

PPL 17

Regional Planning Team Meetings

Region 4 – January 9, 2007
Region 3 – January 10, 2007
Region 2 – January 11, 2007
Region 1 – January 11, 2007

Initial Fact Sheets and Maps

Region 1
New Orleans
January 11, 2007



ATTENDANCE RECORD



DATE(S) January 11, 2007 1:00 P.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION U.S. Army Corps of Engineers -New Orleans District District Assembly Room 7400 Leake Ave. New Orleans, LA
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PURPOSE

MEETING OF THE REGIONAL PLANNING TEAM REGION I

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	TELEPHONE NUMBER
St. Tammany	Env. Specialist	985 898 2552
JASON KROLL	NRCS	318 473 7816
MARLY FAYO	NRCS	318 - 473-7690
Brad Crawford	EPA	214 665 7255
Angela Trahan	FWS	337-291-3187
Tim Landers	EPA	214-665-6608
Dow Blawie	TEA	251 219-4161
Randy Moertle	Biloxi Marsh lands Corp.	985-532-6388
Honora Bures	LDNR	225 342-4103
Kelley Templet	LDNR	225-342-1592
Christopher Andry	ST. Bernard Parish Gov. e2M	504-278-4303
Ed Fike	Coastal Environments, Inc.	225 383-7455 ext 128
Robert Dubois	USFWS	337-2913127
HEATHER FINLEY	LDWF	225 225-765-2956
Marnie Winter	Jeff. Parish	504-931-4618
Manuel Ruiz	LDWF	225-765-2373
Bonny Russell	DNR	(504) 430-8366
Bob McCasland	USACE	504 862-2021
Pat Williams	ANHA/NHMS	225 309-0528
Jane Adams	COE	504 862 2514
Kerna Roy	FWS	337-291-3128
James Harris	USFWS	985-882-2000

* If you wish to be furnished a copy of the attendance record, please indicate so next to your name.

**Region 1
Regional Planning Team Meeting
11 Jan 07
New Orleans, LA**



**1. Welcome
and Introductions**



RPT Region 1
Leader:
Dan Llewellyn -LDNR

Announcements

- First round of RPT meetings (Jan. 9 - 11, 2007) will be held to accept project and demo nominations. **NO VOTING** will take place at these meetings.
- Voting to select project nominees for all basins will occur at the Coast-wide Voting Meeting, on Feb. 7, 2007, in Baton Rouge at the LDWF Building (2000 Quail Dr.).
- Parish representatives are asked to identify themselves and announce who will cast votes at the coast-wide voting meeting.
- Agencies will be assigned responsibilities for preparing nominee fact sheets after the coast-wide voting meeting.

Announcements

Eligible parishes for basins in Region 1 include:

Plaquemines Parish
Jefferson Parish
Orleans Parish
St. Bernard Parish
Ascension Parish
Livingston Parish

St. James Parish
St. Charles Parish
St. John the Baptist
Parish
St. Tammany Parish
Tangipahoa Parish

2. PPL17 Selection Process and Ground Rules



CWPPRA PPL 17 Process Summary

- RPT meetings Jan. 9-11, 2007 to accept ideas for projects and demos (no limit on number of projects).
- Projects must support a Coast 2050 Regional or Coastwide Strategy.
- At the coast-wide voting meeting on Feb. 7, 2007. RPTs will select 2 nominees per basin (3 each in Barataria and Terrebonne).
- RPTs will select 6 demo projects coast-wide.
- Selection is by consensus, if possible; if not by agency/ parish ranked vote.

CWPPRA PPL 17 Process Summary

- Following the coast-wide voting meeting, an agency will be assigned to each project.
- The agency will prepare a fact sheet (1 page + map) so nominees can be evaluated for costs/ benefits.
- Engineering Work Group will estimate preliminary fully funded cost.
- Engineering and Environmental Work Groups will review draft features and benefits for each nominee.
- Work groups will also review demo projects and verify that they meet demo criteria.

CWPPRA PPL 17 Process Summary

- Matrix of costs/benefits transmitted to Tech. Comm. & Coastal Protection and Restoration Authority (CPRA).
- Tech. Comm. meets Mar. 14, 2007 at 9:30 am at the Corps in New Orleans to select up to 10 PPL 17 candidate projects and up to 3 demos.
- Tech. Comm. assigns agencies to candidate projects to develop costs/benefits for Phase 0.
- Workgroups conduct field trips to evaluate benefits and calculate fully funded costs for candidates.

CWPPRA PPL 17 Process Summary

- Public meetings will be Aug. 29, 2007 in Abbeville and Aug. 30, 2007 in New Orleans to present results of Phase 0 analysis
- On Sept. 12, 2007, the Tech. Comm. will select up to 4 candidate projects (and possibly demos) to present to the Task Force for Phase 1 funding.
- On Oct. 17, 2007, the Task Force will meet to select up to 4 projects for Phase 1 funding.

3. Region 1 Coast 2050 Regional Strategies



Projects nominated should be:

- consistent with the Coast 2050 Regional Ecosystem or Coastwide Strategies
- consider CWPPRA's prioritization criteria

Restore Swamps

- Small Mississippi River diversion at Blind River including outfall management
- Small Mississippi River diversion at Reserve Relief Canal including outfall management
- Restore natural drainage patterns
- Provide diversion related flood protection where needed

Restore and Sustain Marshes

- Small Mississippi River Diversion through Bonnet Carre Spillway by pulling spillway structure pins in an opportunistic manner
- Small diversion of Mississippi River into LaBranche wetlands
- Diversion from Jefferson Parish drainage into LaBranche wetlands
- Wetland sustaining diversion of 2-5,000 cfs thru Central Wetlands at Violet diversion once MRGO is closed
- Dedicated delivery of sediment for marsh building

Protect Bay and Lake Shorelines

Maintain shoreline integrity of Lake Pontchartrain

Maintain shoreline integrity of Lake Borgne and the Biloxi Marshes

Restore and Maintain Barrier Islands

- Maintain Chandeleur Islands with offshore sand as necessary

Maintain critical landforms

- Maintain Eastern Orleans Land Bridge by marsh creation and shoreline protection

Resolve the MRGO Problem

- Close MRGO to deep-draft navigation when adequate container facilities exist on the river\
- Expedite planning for the Millennium Port
- Stabilize the entire north bank of MRGO
- Acquire oyster leases and create marsh I southern lobes of Lake Borgne
- Constrict breaches between MRGO and Lake Borgne with created marshes
- Construct a sill at Seabrook

Coast 2050 Coastwide Strategies



- Beneficial Use of Dredged Material
- Dedicated Dredging for Wetland Creation
- Herbivory Control
- Stabilization of Major Navigation Channels
- Management of Bay/Lake Shoreline Integrity
- Management of Pump Outfall
- Vegetative Planting
- Maintain or Restore Ridge Function
- Terracing

4. PPL17 Project Nominations



Demonstration Projects

- Demonstrates a new technology
- Demonstrates a technology which can be transferred to other areas in coastal Louisiana
- Are unique and not duplicative in nature
- Engineering/Environmental Workgroups will select sites for proposed demonstration projects
- The RPTs will select 6 demos at the Feb 7th coast-wide voting meeting. The Tech. Comm. will select up to 3 demos in March 07
- PPL16 demos must be *re-nominated* for PPL17

5. Announcement of Coast-wide Voting Meeting



Coast-wide Voting Meeting

- **Feb. 7, 2007** in Baton Rouge to choose 2 nominees per basin (3 in Barataria and Terrebonne), and 6 demos.
- Parishes within each basin are asked today to identify who will vote at the coast-wide meeting.
- No additional projects can be nominated at the coast-wide meeting.
- No significant changes to projects proposed at the first round of RPT meetings will be allowed (this includes combining projects).
- No public comments accepted at the coast-wide meeting (public comments will be heard today).

Coast-wide Voting Meeting

- Each officially designated parish representative, each Federal agency, & DNR will have one vote.
- Voting will be by ranked vote.
- Each voting entity will be provided a ballot.
- Each voting entity will provide a ranked score for all projects – the highest ranking project will receive the highest vote and the lowest will receive a vote of “1”.
- Points will be totaled for all projects within each basin.

Coast-wide Voting Meeting

- The two nominees per basin (three in Barataria and Terrebonne) receiving the highest vote will be included in the list of 20 nominee projects.
- All demo projects will be voted upon in same manner with one coast-wide ballot.
- 15 minutes will be allowed for voting in each basin and for demos.

6. Announcements of Upcoming Meetings



PPL 17 Upcoming Meetings

Coast-wide Voting Mtg, 7 Feb 07, Baton Rouge
20 nominees and 6 demos selected

Technical Committee Mtg, 14 Mar 07, New Orleans
Selection of 10 candidates and up to 3 demos

Public Meetings

29 Aug 07, Abbeville
30 Aug 07, New Orleans

Technical Committee Mtg, 12 Sep 07, New Orleans
Recommend up to 4 projects for Phase I funding

Task Force Mtg, 17 Oct 07, New Orleans
Final selection of projects for Phase I funding

7. Adjourn



**R1 –PO 1 Lake Athanasio Shoreline Protection
and Marsh Creation Project**

PPL16 PROJECT NOMINEE FACT SHEET
January 24, 2007

Project Name

Lake Athanasio Shoreline Protection and Marsh Creation Project

Coast 2050 Strategies

Coastwide Common Strategies

Dedicated dredging, to create, restore, or protect wetlands

Maintenance of gulf, bay, and lake shoreline integrity

Region 1 regional ecosystem strategies

Protect Bay/Lake Shorelines

Restore/Sustain Marshes – dedicated delivery of sediment for marsh building

Project Location

Region 1, Pontchartrain Basin. St. Bernard Parish. Along the west shoreline of the Point Eloi Peninsula from Mosquito Bight point to Point Eloi; along the northeast shoreline from Canal Pecal to the first man-made canal to the northeast; and from the Mississippi River Gulf Outlet (MRGO) to Canal Pecal.

Problem

What problem will the project solve?

Shoreline erosion in the project area threatens to breach several parts of the land bridges separating Lake Eloi, Lake Athanasio and Breton Sound that will create wider expanses of open water between Eloi Bay and Lakes Eloi and Athanasio. When the peninsulas are lost, the southeast shoreline boundary of the Biloxi Marsh Area will move approximately 2.5 miles inland. The 1983 to 1990 loss rate for the Eloi Bay mapping unit is $-0.34\%/yr$. Field inspections after the hurricanes of 2005 have revealed erosion, fragmentation and partial denuding of marshes predominantly on sound side of Lake Athanasio suggesting a substantial increase in the historic erosion rate. This in part, demonstrates the role of outer wetlands in providing protection to more interior habitats. This project would create up to 223 acres of marsh and 23,000 ft of shoreline protection to rebuild, strengthen, and maintain the integrity of the peninsulas.

Goals

The goal of the project would be to create up to 223 acres of marsh initially and 23,000 ft of shoreline protection to rebuild, strengthen, and maintain the integrity of the lake and sound peninsulas.

Proposed Solutions

At this time, two features will be constructed:

1. Approximately 23,000 ft rock dike along east shoreline of the Point Eloi, northeast shoreline of Lake Athanasio Peninsula, and west shoreline from MRGO to Canal Pecal.
2. Approximately 223 acres of marsh creation between the existing shoreline and rock dike and in an interior pond with dedicated dredging from either Breton Sound or the Mississippi River Gulf Outlet (MRGO).

If the project is selected as a candidate, nourishment of marsh fragmented by the 2005 hurricanes would be considered in addition to or in lieu of some of the marsh creation. Maintenance of the rock would be included.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? At least 276 acres of saline marsh.
- 2) How many acres of wetlands will be protected/created over the project life? (see below table)
 - Assumed a 50% reduction in the 1983-1990 rate applied to the marsh creation acres.
 - Assumed 100% reduction in a guessed shoreline erosion rate of 5 ft/year (no data available at this time) applied to the straight-line distance (to be conservative) over 20 years = 53 ac.
 - Assumed background loss rate of $-0.34\%/yr$ applied to existing marsh to be protected from shoreline erosion = 3 acres of loss.

There would be 266 net acres in the future with the project at target year 20.
- 3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%)? Based on stopping shoreline erosion (100% reduction while structures remain intact; erosion rate is unknown at this time) and the estimated loss rate of the created marsh, the overall anticipated loss rate reduction throughout the area of benefit is 50-74%.
- 4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.? Both the marsh creation and shoreline stabilization components of the project would re-establish and maintain lake rims.
- 5) What is the net impact of the project on critical and non-critical infrastructure? The project would have moderate impact on the MRGO, a Federal navigation channel. Otherwise, the project would have marginal to no impact on critical or non-critical infrastructure, but would provide the outermost protection for the Breton Sound wetlands that do provide substantial surge protection for St. Bernard Parish.
- 6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? There are no other projects in the immediate vicinity for this project to provide synergy.

Identification of Potential Issues

The proposed project has the following potential issues: oysters, land rights, O&M, utilities/pipelines, etc.

Preliminary Construction Costs

The construction cost plus 25% contingency is estimated to be approximately \$29,000,000.

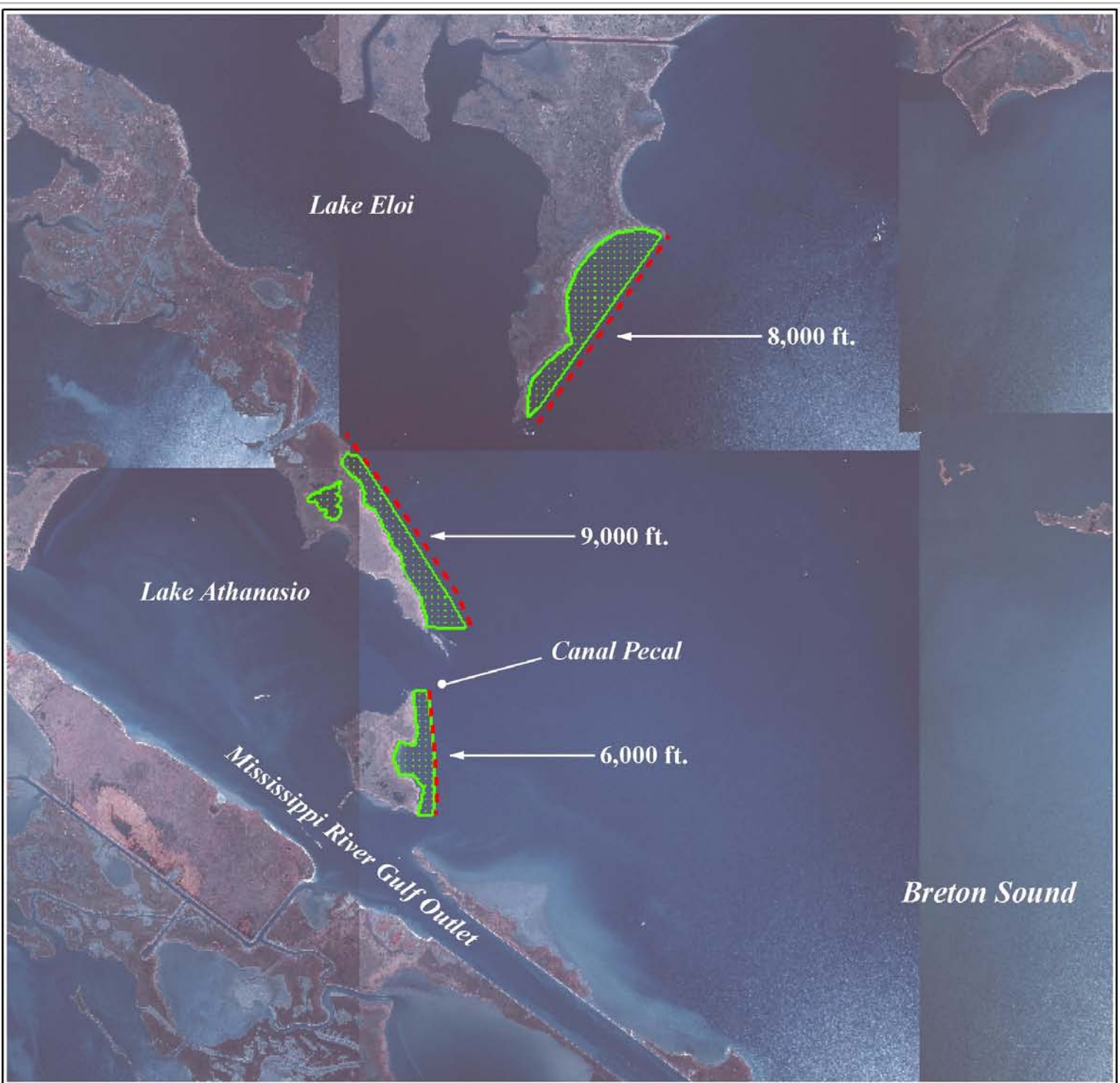
Preparer of Fact Sheet

Patrick Williams, NOAA's National Marine Fisheries Service, 225/389-0508, ext 208;

patrick.williams@noaa.gov

Randy Moertle, Biloxi Marsh Lands Corporation (985) 532-6388; rmoertle@bellsouth.net

	Acres	FWOP Loss Rate	FWOP TY20	FWP Loss Rate	FWP TY20
Shoreline Protection	53	-0.34%	0	-0.34%	50
Marsh Creation	223		0	-0.17%	216
Total			0		266
TY20 net	266				

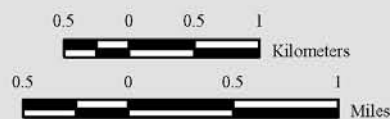


Lake Athanasio Shoreline Protection and Marsh Creation Project (PPL17 Project Nominee)



- - - Shoreline Protection *
- Marsh Creation *

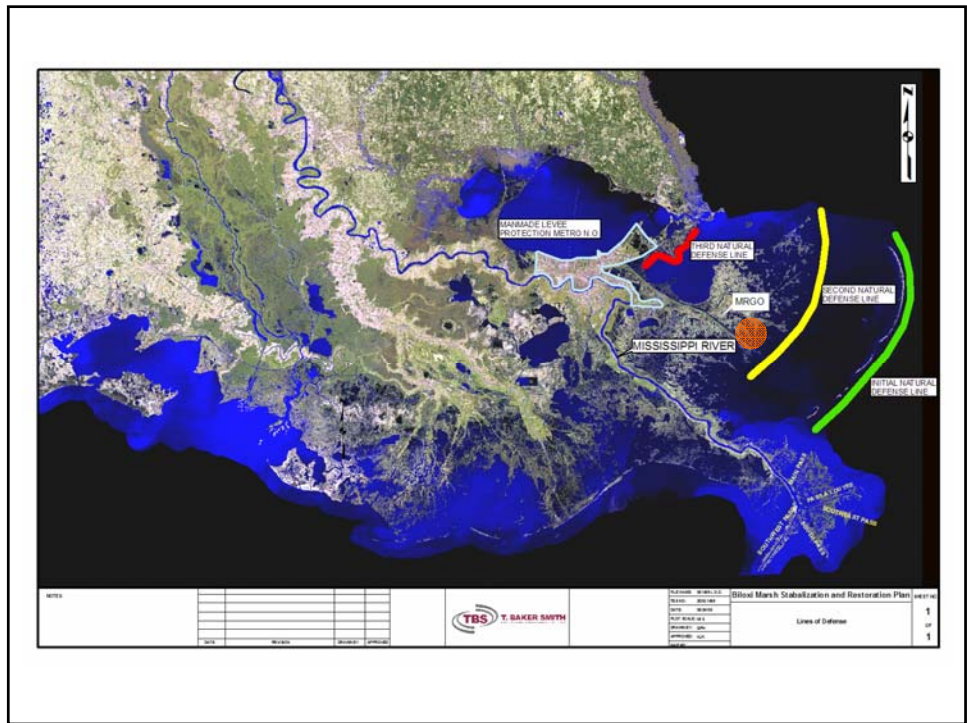
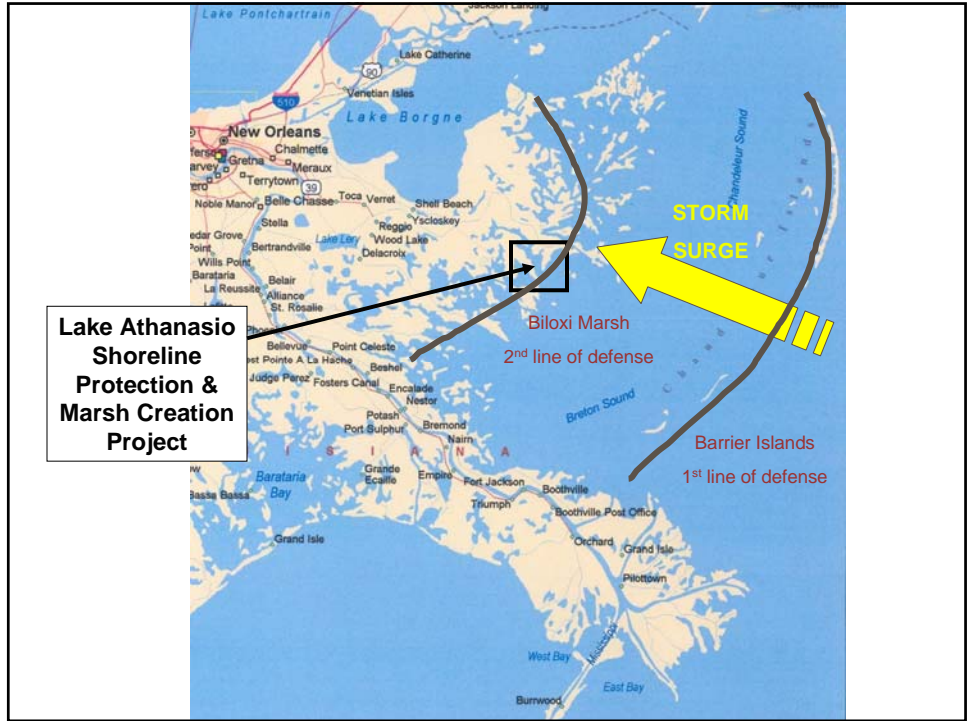
* denotes proposed features

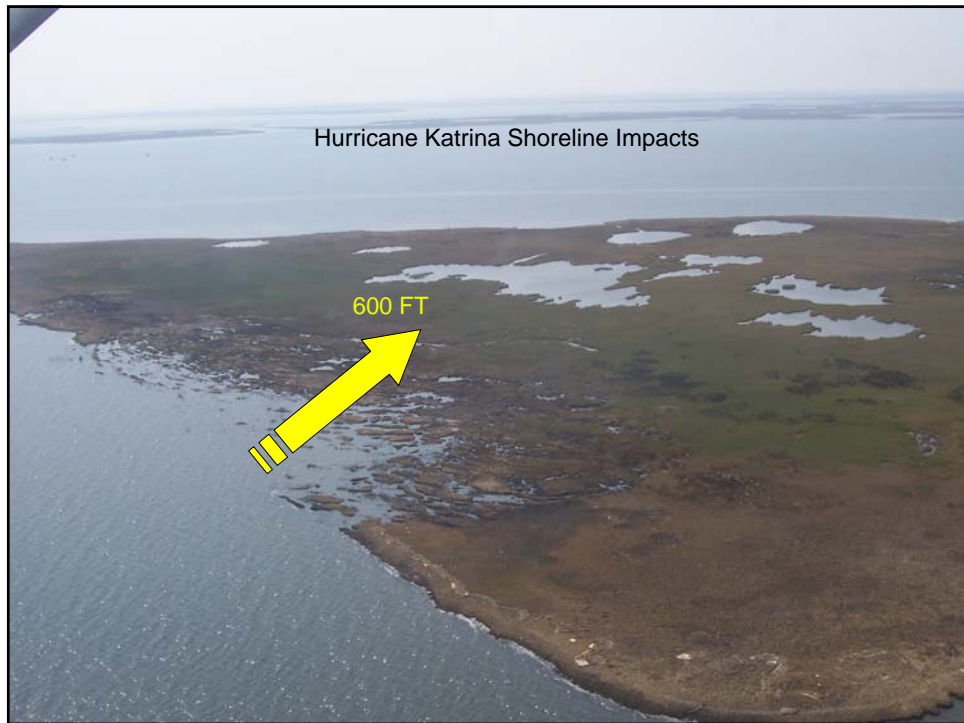
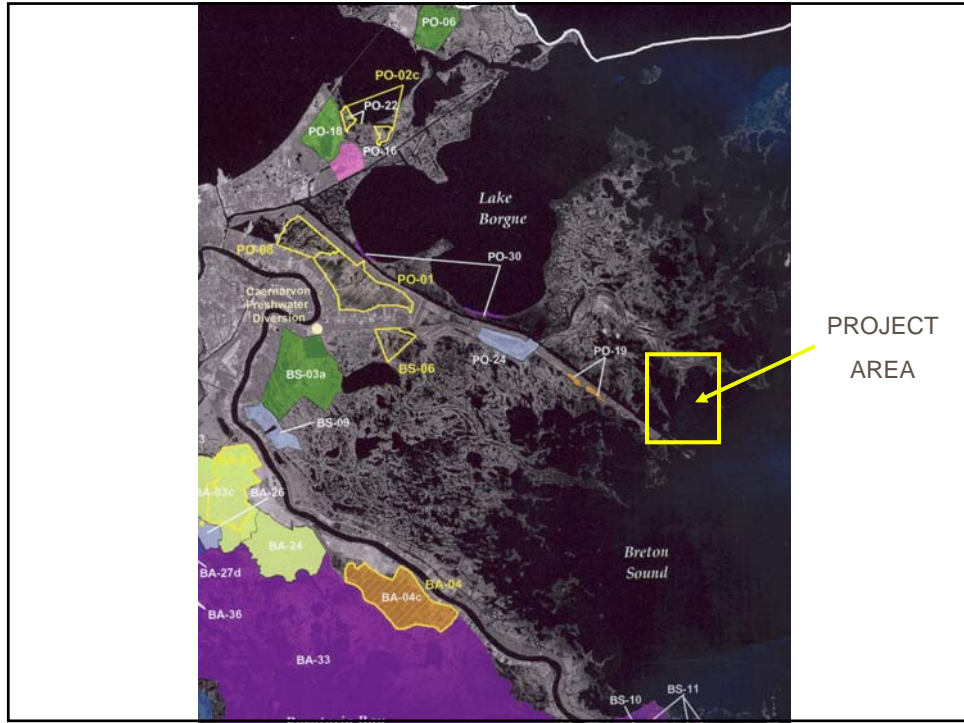


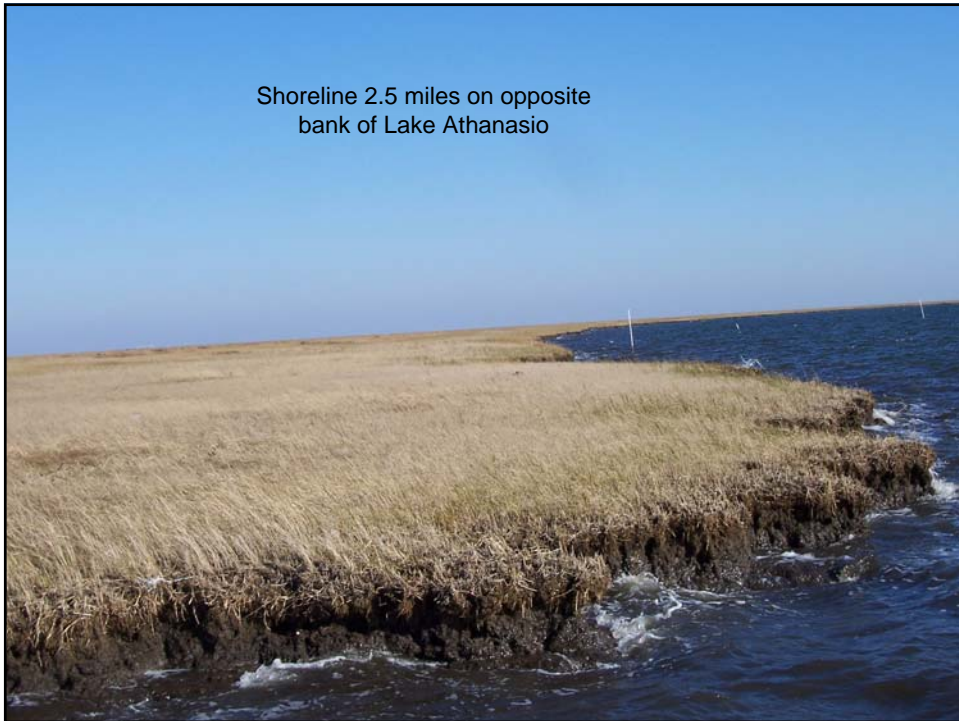
Scale 1:63,900

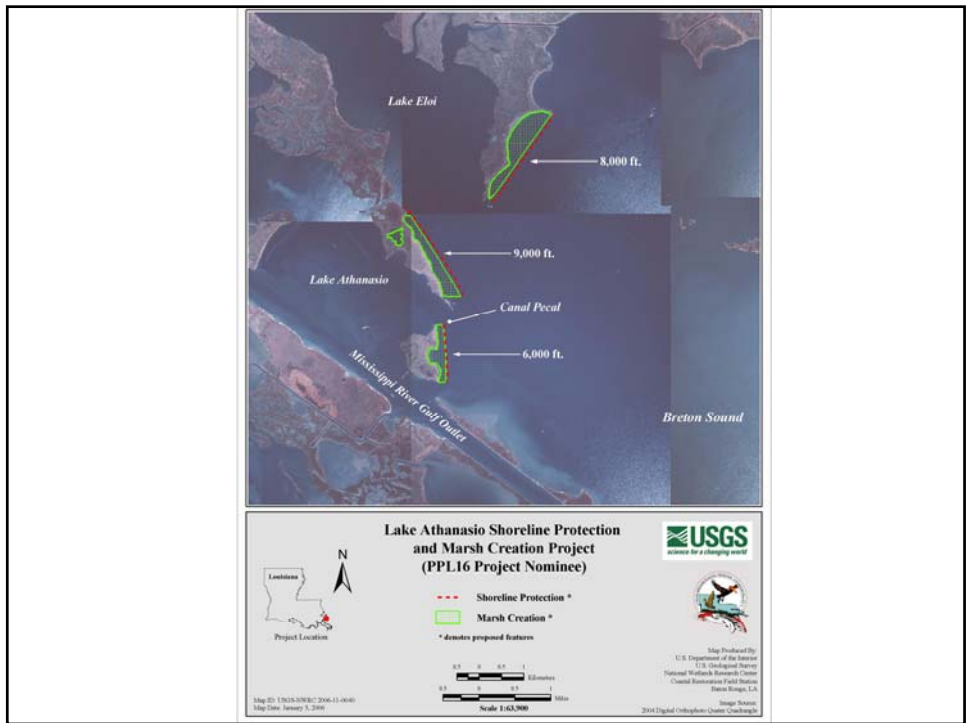
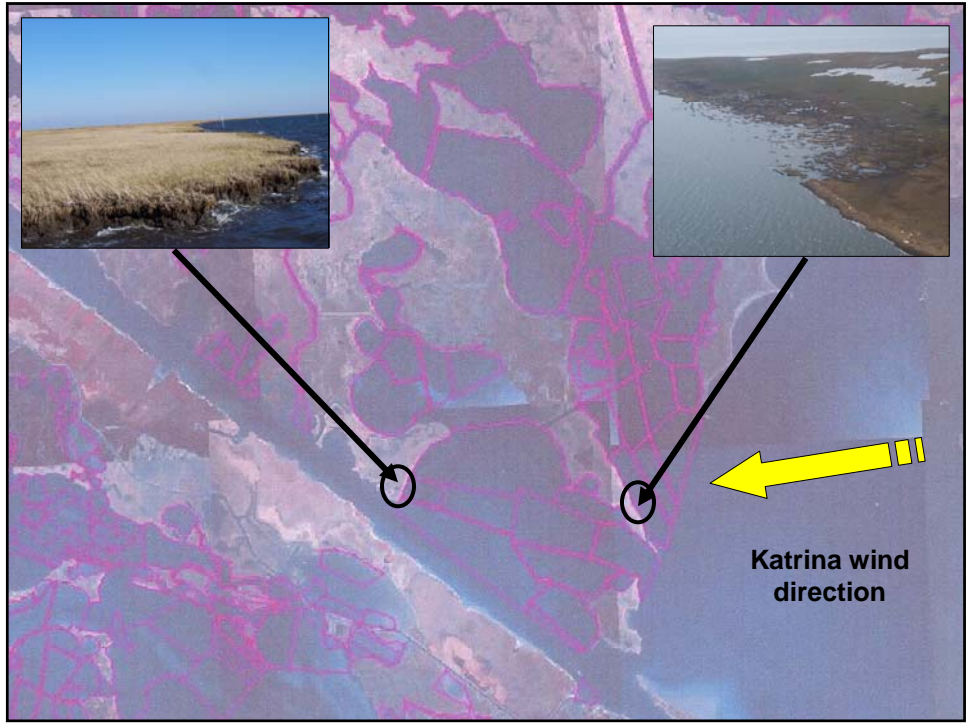


Map Produced By:
 U.S. Department of the Interior
 U.S. Geological Survey
 National Wetlands Research Center
 Coastal Restoration Field Station
 Baton Rouge, LA









**R1 –PO 2 Bayou La Loutre Ridge Restoration
Project**

RE 1 POZ St. Bernard
Moertle
PPT

REGION 1 – RPT
PPL-17 PROJECT NOMINEE FACT SHEET
1/11/2007

Project Name

Bayou La Loutre Ridge Restoration

Coast 2050 Strategy

Coastwide Common Strategy: Maintain and Restore Ridge Functions

Project Location

Region 1, Pontchartrain Basin, St. Bernard Parish, Northeast of Mississippi River Gulf Outlet (MRGO) at the junction of Bayou La Loutre and MRGO. The project area will extend 3.3 miles up Bayou La Loutre to the east from the junction of Bayou La Loutre and the MRGO.

Problem

Historically, the Bayou La Loutre ridge was maintained by overbank flooding from waters from the Mississippi River. Since connection with the Mississippi River was cut off by flood protection levees the ridge has deteriorated due to saltwater intrusion through the MRGO and by heavy boat traffic through the bayou. The importance of the ridge as a valuable habitat feature of the area has always been realized. However, following Hurricane Katrina (2005), the importance of the ridge as a "line of defense" for the surrounding wetlands and metropolitan areas from storm surge has been more fully realized. The ridge no longer exists on the south bank of the project area and has almost completely disappeared on the north bank.

Proposed Project Features

The project calls for the restoration of 3.3 miles of the Bayou La Loutre ridge on both the north and south banks to an elevation of +8 ft NAVD. Approximately 35,000 linear feet of rock armoring would be required to protect both banks of the bayou from marine vessel wave erosion. The rock armoring would be consistent with existing bankline revetment along the MRGO. This would ensure protection of the ridge function for the 20 year life of the project. The restoration of the Bayou La Loutre ridge has been recommended by the Coastal Protection and Restoration Authority (CPRA) Preliminary Draft Plan, Biloxi Marsh Stabilization and Restoration Plan, St. Bernard Parish Coastal Restoration Plan, Lake Pontchartrain Foundation Basin's Comprehensive Habitat Management Plan, and the MRGO De-Authorization Preliminary Draft Plan,

Goals

To restore the Bayou La Loutre ridge ecosystem.

Preliminary Project Benefits

1. Restoration of ridge function.
2. Protection of adjacent emergent wetlands from wave/wake erosion.
3. Protection of the St. Bernard and New Orleans levee systems from storm surge.

Identification of Potential Issues

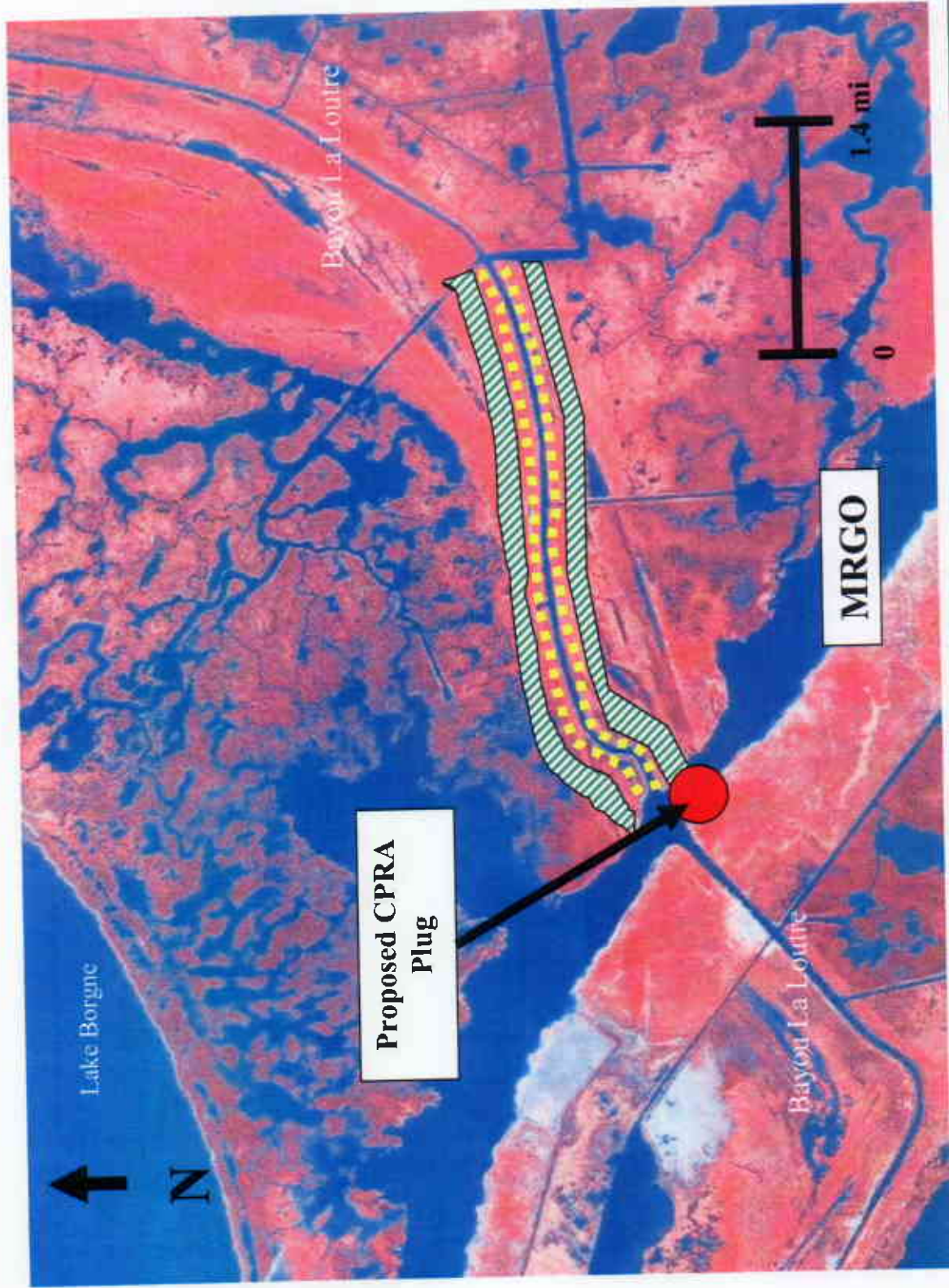
Project impacts to emergent wetlands may require compensatory mitigation.

Preliminary Construction Costs

\$15-20M

Preparer of Fact Sheet

Randy Moertle, Avery Island Inc., (985) 532-6388, rmoertle@bellsouth.net



Project Name: Bayou La Loutre Ridge Restoration

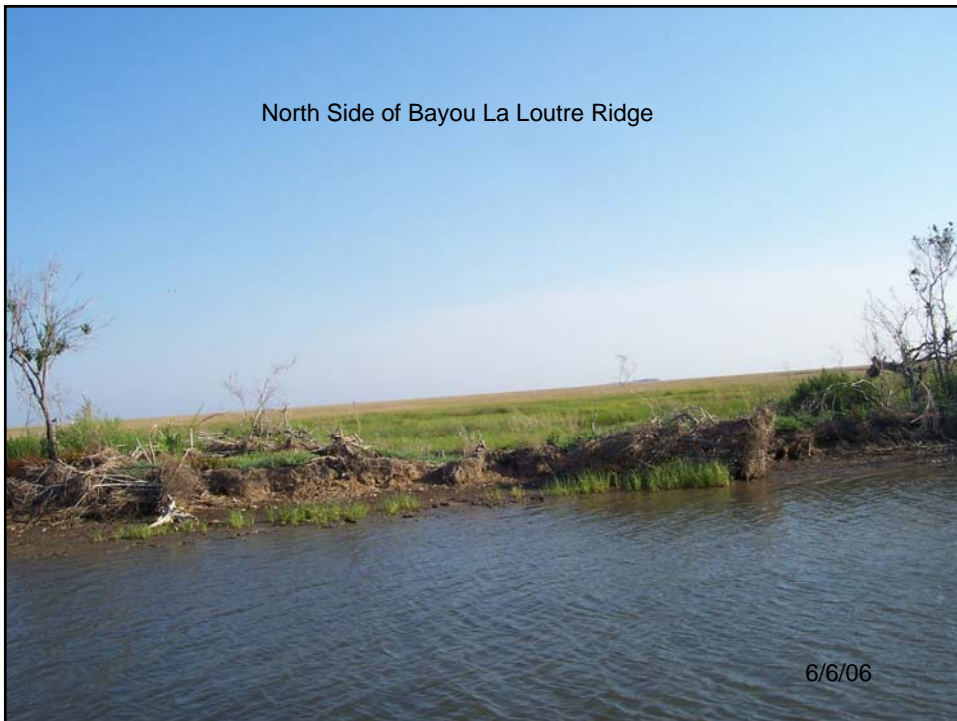
Data Source:
 Louisiana Department of Natural Resources
 From 2005 Cir DOQQ imagery

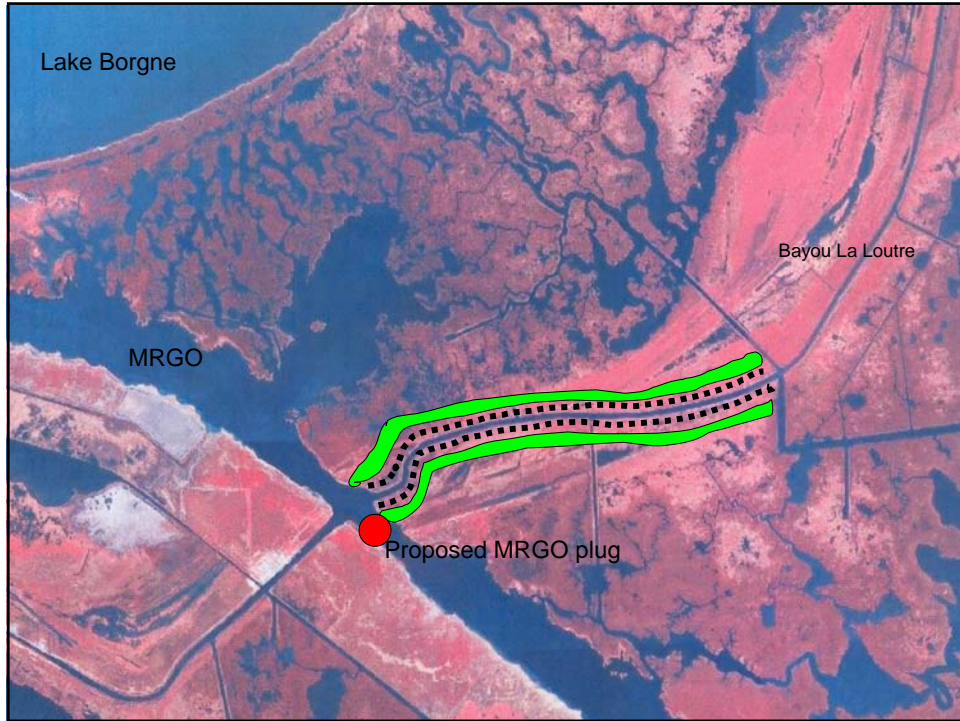
-  Ridge Restoration
-  Rock Armoring

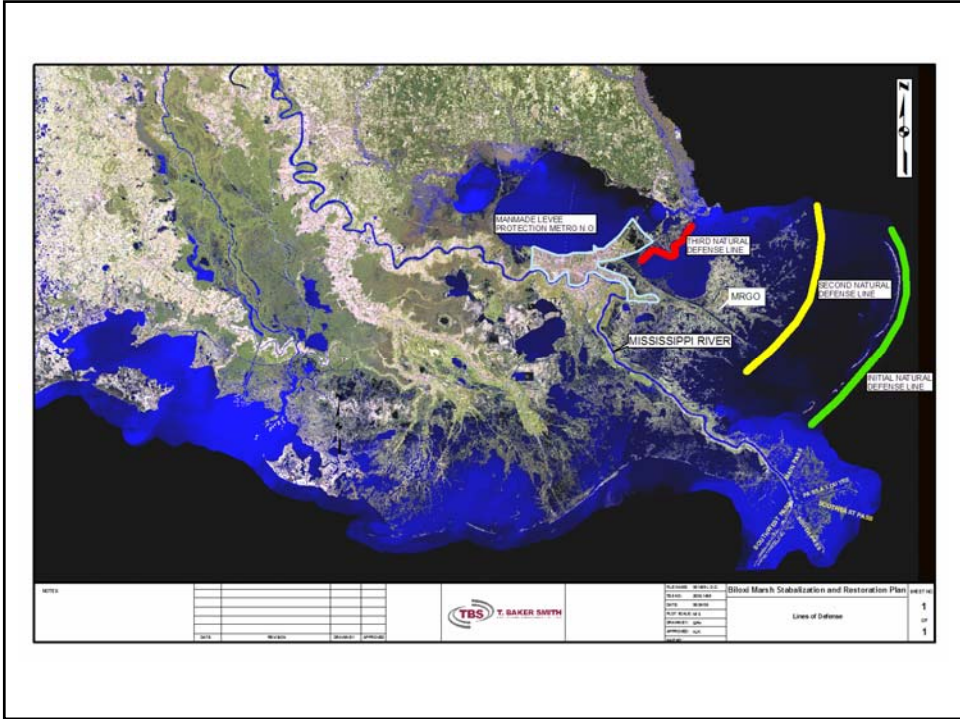
South side of Bayou La Loutre Ridge



North Side of Bayou La Loutre Ridge









**R1 –PO 3 Mississippi River Reintroduction
Near Violet Project**

Mississippi River Reintroduction Near Violet

Coast 2050 Strategy:

- Wetland sustaining diversion from the Mississippi River near Violet

Project Location:

Region 1, Lake Pontchartrain Basin, St. Bernard Parish, Central Wetlands Mapping Unit, near Violet, LA.

Problem: This area has experienced wetland loss and dramatic changes in vegetative communities due to a variety of factors including filling, subsidence, saltwater intrusion, lack of sediment and nutrient input, tropical storm activity, canal dredging and maintenance, and hydrologic modifications (impoundment).

Goals:

- Reduce wetland losses in existing marshes in the project area
- Create marsh in the project area
- Increase SAV cover in the project area
- Maintain area of shallow water habitat in the project area
- Decrease salinity in the project area and beyond

Proposed Solution:

Reintroduction of freshwater, sediment, and nutrients is proposed to maintain and nourish existing and created marshes. The proposed diversion structure would be constructed in or near the same location as the existing siphon. Project features include a gated structure with 4,000-5,000 cfs capacity. The project also includes beneficial use of all earthen materials excavated during project construction to create about 49 acres of marsh in shallow open water within the project area. The feasibility and benefits of outfall management features, including coordinated operation of the proposed diversion and existing flood gates, would be evaluated during Phase One.

Project Benefits:

The project would benefit over 18,000 acres of brackish and intermediate marsh and open water. Approximately 1,609 acres of marsh would be created/protected over the 20-year project life.

Project Costs:

The total fully funded cost for the project is \$ 53,184,577.00.

Preparers of Fact Sheet:

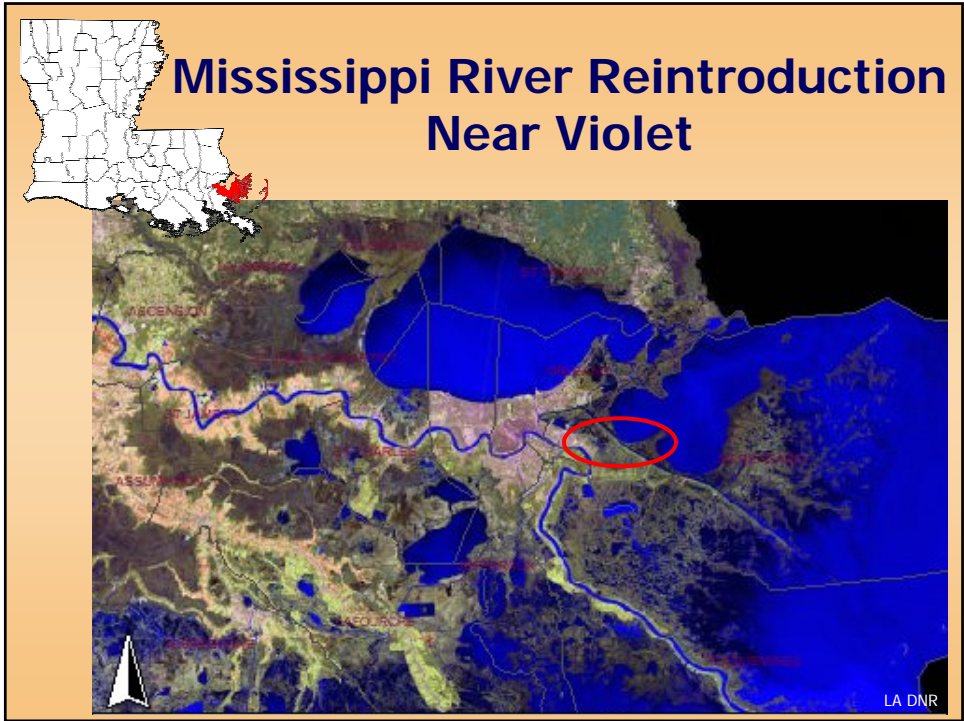
Kenneth Teague, EPA, (214) 665-6687, Teague.Kenneth@epa.gov
Rachel Sweeney, NMFS, (225) 389-0508, Rachel.Sweeney@noaa.gov
Shannon Haynes, LDNR, (225) 342-9424, ShannonH@dnr.state.la.us



Louisiana Department of Natural Resources

PPL 17 Proposed
Mississippi River
Reintroduction Near Violet

Data Source:
LA Department of Natural Resources
Map Date: December 2006
Image Data: 2005 Coastal Photographs



Mississippi River Reintroduction Near Violet

Goals:

- Reduce wetland losses in existing marshes in project area
- Create marsh in the project area
- Increase SAV cover and shallow water habitat in project area
- Decrease salinity in the project area and beyond

Cost/Benefits:

- >1000 acres of marsh protected/created over 20-year project life
- Est. Cost + contingency:
~\$50 million



Mississippi River Reintroduction Near Violet

Questions?

Tim Landers
EPA Region 6
(214)665-6608
landers.timothy@epa.gov



**R1 –PO 4 Irish Bayou Shoreline Protection and
Marsh Creation Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 24, 2007

Project Name: Irish Bayou Wetland Creation and Shoreline Protection

Coast 2050 Strategy:

Region 1 Ecosystem Strategy Nos. 9, 10, and 13: Dedicated delivery of sediment for marsh building, maintaining shoreline integrity of Lake Pontchartrain, and maintaining eastern Orleans Land Bridge by marsh creation and shoreline protection.

Project Location:

Region 2, Pontchartrain Basin, Orleans Parish, South of I-10, and east of Bayou Sauvage Refuge and Irish Bayou, with borrow area in Lake Pontchartrain.

Problem:

The landfall of Hurricane Katrina in southeast Louisiana destroyed thousands of acres of marsh and other coastal habitats in the Lake Pontchartrain basin. The hurricane weakened the Lake Pontchartrain shore between the lake rim and interior marshes near Bayou Chevee. In some cases the storm removed large expanses of the shoreline and exposed interior marshes. Currently only a portion of the lakeshore is protected by a rock dike (PPL 5, PO-22). This dike was originally tied to the shoreline; however the interior marsh has eroded away. Continued shoreline erosion and future storms could create a direct path of open water connecting Lake Pontchartrain with Irish Bayou and the Bayou Sauvage Refuge.

Goals:

The project would maintain the shoreline integrity of Lake Pontchartrain and reduce the threat of Lake Pontchartrain merging with Irish Bayou and the Bayou Sauvage Refuge. The project would also help to buffer and protect the stability of the existing federal hurricane protection levee in New Orleans East. The project would also help to provide wildlife and fisheries habitats and water quality benefits, and the restored marsh vegetation would buffer/weaken storm surge in New Orleans East.

Proposed Solutions:

- Dedicated dredging to restore wetlands along the weakened shoreline and current rock dike.
 - Assuming an average 3ft fill/site
 - All 5 sites will be semi-confined and allowed to flow into the adjacent marsh of Bayou Sauvage.

Marsh Creation Site	Approximate Acres Created	Estimated Material Required (cy)
A	57	280,000
B	53	260,000
C	122	590,000
D	82	400,000
E	84	410,000
Total	398	1,940,000

- Extending the existing rock dike along the reach mouth of Chef Menteur Pass to the mouth of Little Irish Bayou.

Reach	Length (lf)	Construction elevation (NAVD88)	tons/lf	Estimated Rock Required (tons)
1	12,765	+3.0 ft	4 tons/lf	52,000
2	3,280	+3.0 ft	4tons/lf	15,000
Total	16,045			67,000

Preliminary Project Benefits:

- The project would directly create approximately 398 acres of marsh.
- The project would restore/protect a lake shoreline and preserve portions of the critical East Orleans Landbridge.
- The project will also provide protection to critical infrastructure in New Orleans east including the hurricane protection levee and the nearby I-10 corridor.
- The project provides some synergy with other projects protecting the East Orleans Landbridge and nearby mapping units including projects at Bayou Chevee, and on the Bayou Sauvage NWR.

Identification of Potential Issues:

- Rock shoreline protection projects historically require O&M.

Preliminary Construction Costs:

Estimated construction cost with 25% contingency: approximately \$13.5 Million. *Agency representative will provide supporting documentation on estimated costs of all project features.*

Preparer(s) of Fact Sheet:

Marty Floyd, NRCS, (318) 473-7690, marty.floyd@la.usda.gov

Melanie Goodman, USACE, (504) 862-1940, Melanie.L.Goodman@mvn02.usace.army.mil

Travis Creel, USACE, (504) 862-1071, Travis.J.Creel@mvn02.usace.army.mil



Jason Binet, USACE, (504) 862- 2127, Jason.A.Binet@mvn02.usace.army.mil

Project Map:

Irish Bayou Wetland Creation and Shoreline Protection



Legend

-  Proposed Shoreline Protection
-  Irish Bayou Marsh Creation

**R1 –PO 5 Orleans Landbridge Marsh Creation
and Shoreline Protection Project**

PPL17 PROJECT NOMINEE FACT SHEET

January 26, 2007

Project Name

“Orleans Landbridge Marsh Creation and Shoreline Protection”

Coast 2050 Strategy

- Coastwide – Maintain bay and lake shoreline integrity.
- Regional 10 – Maintain shoreline integrity of Lake Pontchartrain.
- Regional 13 – Maintain Eastern Orleans Land Bridge by marsh creation and shoreline protection.
- Mapping Unit 36 – Maintain shoreline integrity.

Project Location

Region 1, Pontchartrain Basin, Orleans Parish, East Orleans Landbridge Mapping Unit, along south shore of Lake Ponchartrain near Chef Pass and the Rigolets.

Problem

High wave energy, sea level rise and subsidence levels are impacting the wetland shorelines of Lake Pontchartrain, Chef Pass, and the Rigolets. Shorelines in the area are exhibiting increasingly high erosion rates dating since the 1980s and were highly impacted during Hurricane Katrina. Identified in both *Coast 2050* and the LCA, this critical landbridge forms a barrier between Lake Pontchartrain and Lake Borgne, an eventual passage to the Gulf of Mexico. This thin land mass of mostly brackish marsh was home to over 1,000 residents prior to the storm and protects an inland population of approximately 850,000 people in the city of New Orleans and Metairie along with billions of dollars of infrastructure and historic communities. The disappearance of shoreline and marsh in this area endangers this narrow landbridge that keeps Lake Pontchartrain from joining Lake Catherine and Lake Borgne. Continued erosion without action will result in the acceleration of the loss of the remaining marsh tidal marshes in the area.

Proposed Project Features

- Lake Pontchartrain east of Chef Pass – approximately 8,000 feet of rock protection.
- Lake Pontchartrain west of Rigolets at Hospital Wall – approximately 11,000 ft of rock protection.
- 100 acres of marsh creation behind rock protection.

Goals

- Maintain the East Orleans Landbridge by stopping shoreline erosion.
- Protect recovering communities and infrastructure located on the landbridge and inland.
- Contribute to the “multiple lines of defense” coastal protection and restoration strategy

Preliminary Project Benefits

The project will protect 500 acres by reducing the shoreline erosion rate by 100% at the highest erosion sites in Lake Pontchartrain. The project would maintain part of the Lake Pontchartrain shoreline and protect recovering communities and infrastructure. The project would complement an existing CWPPRA project: Bayou Chevee Shoreline Protection (PO-22). Shoreline protection features would maintain structural components of the East Orleans Landbridge as part of the coastal ecosystem in the Pontchartrain Basin.

Identification of Potential Issues

No known issues.

Preliminary Construction Costs

\$5-10 Million

Preparers of Fact Sheet

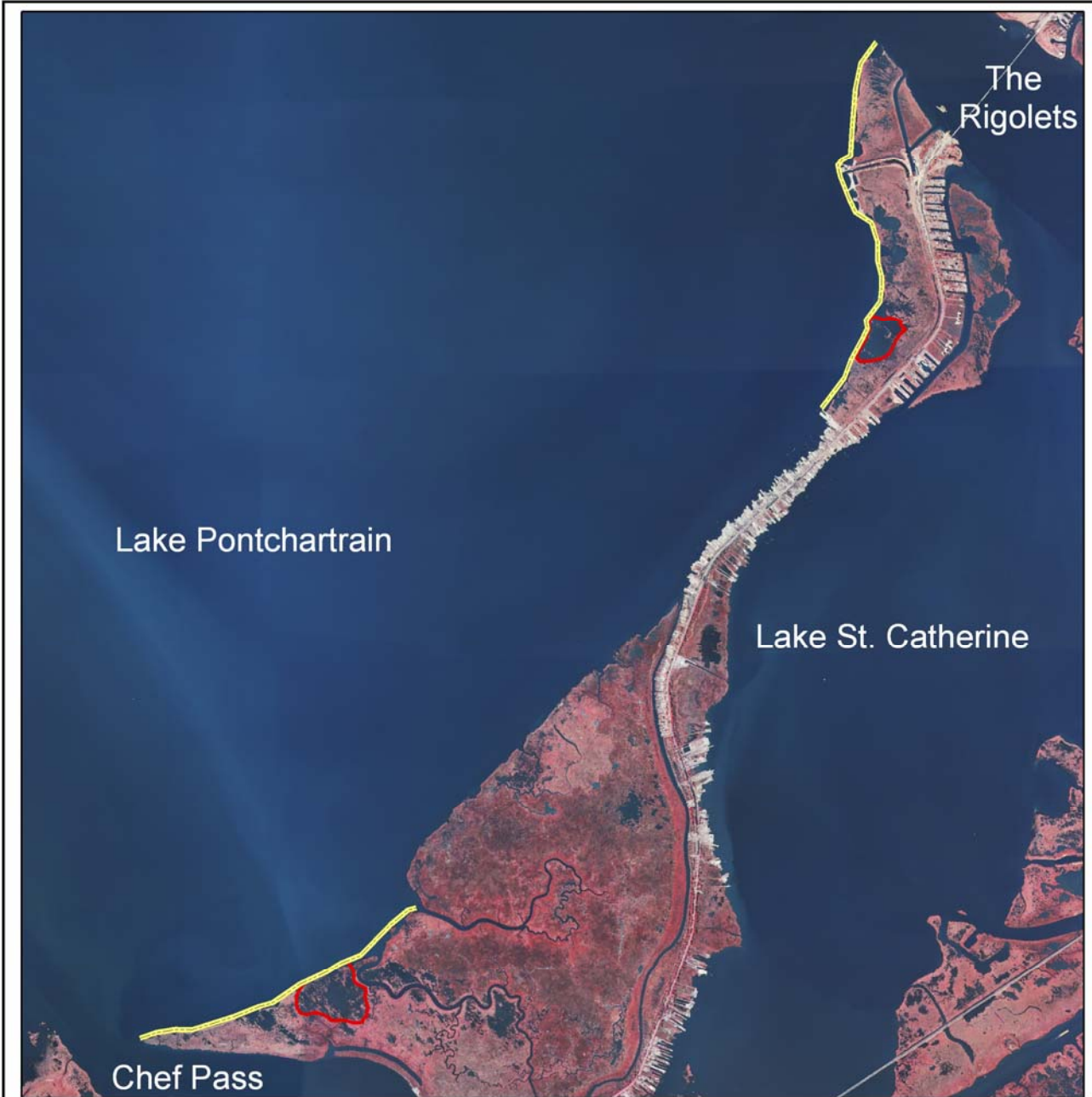
Mr. Leo Richardson, Executive Director, Lake Catherine Civic Association, lfrichardson@cox.net

Mr. John Lopez, Lake Pontchartrain Basin Foundation, johnlopez@pobox.com

Gregory Miller, Project Manager, U.S. Army Corps of Engineers, Gregory.B.Miller@usace.army.mil



Travis Creel, Project Manage, U.S. Army Corp of Engineers, Travis.J.Creel@usace.army.mil

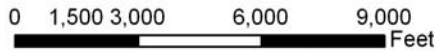
PPL17 PROJECT NOMINEE FACT SHEET
January 26, 2007



**Orleans Parish Candidate Project
PPL 17 Orleans Landbridge
Marsh Creation and Shoreline Protection**

Legend

-  Shoreline Protection
-  Marsh Creation



Map Produced By:
U.S. Army Corps of Engineers
New Orleans, La

Data Source:
2005 DOQQ Aerial Photography
Map Date: January 26, 2007
Map ID: NewOrleansLandBridgeMap.mxd

**R1 –PO 6 Orleans Landbridge (East) Marsh
Creation Project
Withdrawn by NRCS**

Orleans Land Bridge (East) Marsh Creation PPL-17 Candidate Project

Coast 2050 Strategy:

- Coastwide – dedicated dredging for wetland creation
- Regional – maintain Eastern Orleans Land Bridge by marsh creation and shoreline protection
- Mapping Unit – dedicated dredging from lakes Pontchartrain and Borgne

Project Location:

Region 1, Pontchartrain Basin, Orleans Parish, on the western side of The Rigolets and north of St. Catherine Pass.

Problem:

The marsh on the eastern portion of the Orleans Land Bridge is included as a component in the Pontchartrain Lines of Defense.

Goals:

Restore marsh areas that have been converted to shallow open water and reestablish the eastern portion of the Orleans Land Bridge.

Proposed Solution:

Restoration techniques include hydraulically dredged sediment and pump into the project area to create approximately 945 acres of marsh.

Project Benefits:

This project will create 945 acres of brackish marsh.

Project Cost:

The total fully funded cost for this project is \$xxxxx. ✓ 23M

Preparers of Fact Sheet:

Lee Richardson, (504) 835-2282, lfrichardson@cox.net

Marty Floyd, NRCS, (318) 473-7690, marty.floyd@la.usda.gov



Legend



Marsh Creation Areas
(apprx 945 ac)

**Orleans Candidate Project
PPL17 Orleans Land Bridge (East)
Marsh Creation**



Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, LA



Data Source:
2004 DOQQ Aerial Photography
Map Date: November 30, 2006
Map ID: orleans_indbrg_e.mxd

**R1 –PO 7 Cypress Restoration of Bayou
Bienvenue Central Wetland Unit Project**

PPL 17 PROJECT NOMINEE FACT SHEET

Project Name

Cypress Restoration of Bayou Bienvenue Central Wetland Unit

Coast 2050 Strategy

- Regional – Restore and maintain landbridge between MRGO and Lake Borgne with created marshes and shoreline protection.
- Regional – Maintain shoreline integrity of Lake Borgne.
- Coastwide – Management of pump and gravity-flow outfall for wetland benefits.
- Coastwide – Vegetative Planting

Project Location

Region 1, The Ponchartrain Basin, Bayou Bienvenue Central Wetland Unit (see attached map). The potential sites include the wetlands adjacent to the East Bank Sewage Treatment Plant, the spoil bank of MRGO, the wetlands between MRGO and the flood protection levees, and the wetlands bordering the western side of Lake Borgne. The wastewater treatment plants under investigation include the East Bank Sewage Treatment Plant for the S&WB and one to all seven of the wastewater treatment plants for SBPG dependent upon their consolidation plan.

Problem

The landfall of hurricane Katrina in southeast Louisiana destroyed thousands of acres of marsh and other coastal habitats in the Lake Pontchartrain basin. Along the shorelines of Lake Borgne the storm created breaches between the lake and interior marshes and in some cases removed large expanses of wetlands. The Bayou Bienvenue Central Wetland Unit was formerly a cypress forest that was severely affected by salt-water intrusion following construction of the MRGO.

Proposed Project Feature

- Installation of a wetland assimilation distribution system.
- Cypress planting.

Goals

- Restore critical wetlands destroyed by hurricane Katrina and the MRGO.
- Prevent breaching of degraded marshes between the MRGO and Lake Borgne.

Preliminary Project Benefits

The project will benefit between 10,000 and 15,000 acres of forested wetlands, intertidal marsh, and open water.

Identification of Potential Issues

Further inspections are needed to ensure compatibility with energy and transportation infrastructure. Hydrologic inspections are needed to determine if water control structures will be necessary to initiate cypress plantings.

Preliminary Construction Costs

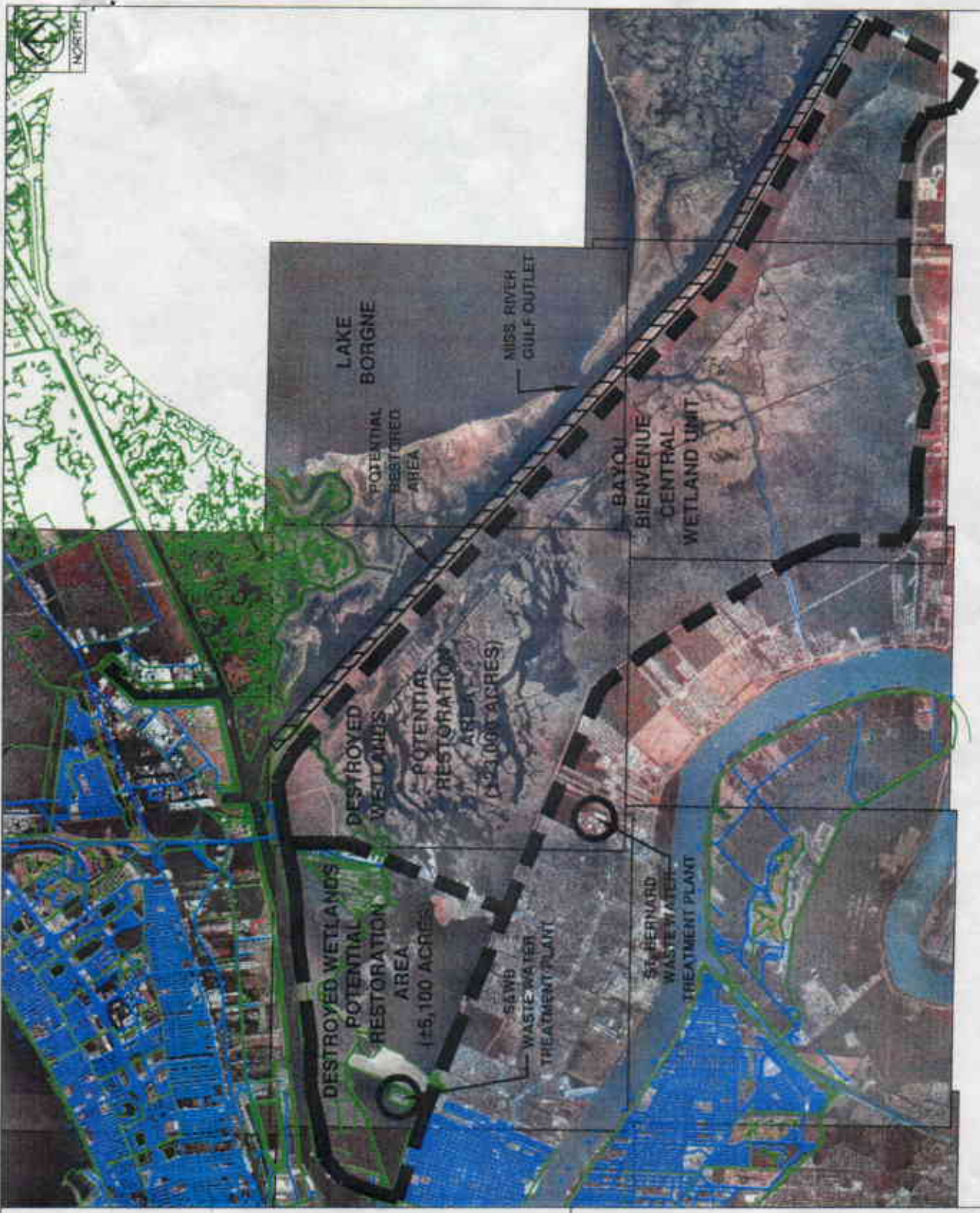
The estimated construction cost to restore the wetlands in the area and build the distribution system is \$25 million - \$30 million.

Preparer of Fact Sheet

Sarah K. Mack

Sewerage and Water Board of New Orleans

(504) 799-9908



GRAPHIC SCALE



(IN FEET)
1 inch = 10,000 ft.

REFERENCE: 1004-0000 AERIAL PHOTOGRAPHY

SEWERAGE AND WATER BOARD
OF NEW ORLEANS

**CYPRESS RESTORATION OF
BAYOU BIENVENUE CENTRAL
WETLAND UNIT**

ORLEANS PARISH, LOUISIANA

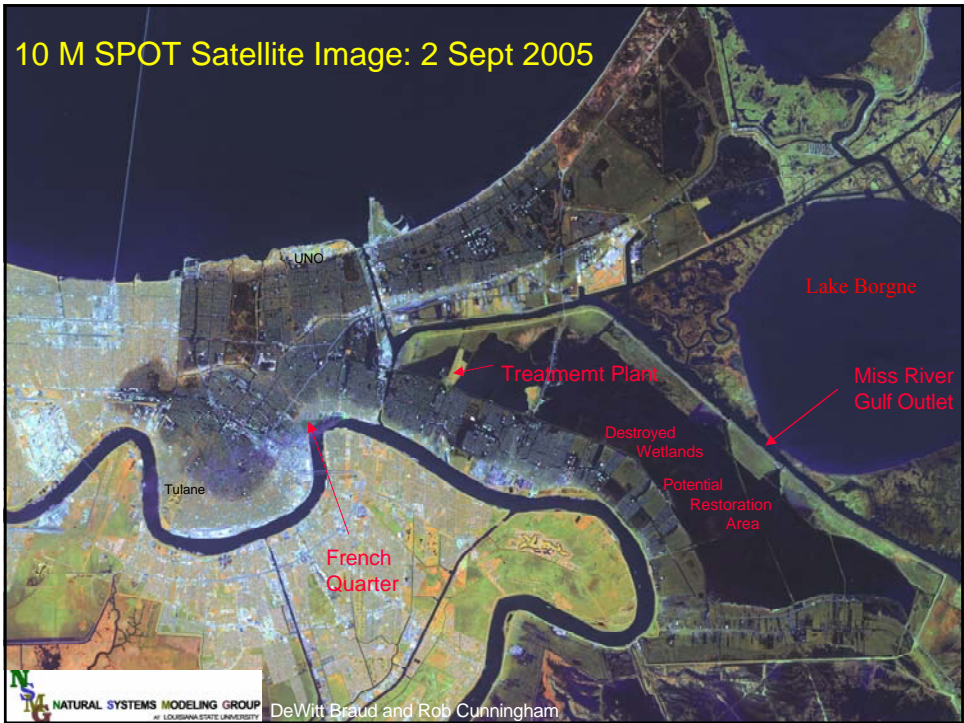
Cypress Restoration of Bayou Bienvenue Central Wetland Unit

Sewerage and Water Board
of New Orleans
&
St. Bernard Parish Government

Wastewater Infrastructure Design Using Wetland Assimilation

- Restore critical damaged infrastructure
- Enhance 10,000-15,000 acres of wetlands, re-establish cypress swamps
- Protect from future storm vulnerability
 - Orleans Parish
 - St Bernard Parish

10 M SPOT Satellite Image: 2 Sept 2005



WETLAND ASSIMILATION

DISINFECTED EFFLUENT

Fertilizer

Freshwater

Cheaper-Natural Energies

Restored Wetlands

Storm Protection

Thibodaux wetland enhancement



Cypress Restoration of Bayou Bienvenue Central Wetland Unit



St. Bernard Parish



Funding

- Delta Regional Authority
 - \$400,000
 - Feasibility and Preliminary Design
- Coastal Impact Assistance Program-CIAP
 - \$40 Million
- Implementation Funding Gap
 - \$25-\$30 Million

World Model

- Size
- Recovery
- Policy
- Port Cities
 - River-Transportation
 - Relative Water Level Rise
 - Increased Tropical Storms

Recovery Recognition S&WB & SBPG

- Innovative
- Environmental
- Economic

**Waste is a Resource
Out of Place**

**R1 –PO 8 LaBranche East Marsh Creation and
Shoreline Protection Project**

LaBranche East Marsh Creation and Shoreline Protection PPL-17 Candidate Project

Coast 2050 Strategy:

- Regional – dedicated dredging from Lake Pontchartrain
- Regional – cypress/marsh plantings
- Regional –shoreline stabilization along Lake Pontchartrain

Project Location: Region 1, Pontchartrain Basin, St. Charles Parish, north of I-10, and east of, and adjacent to, initial Bayou LaBranche Wetland Creation Project (PO-17) with same borrow area in Lake Pontchartrain. The project is bounded on the west by Fall Canal.

Problem: Currently a portion of the lake rim is protected by a rock riprap shoreline; however, a thin strip of marsh is all that currently separates Lake Pontchartrain from a ±900-acre shallow open body of water. Continued shoreline erosion and future storms could create a direct channel of open water connecting Lake Pontchartrain with the interior marshes of the LaBranche wetlands.

Goals: As with the PO-17 project, the proposed project would not only provide wildlife and fisheries and water quality benefits, but the restored marsh vegetation would buffer/weaken storm surge and reduce the threat of the merging of Lake Pontchartrain with the present waterbody in the LaBranche Wetlands. The proposed project will also provide protection to critical hurricane evacuation routes, such as I-10 and the Canadian National Illinois Central railroad.

Proposed Solutions: The project consists of three basic components including:

- (1) Marsh creation of approximately 590 acres using dedicated dredging from Lake Pontchartrain and vegetative plantings on created marsh. Three different types of area will be created or improved: subtidal, emergent marsh and wetland shrub-scrub.
- (2) Repair or replacement of one ineffective water control structure (fixed crest weir), located at the northeast corner of the project area.
- (3) A small amount of riprap, as needed, to fill in low areas in the existing armored shoreline and extending the shoreline protection to include the area from the repaired weir to Fall Canal.

Pipes, culverts, and spill boxes would be used in a managed dewatering process conducted in close conjunction with the dredging operation. The current project would use similar and successful design criteria and construction techniques derived from data collected for, and lessons learned from PO-17. Because it is similar to the PO-17 project, there probably would be minimal or no requirements for operations and maintenance for the 20-year life span of the project. As of September 2002, no maintenance has been required for the PO-17 project.

Preliminary Project Benefits: The project would create a diverse wetland open water habitat in an 800-ac area that is currently threatened with becoming an arm of Lake Pontchartrain. This project will benefit 800 acres of intermediate marsh and open water. Approximately 590 acres of marsh will be created/protected over the 20-year project life and 208 acres of subtidal area will be improved.

Constructed in April of 1994, PO-17 has provided more than 12 years of wetland benefits and will likely continue to provide benefits well beyond its 20-year prescribed life expectancy. As with the PO-17 project, the proposed project would not only provide wildlife and fisheries and water quality benefits, but the restored marsh vegetation would buffer/weaken storm surge, providing additional protection to existing infrastructure including the Lake Pontchartrain and Vicinity Hurricane Protection Levee, I-10, the Canadian National Illinois Central railroad embankment, aerial electrical lines, and non-essential infrastructure. Neither the rail embankment nor the two camps that are located south of PO-17 were significantly damaged by Hurricane Katrina while most of the camps and several portions of the rail embankment to the east were either lost or heavily damaged.

Its location north of the westbound lanes of I-10, makes the project area highly visible to motorists and would provide a readily discernible example of Louisiana's successful coastal restoration efforts. According to the Louisiana Department of Transportation and Development's most recent (2005) Average Daily Traffic Count taken for this segment of I-10, 54,687 vehicles a day pass this area. Because of its highly visible location near the New Orleans area, the project should be publicized as to its components and benefits.

Identification of Potential Issues: No potential issues have been identified as of this date. The current project, as proposed, would emulate PO-17, utilizing similar and successful design criteria and construction techniques to the maximum extent possible.

Preliminary Construction Costs: Estimated construction costs with 25% contingency is approximately \$15.5 to \$21 M. Agency representative will provide supporting documentation on estimated costs of all project features.

Preparer(s) of Fact Sheet:

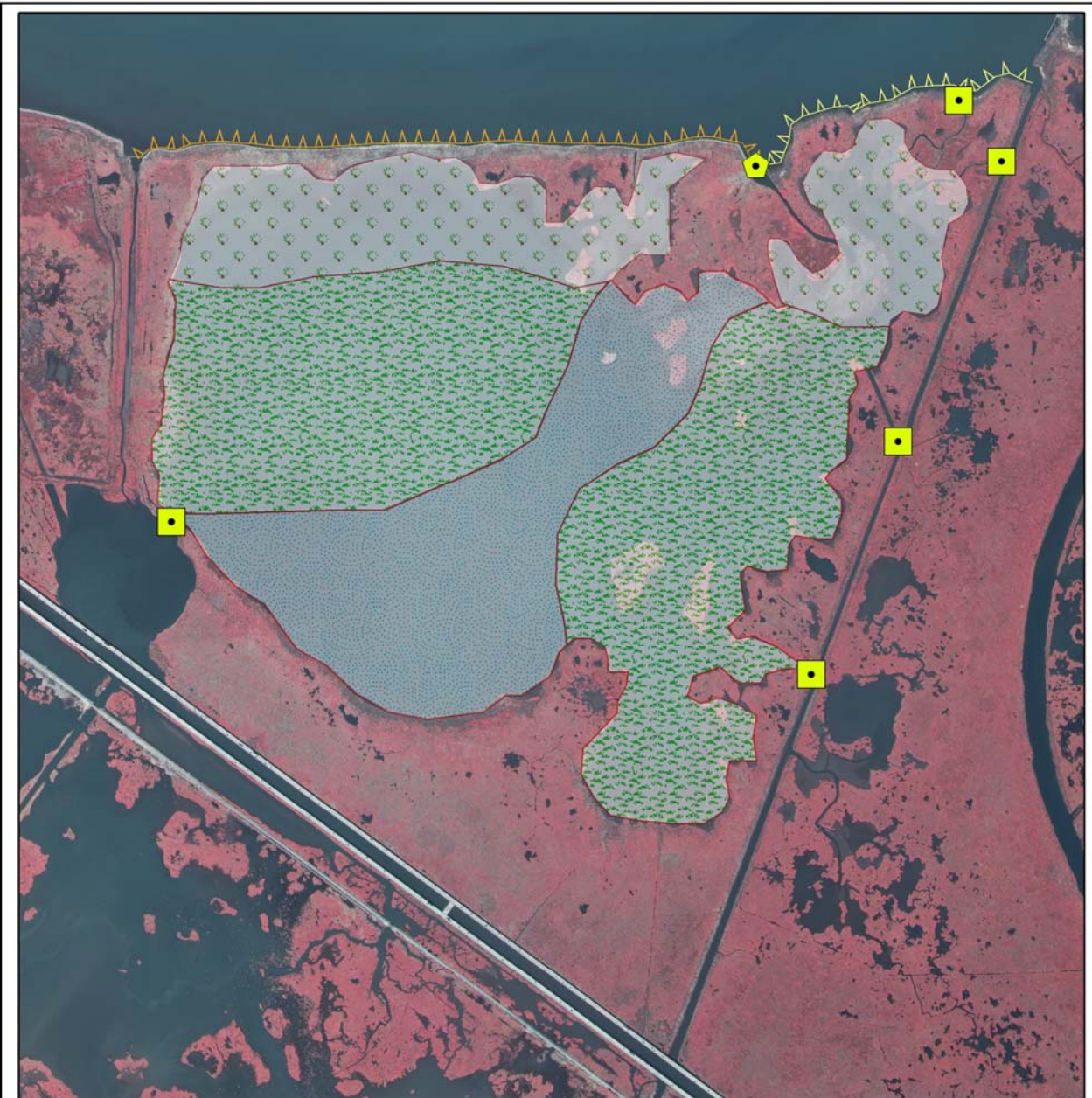
Marty Floyd, NRCS, (318) 473-7690, marty.floyd@la.usda.gov

Melanie Goodman, USACE, (504) 862-1940, Melanie.L.Goodman@mvn02.usace.army.mil

Travis Creel, USACE, (504) 862-1071, Travis.J.Creel@mvn02.usace.army.mil

Ed Fike, Project Scientist, Coastal Environments, Inc., Baton Rouge, LA

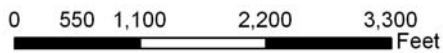
Project Map:



Legend

-  Temporary Plug
-  Weir
-  Proposed Riprap
-  Repaired Riprap
-  Subtidal-208 Acres
-  Emergent-413 Acres
-  Wetland Shrub-Scrub-171 Acres

**St. Charles Parish Candidate Project
PPL 17 LaBranche East
Marsh Creation and Shoreline Protection**



Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, La
and
U.S. Army Corps of Engineers
New Orleans, La

Data Source:
2005 DOQQ Aerial Photography
Map Date: January 23, 2007
Map ID: LaBranchemap.mxd

**R1 –PO 9 Fritchie Marsh- Northshore Marsh
Creation and Terracing Project**

PPL-17 Project Nominee Fact Sheet - Revised
January 24, 2007

Project Name:

Fritchie Marsh-Northshore Marsh Creation and Terracing Project

Coast 2050 Strategy:

Coastwide strategy: Dedicated dredging to create, restore, or protect wetlands
Regional Strategy 9: Marsh Creation via Dedicated Sediment Delivery

Project Location:

Region 1. Pontchartrain Basin, Pearl River Mouth mapping unit, St. Tammany Parish.

Problem:

This area is located along the northshore within the Fritchie Marsh system. Although the PO-06 CWPPRA project was completed in 2001 to improve hydrology throughout the area, a significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. Now shallow open water areas dominate the landscape which reduces the effectiveness of the PO-06 project. Over 3,600 acres of this unit were lost in the past 50 years, and another 15% is expected to be lost over the next 50 years. The long-term loss rate is approximately 0.5%/yr; however, the loss rate jumped to 13% after the 2005 storms, as evidenced by satellite and aerial imagery collected by the USGS. This once stable land mass was severely damaged by the passing of Hurricane Katrina, to the effect that in some locations marsh was stacked over nine feet high along the tree line. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained.

Proposed Project Features:

Project features include approximately 200 acres of marsh creation via hydraulic dredging and placement of 1.5 million cubic yards of material. The likely borrow locations are Salt Bayou, which has nearly silted in and could provide approximately 100,000 cy of material, and Lake Pontchartrain. Containment will be semi-confined and intermediate vegetation will be planted upon material compaction and settlement. In addition, approximately 100,000 linear feet of earthen terraces will be built to represent a 1,300 acre terrace field. The water depths in this area are approximately 1 ft and materials are conducive for terrace construction. Terraces will be constructed with a 10 foot crown and 1 on 5 foot slopes. Two rows of intermediate marsh plugs will be planted on the crown and one row on each side of the terraces upon construction completion.

Goals:

1. Create approximately 200 acres of intermediate marsh.
2. Create approximately 100,000 linear feet of terraces.
3. Reduce wave fetch and erosion of adjacent interior marshes.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*

- 1500 acres directly and indirectly benefited from marsh creation and terrace field.
- 2) *How many acres of wetlands will be protected/created over the project life?*
270. At the end of twenty years, 180 acres of created marsh and 90 acres of emergent terraces will remain [emergent acres x (0.5%/yr loss rate x 20 years)].
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?*
It is anticipated that the loss rate of the adjacent interior marsh would be reduced by 25-49%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*
This project will help protect the integrity of the lake shoreline from eroding from the north. Without dedicated delivery of sediment to this area, large expanses of former marsh adjacent to the lake shoreline will remain, or become larger areas, of open water.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
It is expected that this project will have a net positive impact on non-critical infrastructure.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project will function synergistically with the PO-06 Fritchie Marsh project that was completed in 2001. The PO-06 project restored hydrology to what was once a stable marsh system; however, the marshes that once benefited from this project were decimated by Hurricane Katrina. The proposed project will re-establish the marsh, which will be sustained by improved hydrology constructed under PO-06.

Identification of Potential Issues:

There are some pipelines in the area that will require project coordination with the pipeline owners. There are no known state-issued oyster leases in the project vicinity. The project is supported by the parish.

Preliminary Construction Costs:

Preliminary construction cost estimate is \$9.9M. This includes construction, mobilization, vegetative plantings, and 25% contingency.

Preparer of Fact Sheet:

Brian Fortson, St. Tammany Parish, (985) 898-2552

Cheryl Brodnax, NOAA NMFS, (225) 578-7923, cheryl.brodnax@noaa.gov

Fritchie Marsh-Northshore Marsh Creation and Terracing Project



↓ 1800 acre Marsh
Creation and
Terracing

↪ Salt Bayou Clean Out

**R1 –PO 10 Northshore Lake Pontchartrain
Marsh Restoration Project**

REI PO 10 St Tammany
USFWS
Proj Map Etc
JPG

PPL17 PROJECT NOMINEE FACT SHEET
January 11, 2007

North Shore Lake Pontchartrain Marsh Restoration Project

Coast 2050 Strategy, Region 1

- Coastwide – Dedicated Dredging to Create, Restore, or Protect Wetlands; Maintenance of Gulf, Bay and Lake Shoreline.
- Regional – (#9) Dedicated Delivery of Sediment for Marsh Building; (#10) Maintain Shoreline Integrity of Lake Pontchartrain to Protect Regional Ecosystem Values.
- Mapping Unit – (#27) Maintain Shoreline Integrity.

Project Location

Region 1, St. Tammany Parish, Lake Pontchartrain Basin, along the north shore of Lake Pontchartrain, within Big Branch Marsh National Wildlife Refuge.

Problem

Interior ponding and, to a lesser extent shoreline erosion, are the major causes of wetland loss in the project area. From 1974 to 1990 marsh loss rates averaged approximately 35 acres/year. Those high loss rates are associated with hydrologic alterations which allowed saltwater to penetrate the fresher marshes. In addition, the passage of Hurricane Katrina also contributed to the loss of as much as 3.6 square miles of wetlands within the project area. During the transition to a more brackish plant community, large ponds were formed. A narrow strip of land separates those ponds from Lake Pontchartrain. Although the shoreline erosion rates are relatively low, the shoreline is already breached in several areas, and marsh loss in the interior ponds is expected to increase if the shoreline fails.

Proposed Project Features

Sediment would be hydraulically dredged from Lake Pontchartrain and placed in cells within the ponds to create approximately 450 acres of emergent marsh with approximately 100 acres being nourished. In all the ponds, marsh would be created to widen the shoreline so that the ponds would not be breached during the course of normal shoreline retreat. Sediment would be pumped within containment dikes. Initial elevations would depend on conditions of the dredged material, but would be pumped to approximately 1.5 ft above marsh level to achieve final target elevation of +0.5 ft above marsh elevation.

Goals

The primary goal is to re-create marsh habitat in the open water areas immediately behind the shoreline within Big Branch Marsh NWR. This will maintain the lake-rim function along this section of the north shore of Lake Pontchartrain.

Identification of Potential Issues

The borrow areas in Lake Pontchartrain are located within Gulf sturgeon critical habitat.

Preliminary Construction Costs

Preliminary construction costs are estimated at \$25 million, which includes 25% contingency.
*Goose Point/Point Platte Marsh Creation (PO-33) total cost was estimated at \$21.8 million.

Preparer of Fact Sheet

Angela Trahan, USFWS, (337) 291-3137, Angela_Trahan@fws.gov

North Shore Lake Pontchartrain Marsh Restoration



Project Area



Marsh Creation



Marsh Nourishment



Containment Dikes

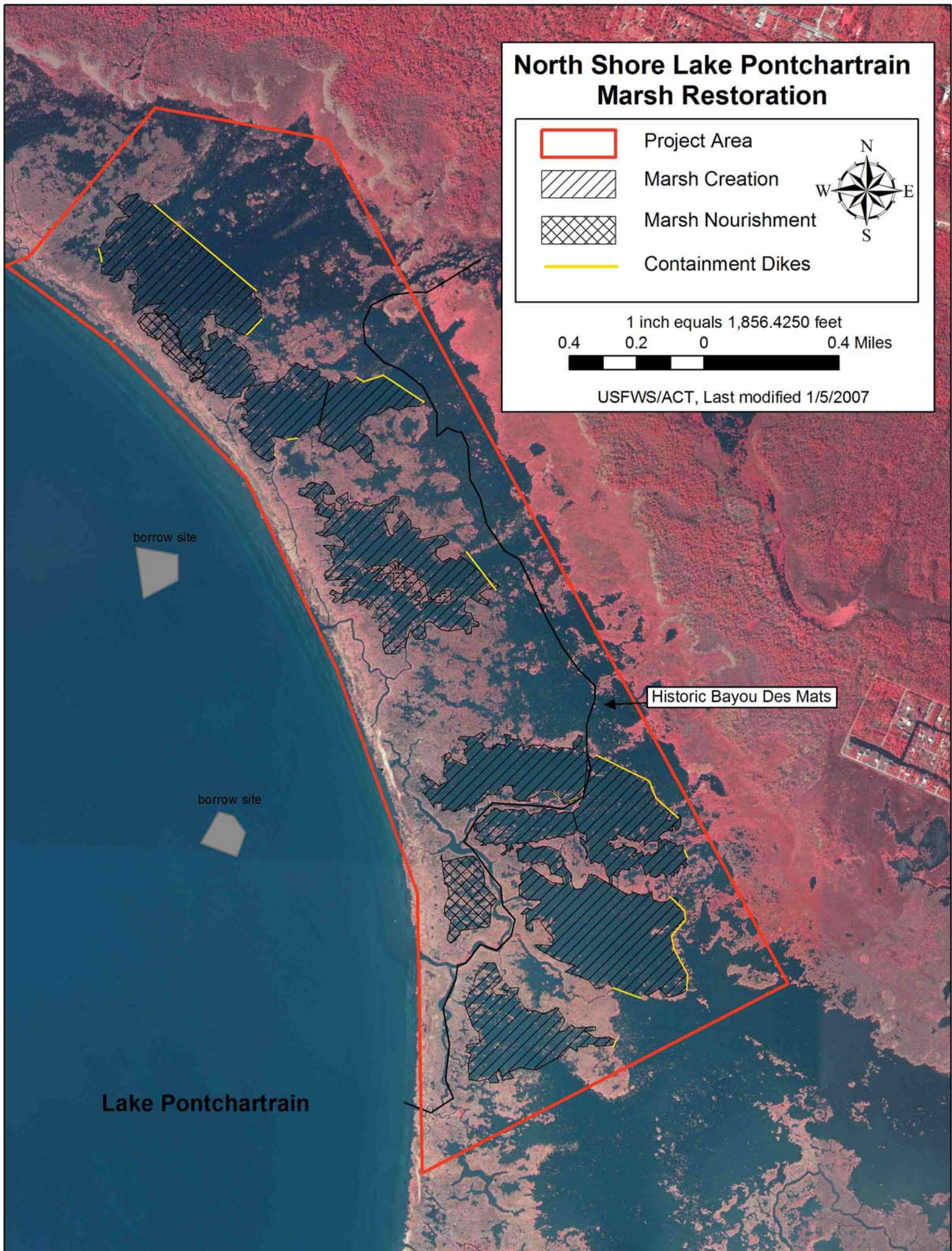


1 inch equals 1,856.4250 feet

0.4 0.2 0 0.4 Miles



USFWS/ACT, Last modified 1/5/2007



borrow site

borrow site

Historic Bayou Des Mats

Lake Pontchartrain

North Shore Lake Pontchartrain Marsh Restoration

-  Project Area
-  Marsh Creation
-  Marsh Nourishment
-  Containment Dike



1 inch equals 3,969,999,070 feet
0 0.15 0.3 0.6 0.9 1.2 Miles
PW/SACT, last updated 1/5/2007

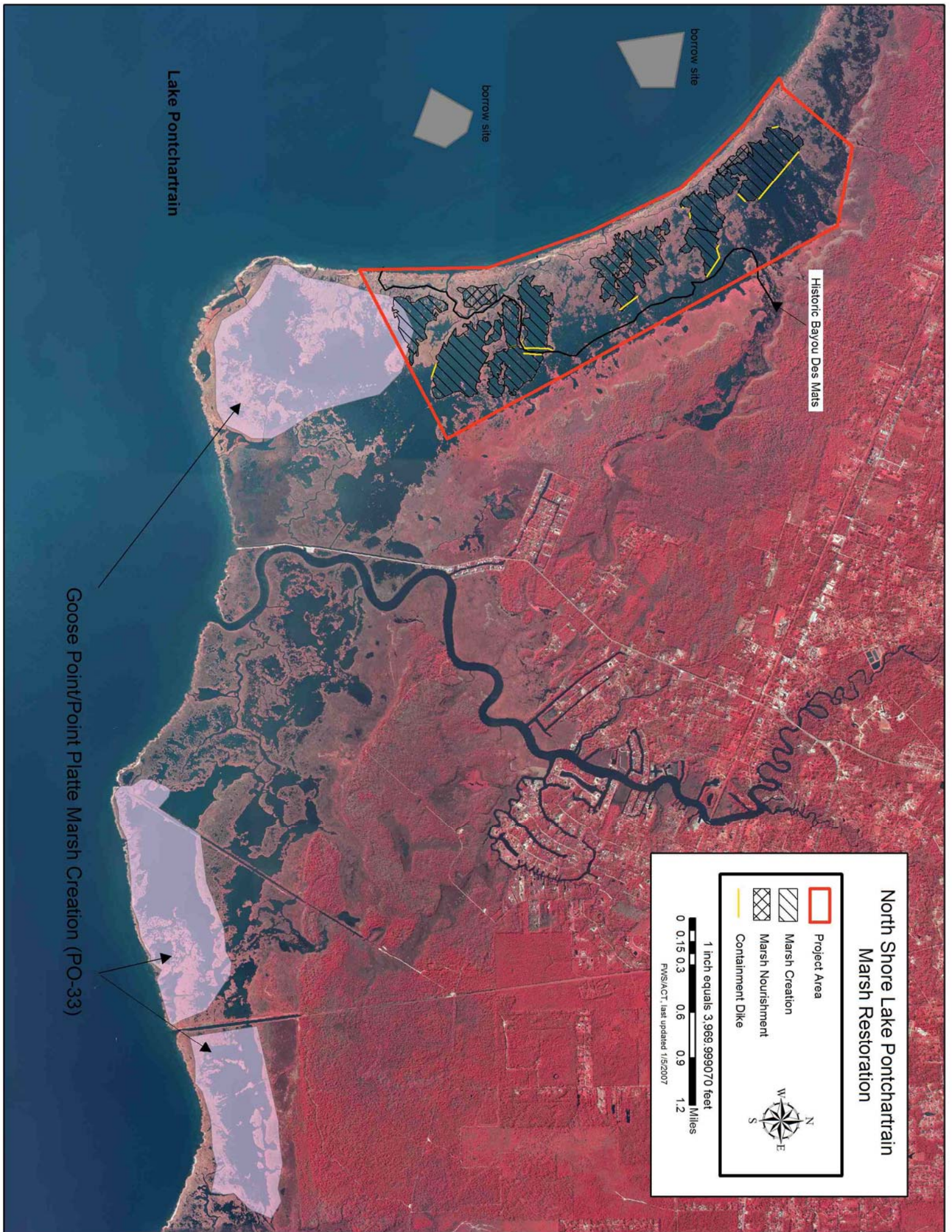
Historic Bayou Des Mats

borrow site

borrow site

Lake Pontchartrain

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



**R1 –PO 11 Hydrologic Restoration in the
Swamps West of Lake Maurepas Project**

PPL17 PROJECT NOMINEE FACT SHEET

January 11, 2007

Prepared by: Environmental Protection Agency

Project Name: Hydrologic Restoration in the Swamps West of Lake Maurepas

Coast 2050 Strategies: 1) Offshore and riverine sand and sediment sources; 2) Diversions and riverine discharge; 3) Management of diversion outfall for wetland benefits.

Project Location: Region 1 - Lake Pontchartrain Basin, Livingston Parish in cypress/tupelo swamps west of Lake Maurepas, north and south of the Amite River Diversion Canal.

Problem: Swamps north and south of the Amite River Diversion Canal are highly stressed by a lack of Mississippi River inflow and the impounding effects of the spoil bank along the canal. The Amite River Diversion Canal could compensate for the lack of Mississippi River water, but the spoil banks prohibit input of sediment- and nutrient-laden water from the canal into the swamps during high water, and they prohibit draining of the swamps during low water periods.

Goals: 1) Increase productivity and regeneration of cypress and tupelo swamp; 2) Increase sediment accretion and nutrient loading in swamp; 3) Decrease frequency, intensity, and duration of salinity spikes in swamp; 4) Increase water flows through swamp; 5) Increase the frequency and duration of periods when the swamp surface is not flooded to promote regeneration; 6) Increase frequency and duration of periods when water depths in the swamp < 1ft to support survival of new cypress and tupelo recruits; 7) Decrease nutrient loading to Lake Maurepas from Amite River.

Proposed Solution: Construct numerous crevasses in the surrounding levees, abandoned railroad embankment, and spoil banks on each side (north and south) of the Amite River Diversion Canal to facilitate water exchange. Crevasses would be strategically located as needed to maximize water exchange. Gaps in the old railroad grade, which traverses north-south across the project boundary, would be cut to facilitate better west-east hydrologic connectivity within the project area.

Project Benefits: This project was previously proposed on the PPL12 project list. The PPL12 project candidate was estimated to benefit 6,458 acres of cypress-tupelo swamp, however it is not expected to directly create additional forested wetland acreage. The PPL12 WVA attributed 1,878 AAHUs to the project due to improvements in vegetative cover and growth, hydrology, and reduced salinities.

Project Costs: < \$1 million.

Risk/Uncertainty and Longevity/Sustainability: EPA and DNR have collected approximately eleven months of gage data in the project area to support project's assumptions. The project is expected to continue providing wetland benefits 30-40 years after construction because project features are simple and should be durable over time.

Sponsoring Agency/Contact Persons: U.S. Environmental Protection Agency

Brad Crawford (214) 665-7255; crawford.brad@epa.gov

Ken Teague (214) 665-6687; teague.kenneth@epa.gov

Hydrologic Restoration in the Swamps West of Lake Maurepas

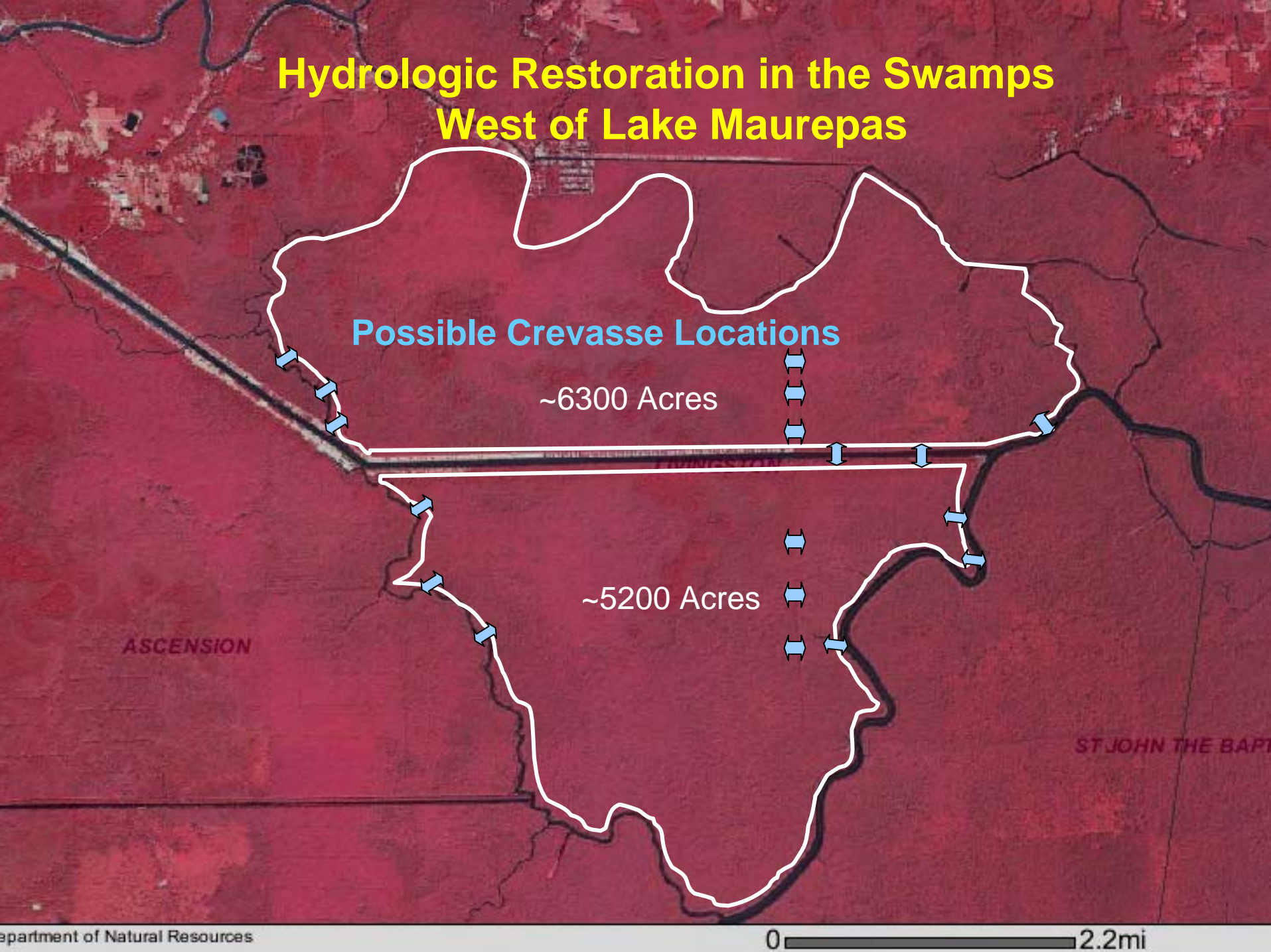
Possible Crevasse Locations

~6300 Acres

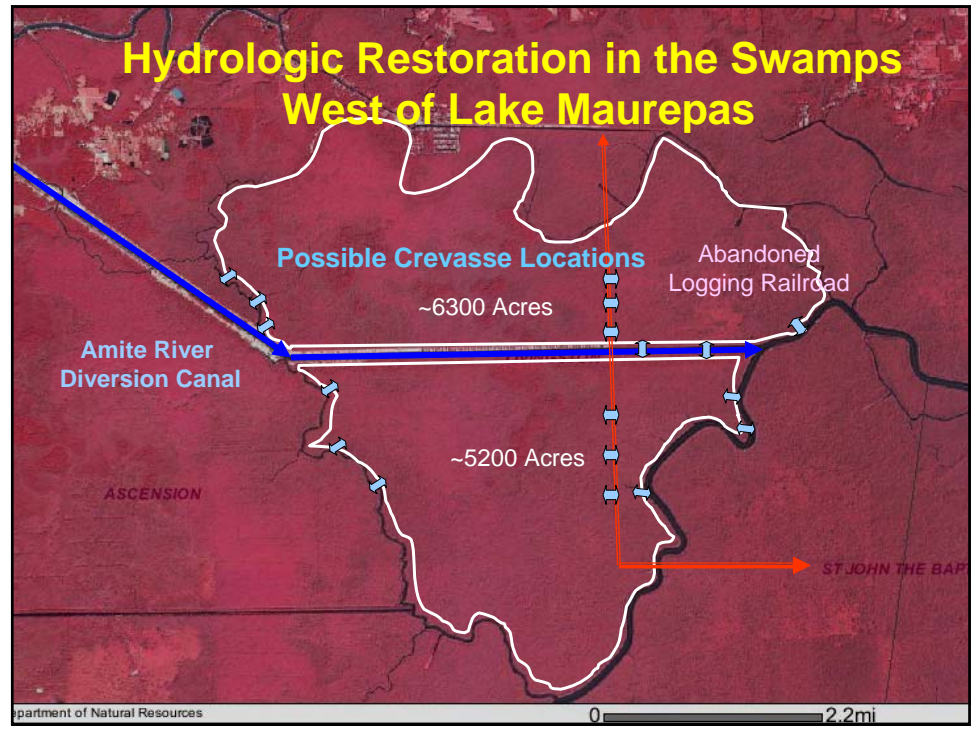
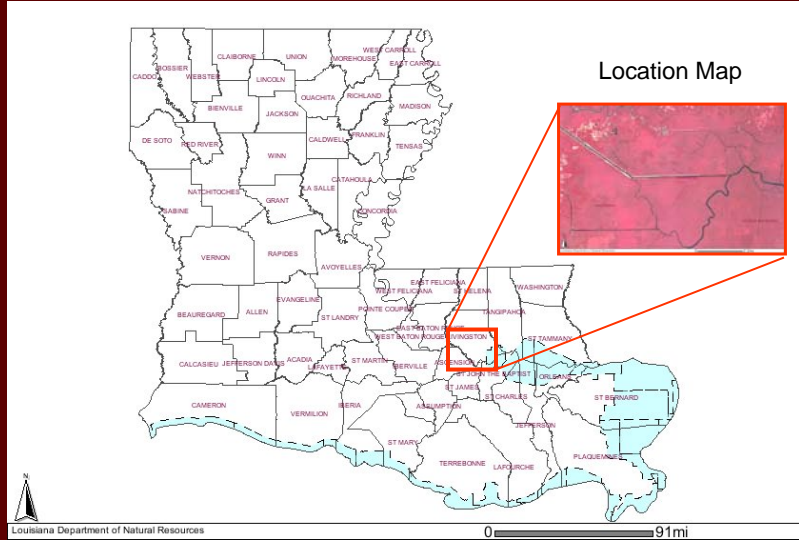
~5200 Acres

ASCENSION

ST JOHN THE BAPT



Hydrologic Restoration in the Swamps West of Lake Maurepas



Hydrologic Restoration in the Swamps West of Lake Maurepas

Goals:

- Increase productivity and regeneration
- Increase sediment accretion and nutrient load in swamp
- Facilitate flow thru swamps
- Decrease salinity spikes
- Decrease nutrient load to Lake Maurepas

Cost/Benefits

- PPL12 – 6458 Acres Benefited
- PPL12 WVA – 1878 AAHUs
- PPL17 Cost Estimate < \$1M

Department of Natural Resources

0

2.2mi

Hydrologic Restoration in the Swamps West of Lake Maurepas

Questions?



Tim Landers
Acting Team Leader
EPA Region 6
(214)665-6608
landers.timothy@epa.gov



Department of Natural Resources

0

2.2mi

**R1 –PO 12 Conkey Cove Marsh Creation and
Shoreline Protection Project**

RE-1 PO12 NMFS
Map file

DRAFT
PPL17 PROJECT NOMINEE FACT SHEET
January 11, 2006

Project Name:

Conkey Cove Marsh Creation and Shoreline Protection

Coast 2050 Strategy:

Coastwide Common Strategies:

- Dedicated dredging, to create, restore, or protect wetlands
- Maintenance of gulf, bay and lake shoreline integrity
- Maintain, protect, or restore ridge functions

Regional Ecosystem Strategies:

- 12. Shoreline protection of Biloxi marshes

Project Location:

Region 1, Pontchartrain Basin, St. Bernard Parish, outer edge of Biloxi marsh located between Bay Boudreaux and Chandeleur Sound

Problem:

Due to the historical and continuing wetland loss, the integrity of the outer Biloxi marsh is under threat of substantial deleterious change. The 1983 to 1990 loss rates for the Biloxi marsh is 0.31%/yr. The 2000 to 2005 loss rate likely is much higher, but completion of that analysis is pending at this time. Historic and recent land change analyses show shoreline erosion and synoptic interior wetland loss to be primary short term causes of wetland loss. Opening of passes into Chandeleur Sound threatens the ridge and bay system of the Biloxi marshes and allows increasing volumes of tidal and storm surge water to pass through the estuary. Increasing the openings from sounds to bays will fundamentally alter the regional landscape and threaten the collapse of the eastern half of the Biloxi marsh. The Biloxi marsh in general is a hydrologic barrier to maintain the estuarine gradient and to reduce storm surge (Figure 1).

Goals :

- Stabilize a key landform – an old distributary ridge separating Bay Boudreaux from Chandeleur Sound – by creating and protecting marsh
- Implement a CWPPRA scale first step to restore the Biloxi marsh
- Aid in maintaining a first line of defense of protection from shoreline erosion and storm surge reduction
- Place substrate (cultch) for oyster reef establishment

Proposed Solutions:

Approximately 180 acres of marsh would be created/restored to re-establish the structure and function of Conkey Cove. Sediment would be mined from Chandeleur Sound for the marsh creation. A 4,700-ft shoreline protection structure would be constructed to protect the sound side of the cove and restore the alignment of Live Oak Bayou and Ridge. The structure would be a combination of a riprap revetment or dike with a relatively large crushed limestone apron. The purpose of the crushed limestone apron is to serve as cultch for establishment of oyster reefs for additional shoreline protection in conjunction of the revetment. Based on discussions with the

Louisiana Department of Wildlife and Fisheries the general area near Three Mile Pass has been producing well in recent years including after the hurricanes.

Preliminary Project Benefits:

1) Approximately 1,200 acres of marsh and open water cove would be benefited both directly and indirectly by the project. 2) The project would create/protect a net of approximately 169 acres over the 20-year project life (based on 83-90 data). 3) There is an expected 50-74% expected loss reduction. 4) The project would create and maintain a bay rim and bayou ridge. 5) The project is not expected to have an effect on critical and non-critical infrastructure. 6) Although there are no constructed projects in the area, this project would be the first to build upon with future synergistic opportunities under CWPPRA, or planned LaCPR and CPRA projects identified for the Biloxi marsh.

Identification of Potential Issues:

The proposed project has the following potential issues: oysters

Preliminary Construction Costs:

The estimated construction cost is \$16.1M including 25% contingency.

Preparer(s) of Fact Sheet:

John Lopez, Lake Pontchartrain Basin Foundation; johnlopez@pobox.com; (225)294-4998 land line; (504)4221-7348 cell

Patrick Williams, National Marine Fisheries Service; (225)3898-0508, ext 208; patrick.williams@noaa.gov

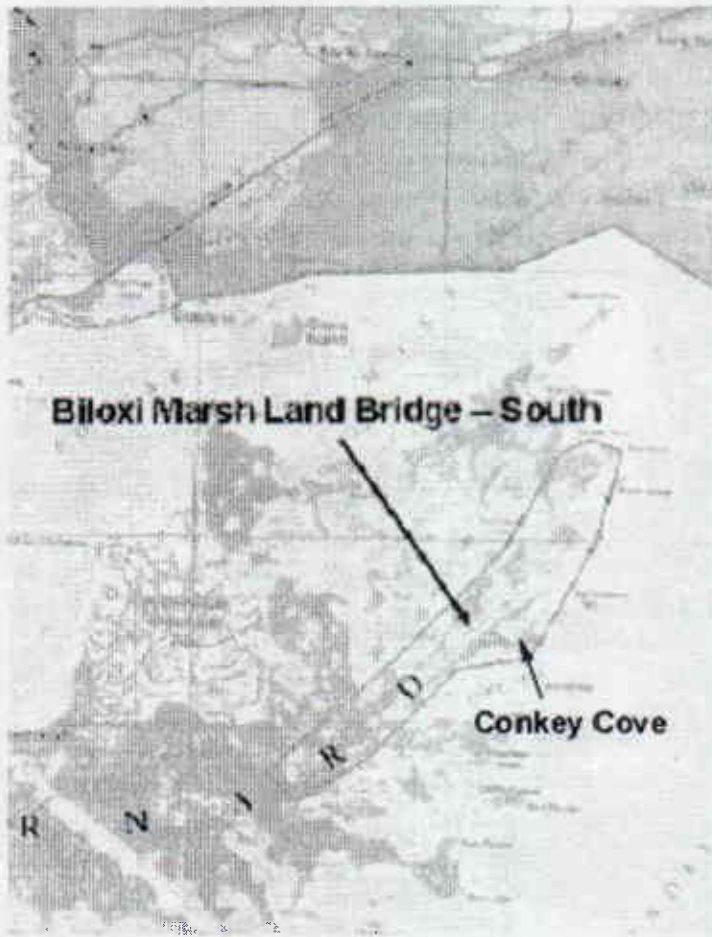
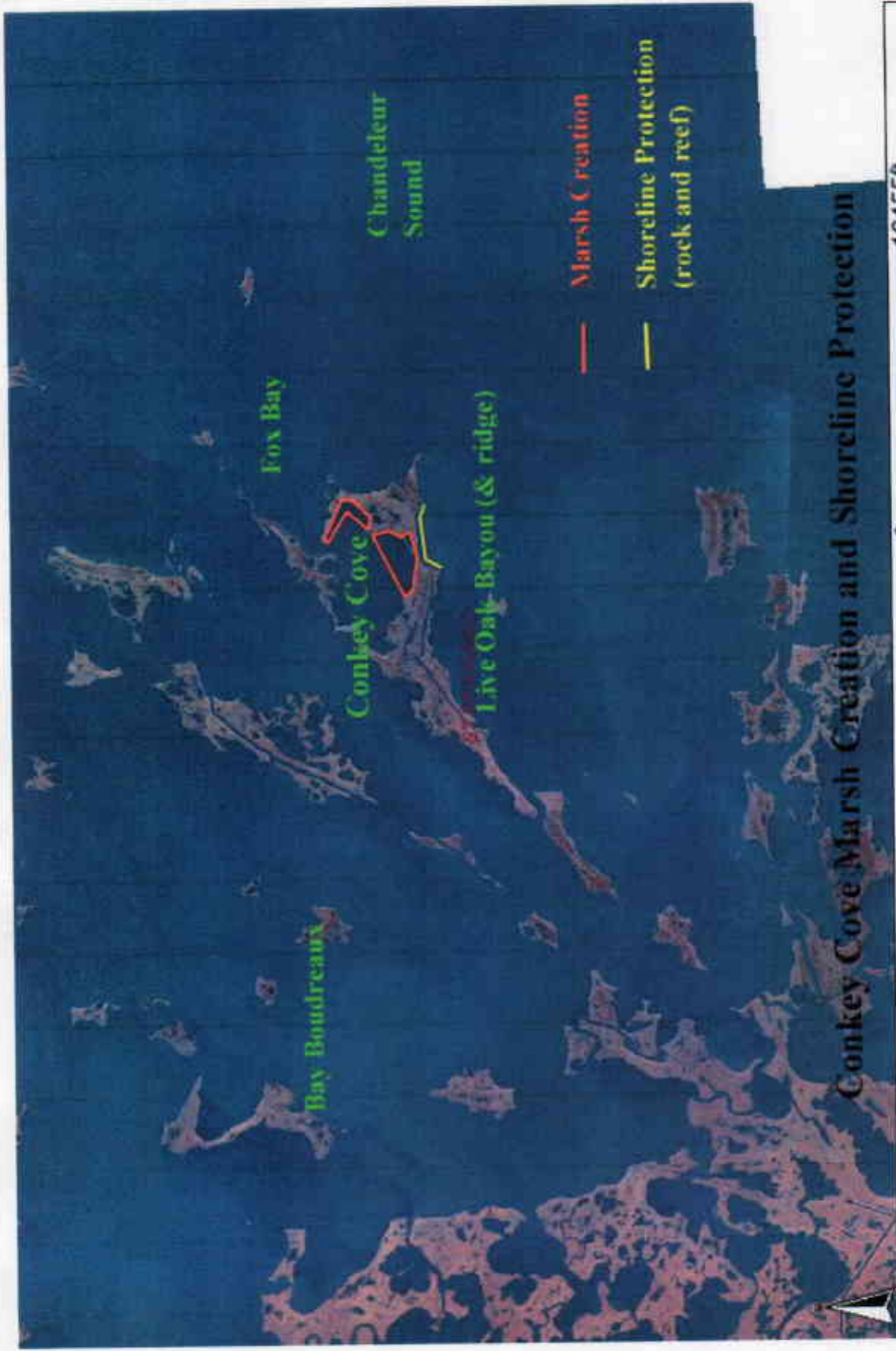


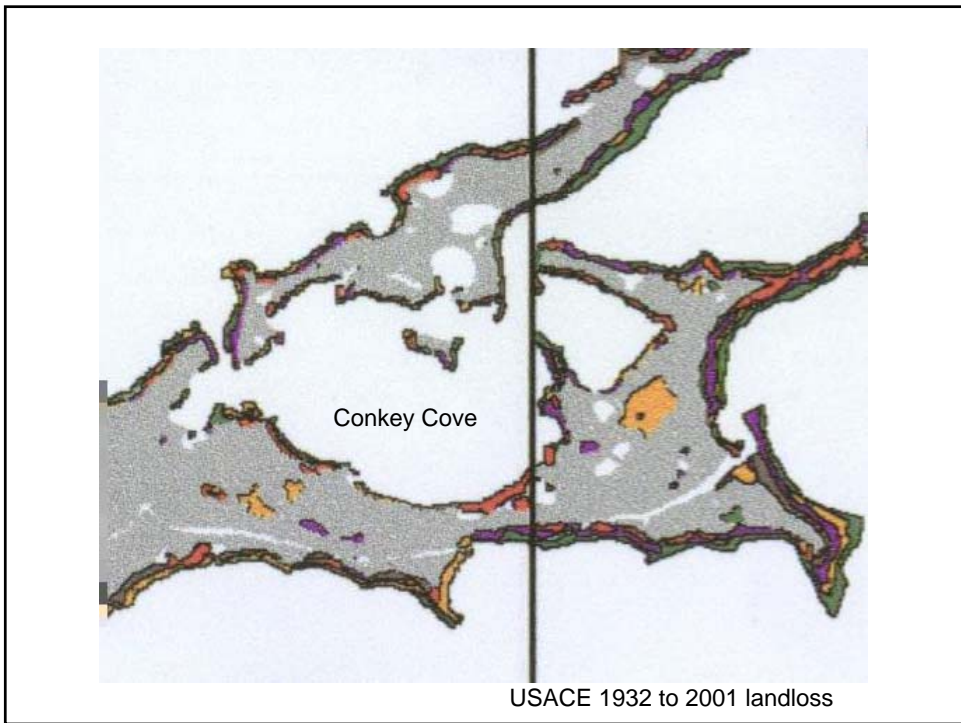
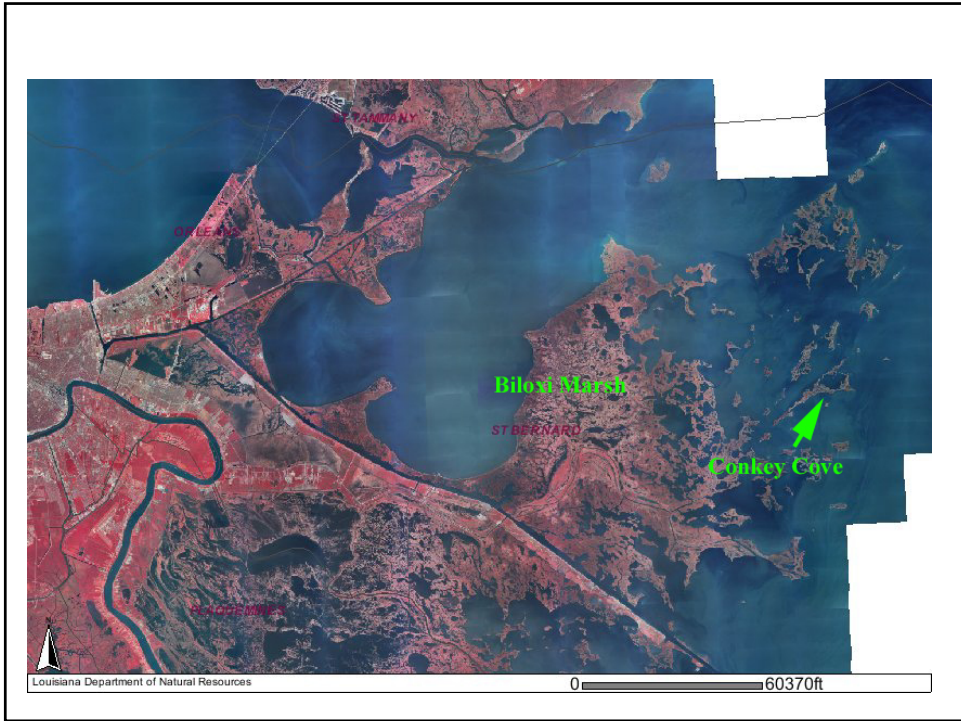
Figure 1. Outer Biloxi marsh landbridge and first line of defense.

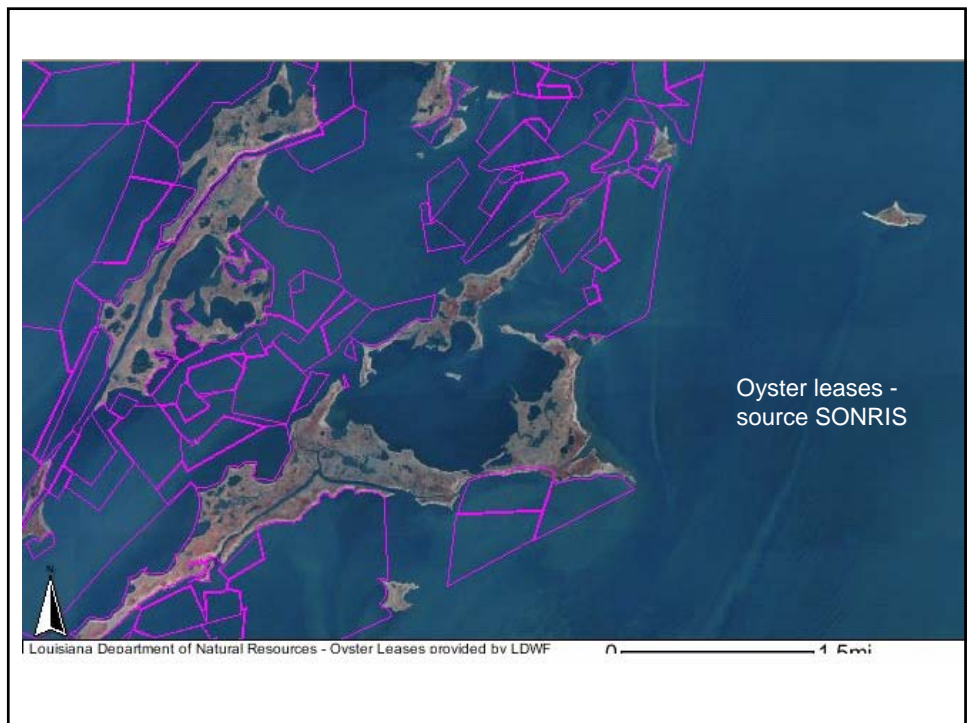
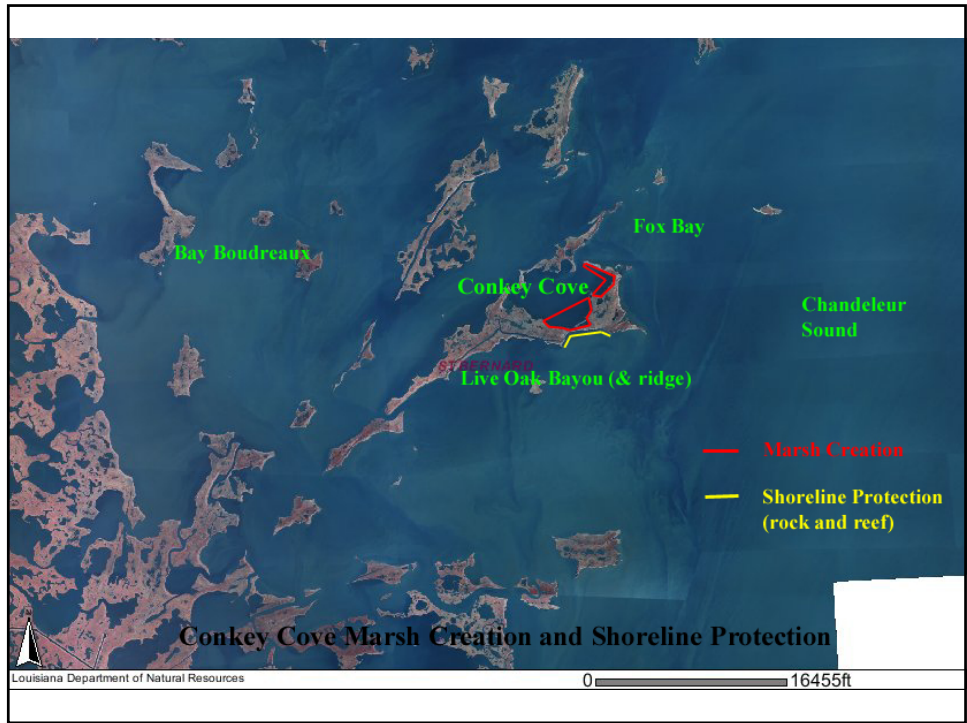


Conkey Cove Marsh Creation and Shoreline Protection

Louisiana Department of Natural Resources

0 16455ft





**R1 –PO 13 Pontchartrain Shoreline Protection in
Tangipahoa and St. John Parishes Project**

Pontchartrain Shore Protection in Tangipahoa and St. John Parishes PPL-17 Candidate Project

Coast 2050 Strategy:

- Coastwide - Maintenance of Bay and Lake Shoreline Integrity
- Regional - Maintain shoreline integrity of Lake Pontchartrain
- Mapping Unit - Shoreline Stabilization around Tangipahoa River Mouth

Project Location:

Region 1, Pontchartrain Basin, Tangipahoa and St. John Parishes, on the western side of Lake Pontchartrain.

Problem:

The marsh along the lake rim is impacted by the wave action of Lake Pontchartrain eroding into the swamps of the Manchac landbridge.

Goals:

Stop shoreline erosion along lake rim, and provide potential for sediment accumulation behind riprap and shoreline plantings.

Proposed Solution:

Rock riprap (or other appropriate hard material) placed offshore at approximately 2.5 ft water depth with fish dips having protective riprap section (see drawing); planting along shoreline (woody and/or herbaceous as appropriate); any borrow channel material to be placed between rock and shoreline

Project Benefits:

This project will benefit 3000 acres of swamp and marsh. Approximately 1435 acres of marsh will be created/protected over the 20-year project life.

Project Cost:

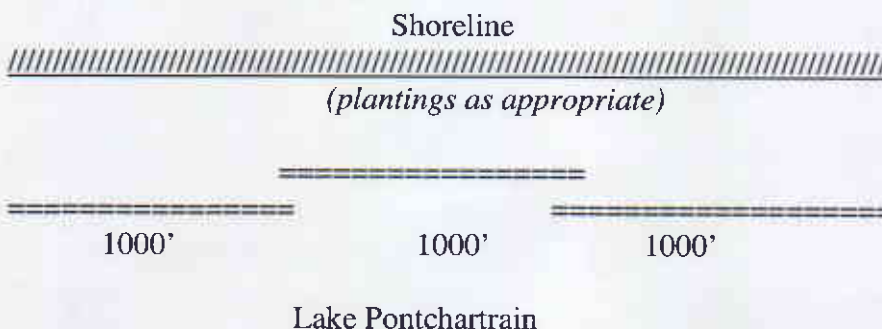
The total fully funded cost for this project is \$xxxxxx. *\$6M*

Preparers of Fact Sheet:

Gordon Burgess, Tangipahoa Parish Police Jury, parishpres@tangipahoa.org

Marty Floyd, NRCS, (318) 473-7690, marty.floyd@la.usda.gov

Synergy with other projects: Ties into shoreline protection mitigation project to the south, which ties into shore protection of Turtle Cove, which ties into NAWCA shoreline protection. Combined this will encompass approximately 11 miles of shoreline protection in these two parishes.





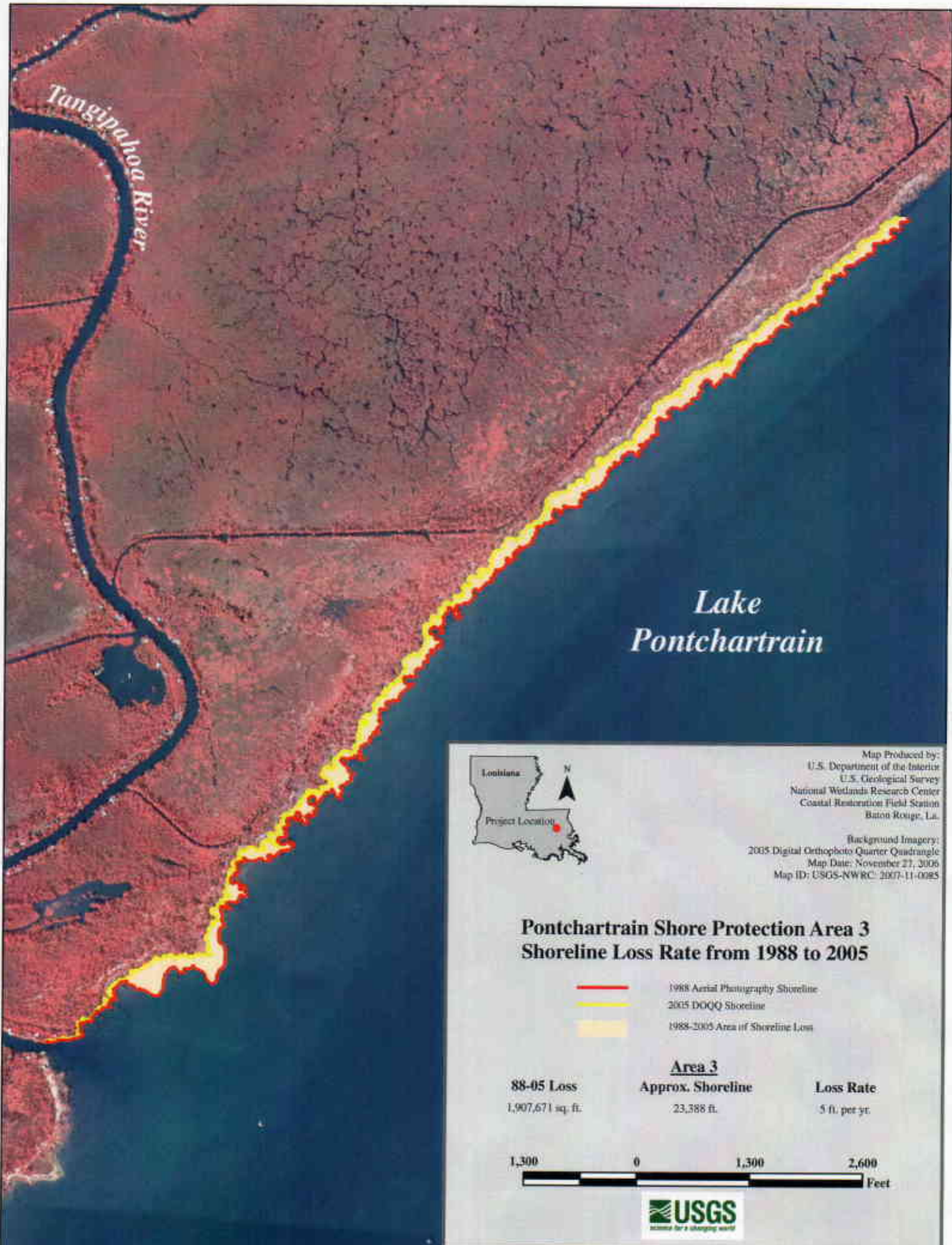
- Legend
- OLP Proposed Shoreline Protection
 - Mitigation Breakwaters
 - NERRA Shoreline Protection
 - Turb-Cone Project



Pontchartrain Shore Protection
 PPL-17
 Tangipahoa and St. John Parishes, Louisiana



Data Source: 2005 Aerials
 Map Date: 12/5/2008
 Map ID: Pontchartrain_SP






Lake
Pontchartrain



Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Briar Ridge, La.

Background Imagery:
2005 Digital Orthophoto Quarter Quadrangle
Map Date: November 27, 2009
Map ID: USGS-NWRC-2007-11-0085

**Pontchartrain Shore Protection Area 3
Shoreline Loss Rate from 1988 to 2005**

-  1988 Aerial Photography Shoreline
-  2005 DOQQ Shoreline
-  1988-2005 Area of Shoreline Loss

<u>Area 3</u>		
88-05 Loss	Approx. Shoreline	Loss Rate
1,907,671 sq. ft.	23,388 ft.	5 ft. per yr.



**R1 –PO 14 Freshwater Reintroduction into
LaBranche Wetlands Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 22, 2007

Project Name: Freshwater Reintroduction into La Branche Wetlands

Coast 2050 Strategy:

Region 1 # 6. Small diversion of Mississippi River water into La Branche Wetlands

A small diversion from the Mississippi River could be made into the southern La Branche marshes. The diversion is likely to prevent the loss of a moderate amount of wetlands.

Project Location:

Region 1, Pontchartrain Basin, St. Charles Parish, wetlands between Lake Pontchartrain, the Bonnet Carre' Spillway and the St. Charles / Jefferson Parish hurricane protection levees.

Problem:

Saltwater intrusion from elevated salinity in Lake Pontchartrain and due to stranded salinity caused by a lack of water circulation is stressing wetland vegetation. This is evidenced by historic "Interior Wetlands loss" around the central area of the LaBranche wetlands and bald cypress tree mortality around the western, southern and eastern perimeter of the project area. Hurricane Katrina caused significant marsh loss in the LaBranche wetlands. Historic wetland loss mapping does not capture much of the impact to the cypress swamp since dead or highly stressed trees may still standing.

Goals:

- 1) Reintroduce Mississippi River water during the spring to emulate the natural hydrologic conditions of this alluvial swamp and marsh.
- 2) River water will maintain lower salinity for fresh and intermediate wetlands
- 3) Stimulate wetland productivity and fisheries nursery for Lake Pontchartrain
- 4) Maintaining the marsh and swamp will maintain the wetland buffer between Lake Pontchartrain and the St. Charles / Jefferson Parish levees

Proposed Solutions:

Construct a siphon and improve existing canals in the Bonnet Carre' spillway to convey water to the east guide levee along the LaBranche wetlands. The control structure or pump would convey water across the east guide levee of the Bonnet Carre spillway into the LaBranche wetlands. Discharge would be between 1000 and 3000 cfs. An alternative site for conveyance would be near the Interstate 310 corridor on the southeast corner of the project area.

Preliminary Project Benefits:

Approximately 300 acres of wetland will be improved/restored over 20 years.

The project provides a synergistic effect with other approved and/or constructed restoration projects. The "Bayou LaBranche Wetlands Creation Project" PO-17 is within the project area and would benefit by increased productivity. At least two small shoreline stabilization projects along Lake Pontchartrain would continue to reduce shoreline erosion and protect wetlands benefiting from this project.

Identification of Potential Issues:

The proposed project has the following potential issues: cultural resources, utilities/pipelines, and HTRW. The water control structures and conveyance canal would be located on federal land. However the Bonnet Carre' Spillway allow various recreation uses that need to be considered such as ATV trails. The spillway also contains gas or oil pipelines and cultural features that need consideration.

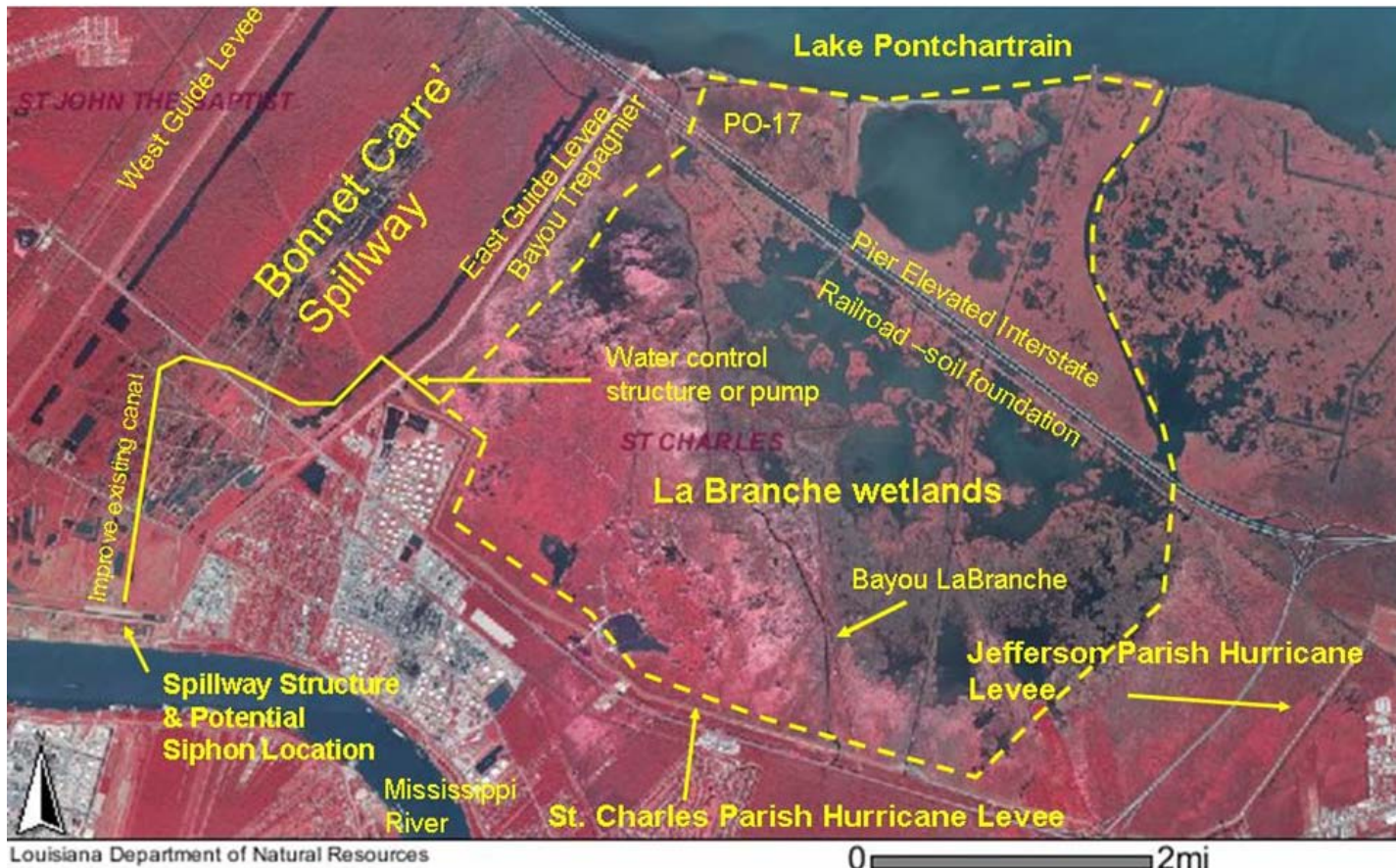
Preliminary Construction Cost + 25%

\$24 million.

Preparer(s) of Fact Sheet:

John Lopez Ph.D., Lake Pontchartrain Basin Foundation, 225-294-4998, johnlopez@pobox.com

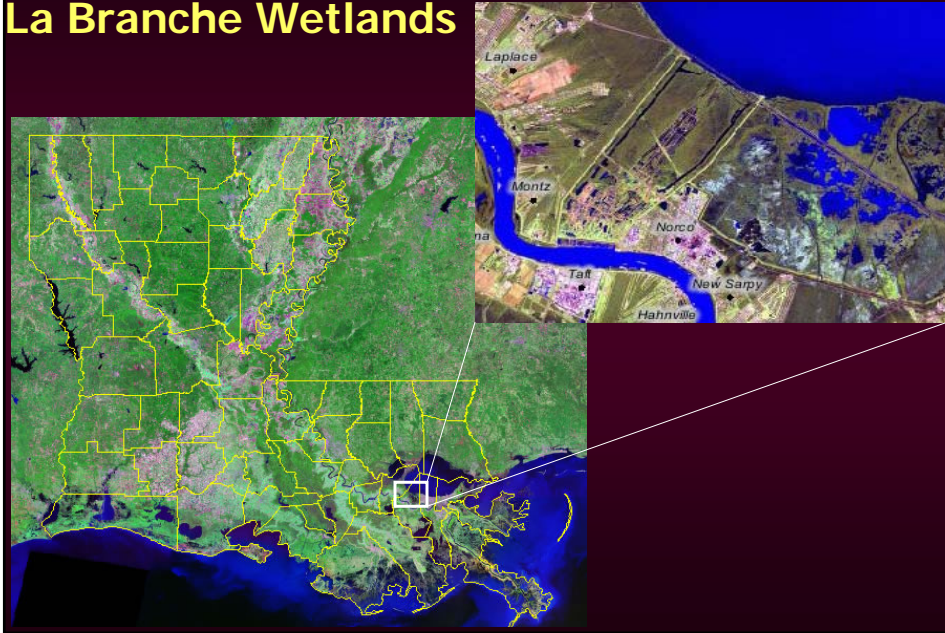
Tim Landers, EPA, 214-665-6608, landers.timothy@epa.gov



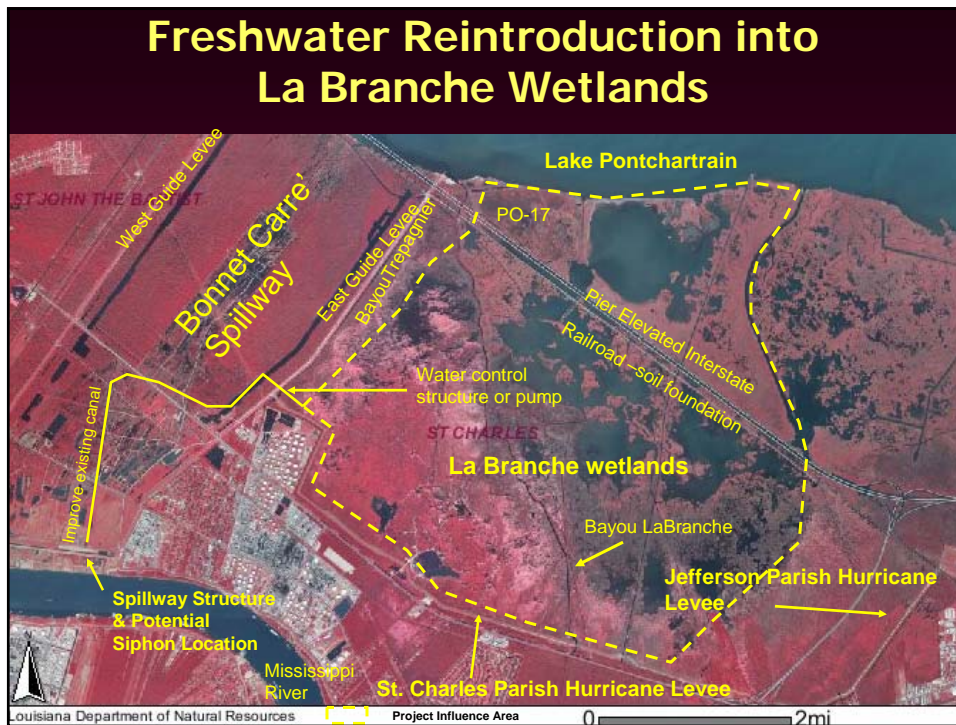
 Project Influence Area

PPL 17 Proposed
Freshwater Reintroduction
into La Branche Wetlands

Freshwater Reintroduction into La Branche Wetlands



Freshwater Reintroduction into La Branche Wetlands



Freshwater Reintroduction into La Branche Wetlands

Goals:

- Reintroduce Mississippi River water into La Branche wetlands
- Reduce salinity levels in historically freshwater wetlands
- Stimulate wetland productivity and fishery nursery for Lake Pontchartrain
- Maintain the wetland buffer between Lake Pontchartrain and the St. Charles Parish levee

Cost/Benefits:

- Wetlands improved/restored: ~300 acres over 20 years
- Est. Cost: \$15-20 million
- Est. Cost + contingency: ~ \$20-25 million

Freshwater Reintroduction into La Branche Wetlands

Questions?

Tim Landers
EPA Region 6
(214)665-6608
landers.timothy@epa.gov

