

Future of the Hurricane Protection System

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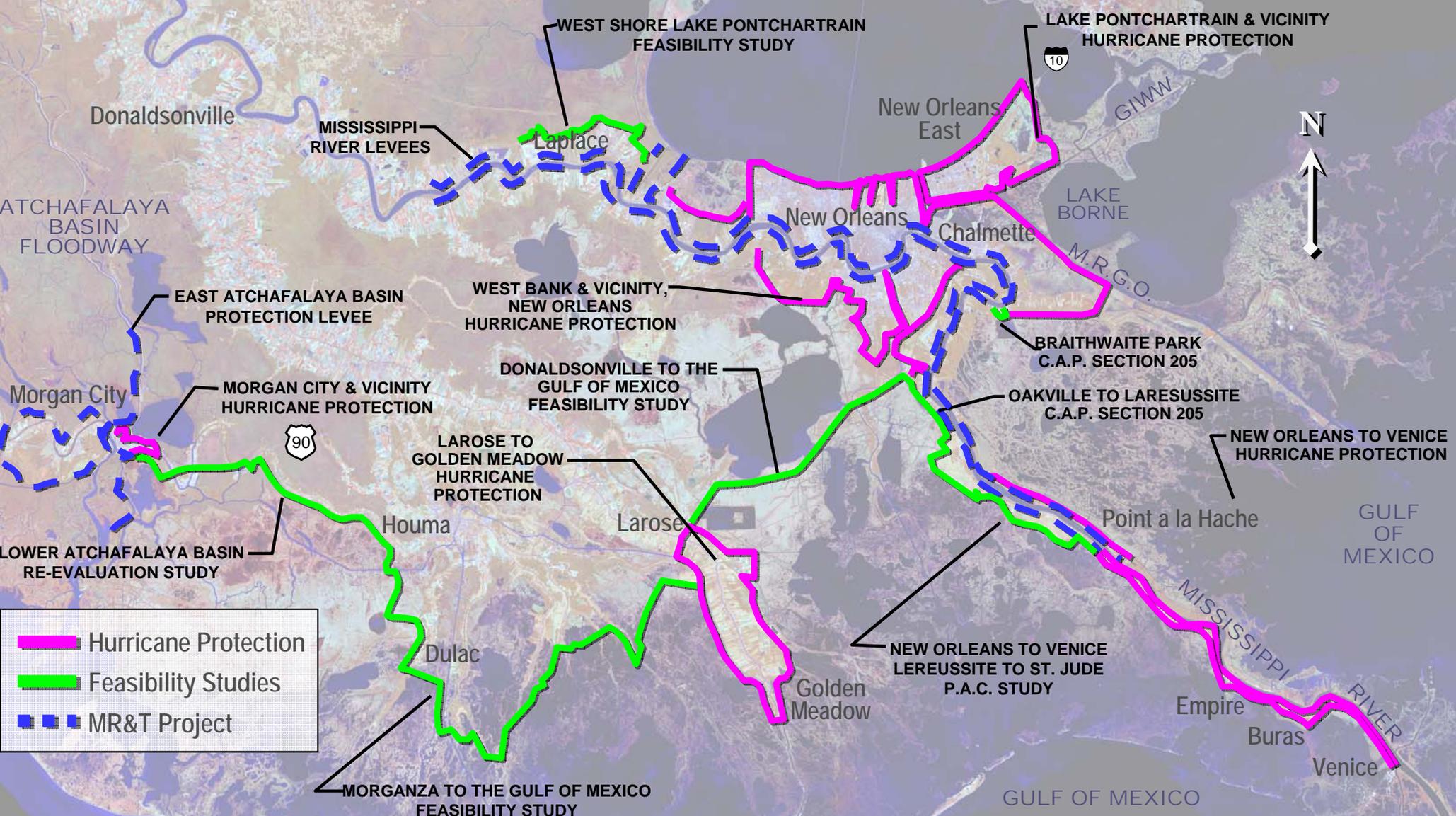
EXISTING PROJECTS

Current Situation

Levee systems take decades to build. There are 2 primary reasons for this:

- (1) Settling & compaction of earthen levee construction requires 4 to 5 years between lifts
- (2) Limited money appropriated by Congress – could build faster if larger amounts were appropriated each fiscal year.

Existing Hurricane Protection Projects and Studies



Future Work on Existing Levee Systems

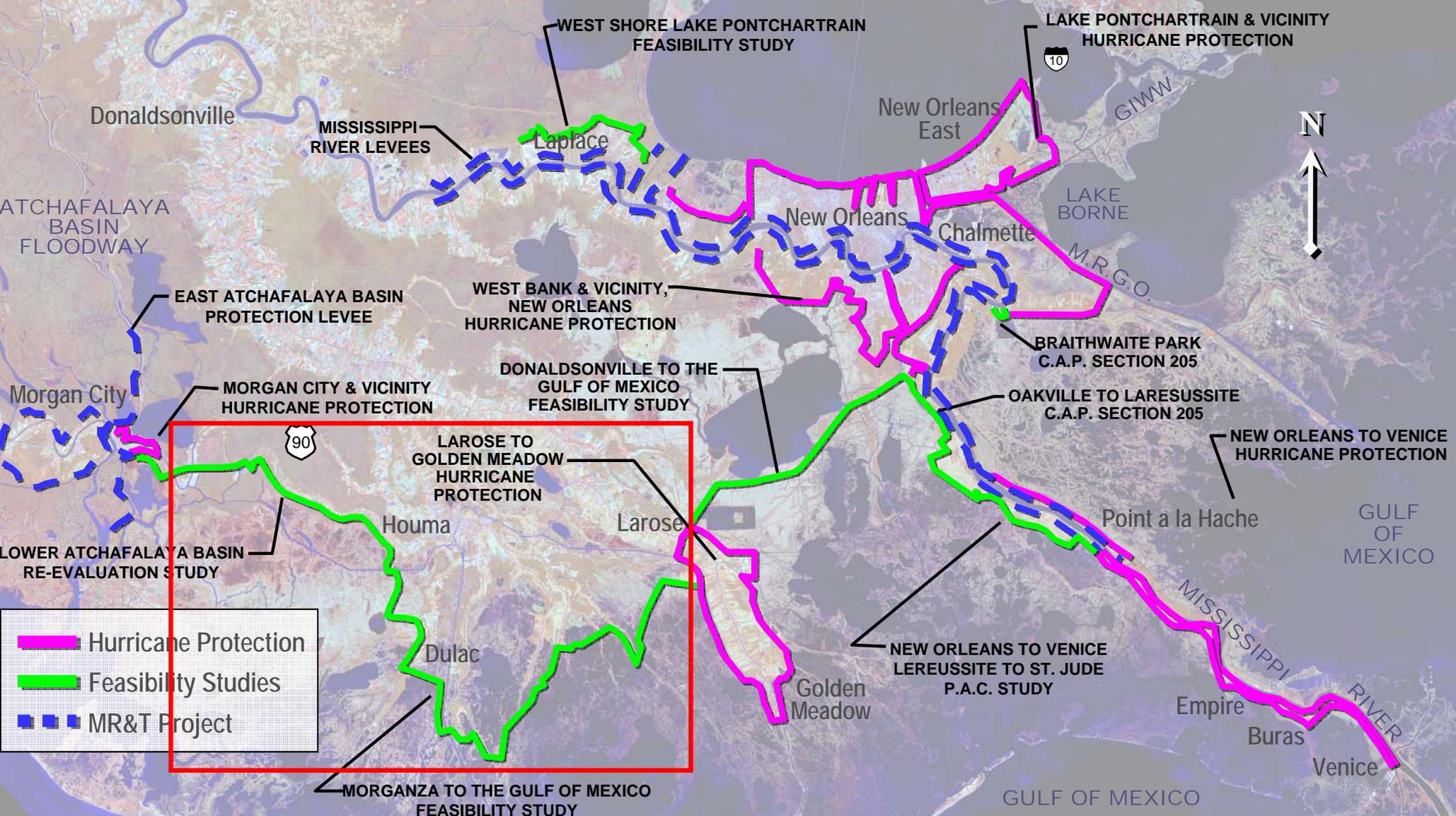
Complete authorized system	\$544,460,000
Rebuild existing system to design height	\$339,285,000
Federal Flood Control Works Rehab	\$2,000,000
Non-Federal Levees and Pump Station Rehab	\$155,000,000
Total - 3rd Supplemental	\$496,285,000

Future Work on Existing Levee Systems (cont.)

Outfall Canal Closures and Pump Stations	\$530,000,000
Improvements to IHNC (Gated Structures)	\$350,000,000
Armoring of Levees and Floodwalls	\$170,000,000
Reinforce or Replace Floodwalls	\$1,584,000,000
Non-Fed Pump Station - Storm Proofing Pump Station	\$250,000,000
Incorporate non-Fed Levees in Plaquemines Parish	\$215,000,000
Non-Fed Levees (Terrebonne Parish)	\$30,024,000
Total - 4th Supplemental	\$3,129,024,000

PLANNED PROJECTS

Existing Hurricane Protection Projects and Studies



New Hurricane Protection Projects

Morganza to the Gulf

- The Morganza to the Gulf Hurricane Protection Project is located in south central Louisiana. It has completed the study phase and has been approved by the Chief of Engineers. This project is currently awaiting Congressional authorization.
- The total cost for this project is estimated at \$886,700,000
- The project incorporates environmental features into the design.

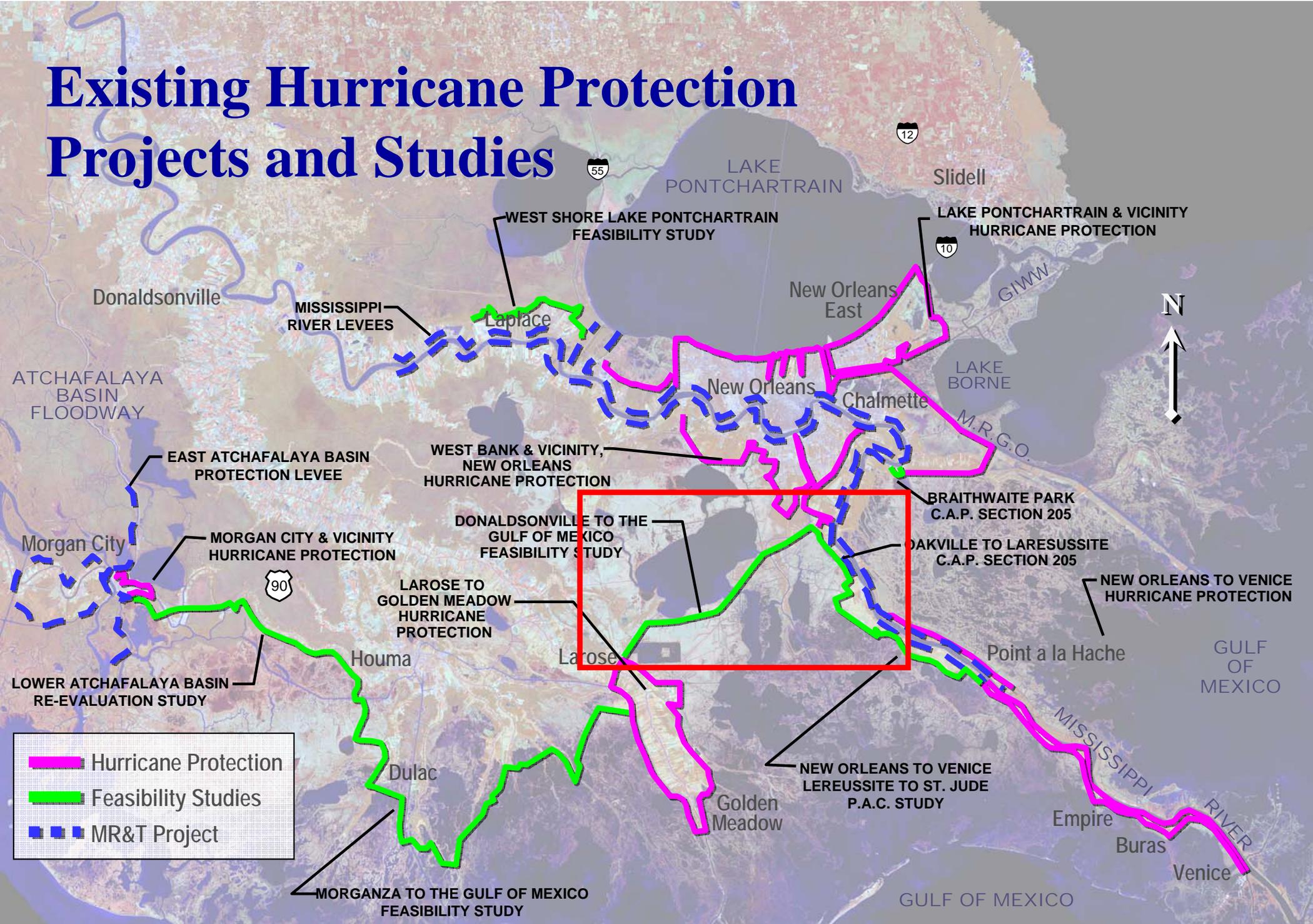


Morganza to the Gulf of Mexico Study

Recommended Alignment

-  HNC Lock
-  Sector Gates
-  Cities/Towns

Existing Hurricane Protection Projects and Studies



New Hurricane Protection Projects

Donaldsonville to the Gulf

- The Donaldsonville to the Gulf Hurricane Protection Project is located in southeast Louisiana. It is currently in the study phase and expected to be completed in September 2007.
- The total construction cost for this project is estimated at \$500,000,000.
- The project incorporates interior drainage and ecosystem restoration features into the design.

Donaldsonville, LA to the Gulf of Mexico

Possible Hurricane Levee Alignments

Donaldsonville

Laplace

West Bank & Vicinity
Hurricane Protection

MISSISSIPPI
RIVER

St. John
Parish

RIVER

Metairie

St. James
Parish

Lac Des
Allemands

Luling

Jefferson
Parish

Des Allemands

Lake
Cataouatche

Thibodaux

Lafourche
Parish

St. Charles
Parish

Lake
Salvador

BAYOU

LAFOURCHE

Bayou Lafourche

Hwy 90

Pipeline Canal

GIWW

Existing Hurricane
Protection Levee

Houma

Larose

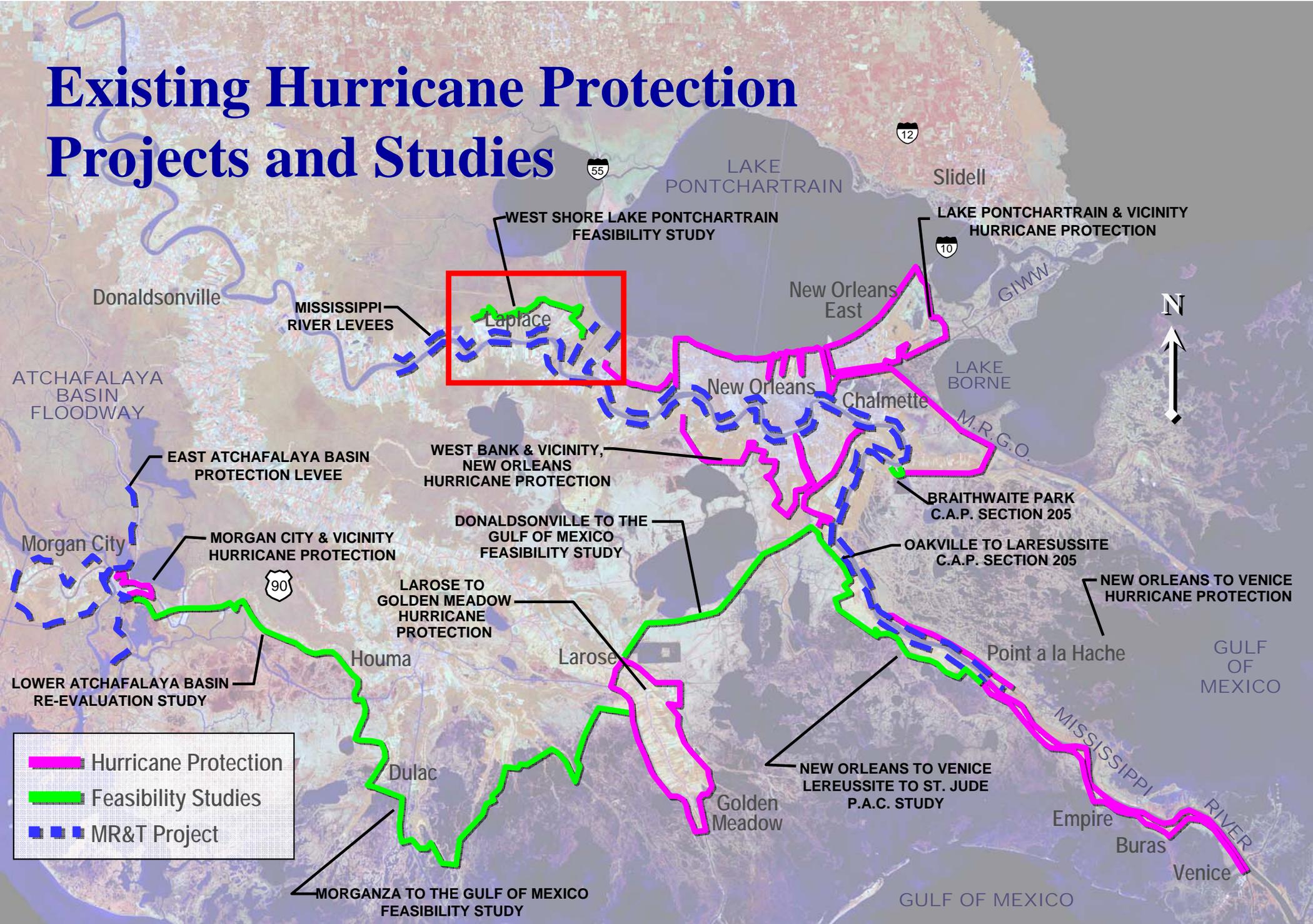
GIWW

Terrebonne
Parish

Larose to
Golden Meadow
Hurricane Protection



Existing Hurricane Protection Projects and Studies



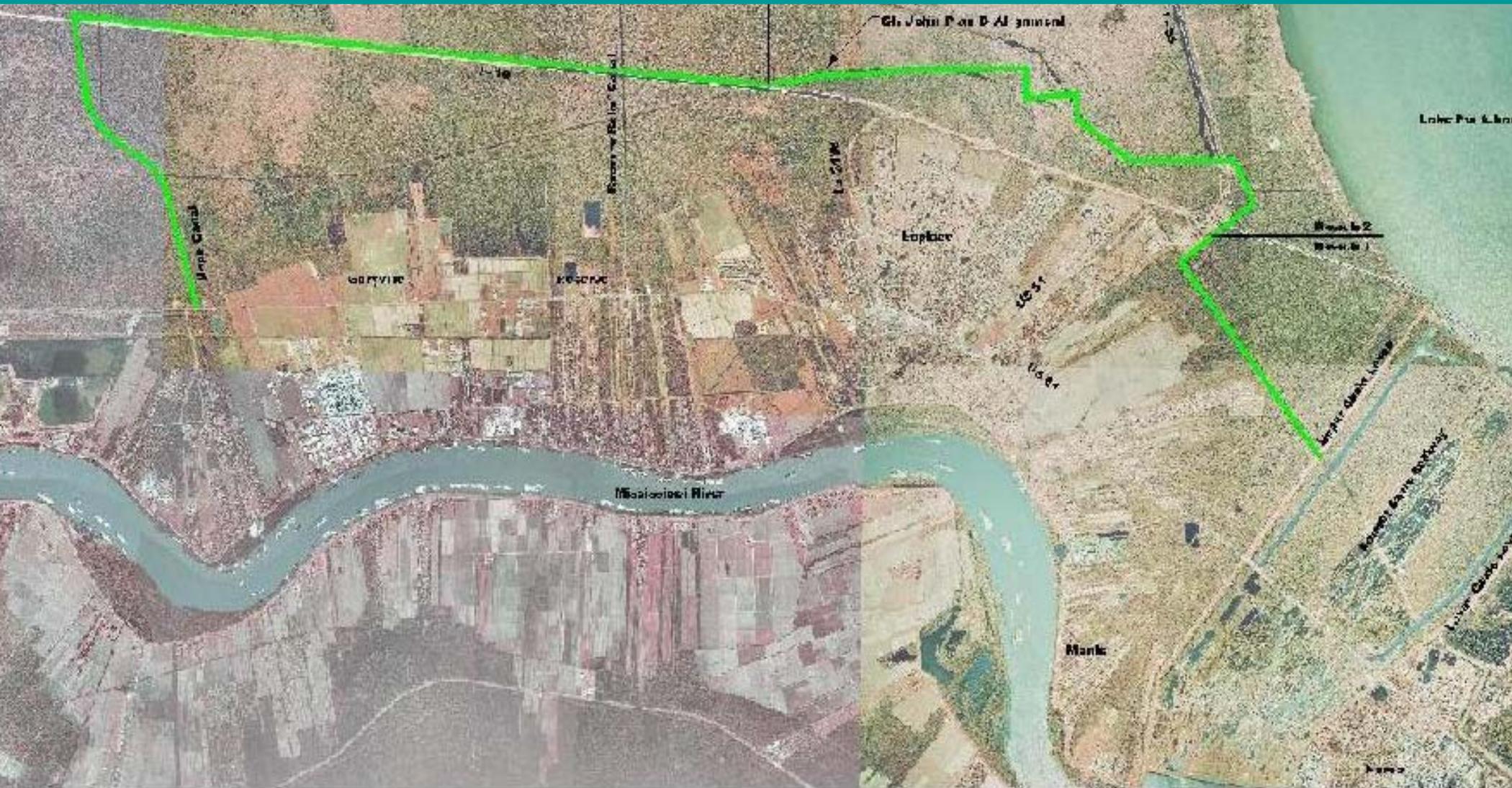
New Hurricane Protection Projects

West Shore Lake Pontchartrain

- The West Shore Lake Pontchartrain Hurricane Protection Project is located in southeast Louisiana. It is currently in the study phase and expected to be completed in September 2007.
- The total construction cost for this project is estimated at \$140,000,000.
- The study is trying to identify the alignment with the least environmental impacts.

West Shore Lake Pontchartrain, LA

Possible Hurricane Levee Alignments



**LOUISIANA COASTAL
PROTECTION AND
RESTORATION**

Louisiana Coastal Protection and Restoration (LaCPR)

This is a relatively new study that will investigate providing higher level hurricane protection for the entire coast of Louisiana.

While this study has been fast tracked in the aftermath of Katrina, the timeframe for completing a comprehensive study is expected to take at least two years.

Planning Units*

Geographic Planning Units



* Further divided into sub-units for better resolution as investigation progresses

Importance of LA Coast to the Nation

- Louisiana is a “working coast”
 - Strategic energy production and delivery corridor
 - Waterborne commerce gateway to the world
 - Vibrant commercial fisheries production grounds
 - Coastal ecosystem with diverse fish and wildlife
- Coastal restoration is integral to hurricane protection of Louisiana’s “working coast”
- Unaddressed risk to coastal Louisiana equates to risk of disrupted goods and services to Nation

Approach

- Multiple lines of defense strategy
 - Coastal restoration/protection
 - Structural measures
 - Non-structural features
- Describes need for using risk reduction decision framework
- Characterizes hurricane threat and engineering design challenges

Expected Results

- Preliminary Cost Estimates to provide protection to the entire Louisiana coast are around \$200 billion.
- Likely recommendation of the study will not include the entire coast.