

Region 2 - BRETON SOUND BASIN

Project Number	Project Proposals	Presenter
R2-BS-01	Baptiste Collete Bayou Crevasses Project	Brad Crawford, EPA
R2-BS-02	Bertrandville Siphon Project	Kenneth Teague, EPA
R2-BS-03	Monsecour Siphon Project	Kenneth Teague, EPA
R2-BS-04	White Ditch Marsh Creation Sediment Delivery Project	Kenneth Teague, EPA
R2-BS-05	Breton Marsh Restoration Project	Robert Dubois, USFWS

Region 2 - MISSISSIPPI RIVER DELTA BASIN

Project Number	Project Proposals	Presenter
R2-MR-01	Pass a Loutre Restoration Project	Todd Baker, LDWF

Region 2 - BARATARIA BASIN

Project Number	Project Proposals	Presenter
R2-BA-01	Bayou Dupont to Bayou Barataria Marsh Creation Project	Quin Kinler, NRCS
R2-BA-02	Elmer's Island Headland Restoration Project	Cheryl Brodnax, NOAA
R2-BA-03	Barataria Basin Beneficial Use of Municipal Effluent Project	Cheryl Brodnax, NOAA
R2-BA-04	Bayou Dupont Sediment Delivery -Marsh Creation 3 Project	Brad Crawford, EPA
R2-BA-05	Home Place Mississippi River Reintroduction Project	Brad Crawford, EPA
R2-BA-06	West Pointe a la Hache Marsh Creation East Project (COMBINED with R2-BA-07)	Brad Crawford, EPA
R2-BA-07	West Pointe a la Hache Marsh Creation South Project (COMBINED with R2-BA-06)	Kenneth Teague, EPA
R2-BA-08	Bayou L'Ours Ridge Restoration and Marsh Creation Project	Fay Lachney, USACE
R2-BA-09	Homeplace Marsh Creation Project	Quin Kinler, NRCS
R2-BA-10	East Golden Meadow Marsh Creation Project	Quin Kinler, NRCS
R2-BA-11	Lake Boeuf Hydro Restoration Project	Travis Creel, USACE
R2-BA-12	Southwestern Canal Marsh Creation and Nourishment Project	Patrick Williams, NOAA
R2-BA-13	Grand Liard Marsh and Ridge Restoration Project	Patrick Williams, NOAA
R2-BA-14	Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation Project	Patrick Williams, NOAA

Region 2 - BRETON SOUND BASIN

PPL18 PROJECT NOMINEE FACT SHEET

February 7, 2008

Project Name:

Baptiste Collette Bayou Crevasses

Coast 2050 Strategy:

Coastwide Strategy: Diversions and Riverine Discharge

Region 2 Ecosystem Strategy: *Restore and Sustain Marshes*

Regional Ecosystem Strategy #7: Continue building and maintaining delta splays

Project Location:

Region 2, Breton Sound Basin and Mississippi River Basin, Baptiste Collette Subdelta along Baptiste Collette Bayou.

Problem:

Due to a combination of reduced sediment input and high subsidence, the marshes near Baptiste Collette are rapidly deteriorating. Artificial crevasses construction is an attempt to mimic the natural crevasse formation process. By enlarging several small crevasses and creating new crevasses, the land-building and marsh maintenance opportunities for this area will be increased.

Goals : Create approximately 350 ac of fresh and/or intermediate marsh over 20 years.

Proposed Solutions: Construct 5 crevasses in the Baptiste Collette Subdelta by dredging cuts between Baptiste Collette Bayou and shallow open water receiving areas.

Preliminary Project Benefits:

- What is the total acreage benefited both directly and indirectly? **1845 ac**
- How many acres of wetlands will be protected/created over the project life? **350 ac**
- What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). **>75%**
- What is the net impact of the project on critical and non-critical infrastructure? **None**
- To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? **This project will also benefit the Local Programs Project entitled: Alexis Bay Terracing (2004).**

Identification of Potential Issues:

The proposed project has the following potential issues: land rights and utilities/pipelines.

Preliminary Construction Costs: \$1,200,000

Preparer(s) of Fact Sheet:

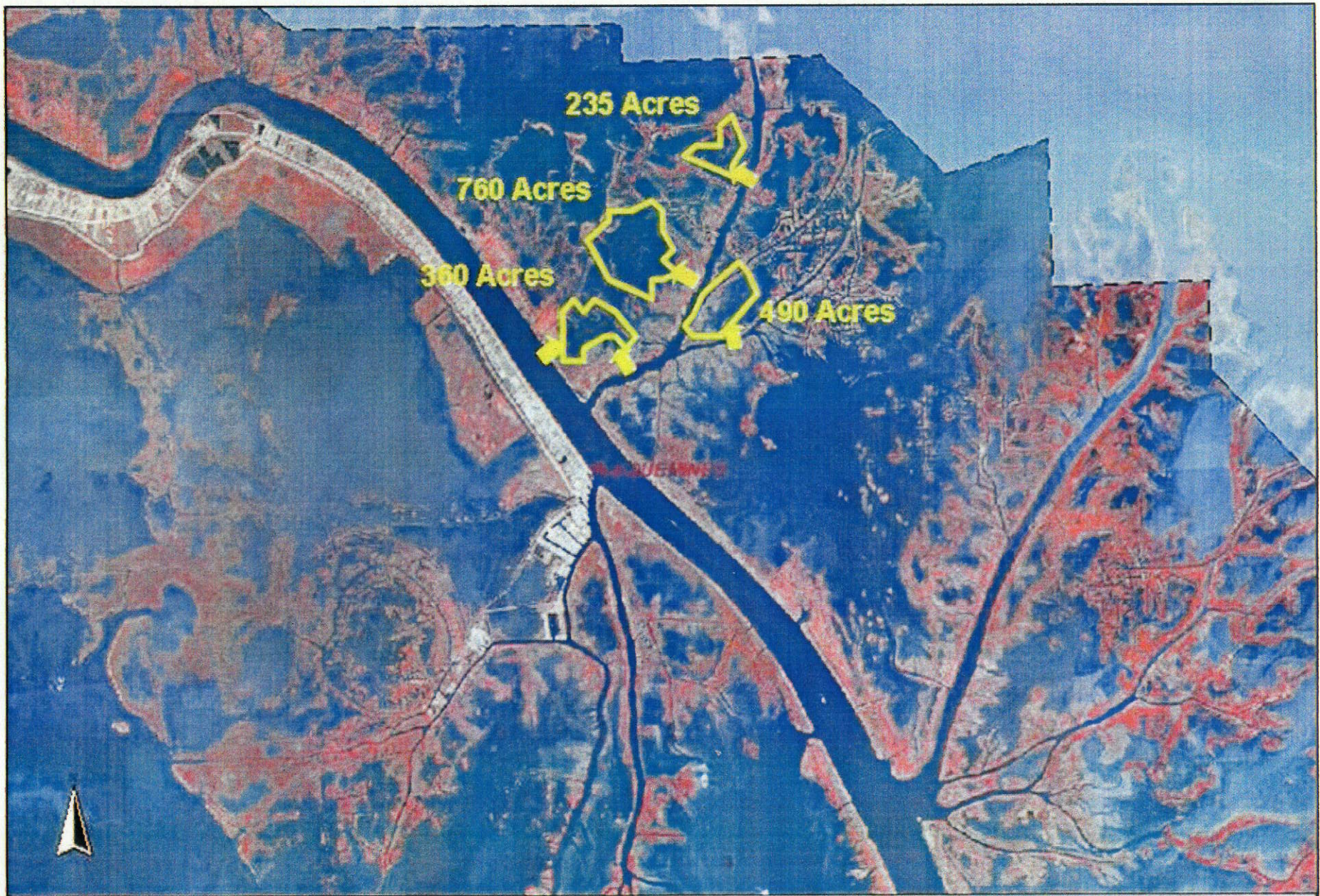
Melanie Magee, EPA, 214-665-7161, Magee.Melanie@epa.gov

Brad Crawford, P.E., EPA, 214-665-6689, Crawford.Brad@epa.gov

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Baptiste Collette Bayou Crevasses



Louisiana Department of Natural Resources

0 14030ft

Data Source: LA Department of Natural Resources
Map Date: February 5, 2008
Image Data: 2005 Coastal Photographs

**PPL 18 Proposed
Baptiste Collette Bayou Crevasses**

PPL18 PROJECT NOMINEE FACT SHEET

February 4, 2008

Project Name: Bertrandville Siphon**Coast 2050 Strategy:**

- Coastwide Common Strategies
 - Diversions and river discharge
 - Management of diversion outfall for wetland benefits
- Region 2 Regional Ecosystem Strategies:
 - Restore and Sustain Marshes: #8: Construct most effective small diversions

Project Location: Region 2, Breton Sound Basin, Plaquemines Parish, near Woodlawn School

Problem: Some of the marsh lost in this area may be due to failed agricultural impoundments. In addition, this area has been disconnected from the Mississippi River since levees were constructed during the early 20th century. The lack of overbank flooding/crevasses ensures that wetlands here do not have sufficient sediment input to maintain elevation against subsidence. In addition, drainage canals and oil and gas canals and associated spoil banks probably create some undesirable impoundment and tidal scour/saltwater intrusion in the area. Finally, recently, after Hurricane Katrina seriously damaged this area, small remnant stands of cypress trees were killed by trapped saltwater. In addition to impoundment caused by canals and spoil banks, the area is probably somewhat naturally impounded due to a natural ridge. Aerial photography clearly demonstrates the significant loss of marsh in this area. Anecdotal evidence from parish staff, and photographs, document the recent loss of cypress in the area.

Goals: Reduce rate of wetland loss. Restore cypress swamp and fresh and intermediate marsh. Increase SAV cover.

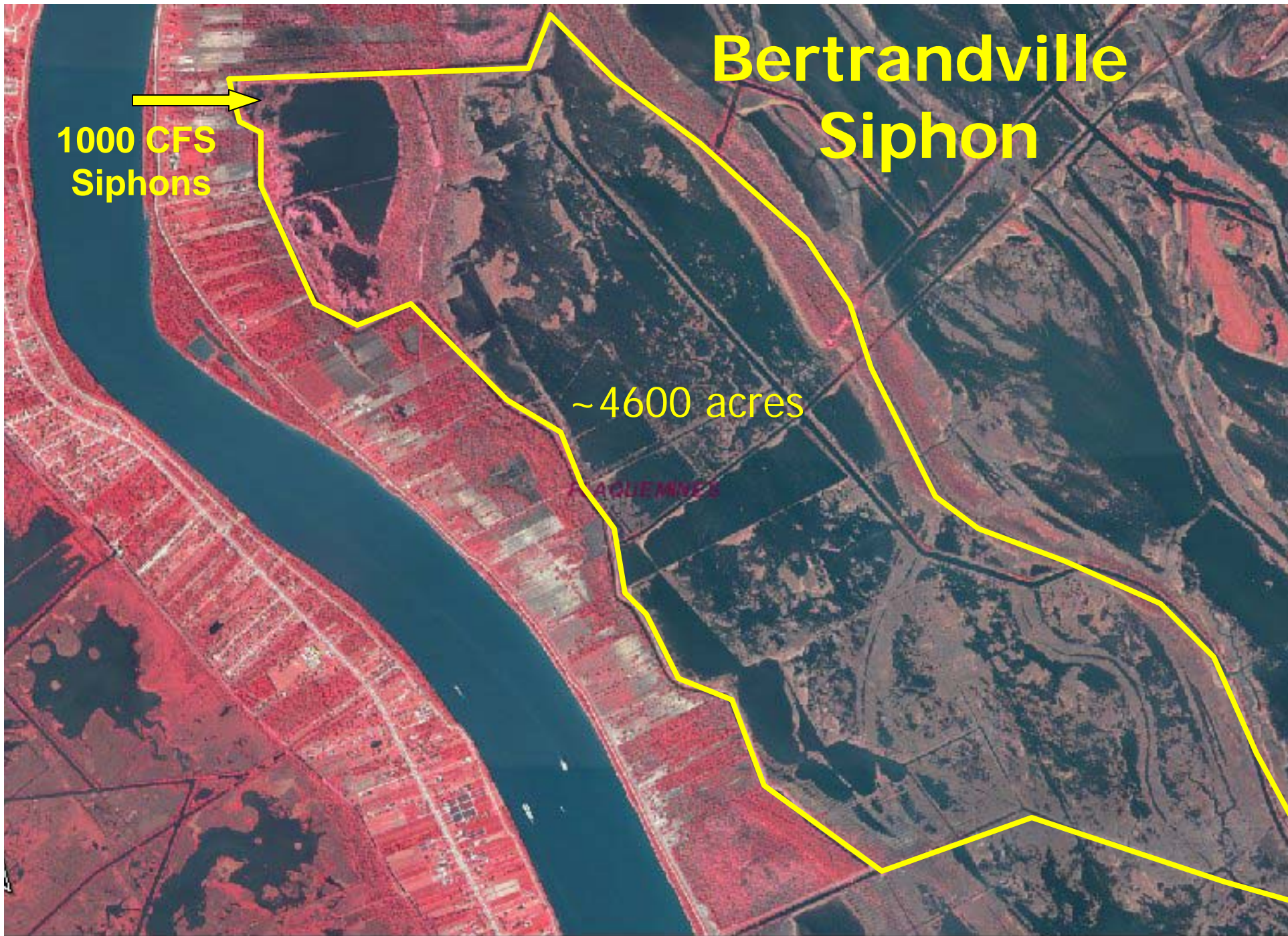
Proposed Solutions: Construct a siphon from the Mississippi River, with 1000 cfs maximum capacity. The project may require additional features for delivery and outfall management. Plant cypress trees.

Preliminary Project Benefits: The total acreage benefited directly and indirectly is estimated to be 4600 ac. We estimate 350 net acres will be protected over the project life. The anticipated loss rate reduction throughout the area of direct benefits over the project life is >75%. No project features maintain or restore structural components of the coastal ecosystem. The project may have a significant positive net impact on the Mississippi River levee, which is critical infrastructure. The project will provide a synergistic effect with the Caernarvon Diversion project, Caernarvon Diversion Outfall Management (BS-03a) and Caernarvon Outfall Management/Lake Lery SR (BS-16). No project features maintain or restore structural components of the coastal ecosystem.

Identification of Potential Issues: The proposed project has potential land rights issues.

Preliminary Construction Costs: \$15 million

Preparer(s) of Fact Sheet: Kenneth Teague, EPA, 214-665-6687, Teague.Kenneth@epa.gov;
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Bertrandville Siphon

1000 CFS Siphons

~4600 acres



Louisiana Department of Natural Resources

0 0.9mi

Data Source: LA Department of Natural Resources
Map Date: February 12, 2008
Image Data: 2005 Coastal Photographs

**PPL 18 Proposed
Bertrandville Siphon**

PPL18 PROJECT NOMINEE FACT SHEET
February 20, 2008

Project Name: Monsecour Siphon

Coast 2050 Strategy:

- Coastwide Common Strategies
 - Diversions and river discharge
 - Management of diversion outfall for wetland benefits
- Region 2 Regional Ecosystem Strategies:
 - Restore and Sustain Marshes: #8: Construct most effective small diversions

Project Location: Region 2, Breton Sound Basin, Plaquemines Parish, north of Phoenix, LA.

Problem: This area has been disconnected from the Mississippi River since levees were constructed during the early 20th century. The lack of overbank flooding/crevasses ensures that wetlands here do not have sufficient sediment input to maintain elevation against subsidence. In addition, drainage canals and oil and gas canals and associated spoil banks probably create some undesirable impoundment and tidal scour/saltwater intrusion in the area. In addition to impoundment caused by canals and spoil banks, the area is probably somewhat naturally impounded due to natural ridges. Aerial photography clearly demonstrates the significant loss of marsh in this area.

Goals : Reduce rate of wetland loss. Restore fresh and intermediate marsh. Increase SAV cover.

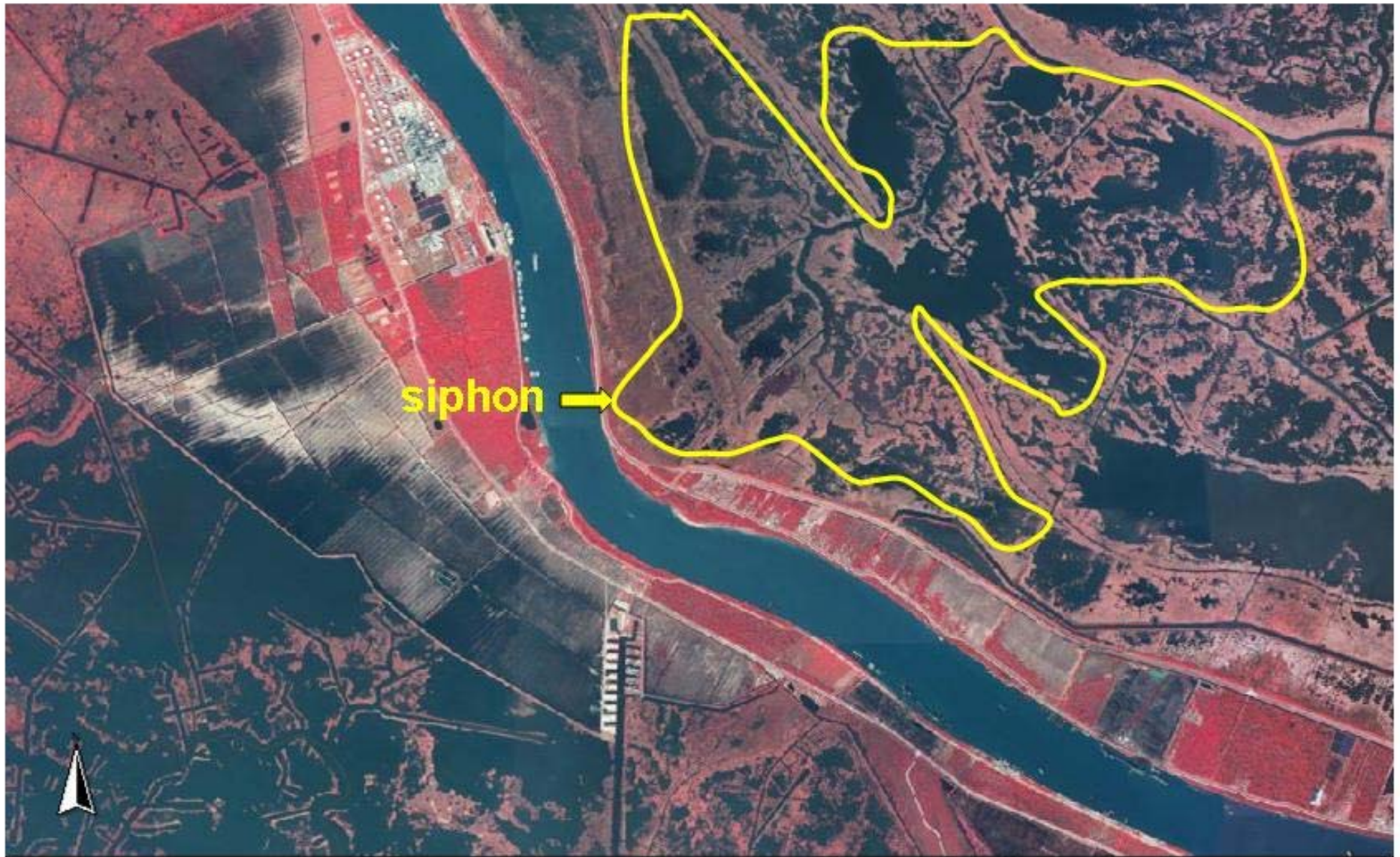
Proposed Solutions: Construct a siphon from the Mississippi River, with 1000 cfs maximum capacity. The project may require additional features for delivery and outfall management.

Preliminary Project Benefits: The total acreage benefited directly and indirectly is estimated to be 6800 ac. We estimate 350 net acres will be protected over the project life. The anticipated loss rate reduction throughout the area of direct benefits over the project life is >75%. No project features maintain or restore structural components of the coastal ecosystem. The project may have a significant positive net impact on the Mississippi River levee, which is critical infrastructure. The project will provide a synergistic effect with the Caernarvon Diversion project, Caernarvon Diversion Outfall Management (BS-03a) and Caernarvon Outfall Management/Lake Lery SR (BS-16). No project features maintain or restore structural components of the coastal ecosystem.

Identification of Potential Issues: The proposed project has potential land rights issues.

Preliminary Construction Costs: \$15 million

Preparer(s) of Fact Sheet: Kenneth Teague, EPA, 214-665-6687, Teague.Kenneth@epa.gov;
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Louisiana Department of Natural Resources

0 1mi

Data Source: LA Department of Natural Resources
Map Date: February 20, 2008
Image Data: 2005 Coastal Photographs

**PPL 18 Proposed
Monsecour Siphon**

**White Ditch 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 2 Ecosystem Strategies

- Restore and sustain marshes

Project Location:

The proposed project is located in Region 2, Breton Sound Basin, east of the Mississippi River in the vicinity of Belair, Louisiana in Plaquemines Parish.

Problem:

Historically, marshes in the area of the proposed project were intermediate to brackish. However, lack of freshwater input has resulted in their complete conversion to brackish wetlands. These White Ditch 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. Deterioration of the marshes has also resulted from the breakdown of an aging siphon built in 1963 which has ceased to deliver the freshwater and sediment necessary to sustain them.

Goal: Create/nourish approximately 380 acres of intermediate marsh

Proposed Solution:

Dredge sediments from the Mississippi River to create/nourish 380 acres of marsh

Project Benefits:

The total acreage benefited directly and indirectly is estimated to be 380 ac. We estimate 218 net acres of marsh would 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 will have a minor net impact on critical infrastructure (East Bank Mississippi River Levee). The project will provide a synergistic effect with the White Ditch Resurrection and Outfall Management project (BS-12), currently in the engineering and design phase.

Project Costs:

Preliminary construction cost is \$14 million.

Preparers of Fact Sheet:

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White Ditch Marsh Creation

Whites Ditch
Siphon



380 Acres

PLAQUEMINES

PPL18 PROJECT NOMINEE FACT SHEET

February 21, 2008

Project Name:

Breton Marsh Restoration Project

Coast 2050 Strategy:

- Dedicated dredging for wetland creation.
- Maintenance of bay and lake shoreline integrity.

Project Location:

Region 2, Breton Basin, Plaquemines Parish, Caernarvon mapping unit, south east of Delacroix, LA.

Problem:

The landfall of Hurricane Katrina in southeast Louisiana destroyed thousands of acres of marsh and other coastal habitats east of the Mississippi River. One of the areas most severely impacted was the Breton Sound Basin where it is estimated that 40.9 square miles of marsh were converted to open water. The operational plan of the Caernarvon Freshwater Diversion for 2006 proposes higher discharge during the winter and spring to address hurricane impacts. However, this discharge will have little potential to rebuild wetlands near the Breton Landbridge- an area located south of Lake Lery between Bayou Terre aux Boeufs (near Delacroix) and River aux Chenes. Without restoration this region will begin to see the coalescence of water bodies such as Grand Lake, Lake Petit, and the surrounding marsh ponds resulting in more direct connection between interior intermediate marshes and the open brackish Black Bay system.

Goals:

The goal of this project is to maintain the landbridge between the Bayou Terre aux Boeufs and River aux Chenes ridges and restore critical wetlands destroyed by Hurricane Katrina.

Proposed Solutions:

Sediments will be hydraulically dredged from a borrow area in Lake Lery and pumped via pipeline to create/nourish approximately 600 acres of marsh in the project area. Terraces could be created in some areas that are not suitable for marsh creation. Containment dikes will be constructed as necessary. The containment dikes would be built to a height of 4 feet above the established healthy marsh within the project area. At present, the proposed design is to place the dredged material to a fill height of +1.5 NAVD 88. Final target elevations will depend on the results of geotechnical investigations in borrow and fill sites.

Preliminary Project Benefits:

This project would help protect and restore portions of several lake and small pond shorelines and also be a part of reestablishing a hydraulic salinity gradient in the area. This project would work synergistically with the Caernarvon Diversion project and the Caernarvon Outfall Management/Lake Lery Shoreline Restoration Project BS-16 that has recently been approved for Phase I.

Identification of Potential Issues:

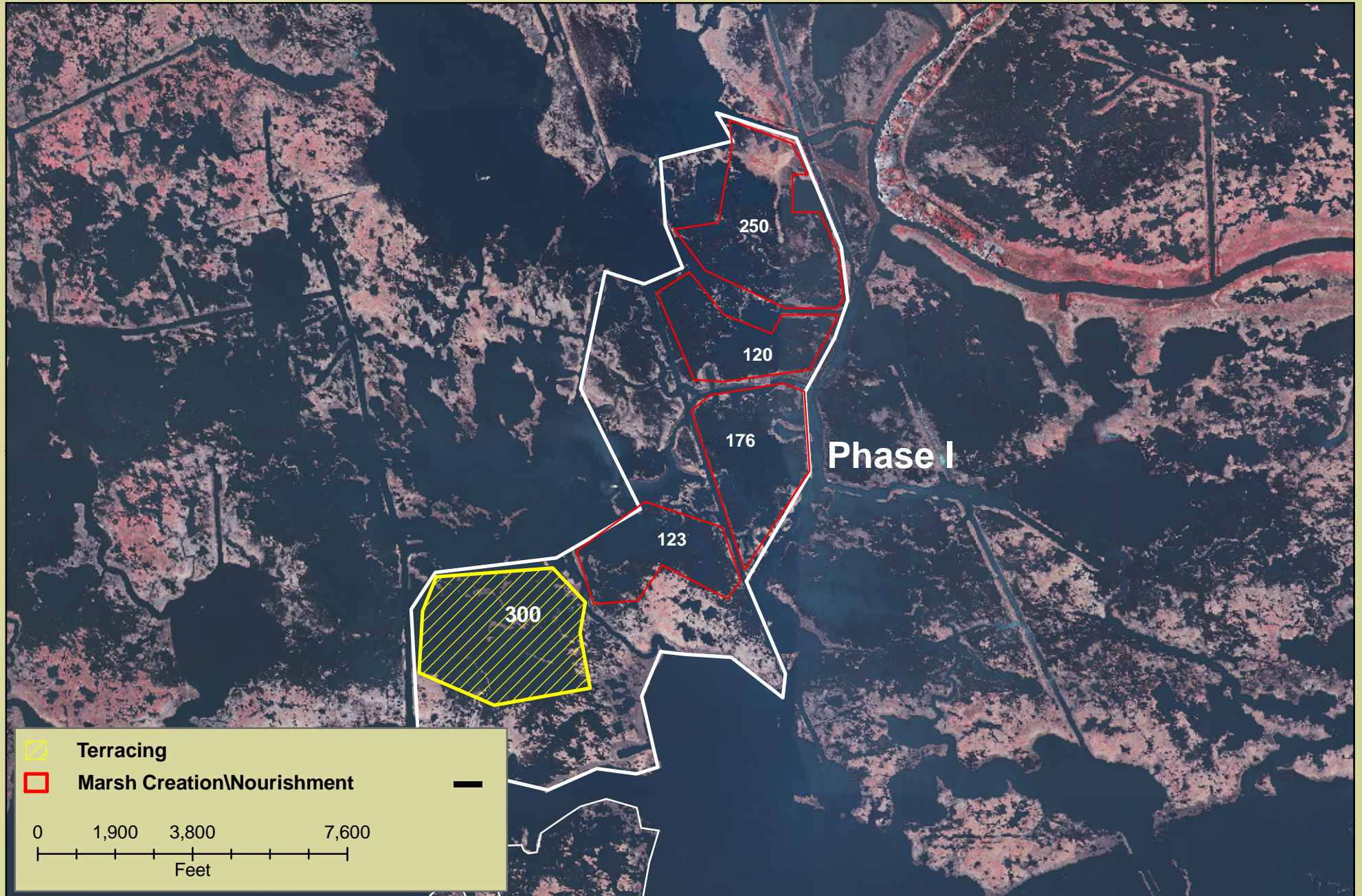
There are pipelines in the area, but none are known to be a problem at this time.

Preliminary Construction Costs:

The construction costs for the project is estimated at \$16.8 million.

Preparer(s) of Fact Sheet:

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Region 2 - MISSISSIPPI RIVER DELTA BASIN

PPL18 PROJECT NOMINEE FACT SHEET

February 21, 2008

Project Name

Pass a Loutre Restoration

Coast 2050 Strategy

Regional Strategy – Continue building and maintaining delta splays

Project Location

Region 2, Plaquemines Parish, Mississippi River Delta Basin, marshes north and south of Pass a Loutre on the Delta National Wildlife Refuge (NWR) and Pass a Loutre Wildlife Management Area (WMA).

Problem

Historically, Pass a Loutre was a major distributary of the Mississippi River at Head of Passes. This pass carried sediments that created and maintained in excess of 120,000 acres of marsh. Pass a Loutre is not a maintained navigation channel and over time has filled in considerably and carries much less flow than it did historically. As a result, much of the historic Pass a Loutre channel has silted in and is now very shallow and narrow. The decreased channel size has much less capacity to carry fresh water and sediments and marshes historically nourished by the channel are now being starved and are subsiding at an alarming rate. In addition, a hopper dredge disposal site located at the beginning of Pass a Loutre at Head of Passes has contributed to the infilling of the channel.

Goals

The goal of this project is to restore an important distributary of the Mississippi River so that it will once again create new wetlands and nourish existing marsh. Dredged material will create marsh immediately and the increased fresh water and sediment carrying capacity of the channel will create marsh over time and increase the abundance and diversity of submerged aquatic vegetation.

Specific goals of the project are: 1) Enhance marsh-building processes within the project area; 2) Create approximately 587 acres of marsh with dredged material from construction of a conveyance channel; and 3) Over the 20-year life of the project, create approximately 609 acres of marsh via the construction of 12 crevasses.

Proposed Project Features

- 1) Pass a Loutre would be dredged for approximately 5.6 miles from Head of Passes to Southeast Pass. Preliminary design includes channel dimensions of -30.0ft NAVD88 (all elevations to follow are NAVD88) by a 300-ft bottom width.

- 2) Approximately 5.0M yd³ of material would be dredged during construction of the conveyance channel. That material will be used beneficially to create approximately 587 acres of marsh on Delta NWR and Pass a Loutre WMA. Material shall be placed in peninsulas similar to work previously completed on Delta NWR in 2004 and 2007. Each peninsula shall be constructed to a maximum height of +7ft and a crown width of 300 feet. Side slopes are estimated to be 1(v) to 100(h) based on previous disposal sites on Delta NWR.
- 3) Construction of 11 crevasses and cleanout of one existing crevasse. Crevasses will be constructed to a -8.0ft by 75-ft bottom width with 1(v):2(h) side slopes. Excavated material shall be placed on alternating banks in 100-ft berms to allow for water exchange.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?* Approximately 587 acres of marsh would be created from initial channel construction. Indirect benefits would occur over approximately 27,000 acres of marsh and open water habitats as a result of increased freshwater and sediment delivery.
- 2) *How many acres of wetlands will be protected/created over the project life?* Based on the Wetland Value Assessment conducted for this PPL17 candidate project, 1305 net acres of marsh would result from this project.
- 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%)?* The assumed reduction in marsh loss over the entire project area would be between 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?* The project would help maintain several natural levee ridges. The project would introduce sediment along several passes that have been sediment starved for several decades and are subsiding.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would reduce marsh loss and create new wetlands between South Pass and Pass a Loutre. Seven oil and gas companies have facilities and pipelines in this area which would benefit from an increase in marsh acreage. The loss of wetlands in this area exposes those facilities to open water wave energies resulting in expensive damages and oil spills. Protecting/creating wetlands in this area would also assist in reducing storm damages to oil and gas infrastructure and commercial development in nearby Venice, LA.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The project would provide a synergistic effect with the Delta Wide Crevasses Project (PPL6) which constructed several crevasses south of Pass a Loutre. Many of the crevasses constructed under that project depend on the sediment load delivered by Pass a Loutre. With Pass a Loutre restored, the much greater sediment carrying capacity will feed those crevasses and accelerate their marsh-building potential. This project would also have a synergistic effect with several other projects on the Mississippi River Delta – Venice Ponds Marsh Creation and Crevasses (PPL15), Spanish Pass Diversion (PPL13), Benneys Bay

Diversion (PPL10), an LDWF crevasse project on Pass a Loutre, and several state mitigation projects that have been constructed on the WMA.

Identification of Potential Issues

Several pipelines cross Pass a Loutre but should not significantly impact dredging activities. Impacts to the Mississippi River navigation channel would need to be investigated via modeling and other analyses.

Preliminary Construction Costs

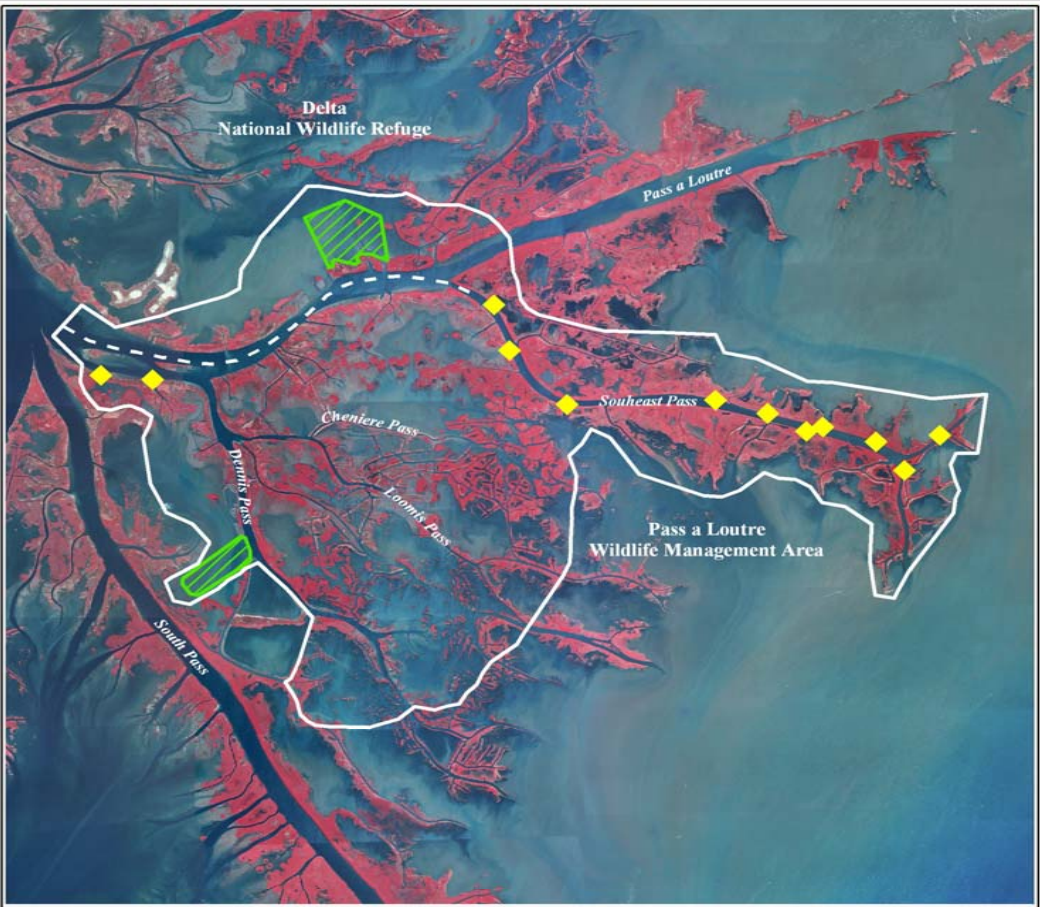
The construction cost including 25% contingency is approximately \$21,338,500.

Preparer of Fact Sheet

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Melanie Goodman, COE, 504-862-1940, Melanie.L.Goodman@MVN02.usace.army.mil

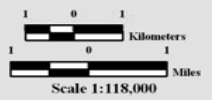
Todd Baker, La. Dept. of Wildlife and Fisheries, 337-962-2992, tbaker@wlf.louisiana.gov



**Pass a Loutre Restoration
(PPL17 Candidate)**



-  Crevasse *
 -  Dredged Channel *
 -  Marsh Creation *
 -  Project Boundary *
- * denotes proposed features



Map ID: USGS-NWRC 2007-11-0321
Map Date: July 02, 2007



Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Region 2 - BARATARIA BASIN

PPL17 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name

Bayou Dupont to Bayou Barataria Marsh Creation

Coast 2050 Strategy

Region 2 Regional Strategy#26. Dedicated dredging to create marsh on the land bridge.

Louisiana's Comprehensive Master Plan for a Sustainable Coast

From page 52 of the Master Plan, "One way to accelerate the benefits of diversions would be to mechanically restore lost marsh by pumping sediments via pipeline from the bed of the Mississippi River, offshore, or from navigation channels. Combining land sustaining diversions and this type of mechanical marsh restoration could rapidly convert open water to wetlands and help the restored marsh remain viable. Pipeline conveyance of sediment is seen as a particularly good option for areas like Myrtle Grove and West Point a la Hache, where the Master Plan recommends situating land sustaining diversions. Together, diversions and pipeline conveyance of sediment could rebuild marsh quickly areas where land loss has reached crisis level.

See Figure 10, page 57 of the Master Plan (attached).

Project Location

Region 2, Barataria Basin, Jefferson Parish, extending southward from the PPL17 Bayou Dupont project (BA-48) to the Bayou Barataria ridge.

Problem

What problem will the project solve? The marshes located between Bayou Dupont and Bayou Barataria are very deteriorated. The deteriorated marsh, along with numerous canals, allows a level of tidal exchange that is considerably greater than historic conditions. The proposed marsh creation and nourishment will restore critical marsh acreage; the restored marsh and rock dike will partially restore the area's hydrology.

What evidence is there for the nature and scope of the problem in the project area? 2005 aerial imagery confirms that the areas marshes are severely deteriorated.

Goals

Create 290 acres and nourish 215 acres of marsh between Bayou Dupont and Bayou Barataria. Prevent erosion of created marsh from Barataria Bay Waterway and partially restore area hydrology.

Proposed Solution

503 acres of marsh creation and nourishment. Material for marsh creation will be excavated from the Mississippi River.

1,740 feet of bankline protection along the east bank of the Barataria Bay Waterway.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? 503 acres created and / or nourished.
- 2) How many acres of wetlands will be protected/created over the project life? 503 acres
- 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%). Not determined yet.
- 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. The project will serve to re-connect Bayou Dupont and Bayou Barataria with a band of healthy marsh, partially restoring the area's hydrology.
- 5) What is the net impact of the project on critical and non-critical infrastructure? Created and nourished marsh will reduce storm surge that would otherwise approach The Pen and the community of Lafitte unimpeded.
- 6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? The proposed project's northern boundary is the the southern boundary of the PPL17 Bayou Dupont Project. The proposed project's southern limit is in close proximity to a landowner / Duck's Unlimited sponsored terracing project that was construction 2006-07 and ties into the CWPPRA BA-26 project.

Identification of Potential Issues

The proposed project has the following potential issues: no issues presently identified.

Preliminary Construction Costs

\$ 20 million

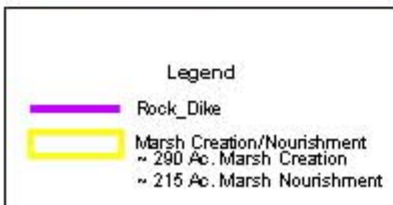
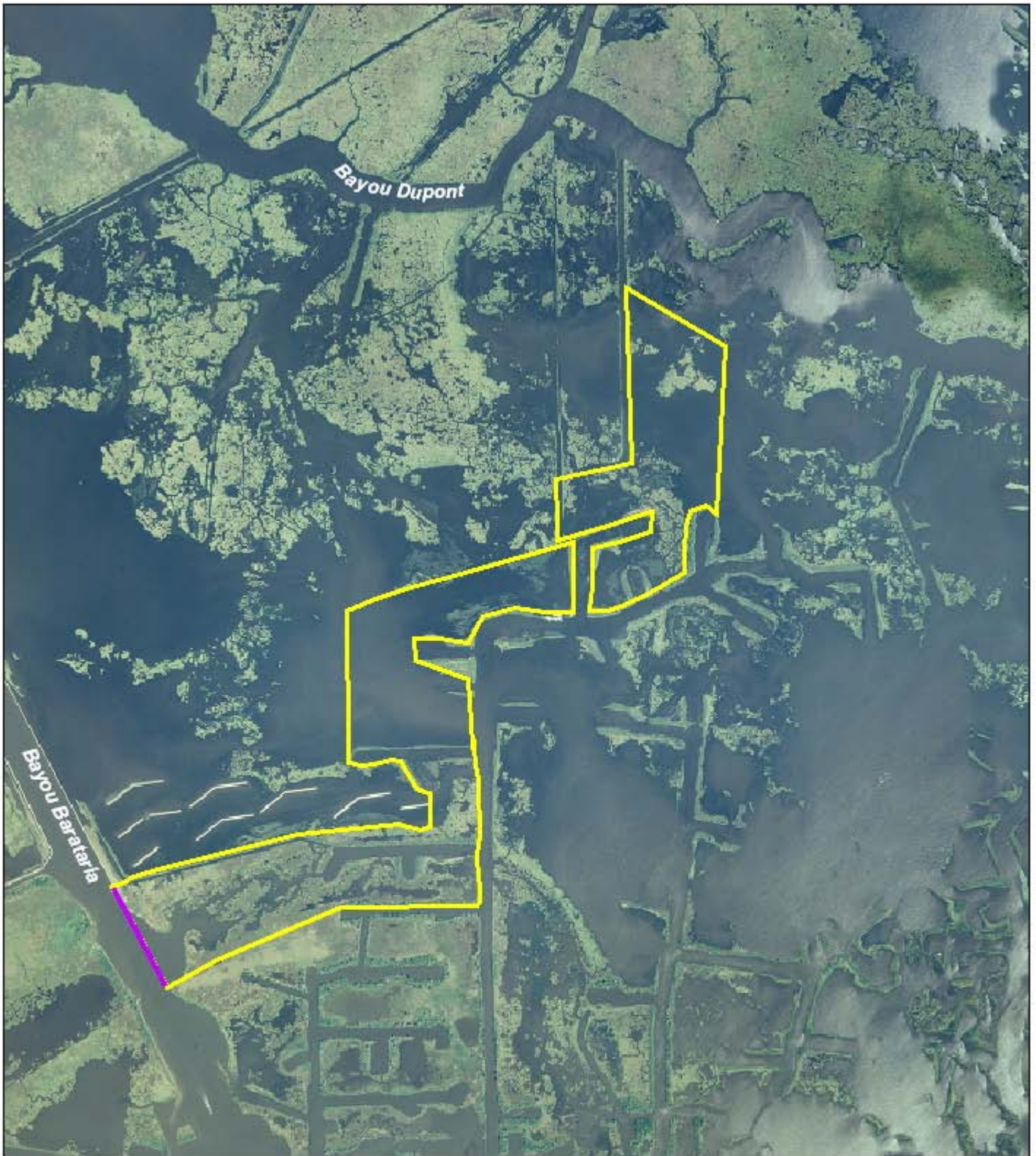
Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

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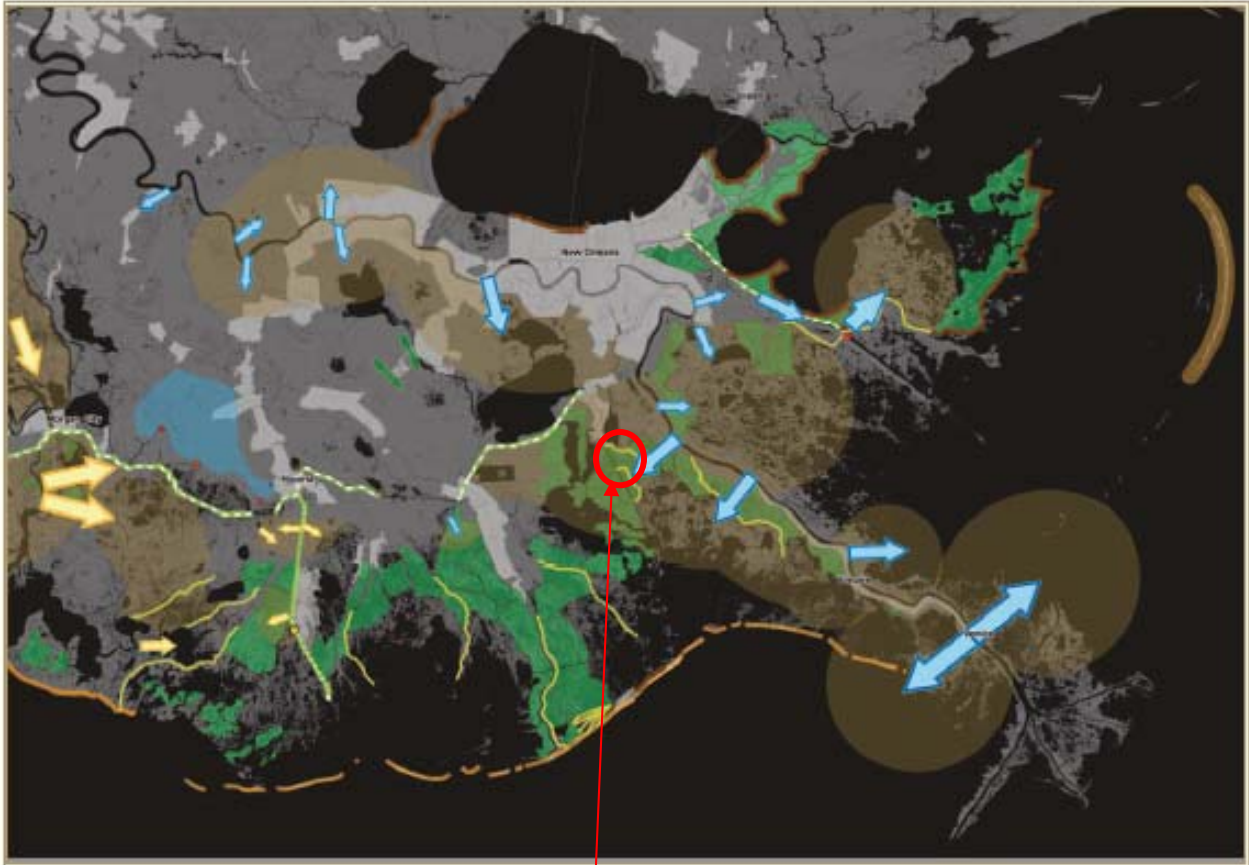
quin.kinler@la.usda.gov



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



**Modified From: Louisiana's Comprehensive Master Plan
for a Sustainable Coast, p. 57**




Marsh Restoration using
Dredged Material

- Maintain and Restore the Breton Sound Marshes
- Maintain and Restore Biloxi Landbridge and Barrier Reefs
- St. Tammany Marsh Restoration
- Central Wetlands Restoration
- Marsh Restoration using Dredged Material at Golden Triangle
- East Orleans Landbridge Restoration
- Marsh Restoration using Dredged Material in Barataria Basin
- Mississippi River Diversion at Myrtle Grove with Dedicated Dredging
- Mississippi River Diversion at Point a la Hache with Dedicated Dredging
- Marsh Restoration in Terrebonne Basin
- Marsh Restoration at Point Au Fer Island
- Maintain Landbridge between Calhou Lake and Gulf of Mexico
- Beneficial use of Dredged Material

PPL-18 Project Nominee Fact Sheet
February 21, 2008

Project Name:

Elmer's Island Headland Restoration

Coast 2050 Strategy:

Coastwide strategy: Dedicated dredging to create, restore, or protect wetlands

Regional Strategy 22: Restore and maintain barrier islands and barrier shorelines

Project Location:

Region 2. Barataria Basin, Caminada-Moreau headland, Fourchon Planning Unit, Jefferson Parish.

Problem:

This project is part of the Caminada-Moreau headland located just west of Grand Isle and Caminada Pass. Historically, the project area has been predominantly marsh platform/wetland habitat and protected by a sandy headland. The headland itself is a relict deltaic feature associated with the Lafourche watershed and is currently receding at a high rate. This has resulted in significant shoreline recession and a corresponding loss of barrier island and marsh acreage. The observed shoreline changes along Bayou Lafourche Headland have been dramatic, and are a combined result of long-term sediment shortages and headland subsidence coupled with relative sea level rise. A Review of historical shoreline changes presented in the *Louisiana Barrier Island Erosion Study – Atlas of Shoreline Changes in Louisiana From 1853 to 1989* (Williams, *et. al.*, 1992) shows a long term shoreline recession rate of 55 feet per year.

Proposed Project Features:

Project features include the re-establishment of a 420 acre barrier headland via the building of a beach, dune, and back-barrier marsh system. The beach and dune will extend for approximately two miles (10,560 linear feet) along the gulf and will be approximately 745 ft wide. The marsh will be approximately 1000 ft wide to encompass approximately 230 acres. The design has incorporated the features and dimensions of the selected design alternative(s) for the LCA barrier island study for the Chenier Caminada reach; whereas, the dune has a +7 ft height, 20 on 1 side slopes, and a dune crown width of 290 ft. The beach is 175 ft wide from the toe of the dune with 20 on 1 side slopes as well. The marsh platform will have a constructed elevation of +2 ft NAVD88. Approximately 2.8M cy of material will be dredged for the entire project likely using borrow from offshore and potentially Caminada Pass. The marsh will be fully confined and both marsh and dune vegetation will be planted upon material compaction and settlement.

Goals:

1. Reestablish 2 miles of barrier headland via beach, dune, and marsh creation.
2. Create 230 acres of back-barrier marsh and 190 acres of beach and dune habitat.
3. Reduce erosion of adjacent interior marshes.
4. Close existing breaches and prevent future breaching of the headland during the project life.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
420 acres benefited, 230 acre marsh platform and 190 acre beach and dune created.
- 2) *How many acres of wetlands will be protected/created over the project life?*
270 acres of created marsh, beach, and dune 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 directly re-establish a gulf barrier headland.
- 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 critical infrastructure, including LA Hwy 1 and the communities surrounding Grand Isle.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project will address in the near-term a critical component of the Caminada-Moreau shoreline that is already breached. The barrier island chain of Louisiana is part of the LCA study and design alternatives have already been selected for the Caminada headland that are incorporated into the conceptual design of this project. Funds for the LCA study, however, have not been approved, which makes pursuing this project through CWPPRA necessary and timely. Should LCA funds be appropriated at a later date for this area, this project will have been constructed to be consistent in size and design.

Identification of Potential Issues:

There are 3 oyster leases in the project area. A portion of the headland has been purchased by the State; however, other portions of the headland are still under purchase negotiations. No indications have been given by the DNR Land Section that a pending land purchase would be an impediment to the project.

Preliminary Construction Costs:

Preliminary construction cost estimate is \$24,007,000. This includes construction, mobilization, vegetative plantings, and 25% contingency.

Preparer of Fact Sheet:

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LAFOURCHE

JEFFERSON



PPL-18 Elmer's Island Headland Restoration Project



PPL-18 Project Nominee Fact Sheet
February 21, 2008

Project Name:

Barataria Basin Beneficial Use of Municipal Effluent Project

Coast 2050 Strategy:

Coastwide strategy: Management of pump outfall for wetland benefits

Regional Strategy: Construct small diversions with outfall management

Project Location:

Region 2. Barataria Basin, Bayou Segnette, Rosethorn, and Golden Meadow, Jefferson Parish.

Problem:

Wetlands and the bottomland hardwood swamps of Barataria Basin are experiencing some of the most drastic land loss rates in the state. Suffering from a combination of subsidence, salt water intrusion, and lack of sediment, freshwater, and nutrient input, these areas are in a perpetual state of decline unless action is taken to reverse these conditions. Numerous river diversions and siphons have been constructed to replenish failing wetlands; however, these projects are costly and not available to all areas of the coast. The beneficial use of treated municipal effluent has been widely used throughout the coastal zone and has been accepted by the LA Department of Environmental Quality as being an effective and permissible technique for restoring wetlands and providing tertiary treatment of wastewater. This nutrient rich, freshwater source is essentially serving the same purpose of river diversions, in a controlled and cost-effective manner. It has been shown that the application of treated municipal effluent results in higher habitat productivity, increased vertical soil accretion to offset relative sea level rise and subsidence, and reduced saltwater intrusion, while at the same time improving water quality at discharge points.

Proposed Project Features:

The project will re-route treated municipal effluent from plants at Westwego, Rosethorn, and Golden Meadow from the local drainage canal network to areas of adjacent wetlands and bottomland hardwood swamps. Construction would consist of upgrading the capacity of the existing effluent pumping station and installing pipe to divert flow to adjacent wetlands. Water control structures may be necessary to control waterflow and maximize distribution throughout the outfall area.

Goals:

1. Divert treated municipal effluent at three locations within Barataria Basin to enhance and restore up to 3,000 acres of wetland and bottomland hardwood swamp.
2. Reduce nutrient loading in current effluent receiving waterways.
3. Reduce land loss in outfall areas via salinity reduction and nutrient input.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
Up to 3,000 acres combined.
- 2) *How many acres of wetlands will be protected/created over the project life?*

Yet to be determined given diversion sizes and locations selected.

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 50-75%.

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 indirectly benefit natural ridges within the outfall areas, in addition to helping to maintain levee-fringing marshes.

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 critical infrastructure, including the communities of Westwego, Rosethorn, and Golden Meadow.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*

This project will enhance wetland and swamp areas adjacent to several CWPPRA projects that may not be directly benefiting from said projects. Beneficially utilizing treated municipal effluent captures the same benefits derived from river diversions in areas that are not located near riverine sources. This restoration tool serves dual functions in that it helps restore deteriorated wetland systems while improving local water quality.

Identification of Potential Issues:

Diverted municipal effluent has already been treated and is safe for humans and wildlife, therefore no contamination issues exist. No oyster issues in the upper Barataria sites; however, oyster leases are likely located at the Golden Meadow site.

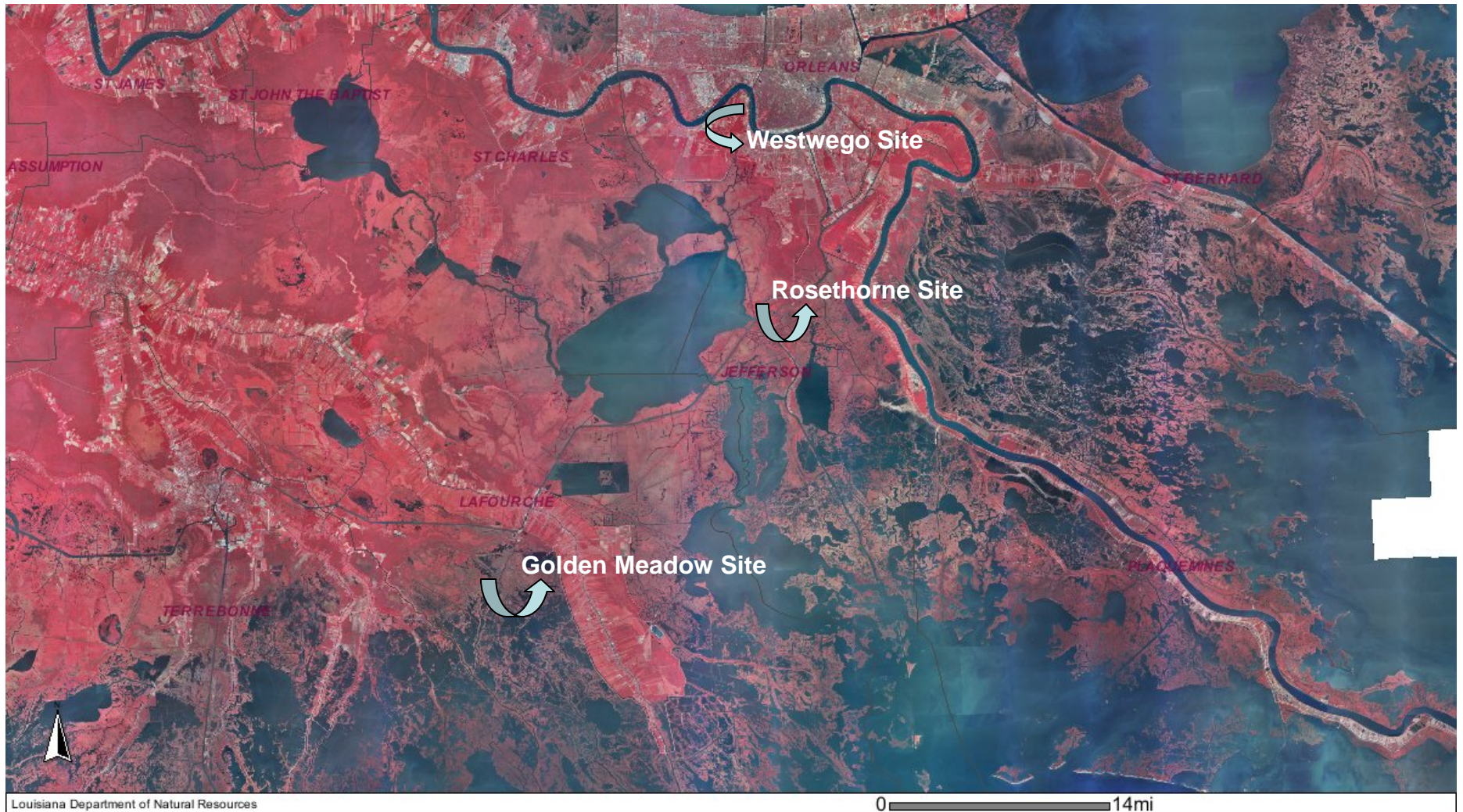
Preliminary Construction Costs:

Preliminary construction cost estimate is \$2,000,000.

Preparer of Fact Sheet:

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PPL-18 Barataria Basin Beneficial Use of Treated Municipal Effluent Project



PPL18 PROJECT NOMINEE FACT SHEET
February 7, 2008

Project Name: Bayou Dupont Sediment Delivery – Marsh Creation 3

Coast 2050 Strategy:

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

Region 3 Ecosystem Strategy: Restore and Sustain Marshes

Regional Ecosystem Strategy #8: Dedicated delivery and/or beneficial use of sediment for marsh building by any feasible means.

Project Location: Region 3, Barataria Basin, Plaquemines Parish

Problem:

The wetlands in the Barataria Basin were nourished by the fresh water, sediment and nutrients delivered by the Mississippi River and the many distributary channels. Data suggests that from 1932 to 1990, the basin has lost over 245,000 ac of marsh, and from 1978 to 1990, this area has experienced the highest rate of wetland loss along the entire coast.

Goals :

Create approximately 550 ac of emergent brackish marsh using sediment from the Mississippi River.

Proposed Solutions:

The purpose of the proposed project is to create approximately 550 ac of marsh using sediment from the Mississippi River and transporting the sediment by pipelines into to a mostly open water area. After construction, the newly constructed marsh areas will be review to determine is vegetative plantings are necessary. The proposed project will utilize the existing crossing constructed by the CWPPRA project entitled Mississippi River Sediment Delivery System (BA-39).

Preliminary Project Benefits:

- What is the total acreage benefited both directly and indirectly? **550 ac**
- How many acres of wetlands will be protected/created over the project life? **363 ac**
- What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%)? **50-74%**
- What is the net impact of the project on critical and non-critical infrastructure? **None**
- To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? **This project will also benefit other CWPPRA projects such as the Mississippi River Sediment Delivery System (BA-39) and Bayou Dupont Marsh and Ridge Creation (BA-48)**

Identification of Potential Issues:

The proposed project has the following potential issues: land rights and utilities/pipelines.

Preliminary Construction Costs: \$25,000,000 - \$30,000,000

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Bayou Dupont Sediment Delivery Marsh Creation 3

Bayou Dupont 1
Project Limits

JEFFERSON 550 Acres

PLAQUEMINES

PPL 17 Project Limits



PPL18 PROJECT NOMINEE FACT SHEET
February 5, 2008

Project Name: Home Place Mississippi River Reintroduction

Coast 2050 Strategy:

- Coastwide Common Strategies
 - Diversions and river discharge
 - Management of diversion outfall for wetland benefits
- Region 2 Regional Ecosystem Strategies:
 - Restore and Sustain Marshes: #8: Construct most effective small diversions

Project Location:

Region 2, Barataria Basin, Plaquemines Parish, West Bank of Mississippi River, near Port Sulphur, LA.

Problem: Leveeing of the Mississippi River for flood control and navigation deprived the area of sediment needed to maintain elevation against subsidence, as well as freshwater to maintain low salinity marshes. Aerial photography clearly shows that much wetland loss has occurred in this area.

Goals : Create marsh and/or reduce rate of wetland loss. Restore intermediate and fresh marshes. Increase SAV cover.

Proposed Solutions: Construct a 2000-5000 cfs diversion or siphon.

Preliminary Project Benefits: The project will directly and indirectly benefit a minimum of 10000 ac. We estimate that 500-750 ac of wetlands (depending on size of diversion) will be protected/created over the project life. The anticipated loss rate reduction throughout the area of direct benefits over the project life is >75%. The project will help maintain the Mississippi River Levee in the vicinity of the project area. The project will have a moderate net positive impact on critical infrastructure (Mississippi River Levee). The project does not provide any synergistic effect with other approved and/or constructed restoration projects.

Identification of Potential Issues: The proposed project has potential land rights issues.

Preliminary Construction Costs: \$13-20 million (depending on type of structure/size of diversion).

Preparer(s) of Fact Sheet: Kenneth Teague, EPA, 214-665-6687, Teague.Kenneth@epa.gov;
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Home Place Mississippi River Reintroduction

2000 – 5000 CFS
Reintroduction

~10,000 acres

PLAQUEMINES

PPL18 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name: West Pointe a la Hache Marsh Creation

Coast 2050 Strategy:

Coastwide Common Strategies

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

Region 2 Regional Ecosystem Strategy: Restore and Sustain Marshes

Project Location: Region 2, Barataria Basin, Plaquemines Parish, in the West Pointe a la Hache siphon outfall area

Problem: An unintended consequence of the Mississippi River levee is the isolation of the West Pointe a la Hache wetlands from the historic overbank flooding of the river. Without continued sediment input, marshes couldn't maintain viable elevations due to ongoing subsidence. In addition, oil and gas canals disrupted hydrology and facilitated saltwater intrusion, further degrading the marsh. Beginning in 1993, the siphons at West Pointe a la Hache were operated to reintroduce Mississippi River water, fine sediments, and nutrients into this general area. However, land loss rates continue to be high. An opportunity exists to create marshes in the siphon outfall area using sediment from the nearby Mississippi River. The created marshes should benefit from the effects of the reintroduced Mississippi River water from the siphons.

Goals:

- Convert approximately 250 acres of open water habitat to intermediate marsh.
- Depending on area selected, nourish an additional 100 ac of existing intermediate marsh.
- Maintain about 145-165 acres of created/nourished marsh over the 20-year project life.

Proposed Solutions: Dredge sediments from the Mississippi River to restore about 250 acres, and possibly, nourish an additional 100 ac of marsh.

Preliminary Project Benefits: The project will directly and indirectly benefit 250-350 acres. We estimate that approximately 145-165 acres of wetlands will be protected/created over the project life. The anticipated loss rate reduction throughout the area of direct benefits over the project life is 50 to 74%. This project will help maintain the Mississippi River Levee in the vicinity of the project area and will have a moderate net positive impact on critical infrastructure (Mississippi River Levee). The project will have a synergistic effect with other approved and/or constructed restoration projects (West Pointe a la Hache Siphon, West Pointe a la Hache Outfall Management, West Pointe a la Hache Marsh Creation).

Identification of Potential Issues: • Oil & Gas, Land rights

Preliminary Construction Costs: (including + 25% contingency) \$ 13 million

Preparer(s) of Fact Sheet:

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Patty Taylor, EPA Region 6, (214) 665-6403, taylor.patricia-a@epa.gov**

West Pointe a la
Hache Siphons

Potential Marsh
Creation Sites

PPL 17
Project Limits

Crevasses

58
Acres

185
Acres

240
Acres

110
Acres

Louisiana Department of Natural Resources

0 0.52mi

Data Source: LA Department of Natural Resources
Map Date: February 22, 2008
Image Data: 2005 Coastal Photographs

PPL 18 Proposed
West Pointe a la Hache Marsh Creation

PPL18 PROJECT NOMINEE FACT SHEET

21 February 2008

Project Name:

Bayou L'Ours Ridge Restoration and Marsh Creation.

Coast 2050 Strategy:Coastwide: Dedicated Dredging for Wetland Creation
Maintain or Restore Ridge Functions

Region 2: # 26 Dedicated dredging to create marsh on the land bridge

Project Location:

Region 2, Barataria Basin, Lafourche Parish, east of Galliano, and south of Little Lake

Problem:

The gapping of the Bayou L'Ours ridge by pipeline canals has altered the hydrology of the area and contributed to the degradation of the marsh north of the ridge. Additionally, the tidal flow through these canals is causing the depth of these openings to increase.

Goals:

The project will restore the function of the Bayou L'Ours ridge, partially restore the hydrology of the bayou, and will halt the deepening of the gaps. Marsh will be created in areas near the ridge to help restore the ridge's natural function and prevent further degradation of the marsh north of the ridge.

Proposed Solutions:

Three of the gaps will be closed completely. Two additional gaps will be decreased in size and armored to prevent any further scouring. Dredged materials from Little Lake will be placed near some of the gaps to provide additional protection to the ridge

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?* 152 acres directly benefitted. 25,500 acres benefitted indirectly due to decrease in salinity
- 2) *How many acres of wetlands will be protected/created over the project life?* Creates 152 acres of marsh
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?* 50%
- 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.* restores the function of the Bayou L'Ours ridge by providing a barrier to salt water intrusion
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
Provides additional storm surge protection for the Clovelly Dome Storage Terminal
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* Reduces salt water intrusion to the area near the Little Lake Shoreline Protection (BA-37) Project.

Identification of Potential Issues:

Past projects in this area have had landowner issues, but most major landowners in the area have expressed their support of the project. Pipelines in Little Lake borrow area are a potential issue.

Preliminary Construction Costs:

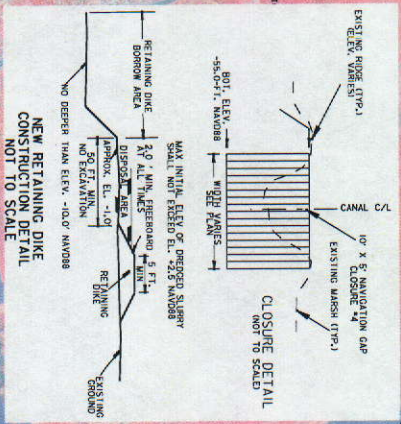
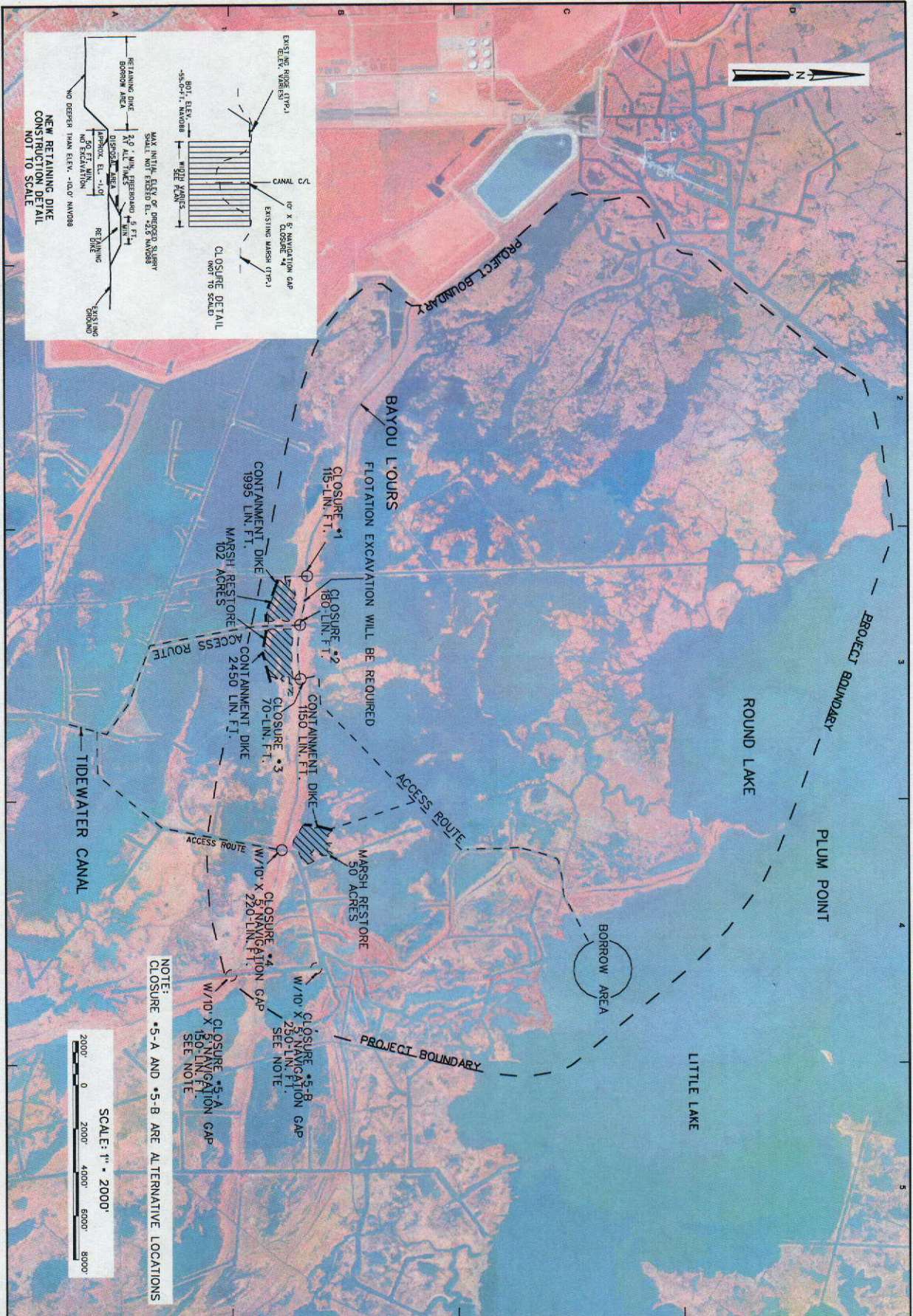
Construction costs are estimated to be approximately \$13.9 million.

Preparer(s) of Fact Sheet:

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SHEET IDENTIFICATION
C-01
 1 of 1

BAYOU L'OURS RIDGE RESTORATION AND MARSH CREATION
 LAFOURCHE PARISH, LA

DESIGNED BY:	DATE:
DRAWN BY:	REVISION:
CHECKED BY:	CONTRACT NO.:
SUBMITTED BY:	FILE NUMBER:
FILE NAME:	DATE:
PROJECT DATE:	DATE:
PROJECT NO.:	DATE:
PROJECT NAME:	DATE:
PROJECT NO.:	DATE:
PROJECT NAME:	DATE:



PPL17 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name

Homeplace Marsh Creation

Coast 2050 Strategy

Coastwide Strategy. Dedicated dredging for wetland creation

Louisiana's Comprehensive Master Plan for a Sustainable Coast

From page 52 of the Master Plan, "One way to accelerate the benefits of diversions would be to mechanically restore lost marsh by pumping sediments via pipeline from the bed of the Mississippi River, offshore, or from navigation channels. Combining land sustaining diversions and this type of mechanical marsh restoration could rapidly convert open water to wetlands and help the restored marsh remain viable. Pipeline conveyance of sediment is seen as a particularly good option for areas like Myrtle Grove and West Point a la Hache, where the Master Plan recommends siting land sustaining diversions. Together, diversions and pipeline conveyance of sediment could rebuild marsh quickly areas where land loss has reached crisis level."

See Figure 10, page 57 of the Master Plan (attached).

Project Location

Region 2, Barataria Basin, Plaquemines Parish, near Homeplace, west of hurricane protection levee.

Problem

What problem will the project solve? The marsh located between the hurricane protection levee and Bay Lanaux / Bay de la Cheniere is severely degraded; the lack of healthy marsh at this location poses a threat to the hurricane protection levee. The proposed marsh creation / marsh nourishment will help protect the levee.

What evidence is there for the nature and scope of the problem in the project area? 2005 aerial imagery confirms the deteriorated of marsh west of the hurricane protection levee.

Goals

Create 400 acres of marsh and nourish 400 acres of marsh between the hurricane protection levee and Bay Lanaux / Bay de la Cheniere. The proposed marsh creation/nourishment will help protect the levee.

Proposed Solution

400 acres of marsh creation and 400 acres of marsh nourishment. Material for marsh creation/nourishment will be excavated from the Mississippi River. The potential establishment of a permanent pipeline for sediment delivery to surrounding areas will be investigated.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? 800 acres created and/or nourished.
- 2) How many acres of wetlands will be protected/created over the project life? 800 acres
- 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%). Not yet determined
- 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. The created and nourished marsh will re-establish the hydrologic function of the former Bayou de la Cheniere ridge.
- 5) What is the net impact of the project on critical and non-critical infrastructure? The created/nourished marsh will reduce the fetch west of the hurricane protection levee.
- 6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? The project will complement other efforts to establish / nourish marshes west of the Mississippi River – Mississippi River Sediment Delivery- Bayou Dupont; West Bay Sediment Diversion, Lake Hermitage Marsh Creation.

Identification of Potential Issues

The proposed project has the following potential issues: no issues presently identified.

Preliminary Construction Costs

\$24 million

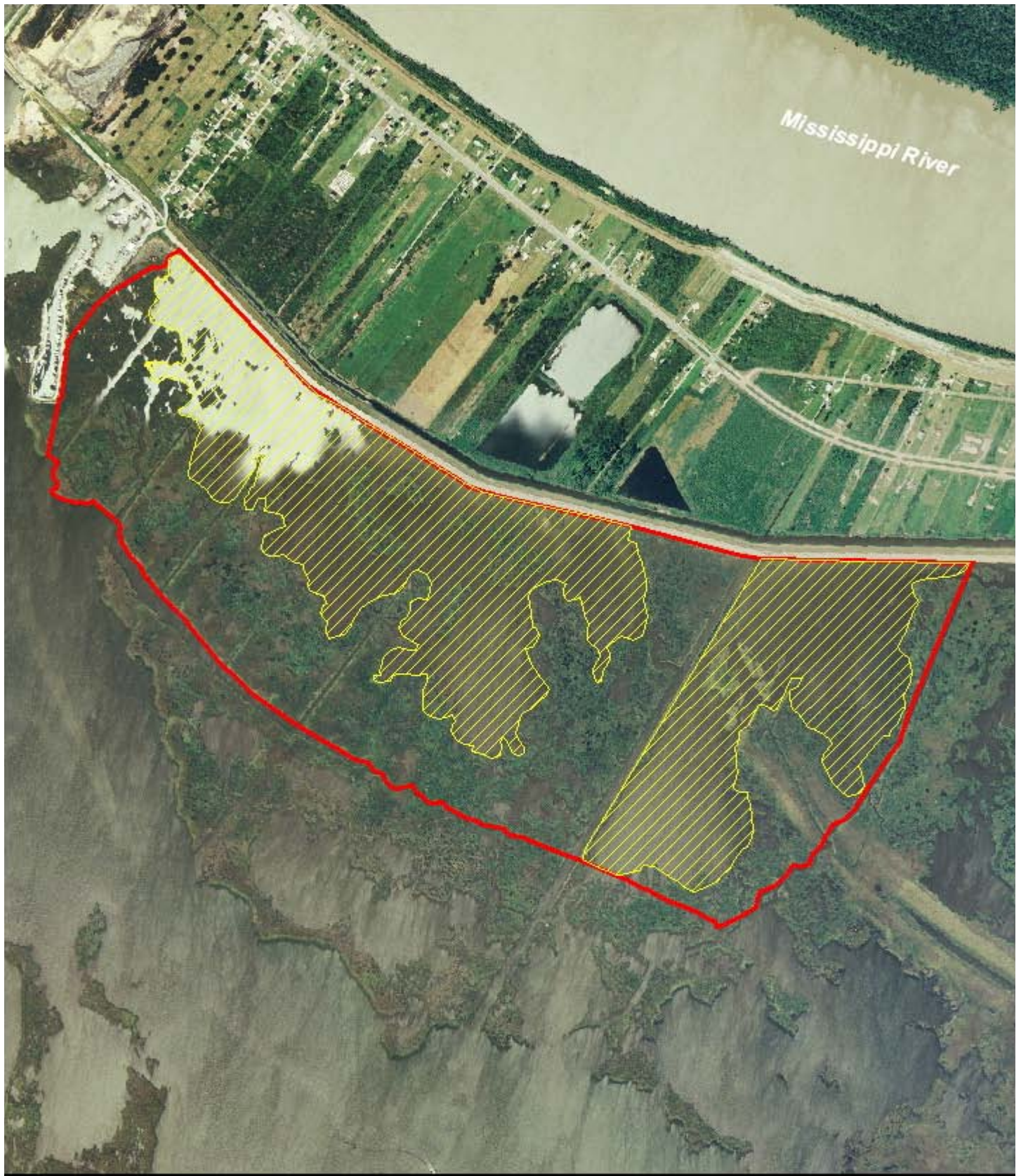
Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

225-382-2047

quin.kinler@la.usda.gov



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



Data Source:
2007 DOQQ Aerial Photography

Map Date: February 6, 2008



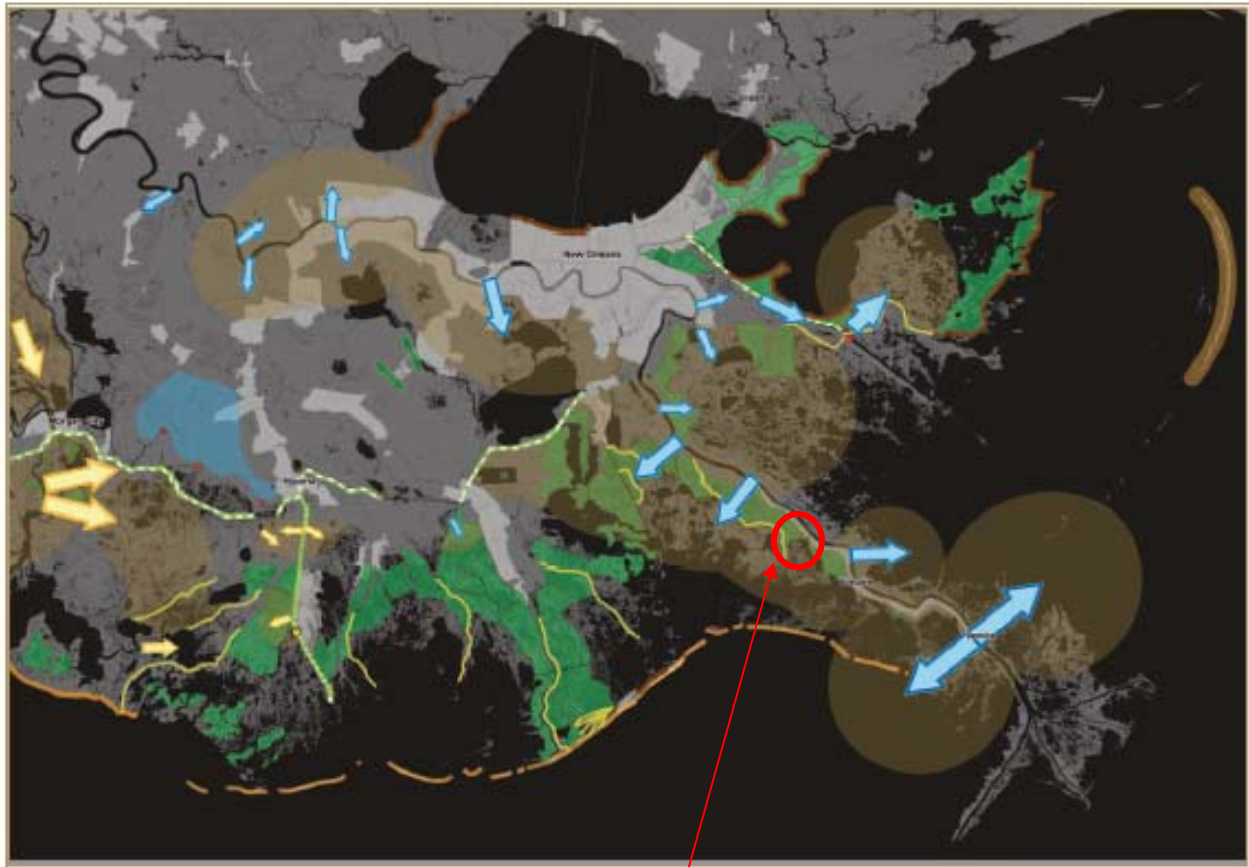
Homeplace Marsh Creation Plaquemines Parish, Louisiana ~796 Acres

Legend

-  Marsh_Creation
-  Project_Boundary



**Modified From: Louisiana's Comprehensive Master Plan
for a Sustainable Coast, p. 57**




Marsh Restoration using
Dredged Material

- Maintain and Restore the Breton Sound Marshes
- Maintain and Restore Biloxi Landbridge and Barrier Reefs
- St. Tammany Marsh Restoration
- Central Wetlands Restoration
- Marsh Restoration using Dredged Material at Golden Triangle
- East Orleans Landbridge Restoration
- Marsh Restoration using Dredged Material in Barataria Basin
- Mississippi River Diversion at Myrtle Grove with Dedicated Dredging
- Mississippi River Diversion at Point a la Hache with Dedicated Dredging
- Marsh Restoration in Terrebonne Basin
- Marsh Restoration at Point Au Fer Island
- Maintain Landbridge between Calhou Lake and Gulf of Mexico
- Beneficial use of Dredged Material

PPL17 PROJECT NOMINEE FACT SHEET
February 21, 2008

Project Name

East Golden Meadow Marsh Creation

Coast 2050 Strategy

Region 2 Strategy#16. Dedicated dredging and/or beneficial use of dredged material to create marsh in Clovelly, Little Lake, Caminada Bay and Fourchon mapping units.

Louisiana's Comprehensive Master Plan for a Sustainable Coast

From page 52 of the Master Plan, "The Master Plan also proposes marsh restoration projects that are not directly associated with river diversions. Such projects are recommended in Lafourche and Terrebonne Parishes where it is difficult to access river water and sediment for natural land building. In areas like these, using dredged material may be the most viable technique for restoring wetlands."

See Figure 10, page 57 of the Master Plan (attached)

Project Location

Region 2, Barataria Basin, Lafourche Parish, East of Golden Meadow near hurricane protection levee.

Problem

What problem will the project solve? There is virtually no marsh remaining in the near vicinity of the hurricane protection levee; the lack of marsh causes the levee to be completely exposed to wind generated waves. The proposed marsh creation will help protect the levee.

What evidence is there for the nature and scope of the problem in the project area? 2005 aerial imagery confirms the absence of marsh east of the hurricane protection levee.

Goals

Create 222 acres of marsh just to the east of the hurricane protection levee. The proposed marsh creation will help protect the levee. (Possible addition of 65 acres of marsh creation, pending landowner approval.)

Proposed Solution

222 acres of marsh creation. Material for marsh creation will be excavated from nearby open water area. (Possible addition of 65 acres of marsh creation, pending landowner approval.)

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? 222 acres created; undetermined acres more secure inside hurricane protection levee. (Possible addition of 65 acres of marsh creation, pending landowner approval.)

2) How many acres of wetlands will be protected/created over the project life? 222 acres (Possible addition of 65 acres of marsh creation, pending landowner approval.)

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%). All the marsh is gone—the created marsh will represent newly created land.

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. The new marsh will be built parallel and perpendicular to Bayou Raphael and Bayou L'Ours ridges, thereby partially restoring their hydrologic function.

5) What is the net impact of the project on critical and non-critical infrastructure? Newly created marsh will reduce the fetch east of the hurricane protection levee.

6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? Despite the severe land loss problem and the threatened condition of the hurricane protection levee, the nearest restoration project (Little Lake Shoreline Protection/Dedicated Dredging) is located a few miles away.

Identification of Potential Issues

The proposed project has the following potential issues: no issues presently identified.

Preliminary Construction Costs

\$ 10 million. (Possible addition of \$2.8 million, pending landowner approval of additional 65 acres of marsh creation)

Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

225-382-2047

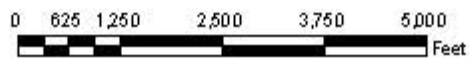
quin.kinler@la.usda.gov



Legend	
	Existing_Spoil_Bank
	Existing_Marsh_Edge
	Need_Containment_Dike
	Borrow_Area

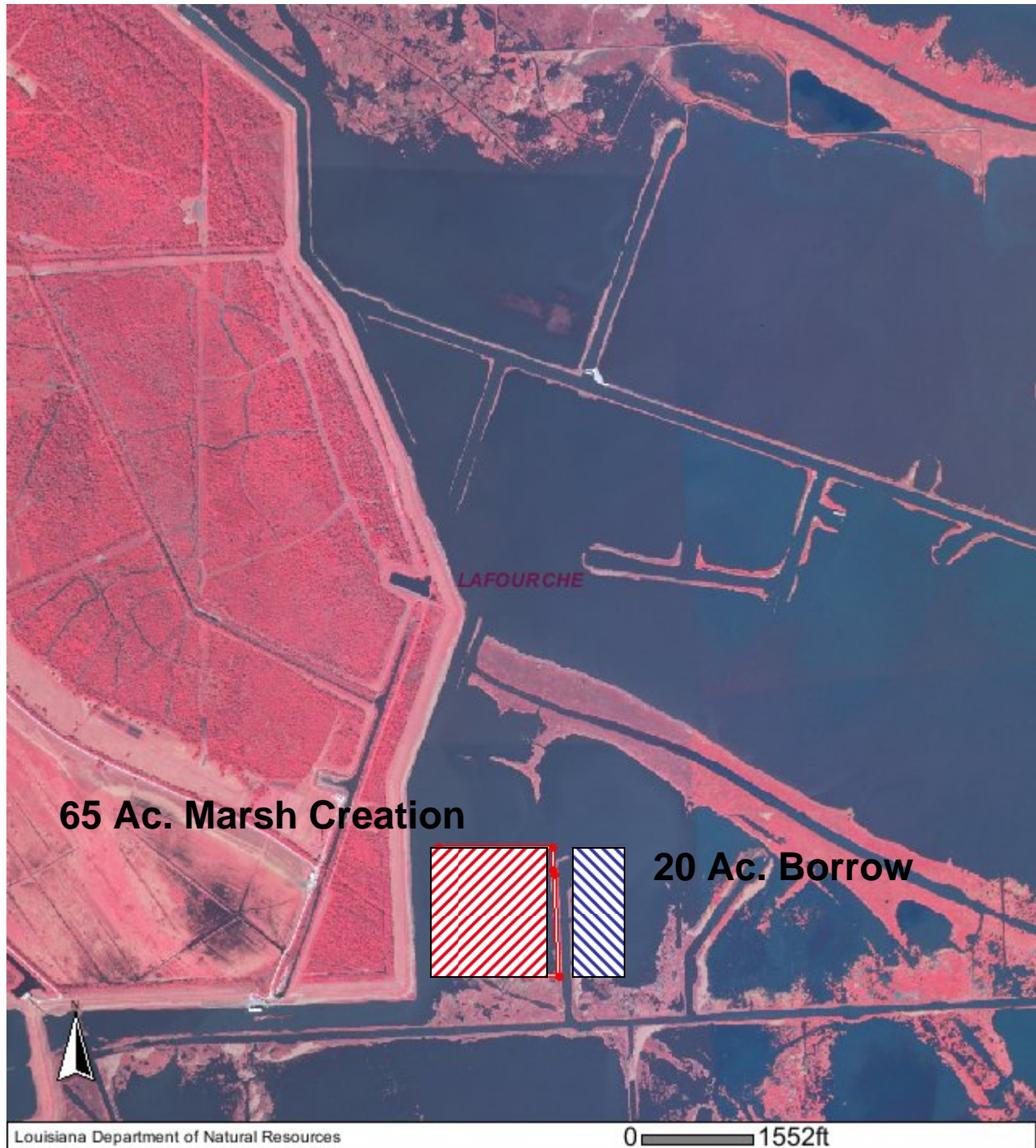


East Golden Meadow Marsh Creation
 Lafourche Parish, Louisiana
 PPL -18



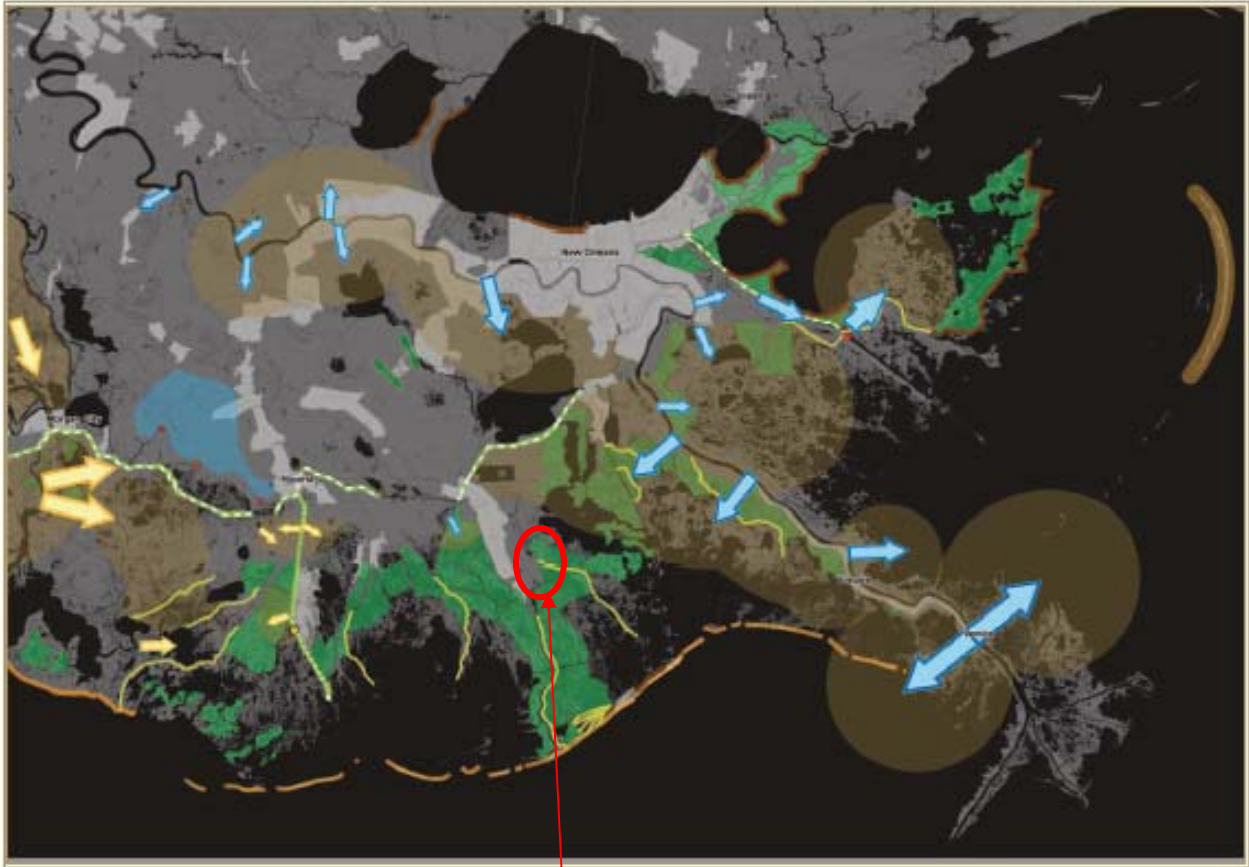
2005 D00Q

**Possible Addition to East Golden Meadow MC
(pending landowner approval)**



Estimated Additional Construction Cost = \$2.8 M

**Modified From: Louisiana's Comprehensive Master Plan
for a Sustainable Coast, p. 57**




Marsh Restoration using
Dredged Material

- Maintain and Restore the Breton Sound Marshes
- Maintain and Restore Biloxi Landbridge and Barrier Reefs
- St. Tammany Marsh Restoration
- Central Wetlands Restoration
- Marsh Restoration using Dredged Material at Golden Triangle
- East Orleans Landbridge Restoration
- Marsh Restoration using Dredged Material in Barataria Basin
- Mississippi River Diversion at Myrtle Grove with Dedicated Dredging
- Mississippi River Diversion at Point a la Hache with Dedicated Dredging
- Marsh Restoration in Terrebonne Basin
- Marsh Restoration at Point Au Fer Island
- Maintain Landbridge between Calhou Lake and Gulf of Mexico
- Beneficial use of Dredged Material

PPL18 PROJECT NOMINEE FACT SHEET
February 15, 2008

Project Name:

Lake Boeuf Hydro Restoration

Coast 2050 Strategy:

Coast wide Strategy: Management of pump and gravity-flow outfall for wetland benefits

Region 2 Strategy: 2. Restore natural drainage patterns in the upper basin swamps

Project Location:

Region 2, Barataria Basin , Lafourche Parish, South of Lake Boeuf, on Lake Boeuf WMA and Sam Foret and Theriot Canal

Problem:

High nutrients are introduced directly in to Lake Boeuf via the Sam Foret and Theriot Canal which in turn causes algae blooms in the lake.

Goals:

Increase productivity and regeneration of cypress swamp

Increase surface water flows through swamp and restore natural drainage patterns

Decrease nutrient loading to Lake Boeuf

Proposed Solutions:

Construct gaps in the existing bank along Sam Foret Canal to allow water to flow into adjacent forested swamp during high water levels. Degrade the existing bank along the Theriot Canal to the surrounding marsh elevation to allow water to flow through the marsh during high water levels. The project may also include a weir structure at the mouth of both canals if the project shows that there will not be adverse effects to upstream drainage

Preliminary Project Benefits:

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

~ 1,000 acres of forested freshwater swamp benefited directly

~ 2,000 acres benefited indirectly by improving the quality of Lake Boeuf

2) How many acres of wetlands will be protected/created over the project life?

~ 1,000 acres protected

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?

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.?

Project restores historic water flow through forested freshwater swamp. Bayou Boeuf, west of Sam Foret Canal, historically provided the freshwater flows into Lake Boeuf.

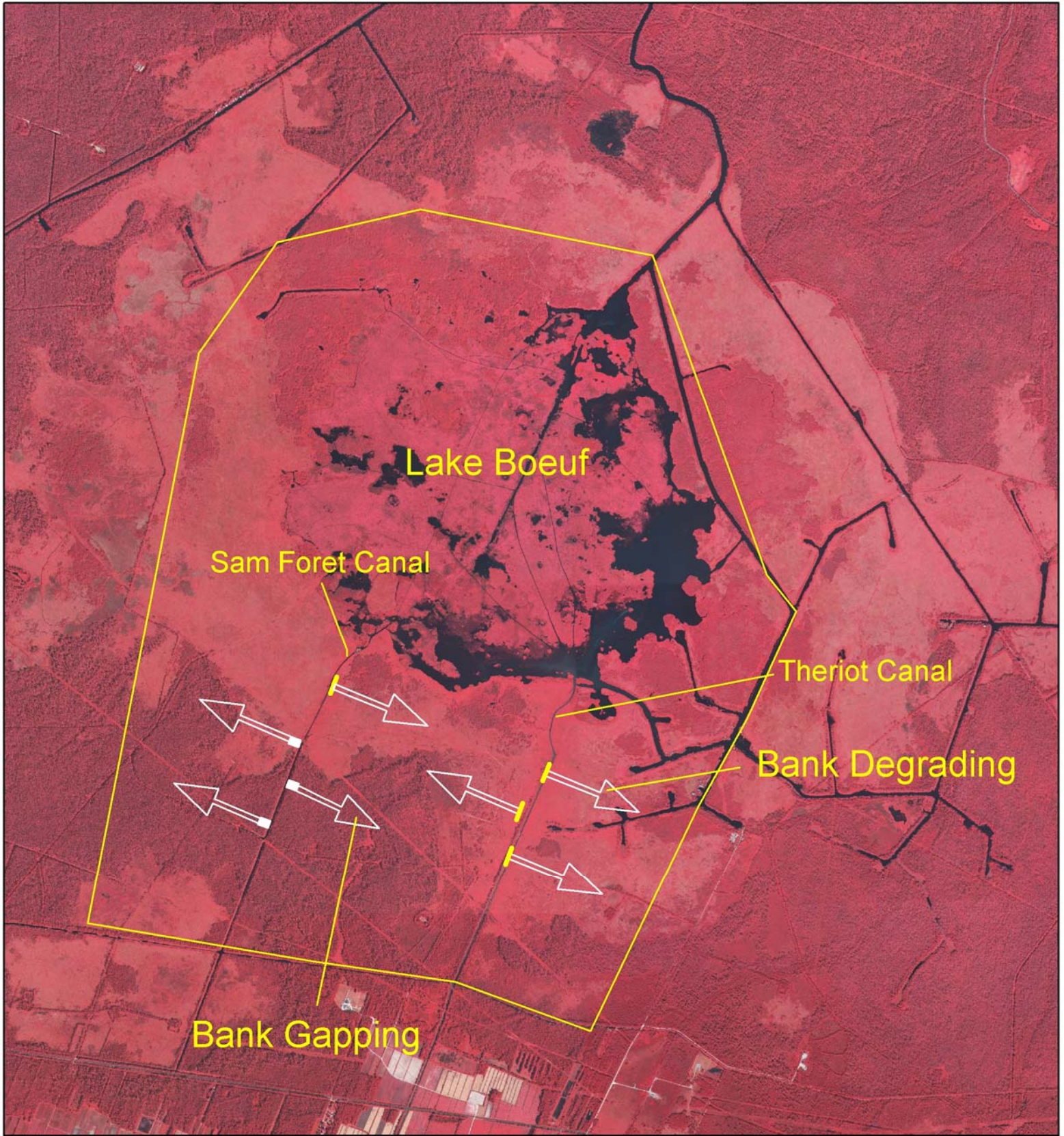
Preliminary Construction Costs:

< \$1 million.

Preparer(s) of Fact Sheet:

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Nathan Dayan, USACE, 504 862 2530; Nathan.S.Dayan@usace.army.mil



Lake Boeuf

Sam Foret Canal

Theriot Canal

Bank Degrading

Bank Gapping



0 2,000 4,000 8,000 Feet

PPL 18
Region 2

Lake Boeuf Hydro- Restoration

PPL17 PROJECT NOMINEE FACT SHEET

February 21, 2008

Project Name:

Southwestern Canal Marsh Creation and Nourishment

Coast 2050 Strategy:

Coastwide Strategy –Dedicated dredging to create, restore, or protect wetlands

Regional Strategy – Dedicated delivery and/or beneficial use of dredged material to create marsh in the Clovelly, Little Lake, Caminada Bay, or Fourchon Mapping Units

Project Location:

Region 2, Barataria Basin, Lafourche Parish, located east of Leeville along the southern shoreline of the Southwestern Canal south of Lake Jesse and west of South of Lake.

Problem:

The project will create and nourish saline marsh in the Caminada Bay Mapping Unit in locations and configuration that historically existed. This will reduce the wave fetch and unimpeded exchange with the Southwestern Canal between Bayou Lafourche and Bayou Ferblanc. The 1974 to 2005 and more specifically the 1998 to 2005 photography show the rapid loss of wetlands in this location in increasing expanses of open water areas in the interior. The 1983 to 1990 loss for the Caminada Mapping Unit is - 2.4%/year.

Goals :

The project goal is to create approximately 222 acres of saline marsh and nourish approximately 40 acres of existing, but fragmented and subsiding marsh.

Proposed Solutions:

The project would create approximately 222 acres of saline marsh via confined disposal and nourish approximately 40 acres of existing, but fragmented and subsiding marsh. Sediment would be mined from open water areas south of the disposal areas or potentially from Bay Lizette. At this stage, an earthen dike along Southwestern Canal is all that is included, but options for armoring could be considered but do not seem necessary with the type and amount of vessel traffic.

Preliminary Project Benefits:

1) A total of 262 acres of saline marsh would be benefited both directly and indirectly. 2) The project would result in 181 net acres at target year 20. 3) The anticipated loss rate reduction throughout the area of direct benefits over the project life 50-74%. 4) The marsh creation is specifically sited to restore the rim of Lake Jesse and South Lake. 5) The project will have a net positive on non-critical infrastructure (pipelines and minor navigation channels). 6) The project has synergy with the adjacent mitigation projects for the LA1 Improvements Project.

Identification of Potential Issues:

The proposed project has the following potential issues: utilities and pipelines and land rights (*have not verified whether landrights could present an issue as with the adjacent de-authorized Leeville Marsh Creation Project*).

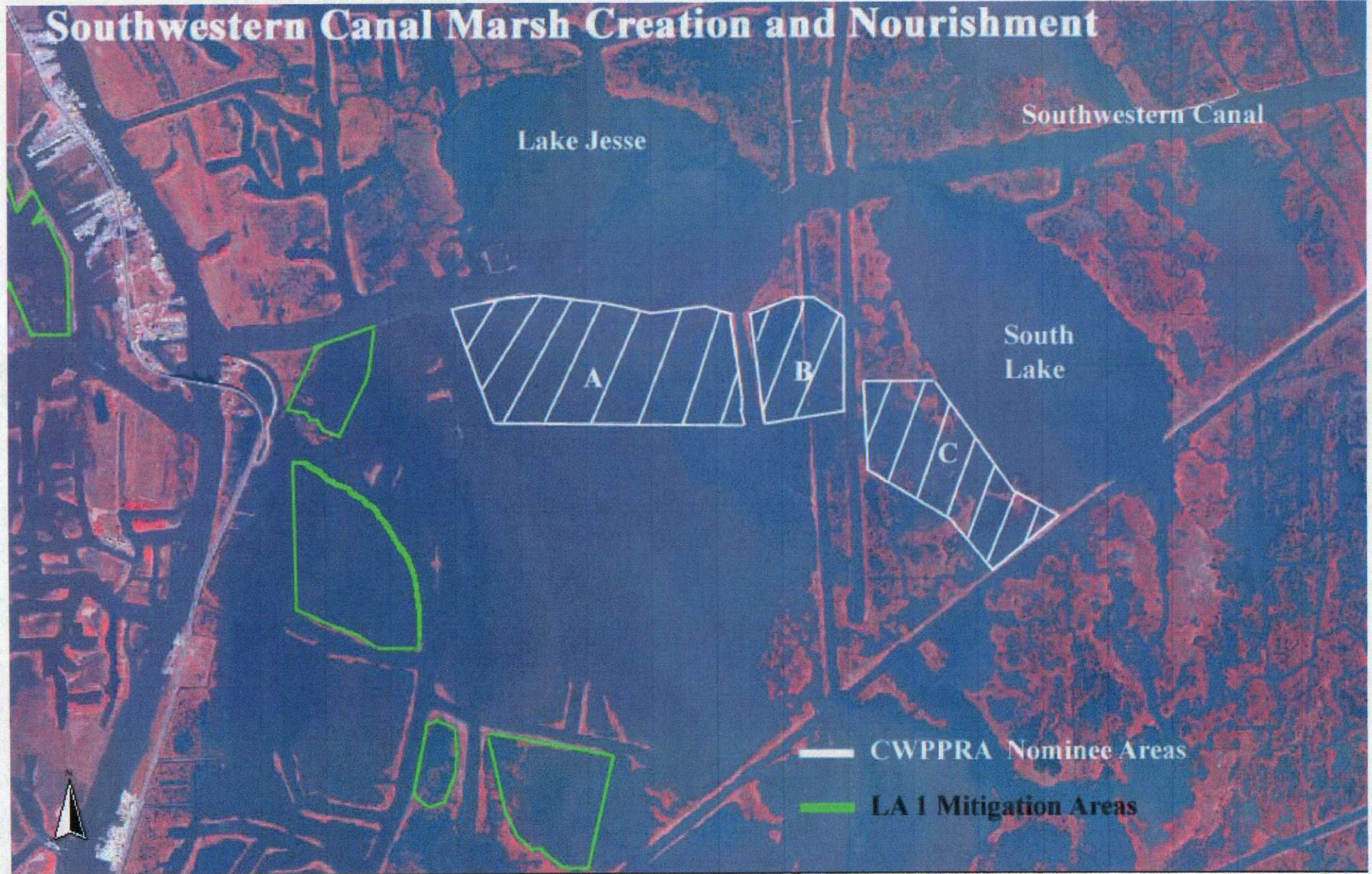
Preliminary Construction Costs:

The lump sum construction cost including 25% contingency is \$14.9M

Preparer(s) of Fact Sheet:

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Southwestern Canal Marsh Creation and Nourishment



**PPL18 Nominee
Grand Liard Marsh and Ridge Restoration
21 February 2008**

Coast 2050 Strategy:

- Dedicated dredging to create, restore or protect wetlands
- Off-shore and Riverine Sand and sediment delivery systems
- Vegetative Plantings

Project Location:

Region 2, Barataria Basin, Plaquemines Parish, Bastian Bay and Grand Liard mapping units, vicinity of Triumph

Problem:

The Bastian Bay and Grand Liard mapping units were historically structured by a series of north south bayous and associated ridges (i.e., Bayou Long, Dry Cypress Bayou). Currently, the majority of these bayou ridges have eroded. The Grand Liard ridge is the most prominent remaining ridge, and separates the open bays of the Bastian Bay and Grand Liard mapping units. Land loss projections suggest that the remaining bayou bank wetlands will be completely converted to open water by 2050. The USGS land loss rate for 1988 to 2005 is 4.0%/yr and. The rate of subsidence for the Grand Liard mapping unit is 2.1 to 3.5 ft/century.

Goals:

Project goals include 1) creating/nourishing marsh and associated edge habitat for aquatic species through pipeline sediment delivery, and 2) restoring the Grand Liard ridge to reduce wave and tidal setup and provide fallout habitat for neotropical migrant birds. Specific phase 0 goals include creating about 340 acres saline marsh, nourishing 140 acres of saline marsh and constructing about 20,000 linear feet (about 30 acres) of maritime ridge habitat.

Proposed Solution:

Approximately 340 acres of marsh would be created and 140 acres nourished with an initial fill elevation of +2.76 ft NAVD88. Sediment would be dredged from the Mississippi River and placed in confined disposal areas east of Grand Liard Bayou. A ridge feature would be constructed on the east bank of Grand Liard Bayou with sediment dredged from the bayou. The ridge would have a 20-foot crown width at +6 feet NAVD. The marsh creation area would be planted with plugs of smooth cordgrass. The ridge would be planted with appropriate woody vegetation to be coordinated with NRCS.

Identification of Potential Issues:

The proposed project would involve mining sediment from the Mississippi River.

Preliminary Project Benefits:

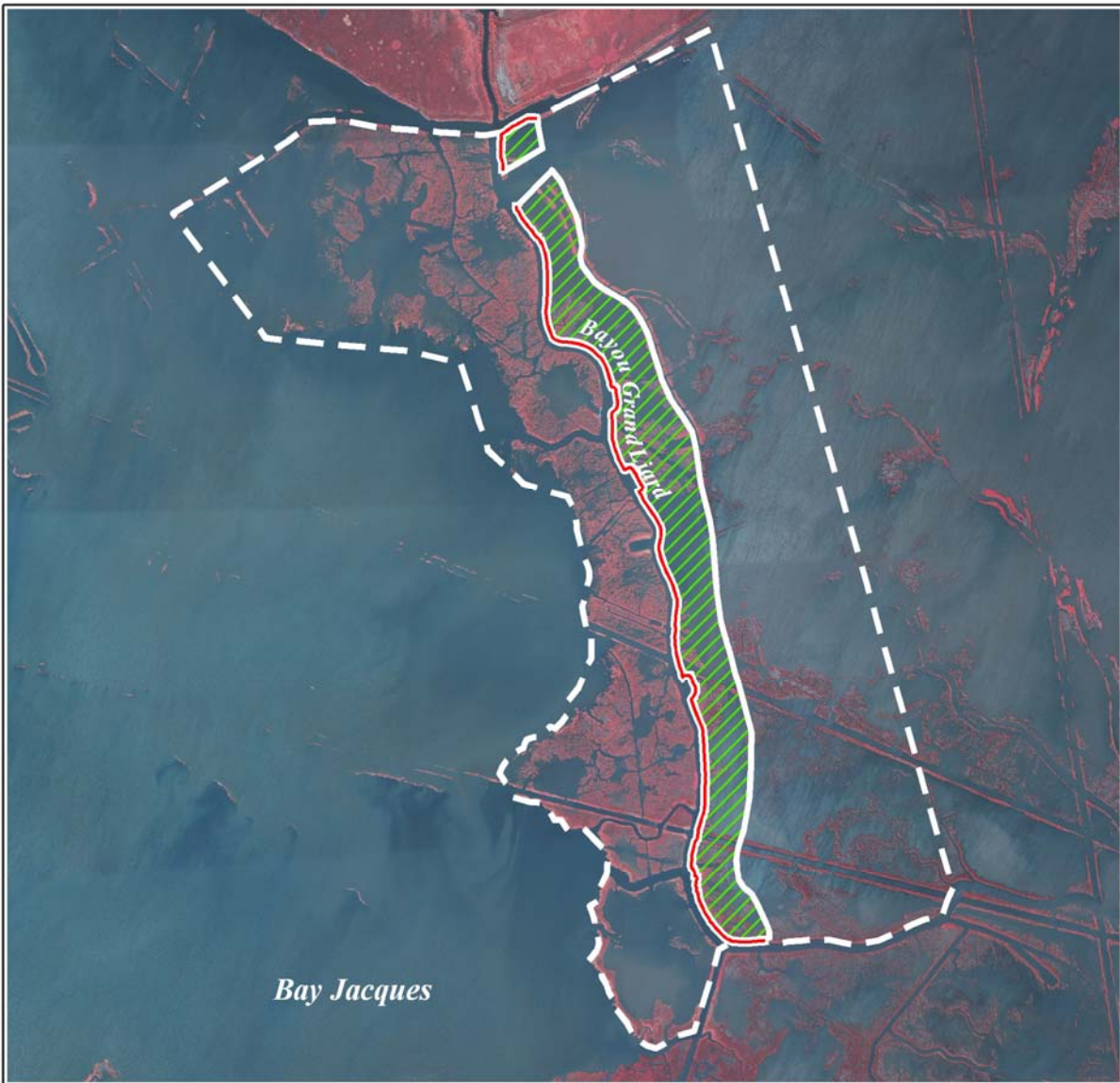
The project would benefit about 513 acres of saline marsh, natural levee ridge, and open water. Approximately 247 acres of marsh and 31 acres of natural levee ridge would be created/protected over the 20-year project life.

Preliminary Construction Costs:

The estimated construction cost + 25% contingency is \$27,000,000.

Preparers of Fact Sheet:

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Grand Liard Marsh and Ridge Restoration (PPL16 Project Candidate)



-  Ridge Restoration *
-  Marsh Creation *
-  Project Boundary
-  Extended Project Boundary

* denotes proposed features



Scale: 1:42,500



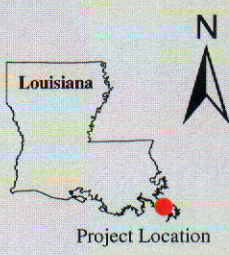
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, LA




Map ID: USGS-NWRC 2006-11-0495
Map Date: August 01, 2006

Image Source:
2005 Digital Orthophoto Quarter Quadrangle

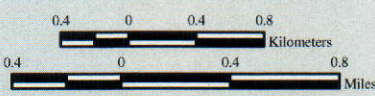


**Grand Liard Marsh and Ridge Restoration
(PPL18 Nominee)**



-  Ridge Restoration *
-  Marsh Creation *
-  Project Boundary

* denotes proposed features



Scale: 1:42,500



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

Map Date: August 01, 2006

Image Source:
2005 Digital Orthophoto Quarter Quadrangle

PPL18 Nominee
Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation
21 February 2008

Coast 2050 Strategy:

Regional strategy 21 – extend and maintain barrier headlands, islands, and shorelines
Chenier Ronquille mapping unit strategy 15 – restore ridge function

Project Location:

Region 2, Barataria Basin, Plaquemines Parish

Problem:

Chenier Ronquille is the most westerly extent of the lower Plaquemines shoreline and serves as the western anchor of that shoreline system. The area is undergoing severe shoreline erosion, with an estimated average rate of about 36 feet/year (range 10 feet/year to 78 feet/year). The western tip of the landform has translocated over 600 feet northeast between 1998 and 2005. Continued shoreline erosion has caused the shoreline to intersect open water areas, resulting in overwash and tidal inlet formation.

Goals:

The project goal is to maintain shoreline integrity and create and restore saline marsh.

Proposed Solutions:

Dedicated dredging from nearshore Gulf deposits to create saline marsh in open water areas and nourish existing marshes in project area. Through fill management, coarser grained materials will be sorted along the shoreline to restore a continuous sandy shoreface. Consideration will be given to restoring maritime ridge that previously existed. Sand fencing and vegetative plantings will be used.

Preliminary Project Benefits:

The project will benefit about 310 acres of saline marsh and barrier shoreline. It is estimated that 115 net acres will be benefited over the project life through a reduction in background loss rates by between 25 – 49%. The project would maintain barrier shoreline landscape features. The project is not anticipated to have impacts to infrastructure. The project could have positive synergistic effects with the recently implemented Chaland Headland project.

Identification of Potential Issues:

The proposed project has the following potential issues: sand source.

Preliminary Construction Costs:

Construction costs are estimated at \$21,000,000 with 25% contingency

Preparer(s) of Fact Sheet:

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**Marsh creation (105 acres)
and nourishment (205 acres)**

Shoreline nourishment

