

Region 1 - PONTCHARTRAIN BASIN

Project Number	Project Proposals	Presenter
R1-PO-01	Irish Bayou Shoreline Protection and Marsh Creation Project	Travis Creel, USACE
R1-PO-02	LaBranche East Marsh Creation Habitat Enhancement Project	Jason Kroll, NRCS
R1-PO-03	Eloi Bay Shoreline Protection and Marsh Creation Project	Jason Kroll, NRCS
R1-PO-04	Bayou LaLoutre Ridge Restoration and Marsh Creation Project	Jason Kroll, NRCS
R1-PO-05	Parish-line Canal Freshwater and Sediment Delivery Project	Mark Schexnayder, LSU AgCenter
R1-PO-06	Labranche Wetlands Marsh Creation Sediment Delivery Project	Kenneth Teague, EPA
R1-PO-07	The Rigolets Shoreline Protection and Marsh Creation -Grand Coin Pocket Project	Travis Creel, USACE
R1-PO-08	Lake Borgne Shoreline Protection at Point aux Marchettes Project	Travis Creel, USACE
R1-PO-09	Bayou Bienvenue Restoration Project	Travis Creel, USACE and Gary Schaeffer, Southeastern Univ.
R1-PO-10	North Shore Lake Pontchartrain Marsh Restoration Project	Robert Dubois, USFWS
R1-PO-11	Chandeleur Island Dune and Marsh Creation Project	Robert Dubois, USFWS
R1-PO-12	East Orleans Landbridge Shoreline Protection Using I-10 Twin Span Bridge Pilings Project	Robert Dubois, USFWS
R1-PO-13	Fritchie Marsh-Northshore Marsh Creation Project	Cheryl Brodnax, NOAA

Region 1 - PONTCHARTRAIN BASIN

PPL18 PROJECT NOMINEE FACT SHEET
Feb 21, 2008

Project Name:

Irish Bayou Shoreline Protection and Marsh Creation

Coast 2050 Strategy:

- Coastwide: Dedicated dredging to create, restore, or protect wetlands.
- Coastwide: Maintenance of Gulf, bay and lake shoreline integrity.
- Region 1, Restore/Sustain Wetlands: #9, dedicated delivery of sediment for marsh building.
- Region 1, Protect Bay and Lake Shorelines: #10, maintain shoreline integrity of Lake Pontchartrain to protect regional ecosystem values.
- Region 1, Maintain Critical Landforms: #13, maintain Eastern New Orleans land bridge by marsh creation and shoreline protection.
- Mapping Unit Strategies: Region 1, East Orleans Land Bridge, #35, dedicated dredging; #36 maintain shoreline integrity.

Project Location:

Region 1, Pontchartrain Basin, Orleans Parish, East Orleans land bridge mapping unit, South of I-10 Twin Spans along the shore of Lake Pontchartrain to just east of Chef Pass.

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 shoreline 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. Only a portion of the lakeshore is protected by a rock dike Bayou Chevee (PO-22) and a future project funded by the FWS. 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 NWR.

Goals:

The goals of the project are to reduce shoreline erosion and create marsh in order to prevent the lake shoreline from breaking into the interior marsh ponds.

Proposed Solutions:

This area has an estimated erosion rate of 12 ft/yr. Construction of 16,700 LF of foreshore rock dikes for shoreline protection would reduce area loss rates over 75%. This project would create 148 acres of marsh in shallow open water sites behind rock shoreline protection which would protect and restore a portion of the Lake Pontchartrain shoreline. This project would be an extension and work synergistically with other restoration projects in the area including CWPPRA, state, and Bayou Sauvage National Refuge projects.

The project would directly benefit about 240 acres of brackish marsh which would include 148 acres through marsh creation and would also protect 92 acres of marsh over the 20-year project life through halting shoreline erosion.

Identification of Potential Issues:

No major problems are known at this time. The shoreline protection is a foreshore rock dike and much is protecting Bayou Sauvage Refuge.

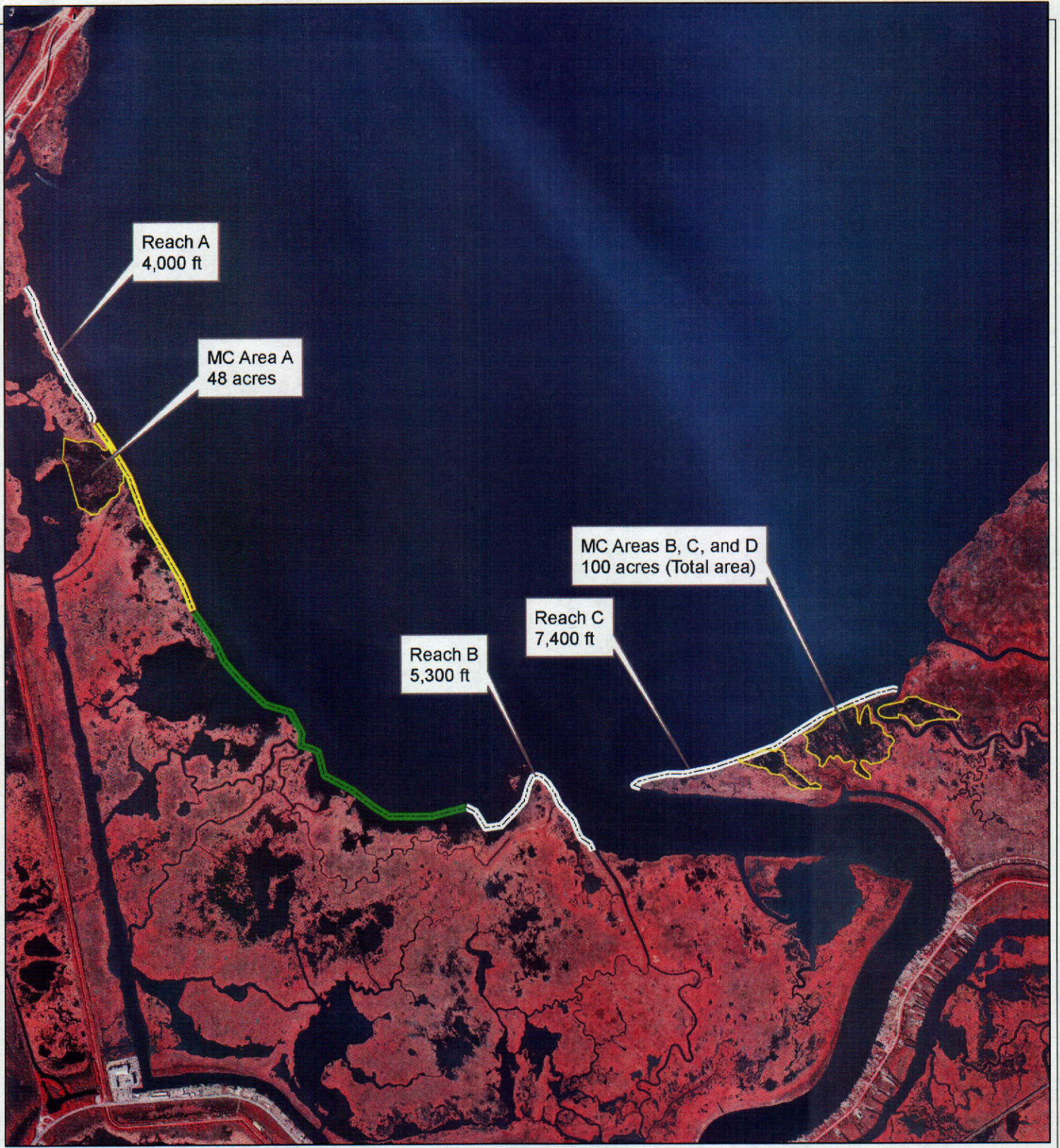
Preliminary Construction Costs:

The estimated construction cost is \$8,022,099.

Preparer(s) of Fact Sheet:

Robert Dubois, USFWS, (337) 291-3127, robert_dubois@fws.gov

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



Reach A
4,000 ft

MC Area A
48 acres

MC Areas B, C, and D
100 acres (Total area)

Reach B
5,300 ft

Reach C
7,400 ft

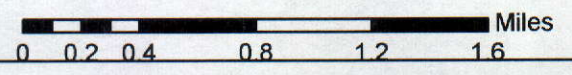
Legend

- Marsh Creation
- Orleans Landbridge SP
- Existing PO-22 Bayou Chevee SP
- Proposed Bayou Savage SP Project (USFWS)



PPL 18
Region 1
Irish Bayou

Marsh Creation and Shoreline Protection



Background Map: 2005 DOQQ

LaBranche East Marsh Creation Habitat Enhancement PPL-18 Candidate Project

Coast 2050 Strategy:

- Coastwide Common Strategies
 - Dedicated Dredging for Wetlands Creation
 - Vegetative Planting
 - Maintain or Restore Ridge Functions
- Region 1 regional ecosystem strategies
 - Dedicated delivery of sediment for marsh creation
- Region 1 mapping unit strategies
 - Dedicated Dredging

Project Location:

Region 1, Pontchartrain Basin, St. Charles Parish, between Lake Pontchartrain and I-10, bounded to the west by the Fall Canal and the initial Bayou LaBranche Wetland Creation Project (PO-17) and to the east by a pipeline canal.

Problem:

Dredging of access and flotation canals for the construction of I-10 resulted in increased salinity and altered hydrology that exacerbated the conversion of wetland vegetation into shallow open water bodies.

Goals:

The primary goal is to restore the marsh that has been converted to shallow open water. Project implementation would result in an increase of fisheries and wildlife habitat acreage and diversity and improvement of water quality. The proposed project would provide storm buffer protection to I-10, the region's primary westward hurricane evacuation route, and to a lesser degree, the Canadian National Illinois Central Railroad line. Additional wetland storm buffer would complement the U. S. Army Corps of Engineers ongoing and contemplated hurricane protection measures in the area that include raising/enlarging the existing earthen levee and emplacement of a breakwater structure on the north side of the intersection of I-10 and I-310.

Proposed Solution:

The proposed solution consists of the creation of \pm 365 acres of emergent wetlands, \pm 165 acres of shrub scrub wetlands, and \pm 240 acres of subtidal water bottoms using dedicated dredging from Lake Pontchartrain. Containment dikes would be built to separate the marsh creation from the subtidal water bottom area, and unconfined dredged material would be delivered with in the marsh creation site without containment to build random shrub scrub wetlands resulting in a more cost effective project. Vegetative plantings would be utilized in the areas designated to be emergent marsh. Elevated areas, resulting from the point discharge of dredged material, would vegetate naturally with shrub scrub vegetation. Successful wetland restoration in the immediate area (PO-17)

clearly demonstrates the suitability and stability of soil and material availability from a sustainable borrow area (outlet end of Bonnet Carre Spillway).

A similar project (LaBranche East Marsh Creation) nominated last year for PPL-17 consideration included a shoreline protection component along Lake Pontchartrain. During the interim period, the St. Charles Parish Council obtained Coastal Impact Assistance Program (CIAP) approval for said component which comprises the westernmost portion of the East LaBranche Shoreline Protection Project.

Project Benefits:

This project would benefit 770 acres of intermediate marsh and open water. Approximately 365 acres of marsh and \pm 165 acres of shrub scrub habitat would be created over the 20-year project life. In addition, \pm 240 acres of subtidal water bottoms would be improved.

Constructed in April of 1994, PO-17 has provided more than 13 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 wetland 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. The rail embankment and the two camps that are located south of PO-17 escaped significant damage from Hurricane Katrina while most of the camps and several portions of the rail embankment to the east were either lost or heavily damaged.

The current project would utilize data and lessons learned from PO-17. For example, the borrow area in the lake, used for PO-17, would be evaluated for re-use in an effort to save time and CWPPRA funding.

The project area's location north of I-10, makes it 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 Average Daily Traffic Count that was taken in 2005 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.

Project Cost:

The estimated construction cost for this project is approximately \$19,000,000.

Preparers of Fact Sheet:

Jason Kroll, NRCS, 318-473-7816, Jason.Kroll@la.usda.gov
Ed Fike, agent for St. Charles Land Syndicate, 225-383-7455 x128,
efike@coastalenv.com



LaBranche East Marsh Creation Habitat Enhancement

0 0.25 0.5 0.75 1
Miles



Data Source:
2007 DOQQ Aerial Photography

Map Date: February 12, 2008

Legend

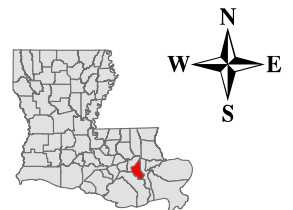
■ Proposed Project Area

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



LaBranche East Marsh Creation Habitat Enhancement

0 0.1 0.2 0.3 0.4
Miles



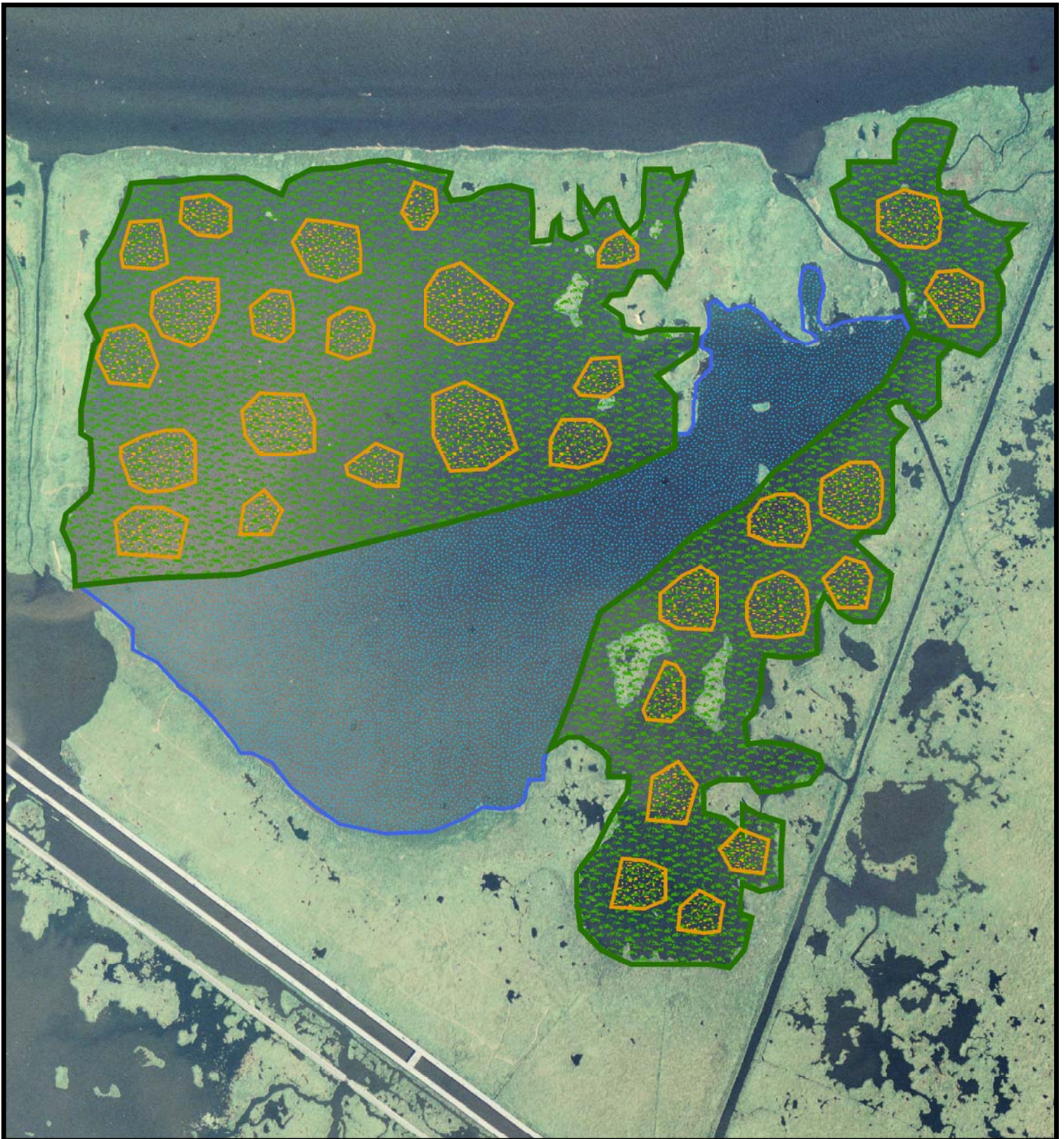
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2007 DOQQ Aerial Photography

Map Date: February 12, 2008

Legend

■ Proposed Project Area

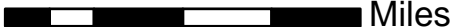
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United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, LA



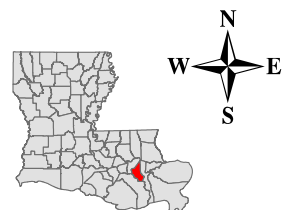
LaBranche East Marsh Creation Habitat Enhancement

Legend

- Subtidal - 240 ac.
- Shrub Scrub 165 ac.
- Marsh Creation 365 ac.

0 0.1 0.2 0.3 0.4
 Miles

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



Data Source:
 2007 DOQQ Aerial Photography

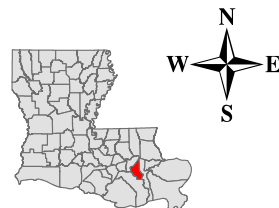
Map Date: February 12, 2008



Pre-construction PO-17 Bayou LaBranche Wetland Creation

0 0.1 0.2 0.3 0.4
Miles

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



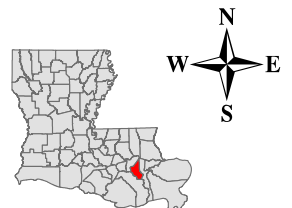
Data Source:
2007 DOQQ Aerial Photography
Map Date: February 12, 2008



2007
PO-17 Bayou LaBranche
Wetland Creation

0 0.1 0.2 0.3 0.4
Miles

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



Data Source:
2007 DOQQ Aerial Photography

Map Date: February 5, 2008

PPL18 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name

Eloi Bay 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 Previously Proposed Strategies
 - Protect Bay/Lake Shorelines
 - *An Environmental-Economic Blueprint for Restoring the Louisiana Coastal Zone: The State Plan* – Governor’s Office
 - Use of dredged material
 - CWPPRA Basin Report
 - Lake Pontchartrain Basin Foundation CMP (recommendations by Saltwater Intrusion/Wetland Loss Committee)
- Region 1 regional ecosystem strategies
 - Protect Bay/Lake Shorelines
 - Restore/Sustain Marshes – dedicated delivery of sediment for marsh building
- Region 1 mapping unit strategies
 - Dedicated Dredging
 - Beneficial Use of Dredge Material
 - Restore Fringing Marsh Islands

Louisiana Coastal Area Comprehensive Study Keystone Strategy

Marsh Creation by Dedicated Sediment Delivery

Project Location

Region 1, Pontchartrain Basin. St. Bernard Parish. Along the west shoreline of Eloi Lake and Eloi Bay.

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. 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. Shoreline loss rates were measured in this area at 14 to 32 feet per year. This in part, demonstrates the role of outer wetlands in providing protection to more interior habitats. This project would create at least 150 acres of marsh and 39,000 ft of shoreline protection to rebuild, strengthen, and maintain the integrity of the peninsulas.

Proposed Project Features

At this time, two features will be constructed:

1. Approximately 39,000 ft rock dike along west shoreline of Eloi Bay and Eloi Lake.
2. At least 150 acres of marsh creation between the existing shoreline. With the possibility of locating interior marsh creation and nourishment areas with dedicated dredging from Eloi Bay, Breton Sound, or the Mississippi River Gulf Outlet (MRGO).

Goals

The goal of the project would be to create at least 150 acres of marsh initially and 39,000 ft of shoreline protection to rebuild, to strengthen, and to maintain the integrity of the lake and sound peninsulas. By building a robust shoreline on these peninsulas connecting the Bayou LaLoutre ridge to the MRGO jetties, we are creating a “line of defense” for the 10 miles of interior marsh that protects both the Bayou LaLoutre ridge and St. Bernard Parish from future storm events.

Preliminary Project Benefits

- 1) Immediately create 150 acres of marsh.
- 2) Both the marsh creation and shoreline stabilization components of the project would re-establish and maintain lake rims.
- 3) It would provide the outermost protection for the Breton Sound wetlands that do provide substantial surge protection for St. Bernard Parish.

Preliminary Project Costs

The estimated construction cost is approximately \$18,000,000.

Preparer of Fact Sheet

Jason Kroll, Natural Resources Conservation Service, 318-476-7816; jason.kroll@la.usda.gov

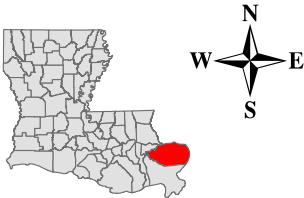
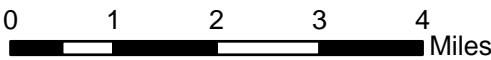
Randy Moertle, Biloxi Marsh Lands Corporation (985) 856-3630; rmoertle@bellsouth.net



Legend

- Shoreline Protection
- Marsh Creation

**Eloi Bay Shoreline Protection
and Marsh Creation**



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

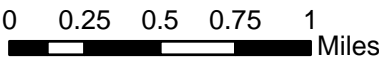
Data Source:
 2007 DOQQ Aerial Photography
 Map Date: January 18, 2008



ELOI BAY

Legend
— Shoreline Protection

Eloi Bay Shoreline Protection and Marsh Creation on 1998 Background



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

Data Source:
1998 DOQQ Aerial Photography
Map Date: January 18, 2008

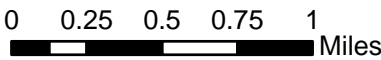


ELOI BAY

Legend

- Shoreline Protection
- Marsh Creation

Eloi Bay Shoreline Protection and Marsh Creation



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

Data Source:
2007 DOQQ Aerial Photography
Map Date: January 18, 2008

PPL18 PROJECT NOMINEE FACT SHEET
2/21/08

Project Name: Bayou LaLoutre Ridge Restoration and Marsh Creation

Coast 2050 Strategy:

Coastwide Strategy –

- Coastwide Common Strategies
 - Dedicated Dredging, to Create, Restore, or Protect Wetlands
 - Maintain or Restore Ridge Functions
- Region 1 regional ecosystem strategies
 - Maintain Critical Landforms
- Region 1 mapping unit strategies
 - Beneficial Use of Dredged Materials
 - Hydrologic Restoration

Project Location:

Region 1, Pontchartrain/Breton Sound Basin, in St. Bernard Parish. The project encompasses approximately 25 acres of previous ridge east of the Mississippi River Gulf Outlet (MRGO) along the southern bank of Bayou LaLoutre, and closure of a borrow canal with a weir structure on the west side of the MRGO spoil area

Problem:

The project would create/restore ridge and re-establish the integrity of a portion of Bayou LaLoutre. Once the closure of the MRGO occurs increased water flow will be pushed through Bayou LaLoutre. Since the bayou bank ridge has subsided water will not be able to be primarily confined to the bayou and increased erosion will begin with the adjacent marshes. In addition the borrow canal that was constructed for the back dike of the MRGO disposal area will become a conduit for saltwater, as was the MRGO.

Goals:

In order to alleviate these problems 1) the ridge along the southern bank of Bayou LaLoutre will need to be rebuilt and 2) a weir structure will need to be placed at its junction with Bayou LaLoutre. 3) Location for marsh creation and nourishment will be investigated to protect the constructed ridge and mitigate for any wetland damages. This project will also create a critical storm surge buffer for St. Bernard Parish.

Proposed Solution:

About 25 acres of ridge would be restored along Bayou LaLoutre accomplished using the following method: Ridge construction likely would have to be phased into two lifts to allow sediment to compact. Due to the channel section of Bayou LaLoutre and therefore relatively limited sediment availability in the bayou and the associated bucket dredge reach constraints, bucket dredging alone to build the ridge may not be feasible. However, the bayou would be a source for some the ridge fill material. The first lift will be constructed by pumping confined material in until dewatered. The initial lift of the ridge conceptually is +4 ft NAVD88 120 ft wide. At TY3, after settling it would be graded and shaped up to +7 ft NAVD88 with a crown of 20 ft and a bayou side wave or marsh berm 40 ft wide at an elevation of +1.5 ft NAVD88. Additional sediment may need to be dredged at that time to assist in shaping to desired section. Gaps in the ridge would be constructed at TY3 to allow some tidal connection directly to the

bayou. The marsh creation and nourishment portion will be accomplished by dedicated dredging during the first ridge lift. Approximately 150 acres will be created and 50 acres will be nourished. In addition, a weir will be constructed at the borrow canal to reduce saltwater intrusion from the borrow canal.

Project Benefits:

The project would benefit about 25 acres of ridge habitat and protection of the marsh behind that ridge. The project would also benefit approximately 200 acres of marsh in the form of creation and nourishment.

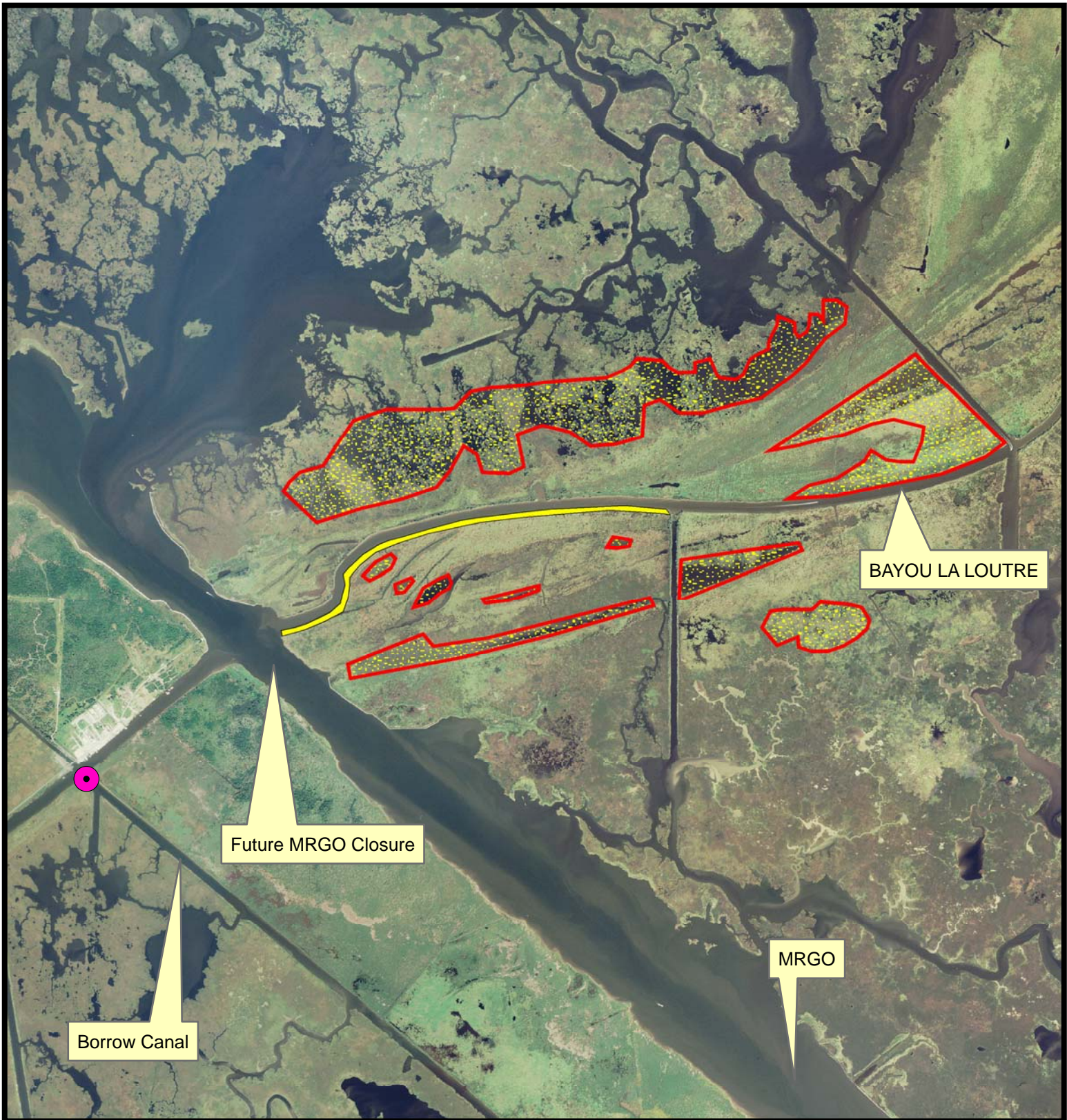
Project Costs:

The estimated construction costs for this project total \$12,000,000.

Preparers of Fact Sheet:

Randy Moertle and Assoc., Inc., 985-532-6388, rmoertle@bellsouth.net

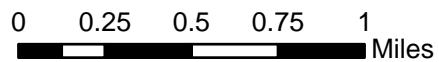
Jason Kroll, NRCS, 318-473-7816, Jason.Kroll@la.usda.gov



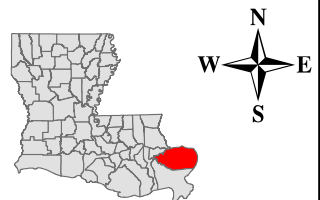
Bayou LaLoutre Ridge Restoration and Marsh Creation

Legend

- Weir Structure
- Marsh Creation / Nourishment
- Ridge Restoration 25 ac.



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



Data Source:
 2007 DOQQ Aerial Photography

Map Date: January 18, 2008

Parish-line Canal Freshwater and Sediment Delivery

Coast 2050 Strategy:

- Coastwide Strategy – Dedicated Dredging, to Create, Restore, or Protect Wetlands and Manage pump outfall for wetland benefits.
- Region 1 Strategy – Small diversion of Mississippi River water into La Branche Wetlands and diversion from Jefferson Parish drainage into La Branche Wetlands.

Project Location:

Region 1, Pontchartrain Basin, Jefferson Parish, the LaBranch wetlands located between the Bonnet Carre Spillway and the Parish-line canal on the boundary between St. Charles and Jefferson parishes. The project area is bounded on the west by the Bayou LaBranche, on the east by the Parish Line Canal, on the north by Lake Pontchartrain and on the south by the Mississippi River.

Problem:

The La Branche wetlands have been isolated from the Mississippi River, which was the traditional source of freshwater and nutrients for the project area. Additionally, natural hydrology in the area has been disrupted by highway and railroad construction and saltwater intrusion from Lake Pontchartrain is further stressing wetland vegetation, particularly cypress forests. Jefferson Parish currently discharges storm water to Lake Pontchartrain via the Parish Line Canal, which abuts the eastern perimeter of the wetlands. The discharge contains suspended solids and nitrogenous solutes collected during the overland flow route into the canal network. While these constituents deteriorate the water quality of the lake, they could benefit the wetlands.

Goals:

- Sustain the wetland habitat with freshwater diverted from storm water pumping stations in the area
- Plug the Parish-line canal at the lake side to prevent saltwater intrusion
- Introduce freshwater and nutrients from the Mississippi River to sustain wetland habitat in the area
- Creating/nourishing marsh and cypress swamp habitat for aquatic species through pipeline sediment delivery from the Mississippi River

Proposed Solution:

The proposed project encompasses 4 separate but interactive components; Mississippi River water and sediment delivery into the LaBranche wetlands, closing the Parish line canal at Lake Pontchartrain and delivering treated sewerage effluent into the area. The effected area is potentially approximately 14,000 acres.

The proposed project would revise the pump stations discharge structures to pump down gradient directly into the LaBranche Wetlands at the most hydrologically upstream point feasible. Rock rip-rap or an earthen plug would be used to close the Parish Line Canal at its entrance to Lake Pontchartrain. A small freshwater siphon/diversion would be constructed to allow for the introduction of freshwater, nutrients and sediment from the Mississippi River. The right-of-way

obtained for the river reintroduction would include culverts under highways and the railroad to allow for sediment delivery from the Mississippi River via pipeline. Additional nourishment to wetlands in the area would be provided through the use of treated sewerage outfall from the Kenner treatment facility.

Project Benefits:

The project could sustain up to 14,000 acres of wetlands by providing a needed source of freshwater, thus mitigating the effects of saltwater intrusion and providing nutrients and sediments to the area. The project would also improve the water quality of Lake Pontchartrain by removing contaminants from the storm water prior to its discharge. Additionally, the project would create and enhance fresh marsh through the introduction of freshwater, nutrients and sediments via pipeline from the Mississippi River.

Project Costs:

The total fully funded cost for the project has not been calculated, but is roughly estimated to be approximately \$30 million. A more accurate estimate will be calculated as the project is refined.

Preparers of Fact Sheet:

Mark Schexnayder, Coastal Advisor, LSU AgCenter, (504) 838-1170,
mschexnayder@agcenter.lsu.edu

Marnie Winter, Director, Jefferson Parish Department of Environmental Affairs, (504) 736-6440,
mwinter@jeffparish.net



Overview

- Wetland Area of Influence
 - Parish Line Canal
 - Predicted Water Flow
 - Sediment Pipeline/ Freshwater Diversion
 - Sediment Outfall Delivery
 - Culverts
 - Bayou La Branche
 - Major Roads
 - Railroad Tracks
- REFERENCE/PROJECTION: UTM NAD 83
USGS 2005 DOQQ'S



Jefferson Parish

FIGURE 1
Parish Line Canal Freshwater and Sediment Delivery

CWPPRA PPL 18 Region 1 Project

On the motion of Mr. Losonsky,
Seconded by Mr. Goins, the following resolution was offered:

RESOLUTION #01-17-08-03 - SUPPORT OF MITIGATION PROJECTS

WHEREAS, construction of coastal features that protect the structural integrity of levees and floodwalls and the restoration of the natural systems of Lake Pontchartrain that once protected its shoreline are important and integral to hurricane and flood protection; and

WHEREAS, a presentation was provided to the Board at its meeting held on December 20, 2007, on Lake Pontchartrain Lakeshore Restoration; and

WHEREAS, the plans proposed by Mark Schexnayder of the LSU AgCenter include the construction and/or restoration of natural features, such as barrier islands, estuaries, cypress swamp, marsh and wetlands along the shoreline of Lake Pontchartrain, in the marshes located in Orleans and St. Bernard Parishes between the non-federal levee and hurricane protection levee, and along the parish line canal in Jefferson Parish; and

WHEREAS, funding for this essential coastal protection may be available from funding established for mitigation purposes and other sources.

BE IT RESOLVED, that the Southeast Louisiana Flood Protection Authority-East hereby declares its support and requests that the U.S. Army Corps of Engineers make the following projects a priority in their consideration of mitigation projects:

Parish-line Canal Freshwater and Sediment Delivery
Orleans/St. Bernard Freshwater and Sediment Delivery
Lake Pontchartrain Lakeshore Restoration

The foregoing was submitted to a vote, the vote thereon was as follows:

YEAS: Mr. Barnes, Mr. Goins, Mr. Losonsky, Mr. McKee,
Mr. Pineda and Mr. Wittie

ABSTAINED: Mr. Jackson

NAYS: None

ABSENT: Mr. Barry

This resolution was declared adopted this 17th day of January, 2008.

.....
I hereby certify that the above and foregoing is a true and correct copy of a resolution duly adopted by the Southeast Louisiana Flood Protection Authority-East at its meeting of January 17, 2008, at which a quorum was present.


John M. Barry
Secretary

This 17th day of January, 2008
Harahan, LA

**LaBranche Wetlands Marsh Creation
Sediment Delivery
February 11, 2008**

Coast 2050 Strategies:

Coastwide Common Strategies

- Dedicated dredging to create, restore, or protect wetlands
- Off-shore and riverine sand and sediment resources

Region 1 Ecosystem Strategies

- Restore/sustain marshes
 - Dedicated delivery of sediment for marsh building

Project Location:

The LaBranche wetlands are situated in Region 1, Lake Pontchartrain Basin, St. Charles Parish, between the southern shoreline of Lake Pontchartrain on the north, the Mississippi River on the south, urbanized Jefferson Parish on the east, and the Bonnet Carre Spillway on the west. The marsh creation site is located south of I-10 and east of Bayou Labranche.

Problem:

The LaBranche wetlands were cut off from the historic overbank flooding of the Mississippi River since the early days of development in the New Orleans area. Large portions of these wetlands were originally converted to open water due to the failure of agricultural impoundments. Most recently, these wetlands have suffered from impoundment (implications from I-10 and the nearby railroad) and saltwater intrusion from Lake Pontchartrain.

Goals:

- Create/nourish 450 acres of intermediate marsh.
- Nourish 50+ acres of marsh.

Proposed Solutions:

Dredge sediments from the Mississippi River to create/nourish 500+ acres of marsh.

Preliminary Project Benefits:

The total acreage benefited directly and indirectly is estimated to be 500 ac. We estimate 350 net acres of marsh will be created/protected over 20 years. The anticipated loss rate reduction throughout the area of direct benefits over the project life is 50-74%. No project features maintain or restore structural components of the coastal ecosystem. The project has a moderate positive net impact on critical infrastructure (Interstate 10, railroad). The project has a synergistic effect with the PO-17 project.

Project Costs:

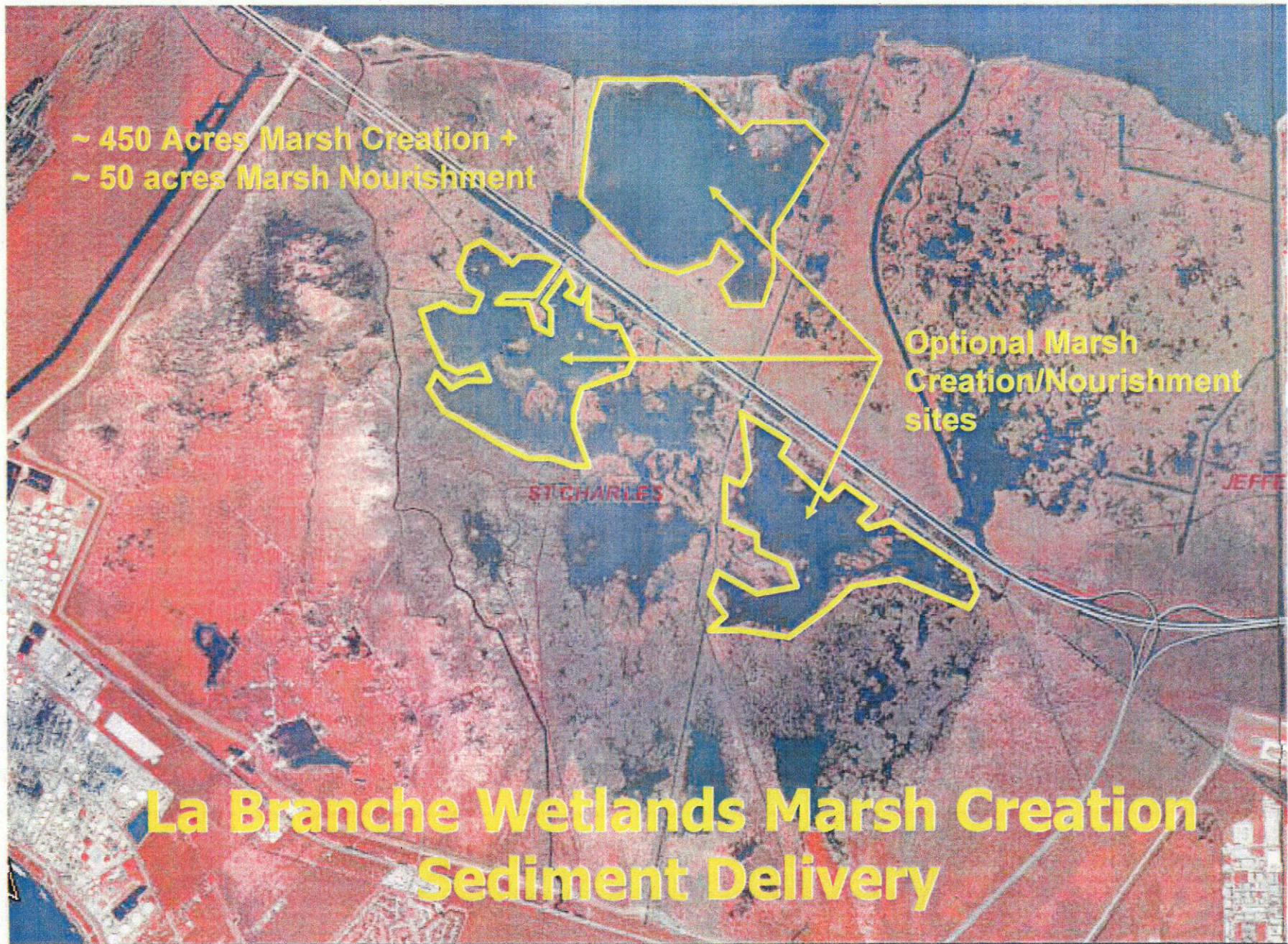
Preliminary construction costs plus 25% has been estimated at approximately \$20-\$30 million.

Preparers of Fact Sheet:

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PPL18 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name: The Rigolets Shoreline Protection and Marsh Creation – Grand Coin Pocket

Coast 2050 Strategy:

Maintain Critical Landforms #15

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

Project Location:

Coast 2050 Region 1, Pontchartrain Basin, Orleans Parish, located between the west end of the Rigolets and the northern shore of Lake St. Catherine.

Problem:

High wave energy, sea level rise and subsidence levels are impacting the wetland shorelines of Lake Pontchartrain, Chef Pass, the Rigolets, and Lake St. Catherine shorelines exhibited by increasingly high erosion rates dating since the 1980's. Identified in both *Coast 2050* and the LCA, this critical area, defined as a land bridge forms a marsh barrier between Lake Pontchartrain and Lake Borgne, a bay of the Gulf of Mexico. The land bridge functions as a natural barrier that reduces substantial storm surge during hurricanes and reduces the flow of water into Lake Pontchartrain. Grand Coin Pocket, once a small pond, is a section of brackish marsh that separates Lake St. Catherine from the Rigolets. The deep and fast moving Rigolets pass is eroding the northern side of Grand Coin Pocket, while tidal influences within Lake St. Catherine affect the southern side. Without this marsh, the Rigolets will become part of Lake St. Catherine, further increasing tidal and wave impacts on wetland habitat, New Orleans communities, and a hurricane evacuation route, U.S. Highway 90.

Goals :

Stop the shoreline erosion and fortify the marsh between the Rigolets and Lake St. Catherine.

Proposed Solutions:

- 8,000 linear feet of shoreline protection
- Approximately 200 acres of marsh creation and restoration

Preliminary Project Benefits:

Identification of Potential Issues:

Preliminary Construction Costs:



Preparer(s) of Fact Sheet:

Ms. Wynecta Fisher, Deputy Director
City of New Orleans Mayor's Office of Environmental Affairs
(504) 658-4070
wmfisher@cityofno.com

Project Map:



Legend

-  Marsh Creation
-  Grand Coin Pocket SP



PPL 18
Region 1
Grand Coin Pocket
Marsh Creation and Shoreline Protection



Background Map: 2005 DOQQ

PPL18 PROJECT FACT SHEET

Project Name and Number: Lake Borgne Shoreline Protection at Point aux Marchettes

Coast 2050 Strategy:

Regional: #11, Maintain shoreline integrity of Lake Borgne
Coastwide: Maintenance of Gulf, Bay and Lake Shoreline Integrity
Mapping Unit: Maintain shoreline integrity (43)

Project Location: Region 1, Ponchartrain Basin, St. Bernard Parish, Lake Borgne, Point aux Marchettes Shoreline

Problem: Shoreline erosion rates average 27 ft/yr. along this section of Lake Borgne.

Goals: Project will stop shoreline erosion and protect adjacent fragile marsh between Lake Borgne and the Biloxi marshes.

Proposed Solution: Construct approximately 37,000 feet foreshore rock dike along the Lake Borgne shoreline near the Point aux Marchettes Shoreline

Preliminary Project Benefits: Reduce shoreline erosion at the current rate of approximately 27 ft/yr., which would protect an estimated 500 acres of marsh, ponds, and bayous.

Preliminary Construction Costs:
~ 11 Million.

Prepare of Fact Sheet: Travis Creel, USACE, 504 862 1071;
Travis.J.Creel@usace.army.mil

Project Map



PPL18 PROJECT NOMINEE FACT SHEET
February 2008

Project Name

Bayou Bienvenue Restoration Project

Coast 2050 Strategy

Management of pump outfall for wetland benefits and hurricane protection
Dedicated Dredging, to Create, Restore, or Protect Wetlands; Off-shore and Riverine Sand and Sediment Resources; Dedicated delivery of sediment for building baldcypress – water tupelo swamp.

Project Location

Region 1, Pontchartrain Basin, Orleans Parish, just east of the Industrial Canal.

Problem

Wetlands in the area eroded following the construction of the MRGO. The majority of the area is very shallow open water littered with ghost cypress logs and stumps.

Proposed Project Features

Employ dedicated dredging of sediments from the Mississippi River to create emergent wetlands in the triangular area adjacent to the headwaters of Bayou Bienvenue. Following the placement of dredged sediments, and freshening through beneficial use of disinfected, secondarily treated sewage effluent, the area would be planted with baldcypress and water tupelo. The treated effluent will be provided by the Orleans sewage treatment plant, contiguous with the restoration site. The outfall system, seedling plantings, and nutria exclusion devices will be provided as match using CIAP funds.

Goals

Create 440 acres of baldcypress – water tupelo swamp
Divert treated municipal effluent from the local treatment plant to enhance the created swamp
Reduce nutrient loading in current effluent receiving waterways
Reduce land loss in outfall area via salinity reduction
Increase hurricane protection

Preliminary Project Benefits

This project would create 440 acres of baldcypress – water tupelo swamp in the shallow open water area between Bayou Bienvenue and the federal hurricane protection levee.

Identification of Potential Issues

The proposed project has the following potential issues: land rights

Preliminary Construction Costs

\$11 Million CWPPRA, \$1 million CIAP



Preparer of Fact Sheet

Travis Creel, USACE, 504 862 1071; Travis.J.Creel@usace.army.mil
Gary Shaffer, SELU, 985 549 3865; shafe@selu.edu

Project Map



Legend

-  Marsh Creation
-  Containment Dike

0 385 770 1,540 2,310 3,080
Feet



PPL 18
Region 1
Bayou Bienvenue Marsh Creation

PPL18 PROJECT NOMINEE FACT SHEET

February 21, 2008

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 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



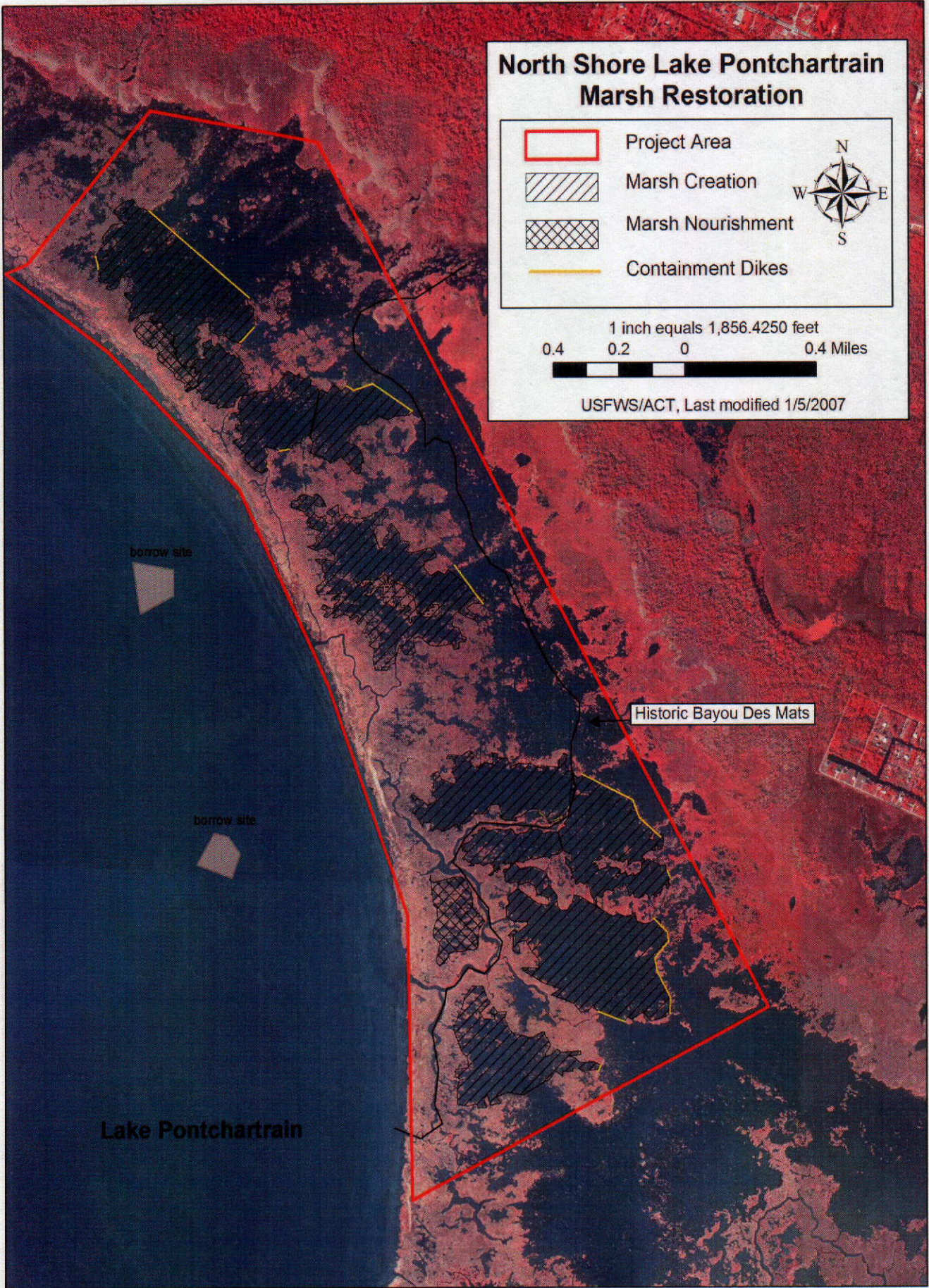
Containment Dikes



1 inch equals 1,856.4250 feet
0.4 0.2 0 0.4 Miles



USFWS/ACT, Last modified 1/5/2007



PPL18 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name:

Chandeleur Island Dune and Marsh Creation

Coast 2050 Strategy:

Dedicated dredging to create, restore, or protect wetlands; vegetative plantings; utilize offshore sands and sediment resources. Restore barrier islands and Gulf shorelines

Project Location:

Region 1, Pontchartrain Basin, Plaquemines and St. Bernard Parish, Southeast of New Orleans.

Problem:

In recent years several strong hurricanes have severely damaged the islands with the most severe being that of Hurricane Katrina.

Goals :

- 1) Provide a back barrier platform
- 2) Extend life of barrier islands
- 3) Create about 270 acres of intertidal marsh using newly dredged material and vegetative plantings
- 4) Fortify/protect the platform and marsh by creating 20 acres of dune, 10 acres of supratidal habitat

Proposed Solutions:

Dredged material will be placed in the backside of the island creating additional backbarrier marsh and a dune will be created along the Gulf shoreline.

Preliminary Project Benefits:

This project will directly and indirectly benefits about 300 acres of barrier island habitat

Identification of Potential Issues:

This is a wilderness area and T&E species.

Preliminary Construction Costs:

The construction cost is estimated at \$20 million

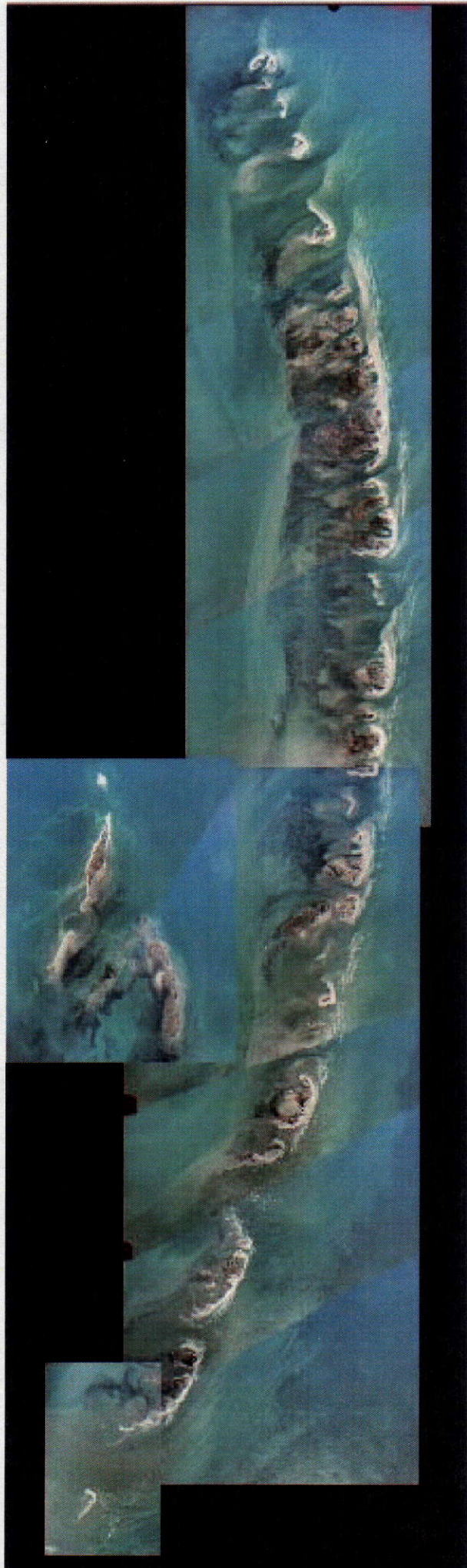
Preparer(s) of Fact Sheet:

Robert Dubois

USFWS

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PPL18 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name:

East Orleans Landbridge Shoreline Protection Using I-10 Twin Span Bridge Pilings

Coast 2050 Strategy:

- Coastwide Strategy: Maintenance of Bay and Lake Shoreline Integrity
- Region 1 Strategy #10: Maintain shoreline integrity of Lake Pontchartrain
- Region 1 Strategy #13: Maintain East Orleans Landbridge by Marsh Creation and Shoreline Protection

Project Location:

Region 1, Pontchartrain Basin, Orleans Parish, East Orleans land bridge mapping unit, East of Norfolk Southern Railroad and South of I-10 Twin Span Bridge along the shore of Lake Pontchartrain tying into the Bayou Savage NWR shoreline protection project.

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 shoreline between the lake rim and interior marshes. In some cases the storm removed large expanses of the shoreline and exposed interior marshes. These marshes contain highly productive essential fish habitat (EFH) and waterfowl habitat. If the shoreline is further breached a direct path of open water will connect Lake Pontchartrain with Irish Bayou and the Bayou Sauvage NWR which will severely reduce the productivity of the marsh and shallow open water sites. Currently, a CWPPRA project (Bayou Chevee, PO-22) and a project funded by the Bayou Sauvage NWR protects a portion of the shoreline with a rock dike. This dike was originally tied to the shoreline; however the interior marsh has eroded away from the dike.

Goals :

The goals of the project are to reduce shoreline erosion to prevent the Lake Pontchartrain from eroding into the highly productive interior marsh ponds.

Proposed Solutions:

CWPPRA would pay the cost of constructing 20,500 ft. of floatation channel along the proposed shoreline and apply an anchoring system. DOTD would contract a barge to place sections of the 48 inch diameter hollow bridge pilings parallel to the shoreline. All tidal creeks and bayous would be left open for fish access.

Preliminary Project Benefits:

With a shoreline erosion rate estimated at 12 ft/yr, direct benefits for this project would be the protection of 114 acres of marsh shoreline and 133 acres of highly productive shallow marsh ponds over the 20 year project life. Most of the land loss in the project area is due to shoreline erosion, so there would be a > 75% reduction of marsh loss rates in the area of direct benefits. This project would protect a vital component of the Orleans Landbridge and Lake Pontchartrain shoreline. This marsh is also protecting one of the levees that will protect New Orleans East during a storm surge from a tropical storm or hurricane. The project would also directly protect parts of I-10, Norfolk Southern Railroad, U.S. Hwy. 11, and several large power lines. The

project would also link a U.S. FWS shoreline protection project and the CWPPRA Bayou Chevee (PO-22) shoreline protection project.

Identification of Potential Issues:

This project has no known issues.

Preliminary Construction Costs:

Cost to construct this project is estimated to be \$1,250,000.

Preparer(s) of Fact Sheet:

Robert Dubois

USFWS

337-291-3127

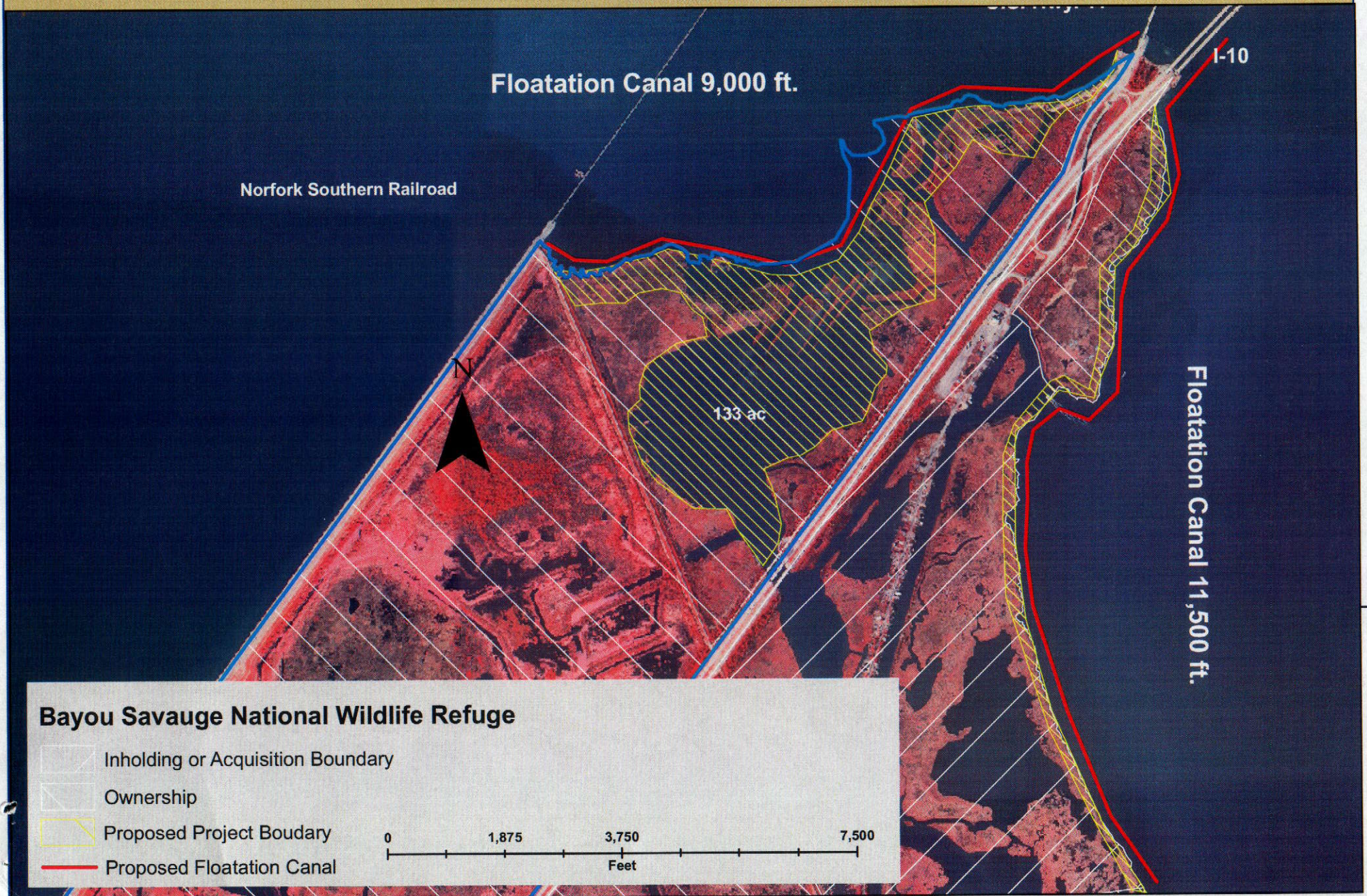
Robert_dubois@fws.gov







U.S. Fish & Wildlife Service

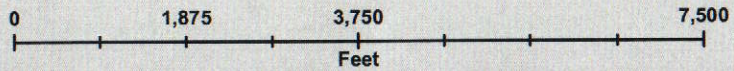
Louisiana Ecological Services Field Office

East Orleans Landgrid Shoreline Protection Using I-10 Twin Span Bridge Pilings



Bayou Sauvage National Wildlife Refuge

-  Inholding or Acquisition Boundary
-  Ownership
-  Proposed Project Boundary
-  Proposed Floatation Canal



PPL-18 Project Nominee Fact Sheet
February 21, 2008

Project Name:

Fritchie Marsh-Northshore Marsh Creation

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 400 acres of marsh creation via hydraulic dredging and placement of 2.3 million cubic yards of material. In addition, approximately 70,000 linear feet of earthen terraces, occupying 300 acres of waterbottom, will be constructed using marsh buggy backhoe and in situ material. The likely borrow locations for the marsh creation are Salt Bayou, which has nearly silted in, and Lake Pontchartrain. Containment will be fully confined and intermediate vegetation will be planted on both the marsh area and terraces upon material compaction and settlement.

Goals:

1. Create approximately 400 acres of intermediate marsh.
2. Create 70,000 linear feet of earthen terraces within a 300 acre open water area.
3. Reduce erosion of adjacent interior marshes.
4. Improve hydrology within Salt Bayou by dredging areas that have silted in.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
700 acres benefited, 400 acre marsh platform and 300 acre terrace field.
- 2) *How many acres of wetlands will be protected/created over the project life?*

407 acres of created marsh and emergent terraces at the end of twenty 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 fortify the Orleans landbridge by reestablishing marsh located along the northshore near the mouth of the Pearl River.

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 contributes to the Coast 2050 and LCA objective to protect the Orleans landbridge. It also is located near the PO-06 Fritchie Marsh and PO-13 Bayou Savage Projects that are working together to reestablish the northshore marshes. This project will work synergistically with these projects to provide additional support to the northshore of Lake Pontchartrain and the Orleans landridge.

Identification of Potential Issues:

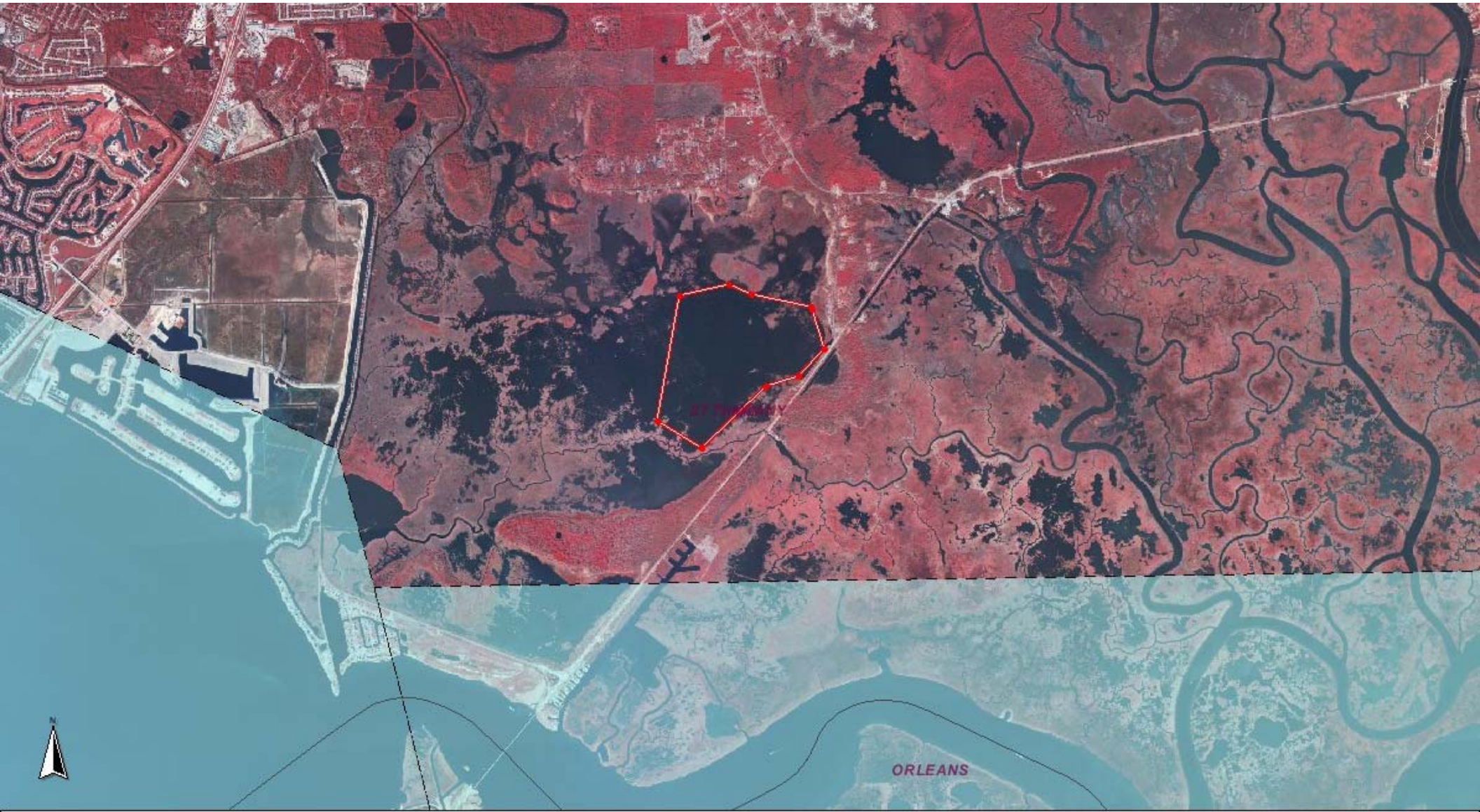
No pipelines or oyster leases are in the project area. The borrow area will be Lake Pontchartrain and possibly Salt Bayou. Regulatory issues regarding Lake Pontchartrain have been resolved in a timely manner in past projects and will be vetted early with the appropriate agencies. The project is supported by the parish.

Preliminary Construction Costs:

Preliminary construction cost estimate is \$15,300,000. This includes construction, containment, mobilization, vegetative plantings, and 25% contingency.

Preparer of Fact Sheet:

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PPL-18 Fritchie Marsh-Northshore Marsh Creation Project

