



Coastal Protection and  
Restoration Authority of Louisiana

# St. Tammany Region Projects

John Troutman  
CPRA Operations Division  
July 17, 2013



# **Update on activities in the region includes:**

## **1. Two studies/plans**

- **one recently completed**
- **one ongoing**

## **2. Restoration Projects**

- **Recent past and near future**
- **Federal, State, and Local**
- **Various stages (Planning – Construction)**

## **3. Master Plan projects – further out**

June 15, 2012

## **Final Report**

# **NORTHSHORE HURRICANE/FLOOD PROTECTION/RESTORATION PLAN**

**Prepared by:**

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**Prepared for:**

**St. Tammany Parish  
and  
Tangipahoa Parish**

**Sponsor:**

**Louisiana Coastal Protection and Restoration Authority**  
Office of the Governor - Coastal Activities  
P.O. Box 44027  
Baton Rouge, Louisiana 70804-4027

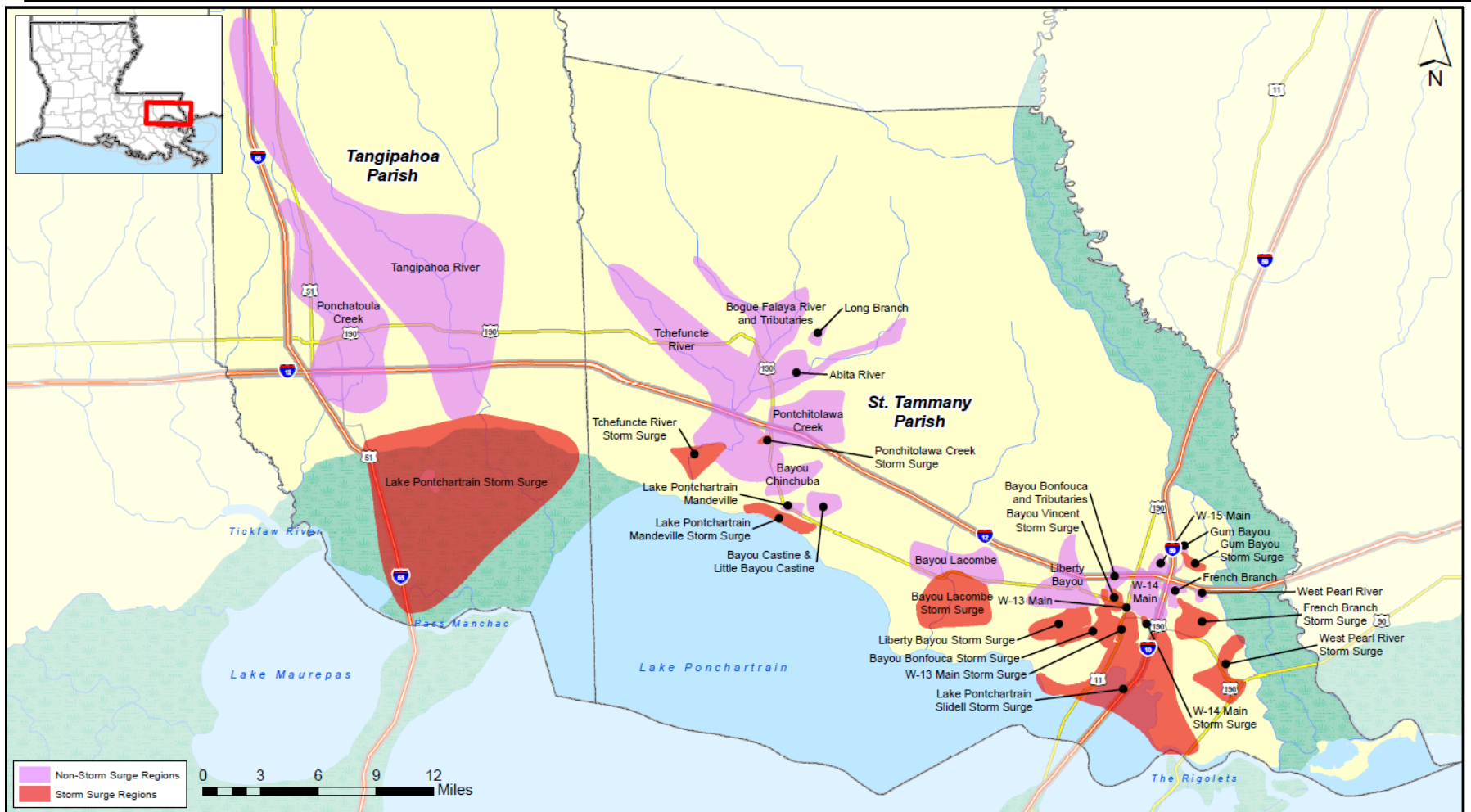
# **North Shore Hurricane/Flood Protection Plan (PO-74) Overview**

## **Scope of the Plan:**

- **Assess Northshore area flood risk**
- **Evaluate existing drainage, flood protection, coastal restoration projects and other data**
- **Recommend actions**

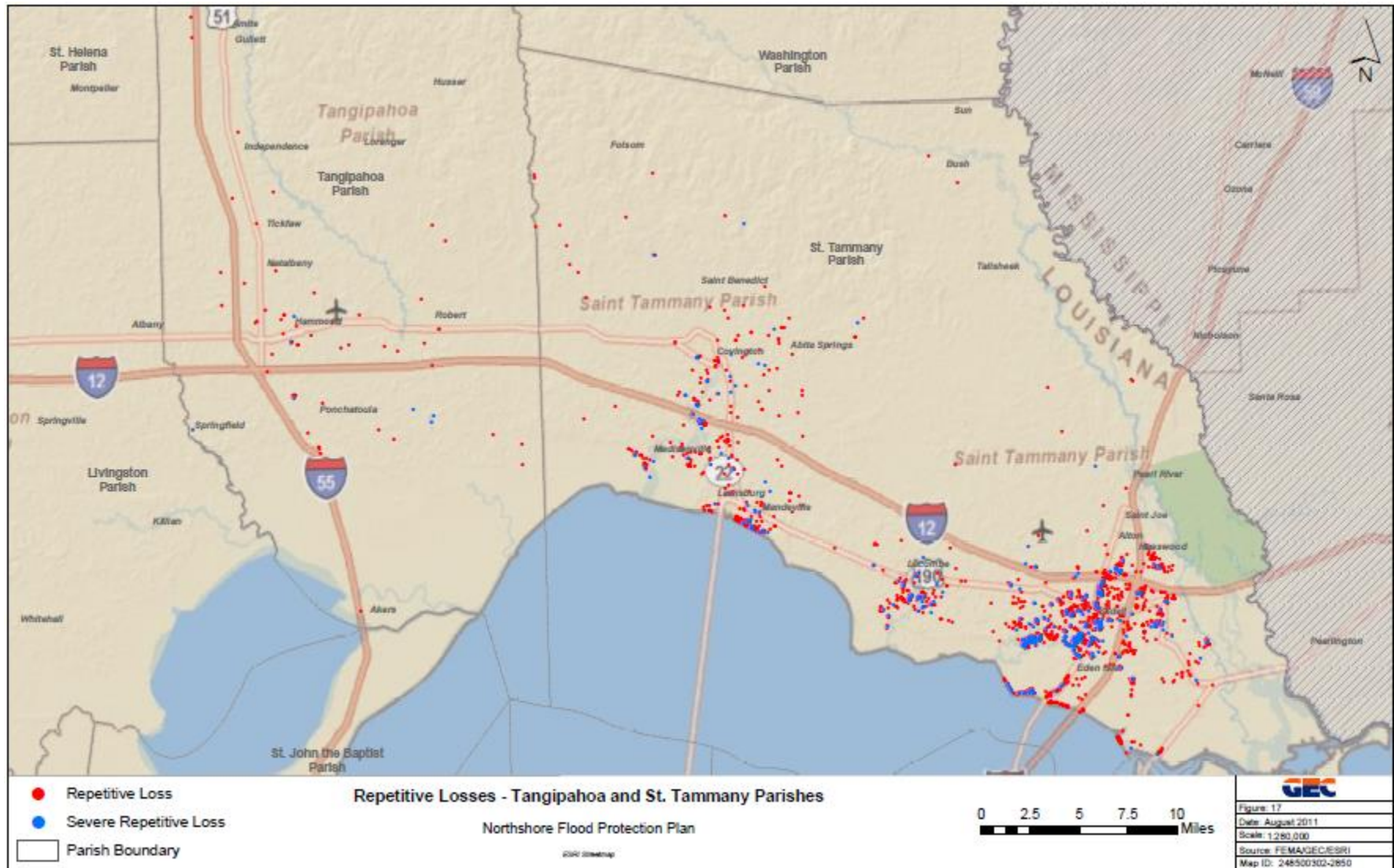


# Identified Flood Prone Areas and Flooding Sources



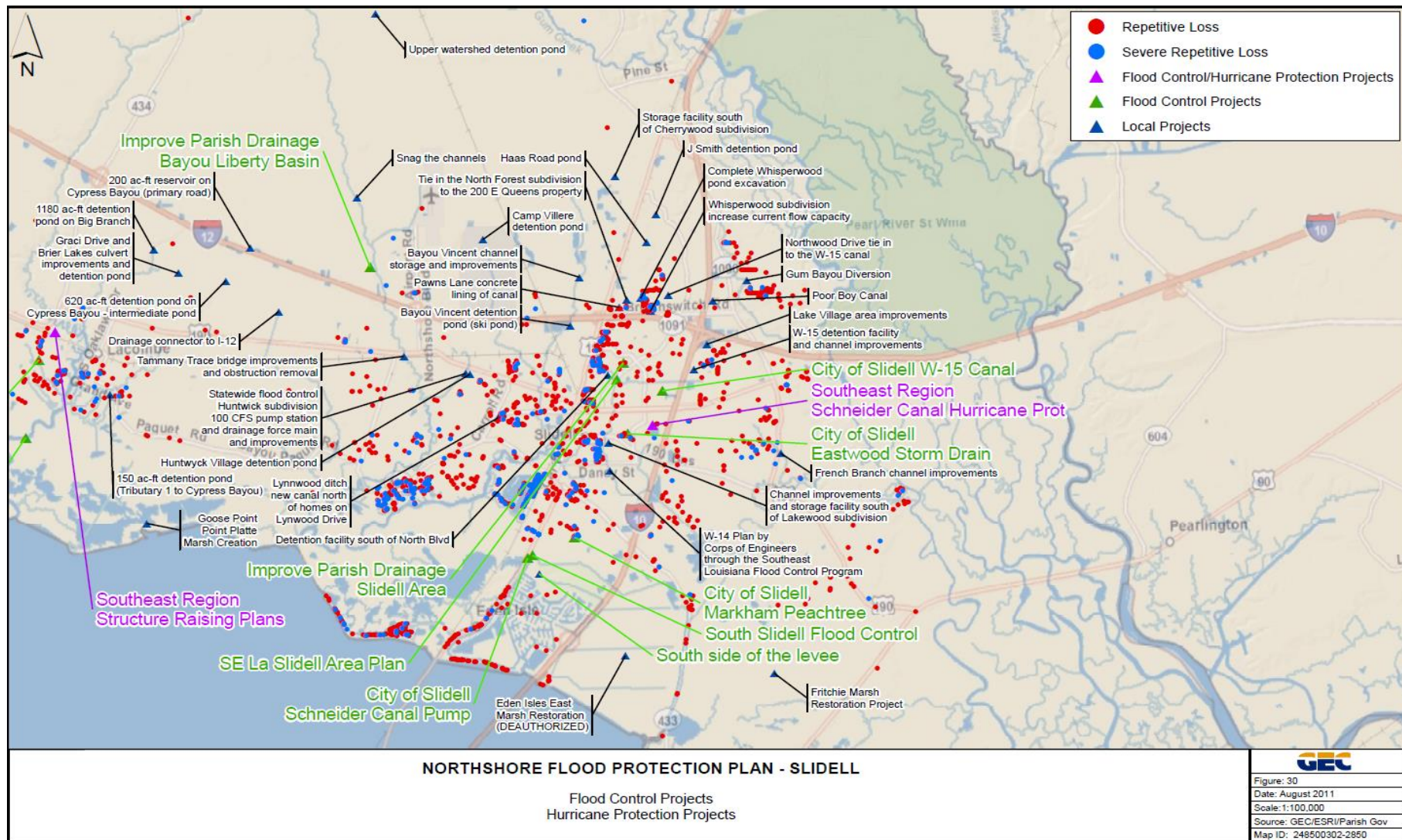
**Regions of Repetitive Flood Damages**  
 Northshore Flood Protection Plan  
 St. Tammany and Tangipahoa Parishes, Louisiana

# Reviewed Repetitive Flood Losses

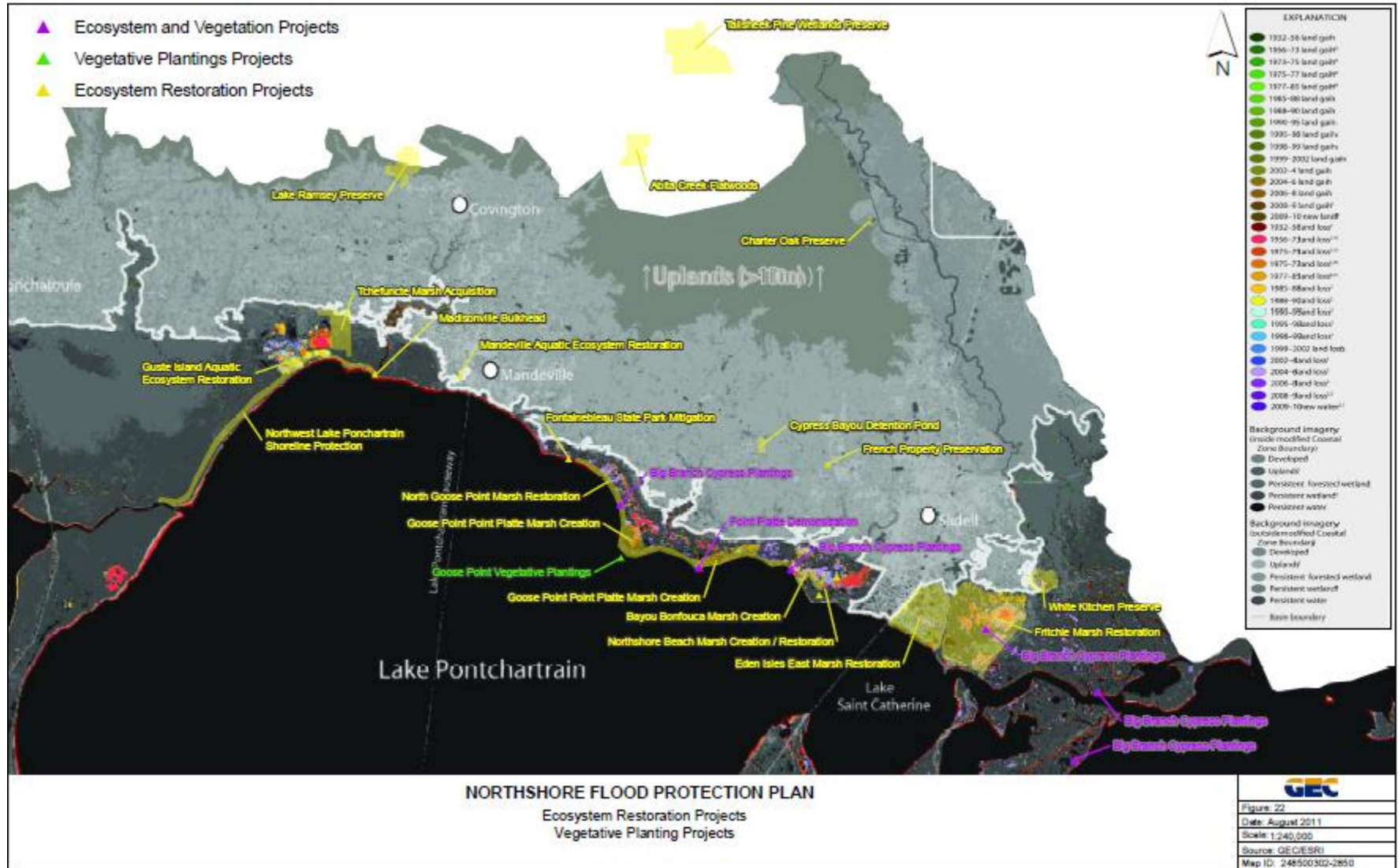




# Evaluated Hurricane/Flood Control Projects with Repetitive Loss Data



# Evaluated Restoration Projects for Potential Flood Reduction Benefits





# Recommended Mitigation Focus Areas and Projects *(partial list)*

Table 14. Summary of Results for Mitigation Focus Areas

Area	Causes	Type of Flood Event	Social Vulnerability	Economic Vulnerability	Treatments	Projects
Abita River	Large rain events	Headwater	Low to Medium	Low	Elevate Relocate Flood proofing	SELA Structure Raising Stormwater detention ponds
Bayou Bonfouca and Tributaries Storm Surge	Hurricanes	Storm surge	High	Low	Elevate Relocate	N/A
Bayou Bonfouca and Tributaries	Large rain events	Headwater Backwater	High	Low	Elevate Relocate Flood proofing	Bayou Vincent Hamel Storage and Improvements Bayou Vincent Detention Pond
Bayou Castine/Little Bayou Castine	Large rain events	Headwater	High	Low	Elevate Relocate Flood proofing	New Canaan Hills Detention Facilities New Channel Improvements Quail Creek/Hidden Pines Detention Facility
Bayou Chinchuba	Large rain events	Headwater	Low	Low	Elevate Relocate Flood proofing Further drainage investigations	SELA Bayou Chinchuba Structure Raising Plan Controls at the Lakes at Green leaves
Bayou Lacombe Storm Surge	N/A	Storm surge	High	Low	Elevate Relocate	Improve Parish Drainage Capacity Priority #1 SELA Lacombe Area Structure Raising Plan
Bayou Lacombe	Large rain events	Headwater	High	Low	Elevate Relocate Flood proofing	SELA Structure Raising
Bayou Vincent Storm Surge	N/A	Storm surge	Low	Low	Elevate Relocate	N/A
Bogue Falaya River	Large rain events	Headwater Backwater	Low	Low	Elevate Relocate Flood proofing	City of Covington Hazard Mitigation SELA Mile Branch Plan Tchebicate River and Bogue Falaya Navigation and Flood Control Project
French Branch Storm Surge	Large rain events	Storm surge	High	High	Elevate Relocate	French Branch Canal Improvement
French Branch	Large rain events	Headwater Backwater	High	High	Elevate Relocate Flood proofing Further drainage investigations	Lake Village Area Improvements W-15 Detention Facility
Gun Bayou Storm Surge	N/A	Storm surge	High	High	Elevate Relocate	N/A
Gun Bayou	Large rain events	Headwater Backwater	High	High	Localized drainage investigations	Gun Bayou Diversion
Liberty Bayou Storm Surge	N/A	Storm surge	High	High	Elevate Relocate	N/A
Liberty Bayou	Large rain events	Headwater Backwater	High	High	Elevate Relocate Flood proofing	Tannary Trace Bridge Improvements and Obstruction Removal Bayou Liberty Basin
Long Branch	Large rain events	Headwater	Low	Low	Elevate Relocate Flood proofing	SELA Abita Springs Structure Raising Plan
Lake Pontchartrain/Mandeville Storm Surge	N/A	Storm surge	Low	Low	Elevate Relocate	Rejected proposed levee
Lake Pontchartrain/Mandeville	Large rain events	Headwater	Low	Low	Elevate Relocate Flood proofing	Labarre Street Detention Pond and Channel Improvements Woodlands Detention Pond and LBC HM/GP Project Decommissioned SELA WWTP sludge pond
Pontchartrain/Sidell Storm Surge	N/A	Storm surge	High	High	Elevate Relocate	SELA Mandeville Hurricane Protection Plan SELA Schneider Canal Hurricane Protection STP South Sidell Levee MP City of Sidell Schneider Canal Pump improvements

# **STATUS OF PROJECTS IDENTIFIED IN THE NORTHSHORE PLAN**

## **Projects in Engineering and Design:**

- **Levee Segment 2B and Schneider Canal Fronting Protection**
- **Channel Relocation North of Cloverland**

## **Constructed Projects:**

- **Levee Segments 2A, 3B and 3C**
- **Graci Drive Culvert Improvements**
- **Whisperwood Pond**
- **Cypress Bayou Pond**
- **Tammany Hills Detention Pond**
- **Labarre Street Detention Pond and Channel Improvements (under construction)**



# St. Tammany Watershed Management Study (PO-151)

**\*\*Recently initiated**  
**Projected Completion Date**  
**Total Project Budget**  
**Funding Program**

**March 2014**  
**\$1.3 million**  
**CDBG**

## St. Tammany Parish TMDL Priority Areas

### Legend

◆ Dischargers	Study Reaches
★ Storm Sewer Discharge	Parish Owned
● LDEQ Water Quality Monitoring	Areas That Fail Standards
— Existing Sewage Line	Subdivisions
— Proposed 08 Inch Sewage Line	Capital Projects 2012
— Canals	Capital Projects 2012
— Parish Laterals	LRA Projects Benefit Areas
— Streets	TMDL Regional Projects
— Major Roads	Protection, Control, and Preservation
— Streams & Waterbodies	Drainage Improvement and Flood Prevention Projects
■ Ponds	Louisiana Wetlands Projects
— Intensive Survey Reaches	CWPPRA Projects



1 0 1 Miles

This map was produced by St. Tammany Parish Information Services.  
Note: This map is for planning purposes only. It is not a legally recorded plan, survey, official tax map or engineering schematic, and it is not intended to be used as such. Map layers were created from different sources at different scales, and the actual or relative geographic position of any feature is only as accurate as the source information.  
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# **St. Tammany Watershed Management Study (PO-151)**

- **Prioritize projects for combined water resource management**
  - **Wetland Restoration**
  - **Storm Surge Protection**
  - ***Urban Growth***
  - ***Storm Water Runoff and Water Quality***
  - ***Drainage***
- **Study Features:**
  - **Data Collection and Model Application**
  - **Alternatives Evaluation**
  - **Prioritization of projects**

# **Coastal Restoration Projects 2009 - Present**



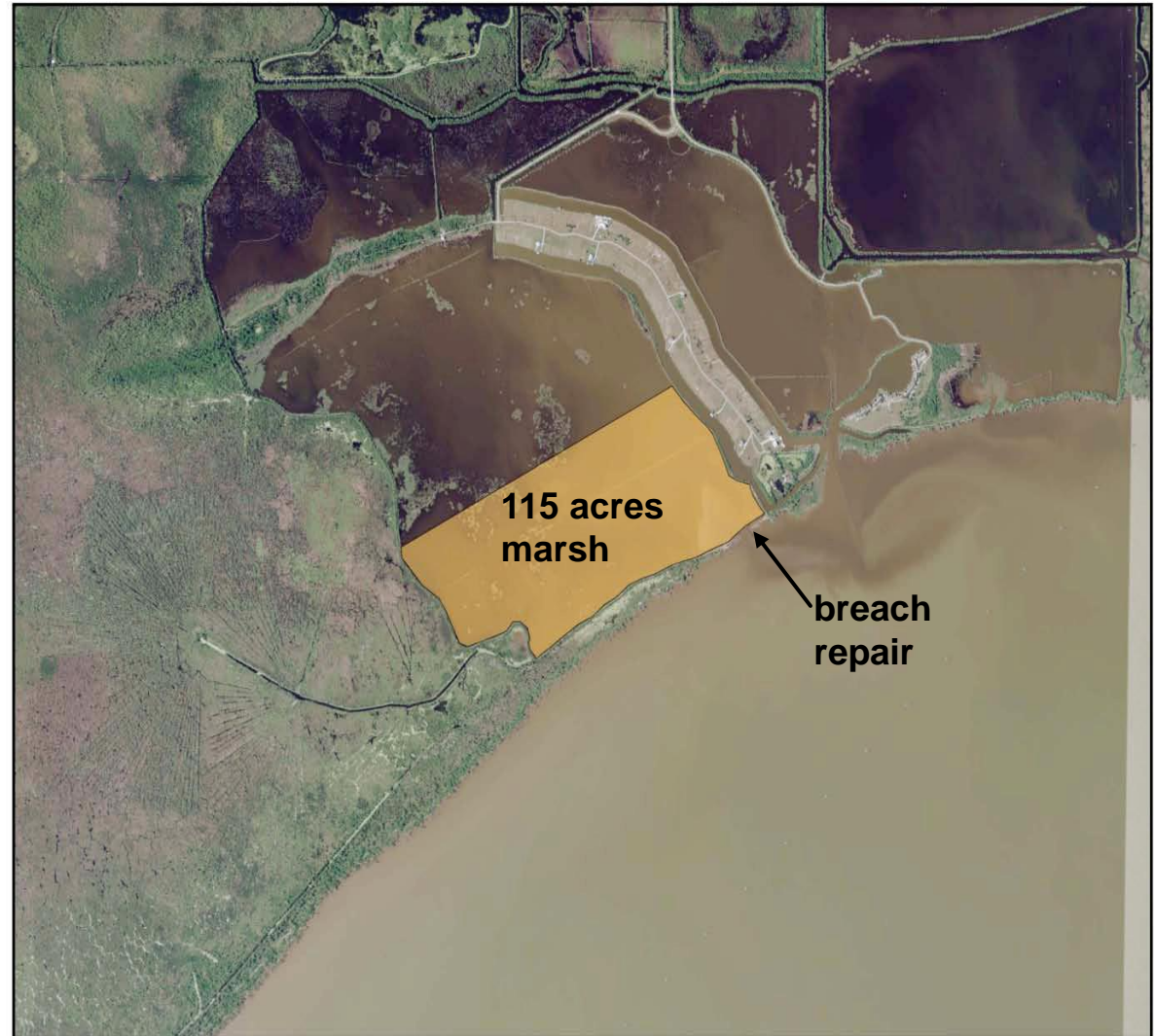




# Milton Island Marsh (PO-121-MIM)

## Project Features

- 115 acres of intermediate marsh creation with vegetation planting
- Repair of breach in the lake rim
- Maintain lake rim and protect adjacent hardwood sites
- Corps of Engineers Mitigation Project (GNO HSDRRS – LPV)
- **Status: Planning**



# Madisonville Bulkhead (PO-87)

## Project Features:

- Replace 800 linear feet of bulkhead and timber dock
- Multiple Funding Sources: CDBG, State Surplus, LDOTD
- Total Budget: \$2.3 million
- Status: **In Construction**
- Projected completion: **December 2013**





# **Mandeville Aquatic Ecosystem Restoration (PO-51)**



**Construction Date**  
**Total Project Budget**  
**Funding Program**

**July 2010**  
**\$3.73 million**  
**CIAP**



# **Mandeville Aquatic Ecosystem Restoration (PO-51)**

## **Project Features:**


- **Upgraded existing wastewater treatment plant**
- **Biological wastewater treatment feature – 2.5 miles of force main was built to distribute treated effluent into 1.7 square miles of wetlands west of the city**
- **The project DOUBLED the city's wastewater intake capacity and provides benefits to adjacent wetlands**



Lake Pontchartrain



0 0.1250.25 0.5 0.75 1  
Miles

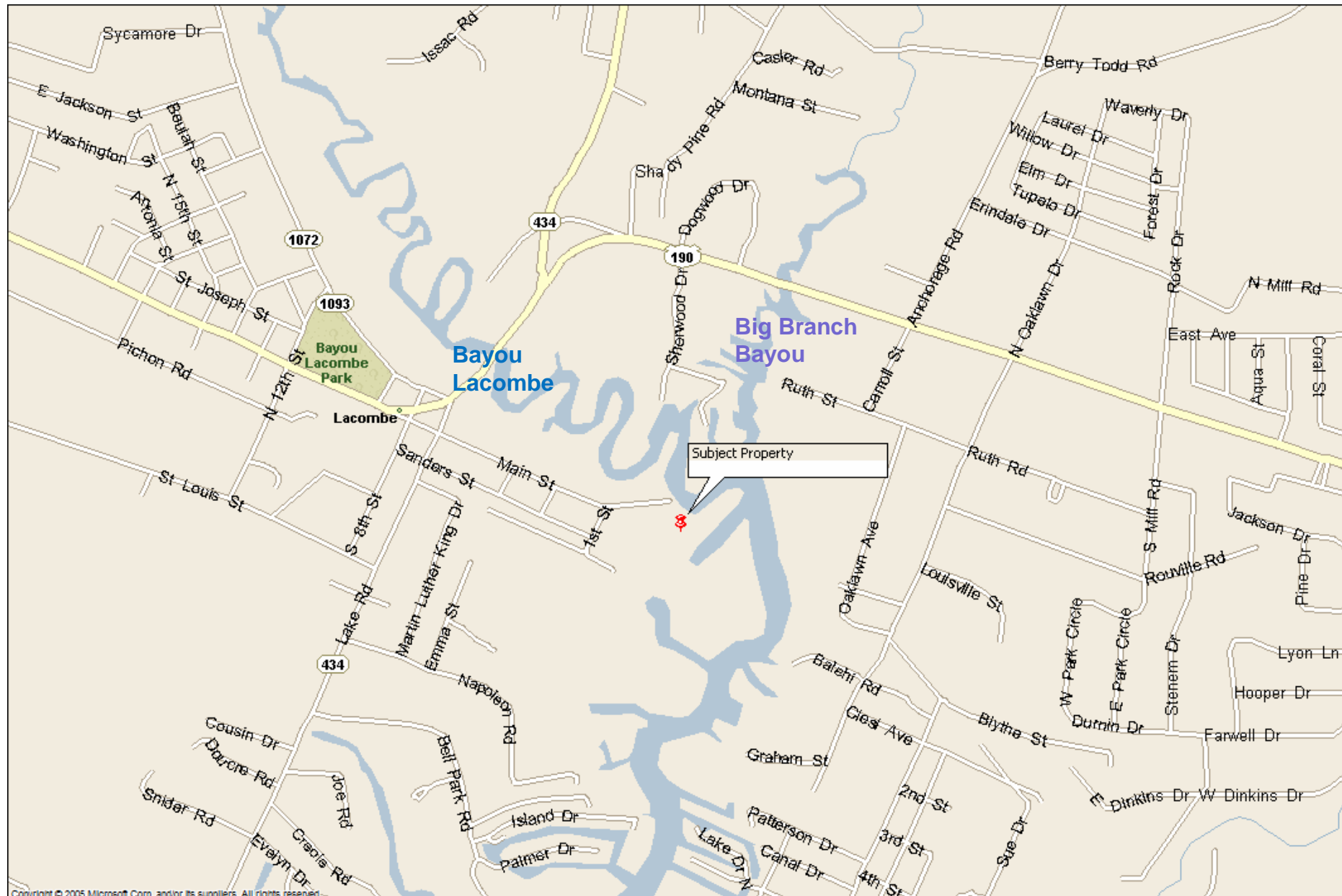
 Aquatic Ecosystem Restoration Phase II

Source:  
Coastal Protection and Restoration Authority of Louisiana  
Imagery: 2001 SPOT  
Map Date: July 15, 2013  
File Path: //2013040289/





# Green Property Preservation Project (PO-48)

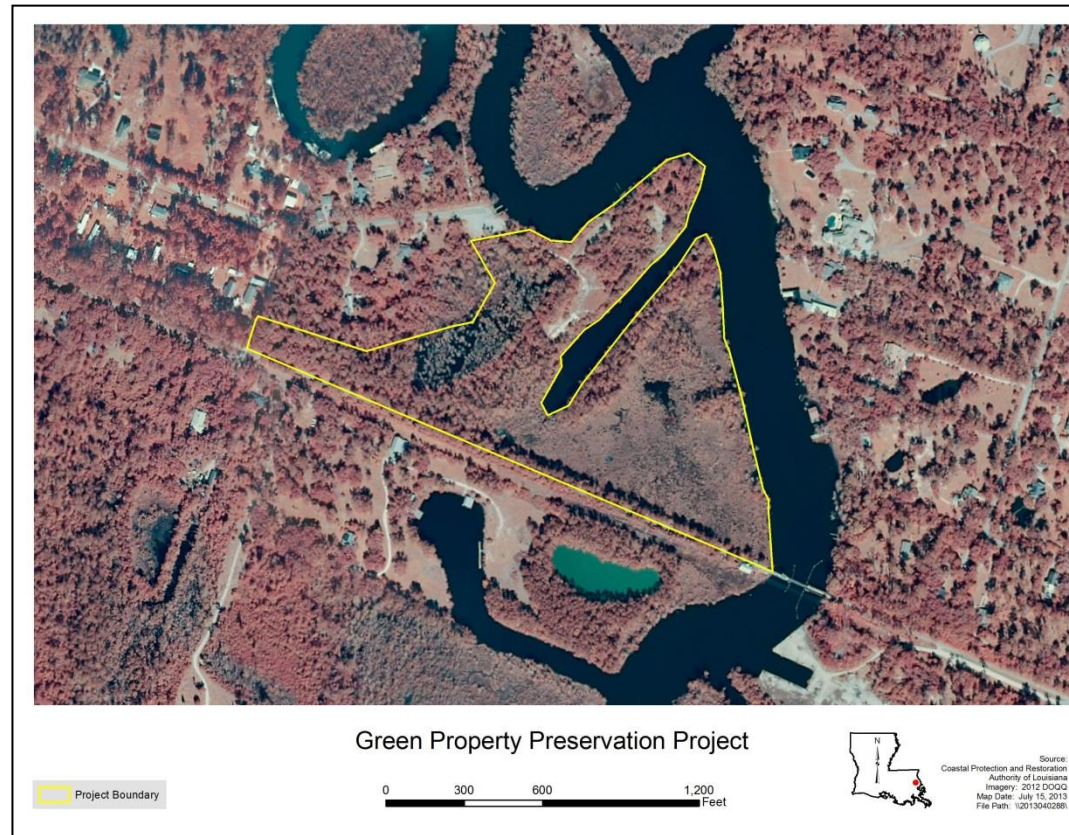




# Green Property Preservation (PO-48)

## Project Features

- St. Tammany purchased property (27 acres) to prevent development
- Protect cypress swamp and BHW habitats and benefit wildlife
- Funding Program: CIAP
- Cost: \$1.35 Million
- Completed August 2011

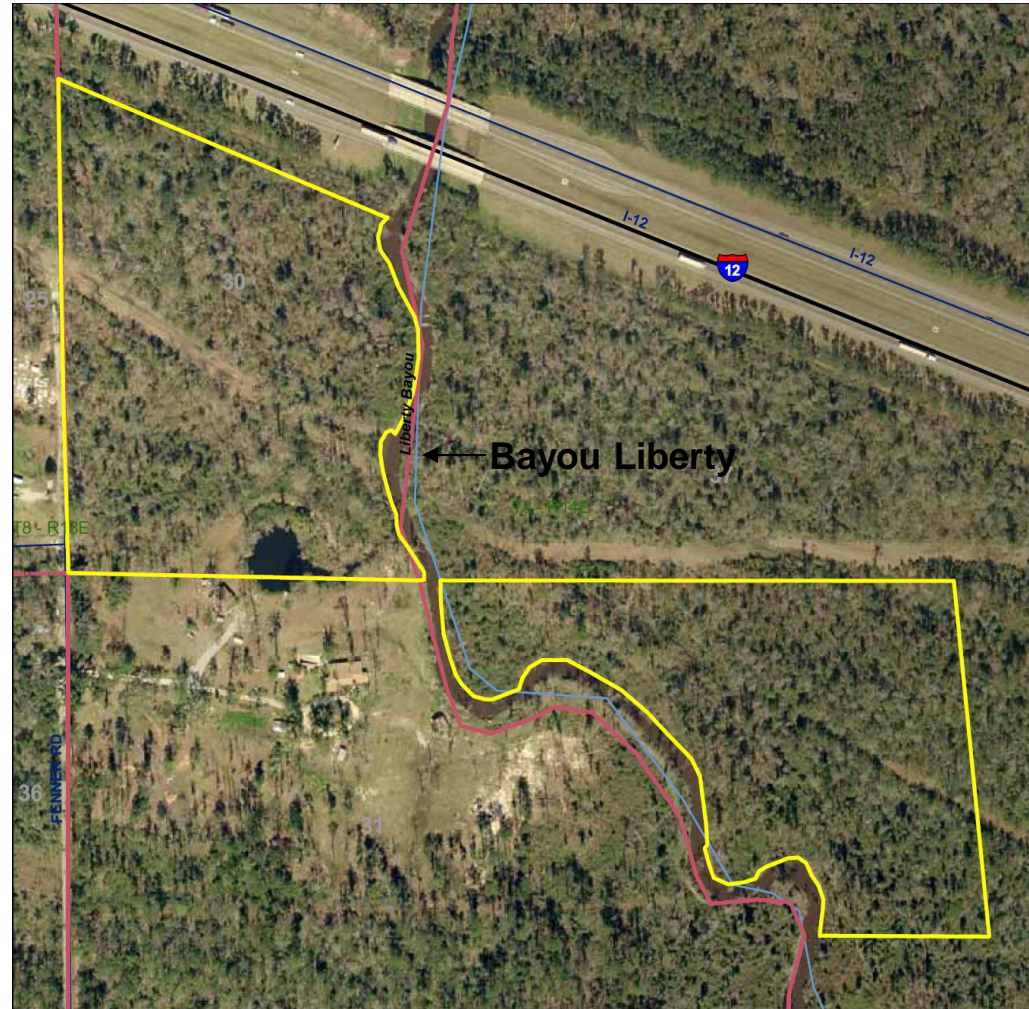




# French Property Preservation (PO-48)

## Project Features

- St. Tammany purchased property (39.5 acres) to prevent development
- Protect mixed hardwood and pine savanna and benefit wildlife
- Provide easements for increased public access
- Funding Program: CIAP
- Cost: \$1.72 Million
- **Completed August 2011**





# Goose Point-Point Platte Marsh Creation (PO-33)

**Construction Completion Date** February 2009  
**Acres Benefited** 566  
**Total Project Budget** \$20.8 million  
**Funding Program** CWPPRA



Goose Point/Point Platte Marsh Creation Project

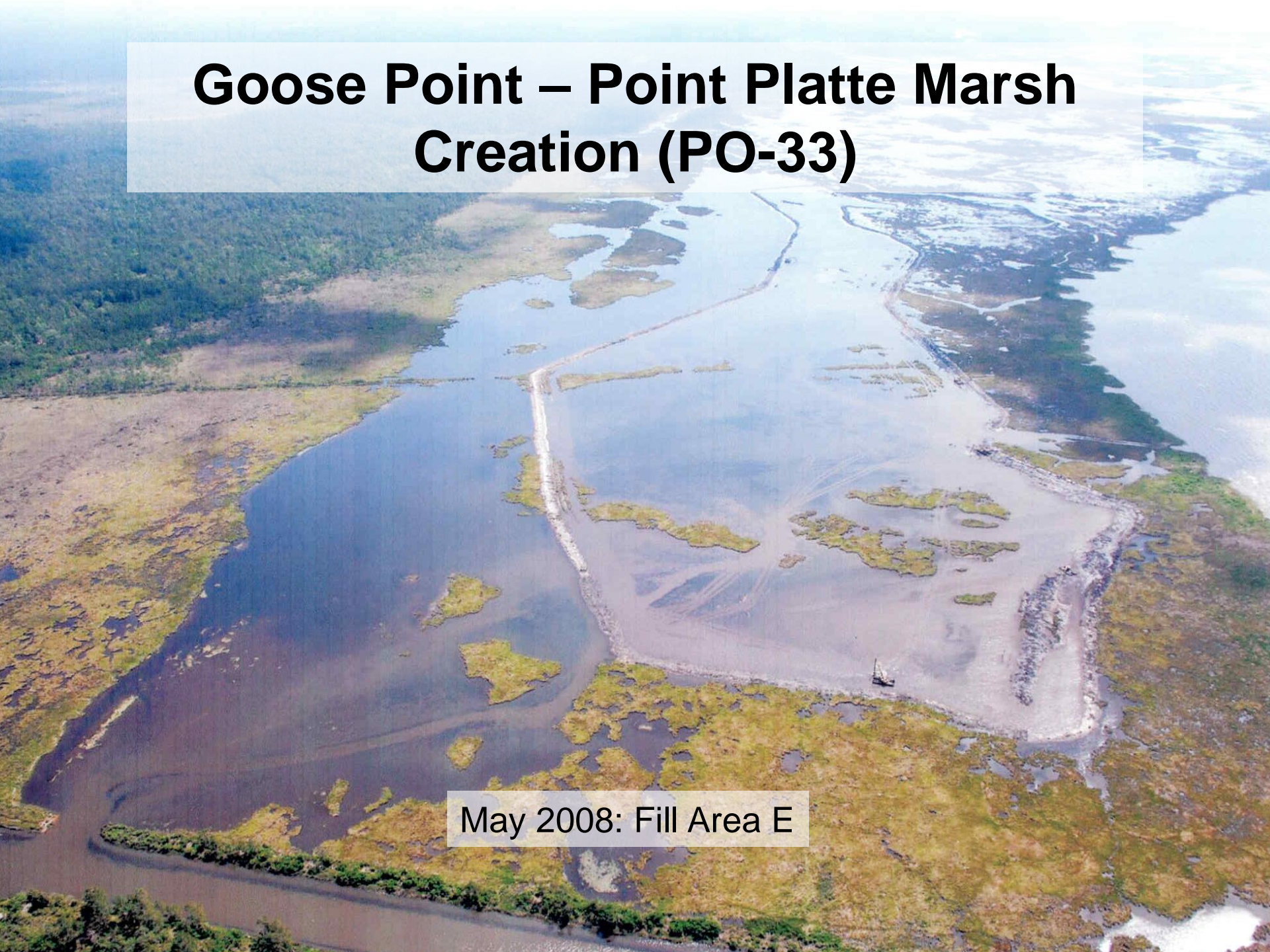


Source:  
Coastal Protection and Restoration  
Authority of Louisiana  
Imagery: 2012 DOQQ  
Map Date: July 15, 2013  
File Path: \\2013040288\



# Goose Point – Point Platte Marsh Creation (PO-33)

May 2008: Fill Area E





# Goose Point – Point Platte Marsh Creation (PO-33)

July 2009: Fill Area E







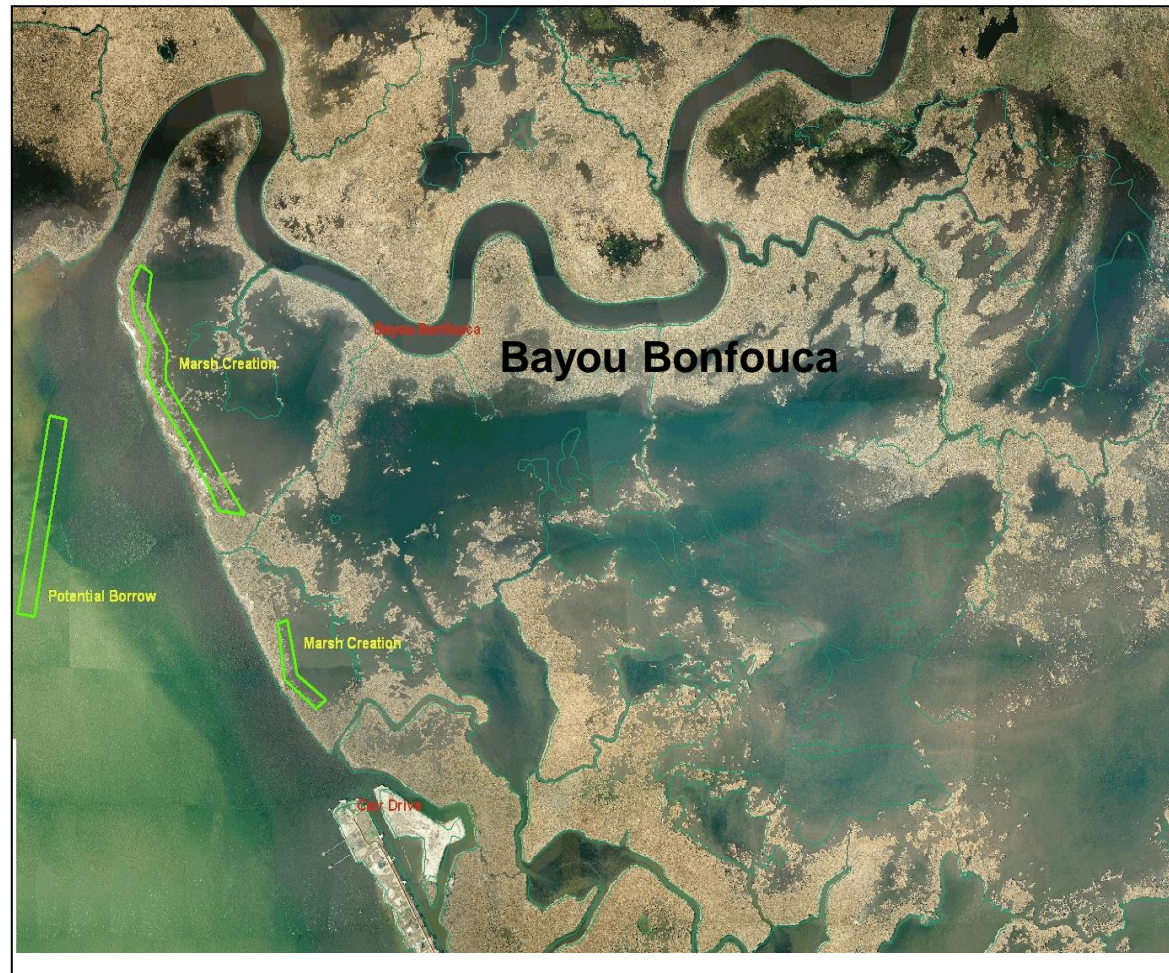
September 2010: Fill Area E



# Northshore Beach Marsh Restoration (PO-70)

## Project Features

- Create 40 acres of marsh to restore lake rim and protect interior marshes
- Funding Program: CIAP (Parish)
- Cost: \$1.86 Million
- Status: E&D; to be merged with PO-104

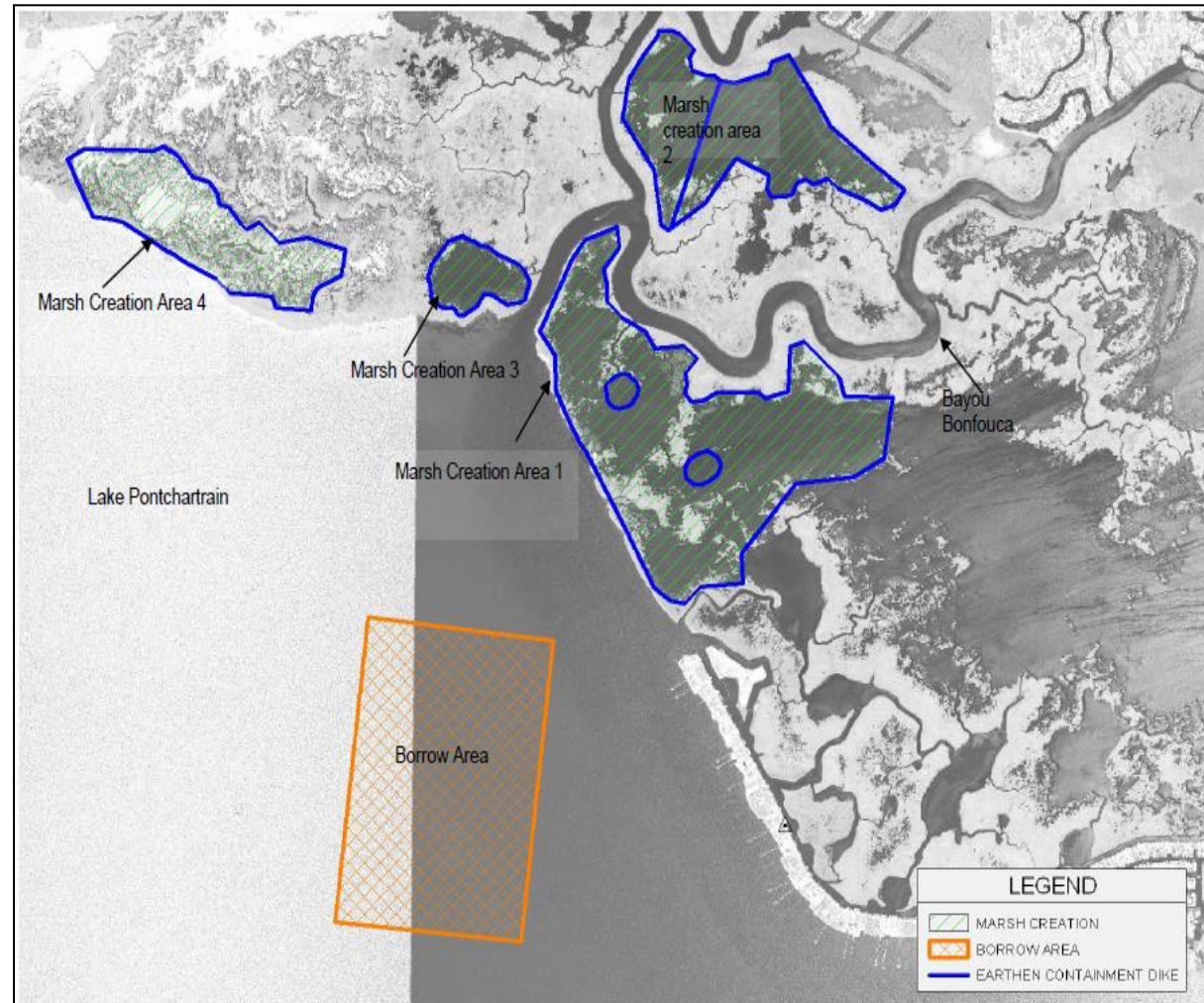




# Bayou Bonfouca Marsh Creation (PO-104)

## Project Features

- 600 acres of marsh creation along the lake rim and further interior
- Funding Program: CWPPRA
- Cost: \$28.02 Million
- Status: E&D; to be merged with PO-70









# Bayou Sauvage Intermediate Marsh and Bottomland Hardwood (PO-121-BSPS)

## Project Features

- Create (348 acres) BHW and marsh habitat
- Areas planted with native hardwoods and marsh vegetation
- Corps of Engineers Mitigation Project (GNO HSDRRS – LPV)
- **Status: Planning**





# Bayou Sauvage Flood Side Marsh Restoration (PO-121-BSFS)

## Project Features

- 302 acres of brackish marsh creation
- Areas planted with marsh vegetation
- Construction and repair of rock dikes along Lake Pontchartrain
- Corps of Engineers Mitigation Project (GNO HSDRRS – LPV)
- **Status: Planning**



# Alligator Bend Shoreline Protection (PO-34)

-  Rock Dike \*
  -  Vegetative Plantings \*
  -  Project Boundary
- \*denotes proposed features



Map Produced by:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Assessment Branch  
Baton Rouge, La.

Background Imagery:  
2008 Digital Orthophoto Quarter Quadrangle

Map Date: September 08, 2011  
Map ID: USGS-NWRC 2011-11-0063  
Data accurate as of: September 08, 2011

Intracoastal Waterway

Alligator Bend


Lake Borgne



# Alligator Bend Shoreline Protection (PO-34)

- **Project Feature**: 9 miles of shoreline protection from Alligator pass to Unknown Pass
- **Funding Program**: CWPPRA
- **Budget**: \$57.66 million
- **Status**: 95 % Design; **Competing for Phase 2 funding**

# Orleans Landbridge Shoreline Protection (PO-36)



Project Status	<b>Constructed 2012</b>
Distance	8.2 miles
Project Budget	\$42 Million
Funding Program	CIAP

Begin Shoreline Protection  
89° 51' 35"W  
30° 00' 15"N

Orleans  
Parish

State of  
Louisiana

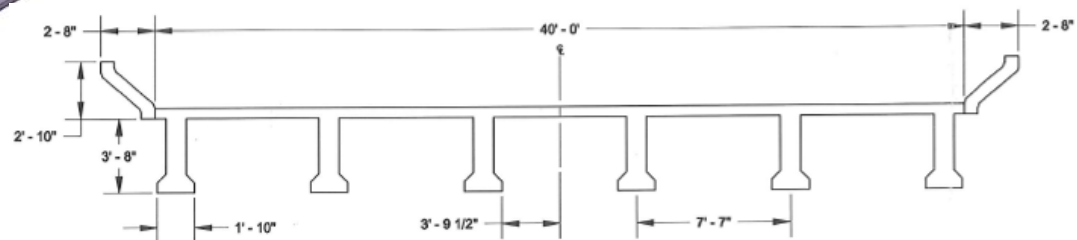
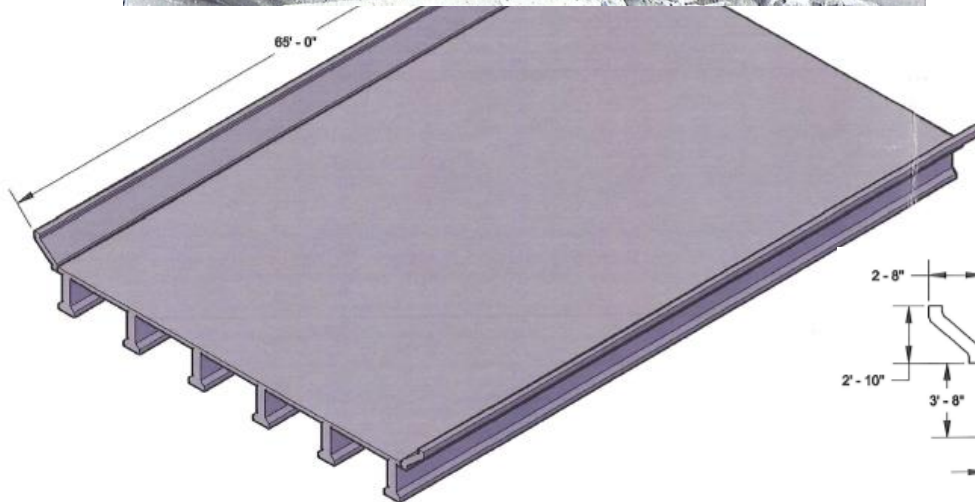
End Shoreline Protection  
89° 44' 45"W  
30° 01' 59"N

*Lake Borgne*

0 1 2 4 6 8 Miles



# I-10 Bridge Demolition







08/25/2011 11:55











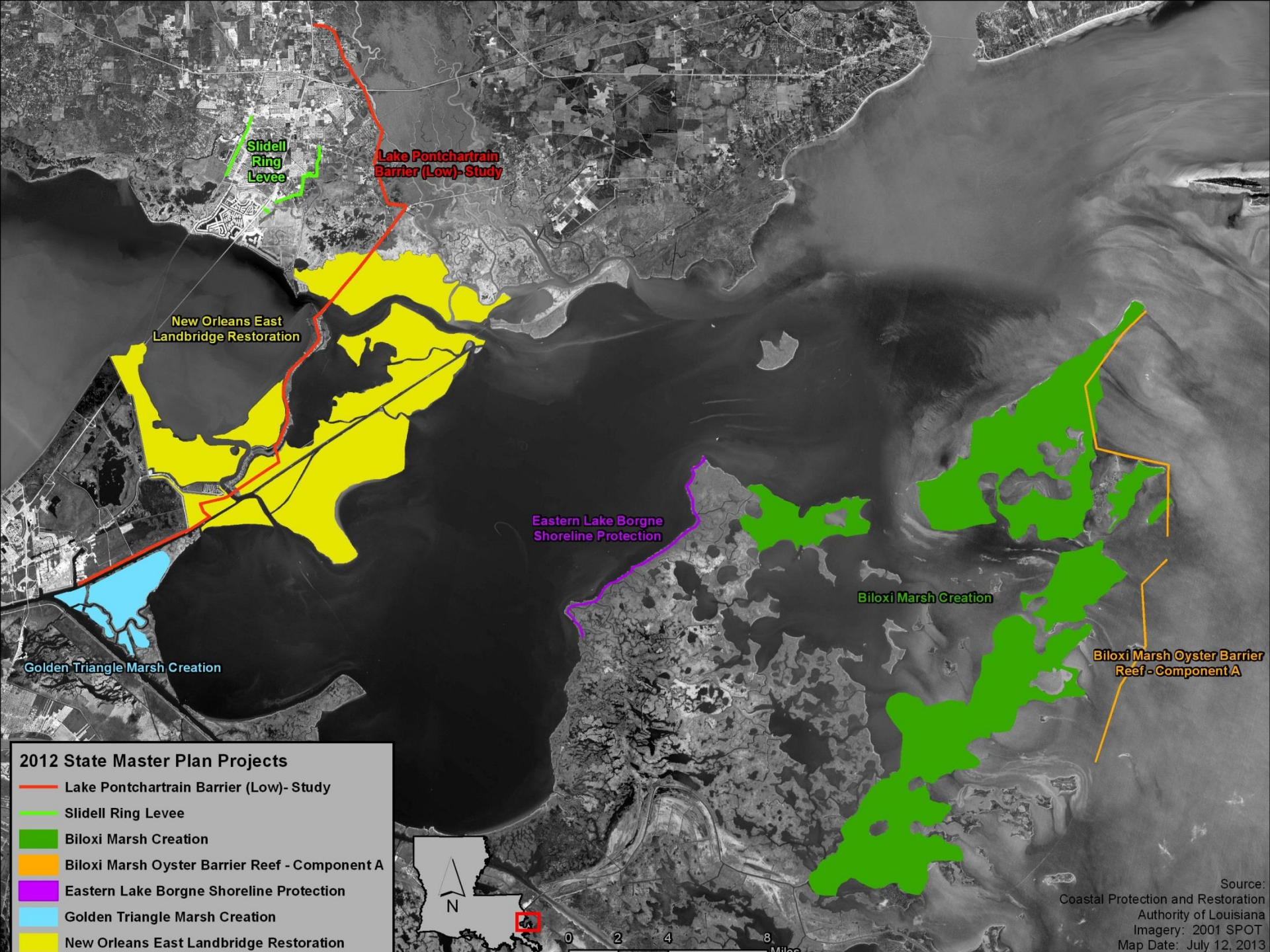












#### 2012 State Master Plan Projects

- Lake Pontchartrain Barrier (Low)- Study
- Slidell Ring Levee
- Biloxi Marsh Creation
- Biloxi Marsh Oyster Barrier Reef - Component A
- Eastern Lake Borgne Shoreline Protection
- Golden Triangle Marsh Creation
- New Orleans East Landbridge Restoration

Source:  
Coastal Protection and Restoration  
Authority of Louisiana  
Imagery: 2001 SPOT  
Map Date: July 12, 2013

# Questions?

## Contact Information:

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**Operations Division**  
**(504) 280-4068**  
**[john.troutman@la.gov](mailto:john.troutman@la.gov)**



# 2012 MASTER PLAN PROJECTS

## Protection Projects

- **Slidell Ring Levee** - \$81 million - Construction of a ring levee to an elevation of 16.0 feet around Slidell for hurricane storm surge risk reduction.
- **Lake Pontchartrain Barrier** - \$76 million - Planning, engineering and design to construct a levee to an elevation of 24.5 feet across the mouth of Lake Pontchartrain from the New Orleans Landbridge to Interstate 59 north of Slidell for hurricane storm surge risk reduction. PLANNING AND DESIGN ONLY.

# 2012 MASTER PLAN PROJECTS

**Restoration Projects** - may provide some degree of additional protection for St. Tammany

- **New Orleans East Landbridge Restoration** - (\$2.363 billion) **8,510 acres** of marsh creation
- **Biloxi Marsh Creation** - \$3.046 billion - **33,280 acres**
- **Biloxi Marsh Oyster Reef** - \$83 million - **113,000 feet** of oyster barrier reef along the eastern shore of Biloxi Marsh
- **Eastern Lake Borgne Shoreline Protection** - \$85 million - **57,000 feet** of rock breakwaters
- **Golden Triangle Marsh Creation** - \$293 million - **2,440 acres** of marsh creation in the Golden Triangle area