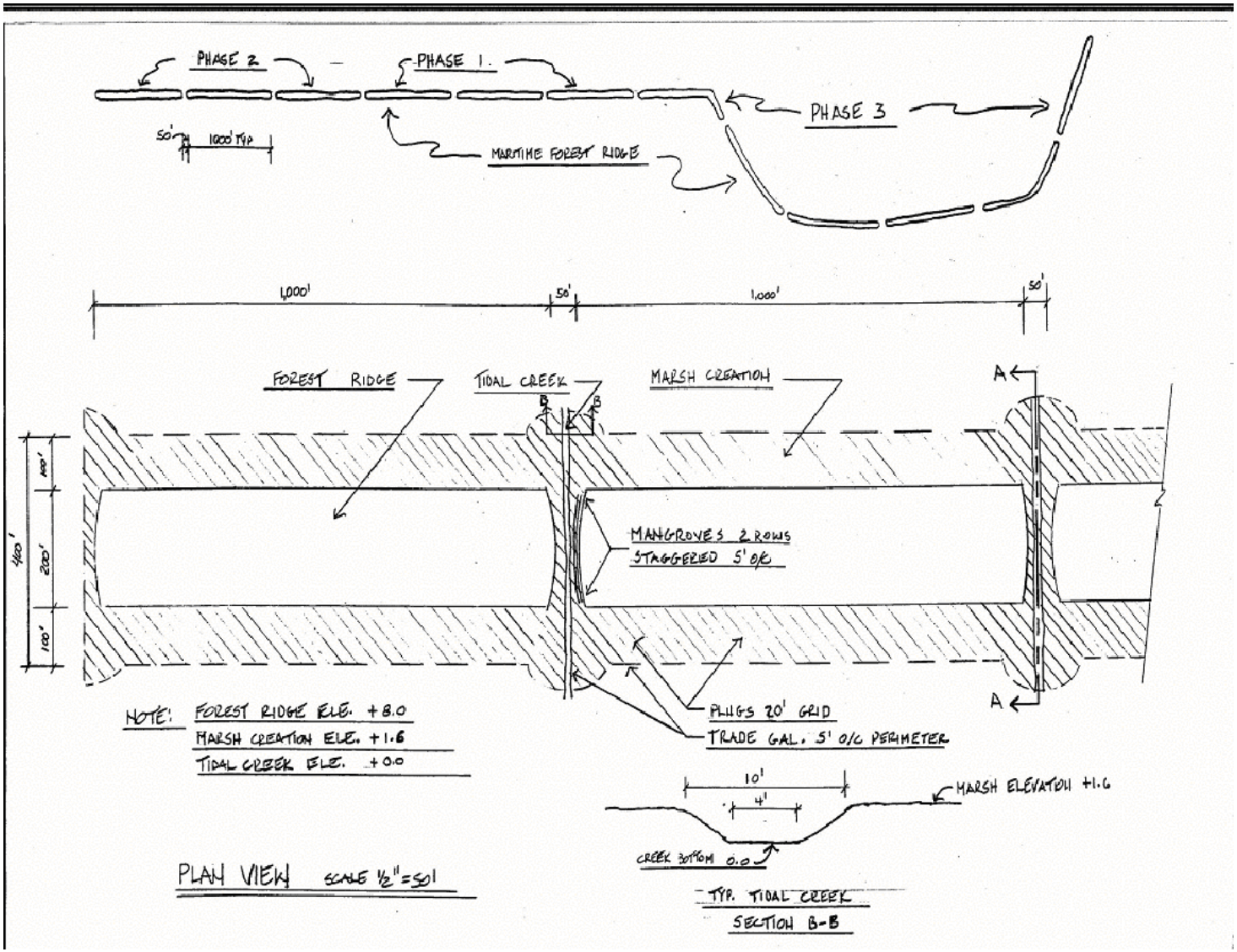


For more information about Port Fourchon, visit www.portfourchon.com

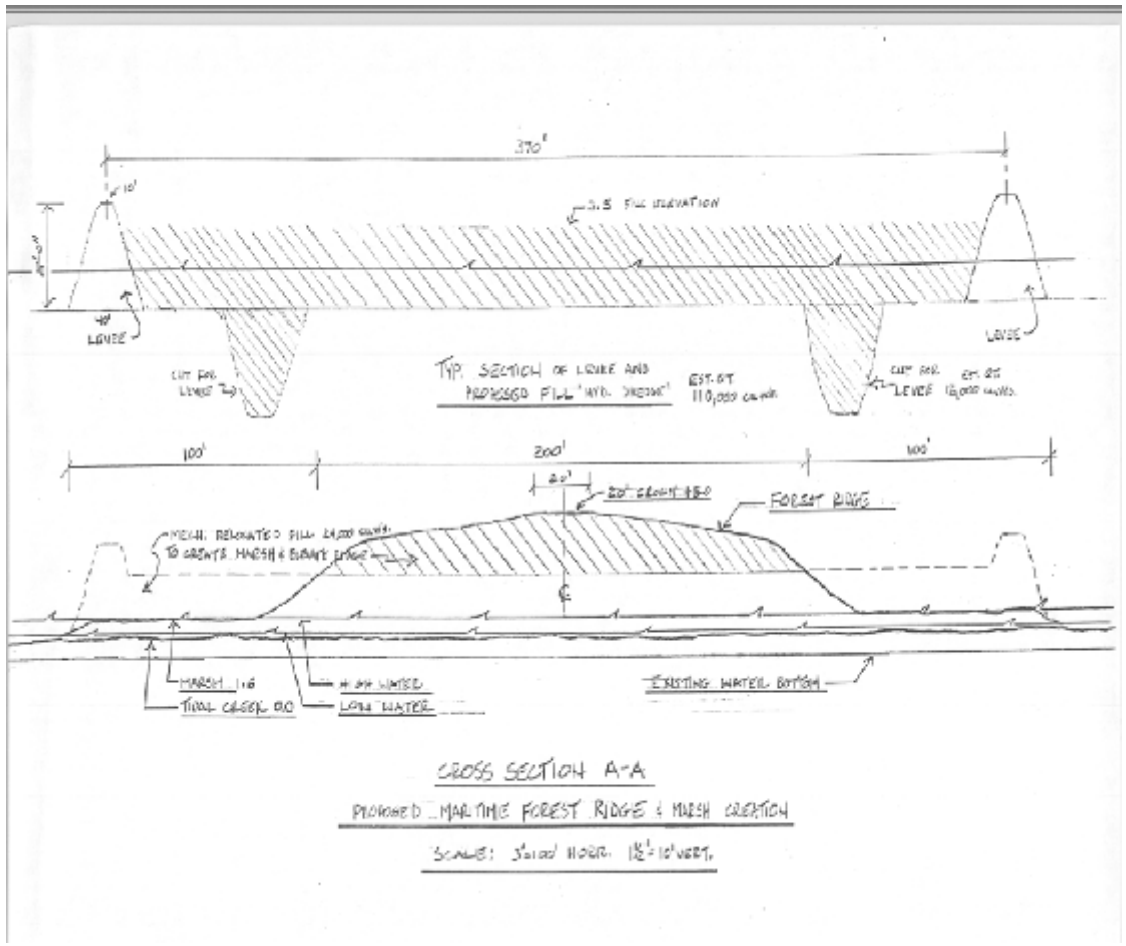

LA Hwy 1
Bayou Lafourche
Bayou Moreau
Bayou Cochon
Port Fourchon

Used a cutterhead dredge to excavate the flotation canal and large slips and pump material where desired

Aerial perspective of the maritime forest ridge and marsh restoration project



Horizontal perspective of the maritime forest ridge and marsh restoration project



Spring 2003

Initial pumping of material did not achieve desired elevation
- retainment levees of *in-situ* material did not hold
- lost much of the organic soils beneath the water
- never achieved desired elevation

In early 2004 we reconstructed retainment levees
- using the newly pumped material on Phase 1

- using highly organic material for Phase 2

Summer 2004

- pumping second lift on Phase 1
- pumping first lift to Phase 2

Fall 2004

6,000 feet of marsh/ridge platform
- Phase 1 averages about +4
- Phase 2 averages considerably less

Winter 2005

Shaping the ridge/marsh platform
Most of Phase 1 – 2,300 feet

Funding provided through BTNEP partnership
Shell Oil Company
Department of Natural Resources
Gulf of Mexico Program
Gulf of Mexico Foundation

Spring 2005

Planting initially shaped 2,300 feet.

Numerous planting days.
Hundreds of volunteers.

Post Hurricane Cindy

Summer 2005

Post Hurricane Katrina

Summer 2005

Post Hurricane Rita

Fall 2005

Winter/Spring 2006 plantings initially shaped 2,300 feet.

Numerous planting days with hundreds of folks involved.

Summer 2006

Reestablishing retainment levees for Phase 2
in preparation of second lift

Spring 2007

Initially shaped 2,300 feet

Initially shaped 2,300 feet

Spring 2008

Shaping Phase 2 – 3,000 feet

Summer 2008

Phase 2 – post Gustav

CIAP Proposal

Vegetative Trials

- Woody Plants
  - Live oak (*Quercus virginiana*)
  - Red Mulberry (*Morus rubra*)
  - Hackberry (*Celtis laevigata*)
  - Yaupon (*Ilex vomitoria*)
  - Wax Myrtle (*Morela cerifera*)
  - Hercules Club (*Zanthoxylum clava-herculis*)
  - French Mulberry (*Callicarpa americana*)

Soil Analysis

Soil Amendments and their impact on survival/growth (3 replications per treatment)

- Gypsum or Calcium chloride
- Fertilization
- Organic matter (sugarcane residue)
- Combination of treatments
- Control

The concept behind the ridge project was one of habitat restoration—the focus on Neotropical migrants.

But in reality, it has already been a tremendous success.

The Barataria-Terrebonne National Estuary

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Like No Other Place on Earth