



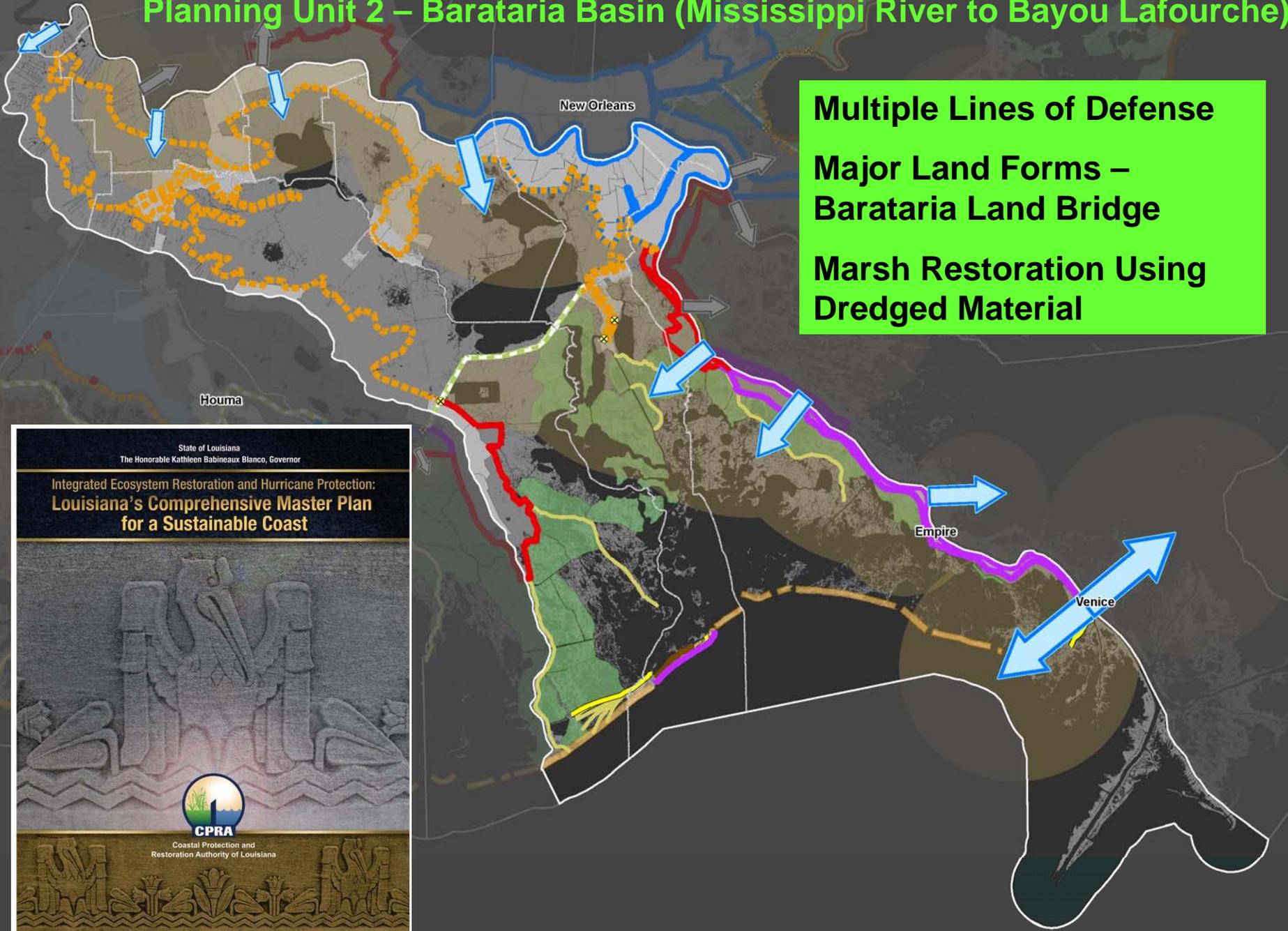
# BARATARIA BASIN

*Potential Large Scale Mitigation Projects*

*USACE Hurricane and Storm Damage  
Risk Reduction System (HSDRRS)  
MITIGATION WORKSHOP  
August 31, 2009*

*Marnie Winter, Director  
Jefferson Parish Department  
of Environmental Affairs*

# Planning Unit 2 – Barataria Basin (Mississippi River to Bayou Lafourche)

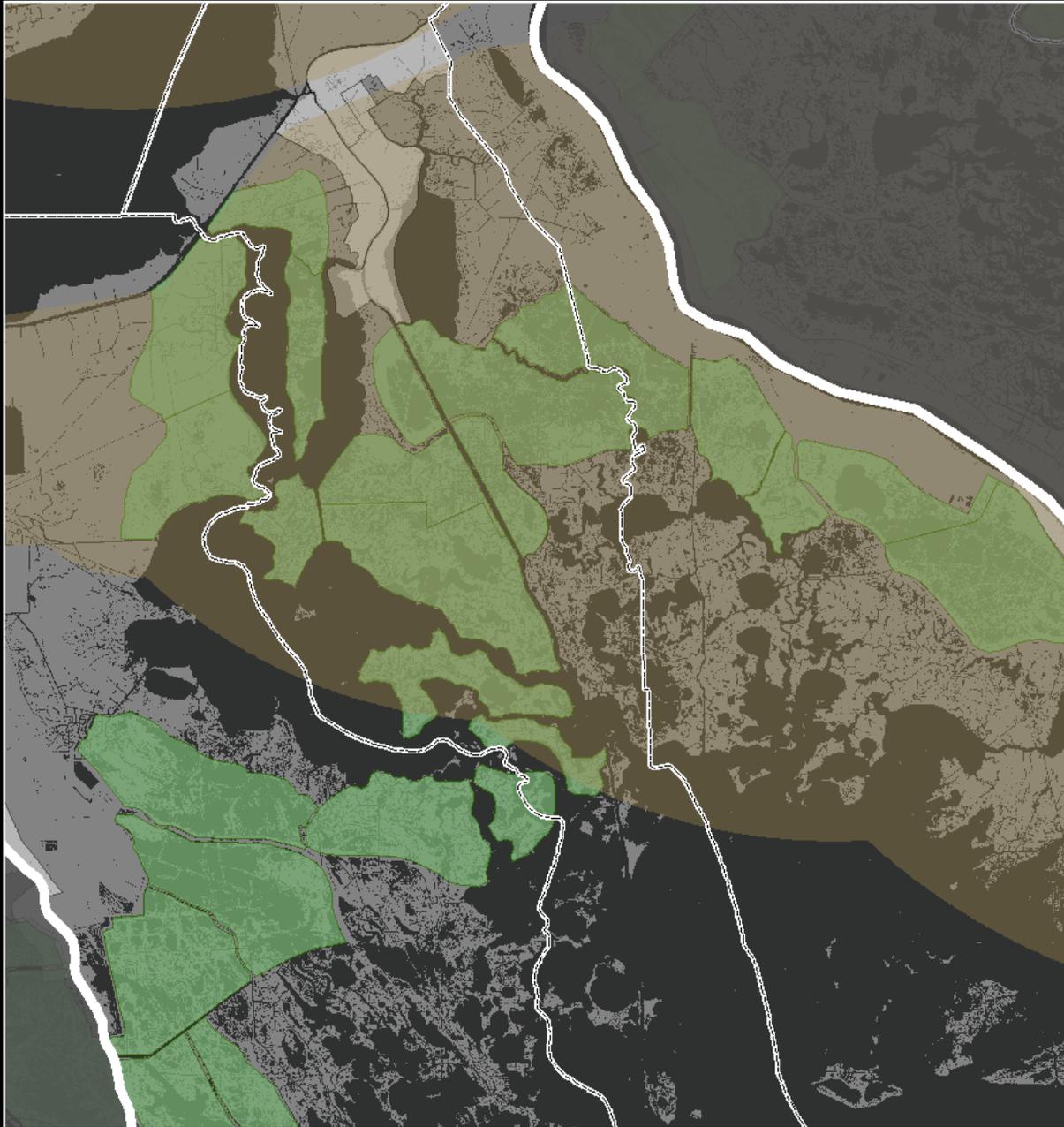


**Multiple Lines of Defense**  
**Major Land Forms – Barataria Land Bridge**  
**Marsh Restoration Using Dredged Material**

State of Louisiana  
The Honorable Kathleen Babineaux Blanco, Governor

**Integrated Ecosystem Restoration and Hurricane Protection:  
Louisiana's Comprehensive Master Plan  
for a Sustainable Coast**

**CPRA**  
Coastal Protection and  
Restoration Authority of Louisiana

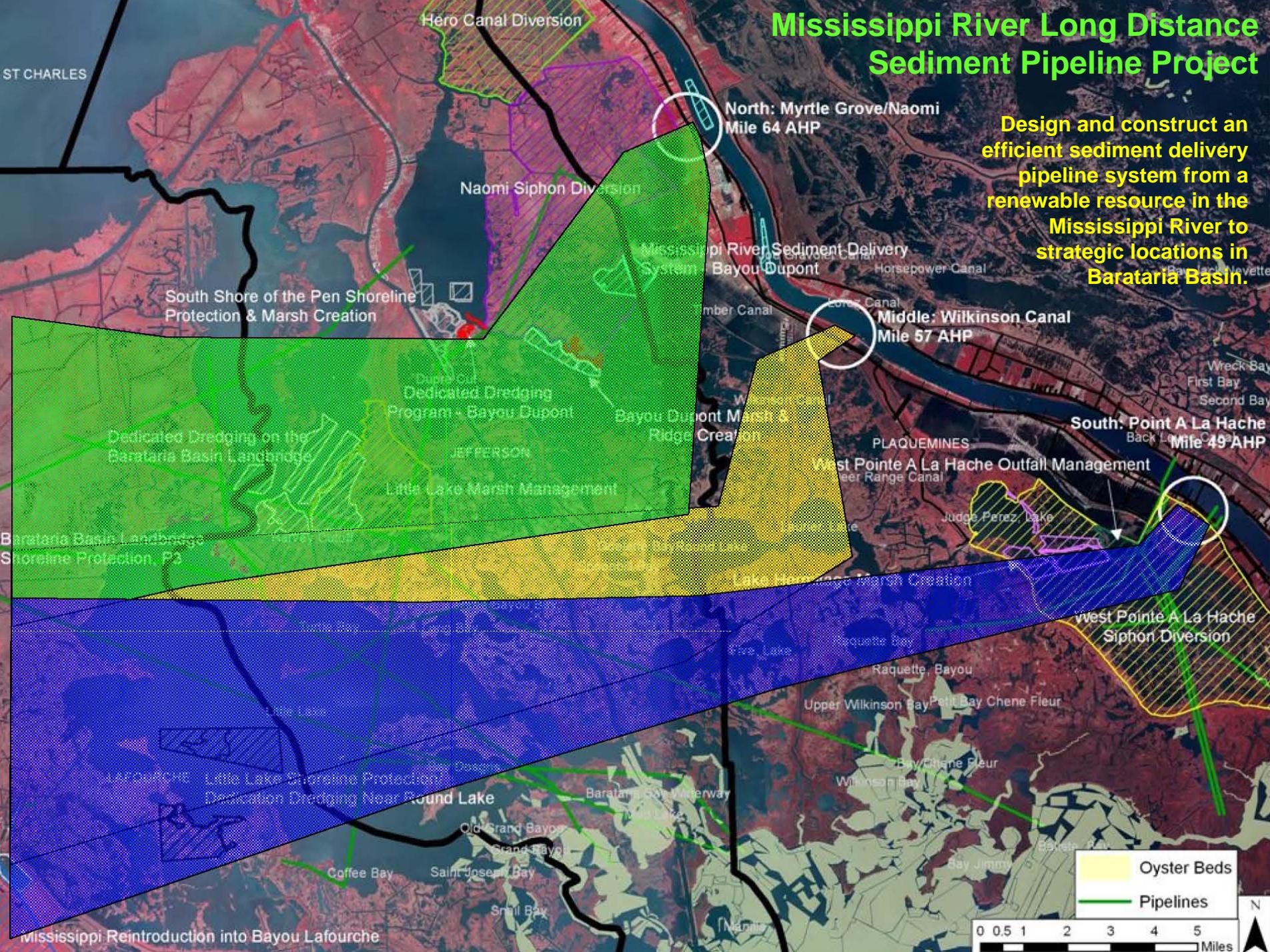


## **Marsh Restoration Using Dredged Material in Barataria Basin**

This measure will create approximately 148,000 acres of marsh using sediments mined from the Mississippi River and other sources and delivered, via slurry pipelines with pumps and outlet units, to sites across the Barataria Basin.

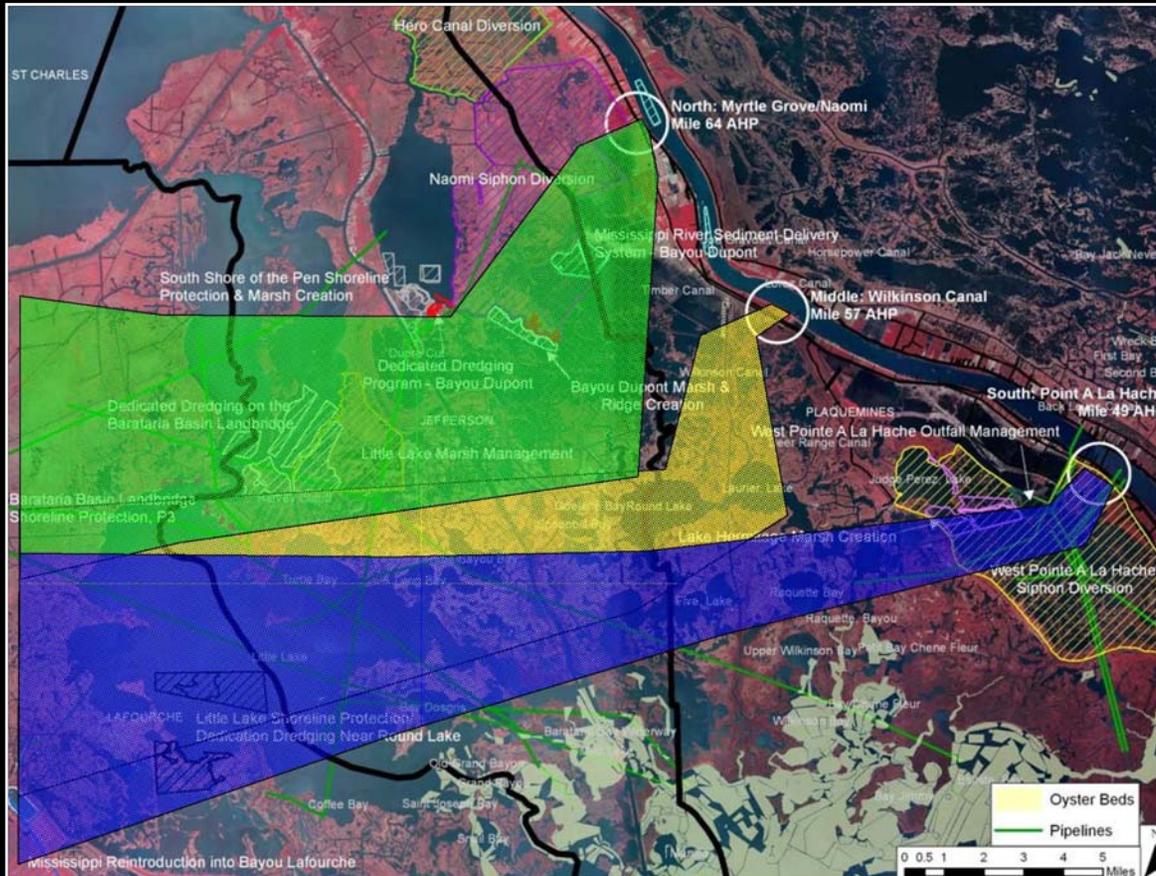
# Mississippi River Long Distance Sediment Pipeline Project

Design and construct an efficient sediment delivery pipeline system from a renewable resource in the Mississippi River to strategic locations in Barataria Basin.



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Preliminary work to implement the project is being funded by the Coastal Impact Assistance Program (CIAP) and State of Louisiana Surplus Funds.

CIAP funds will be contributed by the State of Louisiana and Plaquemines, Jefferson, and Lafourche Parishes.





## Barataria Basin Landbridge

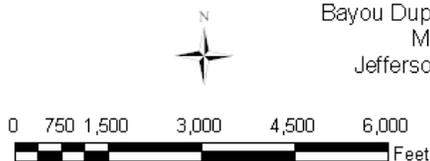
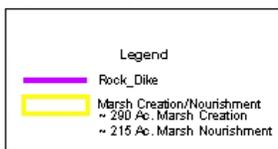
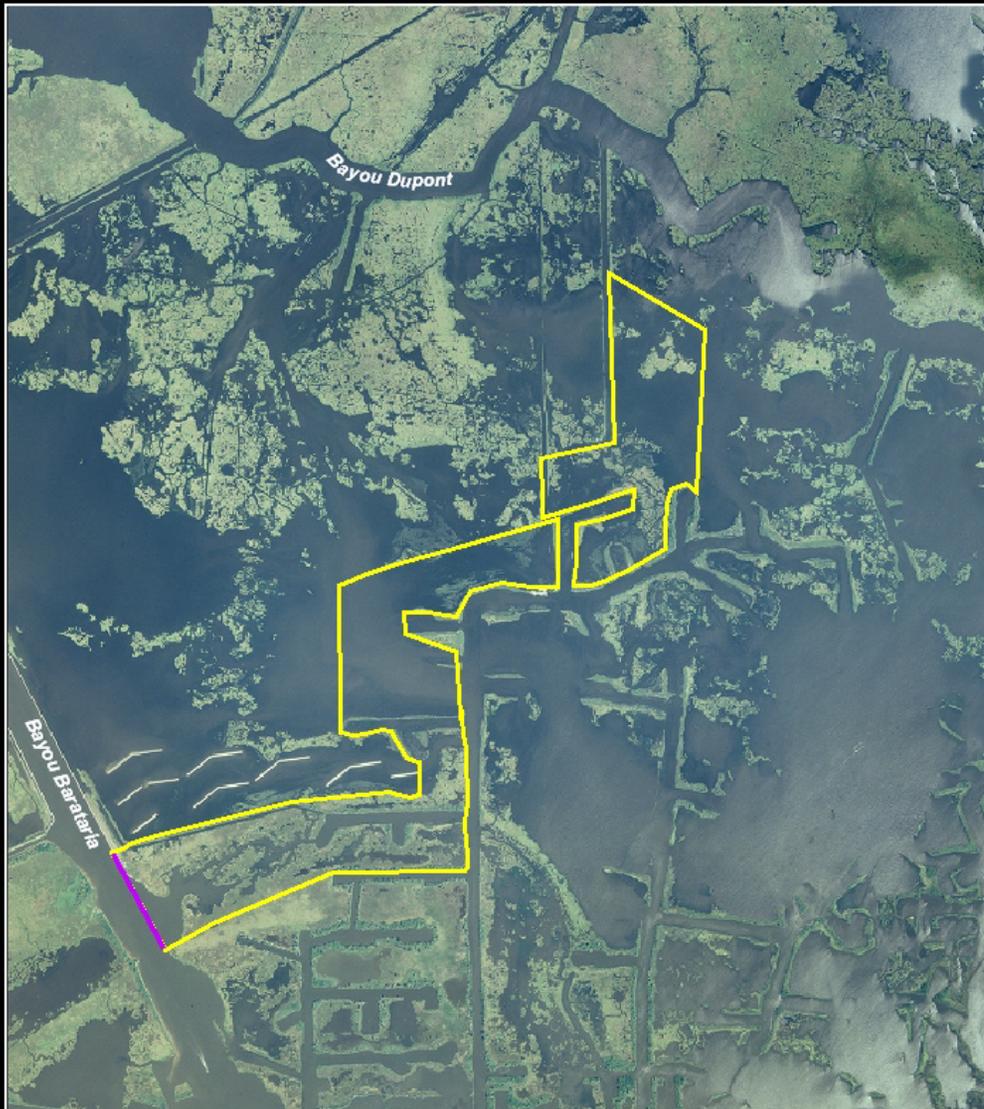
- The Barataria Land Bridge is bordered by Bayou Lafourche on the west and the Mississippi River on the east, the southern shoreline of Lake Salvador to the north, and the northern portion of Little Lake on the south.
- The Barataria Land Bridge was identified early in the CWPPRA process as a critical land form to help protect the upper portions of the Barataria Basin from saltwater intrusion and excessive tidal actions.
- If maintained as an intact landform, it may also help protect the developed areas around Lafitte and the west bank of New Orleans from storm surges associated with the passage of tropical depressions and hurricanes.



- Many shorelines have already been stabilized with rock revetment which will serve as containment for dredge material pumped from the Mississippi River
- Jefferson Parish will use a portion of its CIAP funds to complete rock revetment of the western shore of Bayou Barataria from Bayou Rigolettes south to BA-23

## Bayou Dupont to Bayou Barataria Marsh Creation

- 503 acres of marsh creation and nourishment. Material for marsh creation will be excavated from the Mississippi River.
- 1,740 feet of bank line protection along the east bank of the Barataria Bay Waterway.
- The proposed project's northern boundary is the southern boundary of the PPL17 Bayou Dupont Project. The proposed project's southern limit is in close proximity to a landowner / Duck's Unlimited sponsored terracing project that was construction 2006-07 and ties into the CWPPRA BA-26 project.



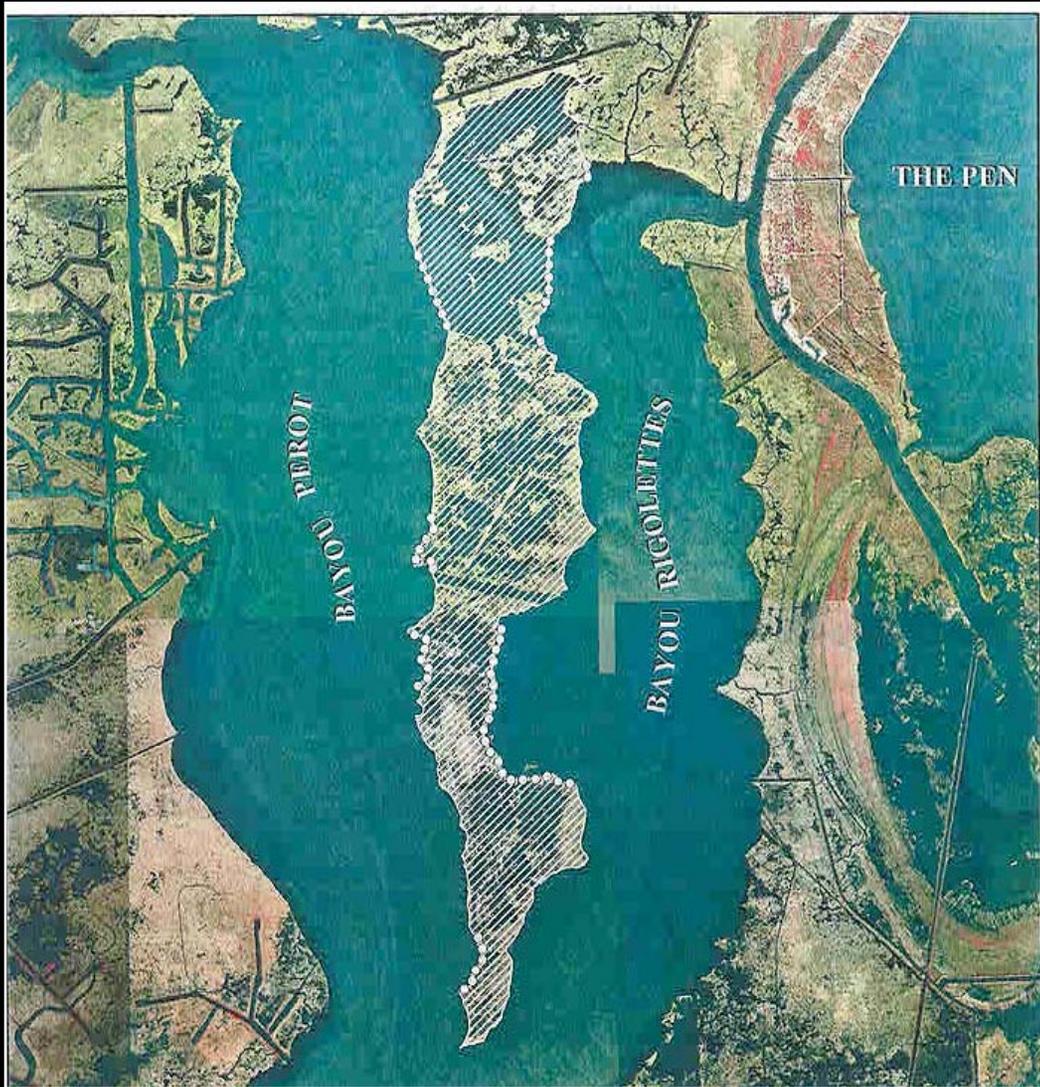
Bayou Dupont to Bayou Barataria  
Marsh Creation  
Jefferson Parish, Louisiana  
PPL 18

## NE Little Lake Marsh Creation / Shoreline Protection

- Shoreline protection will eliminate erosion from Harvey Cutoff, Turtle Bay, and Little Lake. Marsh creation effort will restore about 200 acres of emergent marsh.
- 35,000 feet of shoreline protection, leaving openings as needed for oil and gas access and/or water exchange.
- This project would work in sync with BA-2, BA-27, BA-20, BA-23, BA-03a, BA-26, and BA-41, contributing to protection of the Central Barataria Basin Landbridge.
- Project was considered as alternative for Supplemental 4 funding; USACE value engineering assessment conducted.



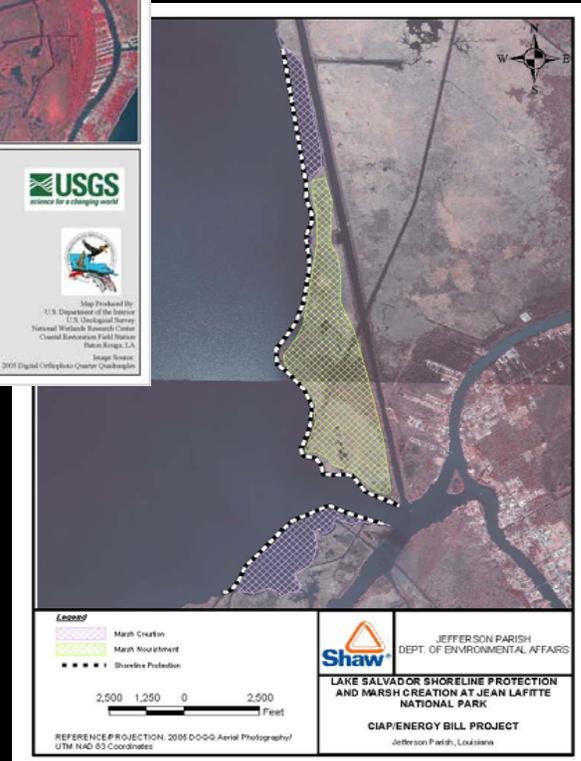
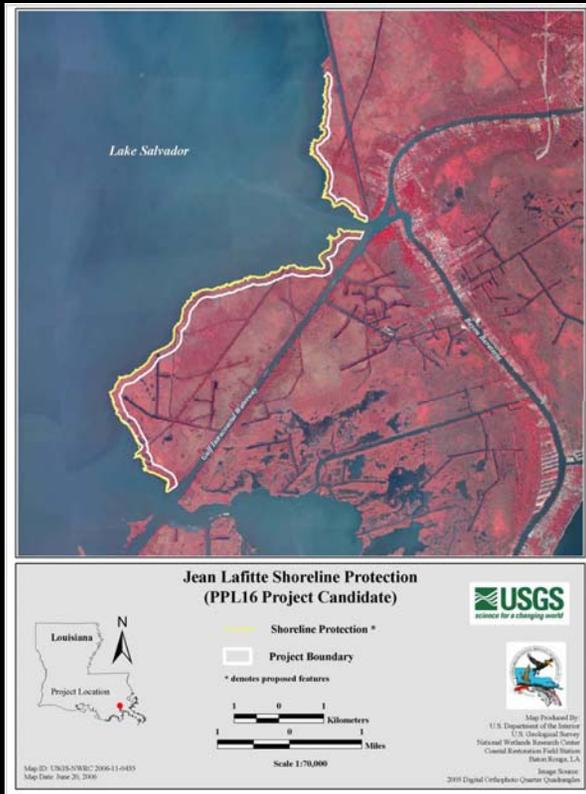
# Bayou Perot/Bayou Rigolettes Peninsula Restoration



- The peninsula lies in the area of maximum subsidence between the Mississippi River and Bayou Lafourche channel systems. The bulk density of the marsh soils has fallen, causing increased marsh loss, and shoreline erosion rates are very high.
- Sediments from the Mississippi River or adjacent water bodies could be used to restore approximately 2900 acres of wetlands between Bayou Perot and Bayou Rigolettes.

# Southern Rim of Lake Salvador

- More than 650 acres of wetlands have been lost to erosion along the southeast shore of Lake Salvador over the last 50 years.
- Average shoreline retreat in the project area is 21'/year for the period 1930 to 2001.
- Shoreline retreat appears to be accelerating with rates for the 1983 to 1990 period as great as 89'/year.
- Shoreline retreat along the southern bank of Bayou Villars is nearing the Gulf Intracoastal Waterway (GIWW).



- Powerful winds and storm surge caused by Hurricanes Katrina and Rita accelerated shoreline retreat and wetland loss. Within the project area, these storms caused 100 feet of shoreline retreat in places and the interior marsh was compacted or torn apart creating open water ponds.
- The high loss of wetlands that has occurred could also be partially responsible for flooding of the neighboring communities of Crown Point, Jean Lafitte, and Barataria.
- Shoreline stabilization and marsh restoration would protect natural resources, communities and infrastructure.



**QUESTIONS?**