

REGION 2

Coastal Wetlands Planning Protection & Restoration Act

23rd Priority Project List



Region 2 Regional Planning Team Meeting

January 31, 2013
New Orleans, LA

CWPPRA

1. Welcome and Introductions



- RPT Region 2 Leader: [Brad Inman - USACE](#)

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Announcements

- Copies of the PPL 23 Selection Process & Schedule available at the sign-in table.
- PPL 23 RPT meetings to accept project nominees:
 - Region IV, Vermilion LSU Ag Center, Jan. 29, 2013, 11:00 am
 - Region III, Morgan City Auditorium (W Concourse), Jan. 30, 2013, 9:00 am
 - Region I, New Orleans Corps of Engineers, Jan. 31, 2013, 8:00 am
 - **Region II, New Orleans Corps of Engineers, Jan. 31, 2013, 11:30 am**
- Coastwide Electronic Vote to select project nominees for all basins:
 - February 19, 2013 by 10:30 am
 - The new voting process will be explained later in the presentation
- Parish representatives must identify themselves during the RPT meetings and **fill out a voting registration form**, including contact information for the primary and secondary voting representatives that will cast votes during the Coastwide Electronic Vote.
- CWPPRA agencies will be assigned responsibilities for preparing nominee fact sheets after the Coastwide Electronic Vote.



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Region 2 Parishes

- Eligible parishes for basins in Region 2 include:
- **Barataria Basin**
 - **Plaquemines Parish**
 - **Jefferson Parish**
 - **Orleans Parish**
 - **Ascension Parish**
 - **Assumption Parish**
 - **St. James Parish**
 - **St. Charles Parish**
 - **Lafourche Parish**
 - **St. John the Baptist Parish**
- **Breton Sound Basin**
 - **Plaquemines Parish**
 - **St. Bernard Parish**



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2. PPL 23 Process and Ground Rules



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RPT Meetings

- Jan. 29-31, 2013 to accept project and demo proposals in 4 coastal regions broken into 8 basins (no limit on number of projects that can be proposed).
- Project proposals should be consistent with the 2012 State Master Plan.
- A project can only be nominated in one basin (except for coastwide projects – more info on coastwide projects after the following “RPT Meetings” slide).
- Proposals that cross multiple basins, excluding coastwide projects, shall be nominated in one basin only, based on the majority area of project influence.
- Coastwide projects apply across basin boundaries; their benefits are not tied to one basin. They can be nominated from any basin and can be presented in all RPT meetings.



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RPT Meetings

- Project presenters can split multi-basin or coastwide projects into multiple individual projects. This must occur during the RPT meeting where the project is first presented. If a presenter does not choose a basin from which to propose a project, the RPT leaders, in conjunction with the CWPPRA Planning & Evaluation (P&E) Committee, will decide collectively after the RPT meetings but before the Coastwide Electronic Vote.
- Presenters must complete a PPL 23 Nomination Sign-Up Sheet for each project nominee (demo projects too).
- Public comments on project proposals will be accepted orally during the RPT meetings and in writing by February 8, 2013.
- Limit project proposals to 5 minutes and Powerpoint presentations to 5 slides.
- Limit comments/questions during meeting to PPL 23 subject proposals and processes.



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Coastwide Electronic Vote

- Feb. 19, 2013: Coastwide Electronic Vote
- RPTs, consisting of CWPPRA agencies & coastal parishes, will select 4 nominees per basin in Barataria and Terrebonne, 3 nominees per basin in Breton Sound and Pontchartrain, 2 nominees per basin in Mermentau, Calcasieu-Sabine, and Teche-Vermilion, 1 nominee in the Atchafalaya Basin, plus 6 demos. If proposed, 1 coastwide may be chosen for inclusion as a nominee.
- CWPPRA agencies and parishes will electronically submit their ranked votes by basin.
- Parishes vote only in basins they occupy. Parishes vote on all demonstration and coastwide projects.



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Nominee Project Evaluations

- Following the Coastwide Electronic Vote, an agency will be assigned to each project to prepare a Nominee Project factsheet (1 page + map).
- CWPPRA Engineering & Environmental Workgroups review draft features and assign preliminary cost and benefit ranges.
- Work groups will also review demo & coastwide projects and verify that they meet PPL 23 criteria.
- CWPPRA Planning and Evaluation Committee prepares cost/benefit summary matrix for Technical Committee.



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PPL 23 Candidate Project Selection

- CWPPRA Technical Committee meeting, April 16, 2013 at 9:30 am, New Orleans District Corps of Engineers.
- Technical Committee ranks nominees and votes to select 10 candidate projects and up to 3 demos.
- Written public comments should be submitted to Corps of Engineers prior to Tech Comm meeting by April 2, 2013.
- Public comments also accepted orally during meeting.
- Technical Committee will assign CWPPRA agencies to develop Phase 0 candidate projects.



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PPL 23 Candidate Project Evaluation

- Candidates evaluated between May and October
- CWPPRA Workgroups
 - Workgroups conduct site visits and meetings to identify needs and establish project baselines and boundaries.
 - Environmental Workgroup WVA meetings to calculate benefits.
 - Engineering Workgroup meetings to refine features and project costs.
 - Engineering and Environmental Workgroup meetings to develop demonstration project scopes and costs.
 - Economics Workgroup conducts economic analyses to develop fully funded cost estimates for 20 year project.



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CWPPRA PPL 23 Selection

- 1 public meeting to present Phase 0 evaluation results:
 - Baton Rouge, Louisiana Department of Wildlife and Fisheries (Louisiana Room), Nov. 13, 2013, 7:00 pm
- Technical Committee votes to select up to 4 candidate projects and up to 1 demo to recommend for Phase 1.
 - Dec. 12, 2013, Baton Rouge, 9:30 am
- Task Force final decision to select PPL 23 in January 2014.



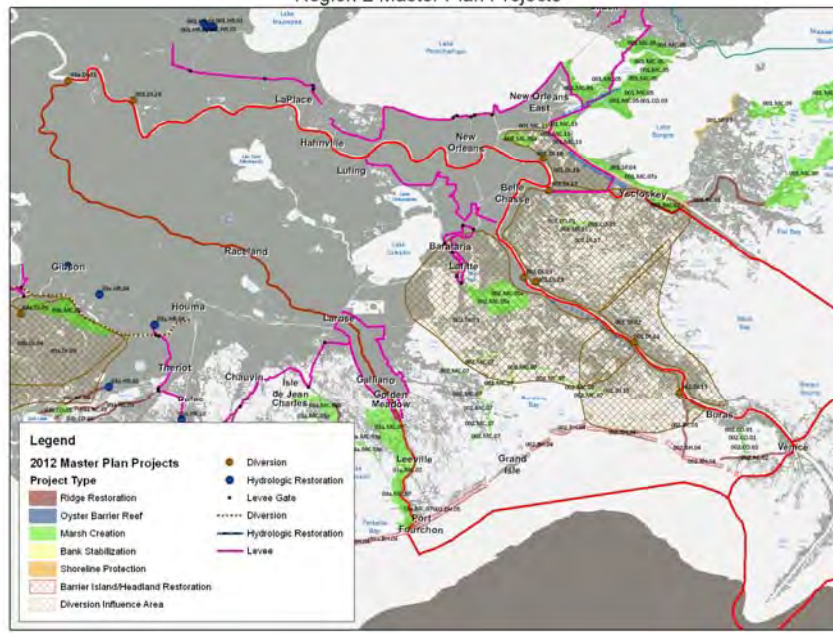
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3. Region 2 – Consistency with the 2012 State Master Plan



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Region 2 Master Plan Projects



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| Project Type | Project Name | Project Costs | Project No. |
|-------------------------------------|---|---------------|-------------|
| Barrier Island/Headland Restoration | Barataria Pass to Sandy Point Barrier Island Restoration: Restoration of Barataria Bay barrier islands between Barataria Pass and Sandy Point to provide dune and back barrier marsh habitat and to provide storm surge and wave attenuation for the Barataria Basin. | \$535M | 002.BH.04 |
| Barrier Island/Headland Restoration | Belle Pass to Caminada Pass Barrier Island Restoration: Restoration of Barataria Bay barrier islands between Belle Pass and Caminada Pass to provide dune, beach, and back barrier marsh habitat and to provide storm surge and wave attenuation for the Barataria Basin. | \$281M | 002.BH.05 |
| Marsh Creation | Grand Liard Marsh/Ridge Restoration: Restoration of 560 acres of marsh and historic ridge in the vicinity of Grand Liard to provide wetland and upland habitat, restore natural hydrology, and provide wave and storm surge attenuation. | \$34M | 002.CO.01 |
| Marsh Creation | Large-Scale Barataria Marsh Creation-Component E (1st Period Increment): Creation of approximately 8,070 acres of marsh in the Barataria Basin to address the Barataria Landbridge to create new wetland habitat, restore degraded marsh, and reduce wave erosion. | \$495M | 002.MC.05e |
| Marsh Creation | Large-Scale Barataria Marsh Creation-Component E (2nd Period Increment): Creation of approximately 8,070 acres of marsh in the Barataria Basin to address the Barataria Landbridge to create new wetland habitat, restore degraded marsh, and reduce wave erosion. | \$1,980M | 002.MC.05e |
| Marsh Creation | Barataria Bay Rim Marsh Creation: Creation of approximately 2,010 acres of marsh along northern rim of Barataria Bay to create new wetland habitat, restore degraded marsh, and reduce wave erosion. | \$216M | 002.MC.07 |
| Marsh Creation | South Lake Lery Marsh Creation: Creation of approximately 450 acres of marsh along the south shore of Lake Lery to create new wetland habitat, restore degraded marsh, and reduce wave erosion. | \$36M | 001.CO.01 |

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| Project Type | Project Name | Project Costs | Project No. |
|--------------------|--|---------------|-------------|
| Ridge Restoration | Bayou Long Ridge Restoration: Restoration of approximately 49,000 feet (110 acres) of historic ridge along Bayou Long/Bayou Fontanelle to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation. | \$37M | 002.RC.01 |
| Ridge Restoration | Spanish Pass Ridge Restoration: Restoration of approximately 53,000 feet (120 acres) of historic ridge along the banks of Spanish Pass near Venice to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation. | \$43M | 002.RC.02 |
| Ridge Restoration | Bayou LaLoutre Ridge Restoration: Restoration of approximately 117,000 feet (270 acres) of historic ridge along Bayou LaLoutre to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation. | \$61M | 001.RC.01 |
| Sediment Diversion | Mid-Barataria Diversion (250,000 cfs- 1st Period Increment): Sediment diversion into mid-Barataria in the vicinity of Myrtle Grove to build and maintain land, maximum capacity 50,000 cfs (modeled at 50,000 cfs when the Mississippi River flow exceeds 600,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation below 200,000 cfs). NOTE: This project is the first implementation period component of a 250,000 cfs diversion to mid-Barataria. The influence area shown is for the total 250,000 cfs project upon completion in the second implementation period. | \$275M | 002.DI.03 |
| Sediment Diversion | Mid Barataria Diversion (250,000 cfs- 2nd Period Increment): Sediment diversion into Mid-Barataria in the vicinity of Myrtle Grove to build and maintain land, 250,000 cfs capacity. NOTE: This project represents the incremental expansion of the 50,000 cfs diversion (002.DI.03) to mid-Barataria (constructed in the 1st Implementation Period) for a total capacity of 250,000 cfs (modeled at 250,000 cfs when Mississippi River flow exceeds 900,000 cfs, at 50,000 cfs for river flows between 600,000-900,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation when river flow is below 200,000 cfs). | \$820M | 002.DI.03a |
| Sediment Diversion | Lower Barataria Diversion (50,000 cfs): Sediment diversion into lower Barataria Bay in the vicinity of Empire, 50,000 cfs capacity (modeled at capacity when Mississippi River flow exceeds 600,000 cfs; modeled at 8% of river flow from 600,000 cfs down to 200,000 cfs; no operation below 200,000 cfs). | \$203M | 002.DI.15 |
| Sediment Diversion | Lower Breton Diversion (50,000 cfs): Sediment diversion into lower Breton Sound in the vicinity of Black Bay to build and maintain land, 50,000 cfs capacity (modeled at 50,000 cfs when Mississippi River flow exceeds 600,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation when river flow is below 200,000 cfs). | \$212M | 001.DI.02 |

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| Project Type | Project Name | Project Costs | Project No. |
|--------------------|--|---------------|-------------|
| Sediment Diversion | Upper Breton Diversion (250,000 cfs): Sediment diversion into upper Breton Sound in the vicinity of Braithwaite to build and maintain land, 250,000 cfs capacity (modeled at 250,000 cfs when Mississippi River flow exceeds 900,000 cfs, at 50,000 cfs for river flows between 600,000-900,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation when river flow is below 200,000 cfs). | \$885M | 001.DI.17 |
| Sediment Diversion | Mid-Breton Diversion (5,000 cfs): Sediment diversion into mid-Breton Sound in the vicinity of White Ditch to build and maintain land, 5,000 cfs capacity (modeled at 5,000 cfs for river flows above 200,000 cfs and no operation below 200,000 cfs). | \$123M | 001.DI.23 |

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4. Coastwide Electronic Vote



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Coastwide Electronic Vote

- **Feb. 19, 2013:** The Coastwide Electronic Vote to select 4 nominees per basin in Barataria and Terrebonne, 3 nominees per basin in Breton Sound and Pontchartrain, 2 nominees per basin in Mermentau, Calcasieu-Sabine, and Teche-Vermilion, and 1 nominee in the Atchafalaya Basin. 1 coastwide project and 6 demos may also be selected.
- Parishes of each basin are asked to ***identify TODAY who will vote*** during the Coastwide Electronic Vote.
- No additional projects can be nominated after the RPTs.
- No significant changes to projects proposed at the first round of RPT meetings will be allowed (this includes combining projects).
- Public comments will be heard today and written comments must be submitted by 2/8/2013.



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Coastwide Electronic Vote

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



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Coastwide Electronic Vote: The NEW Process

- USACE will send out voting sheets as both Excel spreadsheet and PDF documents 1 week prior to the Coastwide Electronic Vote. Voters will only receive voting sheets for the basins that they are eligible to vote for & the column that they need to mark their vote will be highlighted. Voting instructions will be provided with the voting sheets.
- Parish representatives must **fill out a voting registration form** at the RPT meetings with their email addresses to receive the voting sheets in February.
- Voters may either email their voting sheets to allison.murry@usace.army.mil OR fax their voting sheets to 504-862-2572.
All votes must be received by 10:30 am on February 19, 2013.



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5. PPL 23 Project Nominations



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Coastwide Projects

- Proposes a technique applicable across the coast (e.g. vegetative planting)
- Nominated at any RPT meeting
- All coastal parishes & agencies will vote on selection of coastwide nominee
- Only one coastwide nominee may be selected from the coastwide nominee pool during the Electronic Coastwide Vote on February 19, 2013
- The Technical Committee may or may not select a coastwide project in April 2013.



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Demonstration Projects

- Demonstrates a new technology
- Demonstrates a technology which can be transferred to other areas in coastal Louisiana
- Are unique and not duplicative in nature
- Engineering/Environmental Workgroups will validate that demos fit CWPPRA Standing Operating Procedures criteria and select sites for proposed demonstration projects.
- The RPTs select 6 demos during the Feb. 19 Coastwide Electronic Vote.
- The Technical Committee selects up to 3 demos in April 2013.
- Previous demo candidates must be **re-nominated** for PPL 23.



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6. Announcements of Upcoming Meetings



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PPL 23 Timeline

- **Coastwide Electronic Vote, Feb. 19, 2013**
 - 21 basin-project nominees, 1 coastwide nominee, and 6 demos selected
- **Technical Committee Mtg, Apr. 16, 2013, New Orleans**
 - Selection of 10 candidates and up to 3 demos
- **PPL Public Comment Mtg**
 - Nov. 13, 2013, Baton Rouge
- **Technical Committee Mtg, Dec. 12, 2013, New Orleans**
 - Recommend up to 4 projects for Phase 1 funding
- **Task Force Mtg, Jan. 2014, New Orleans**
 - Final Selection of projects for Phase 1 funding



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Written Comments

- Send written comments on projects & demos proposed today to the CWPPRA program manager
- **Deadline: February 8, 2013**

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Fax: 504-862-2572
(Attn: Brad Inman)

Email: Brad.L.Inman@usace.army.mil



Region 2 – BARATARIA BASIN

| Project Number | Project Proposals |
|----------------|--|
| R2-BA-01 | Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection |
| R2-BA-02 | Bay Dosgris Marsh Creation |
| R2-BA-03 | Spanish Pass Marsh and Ridge Restoration |
| R2- BA-04 | Bayou Dupont Sediment Delivery – Marsh Creation 4 |
| R2- BA-05 | Wilkinson Canal Marsh Creation and Nourishment |
| R2- BA-06 | Bayou Lafourche Near Leeville Marsh Creation and Nourishment |
| R2- BA-07 | Caminada Headlands Back Barrier Marsh Creation |
| R2- BA-08 | Bayou Grand Cheniere Marsh and Ridge Restoration |
| R2- BA-09 | Elmer’s Island Restoration |
| R2-BA-10 | Grand Pierre Island Restoration |

Region 2 – BRETON SOUND BASIN

| | |
|---------------------|---|
| R2-BS-01 | Breton Sound Marsh Creation <i>(not consistent with 2012 State Master Plan)</i> |
| R2-BS-02 | Marsh Creation South of Lake Lery |
| R2-BS-03 | Lake Lery – Northshore <i>(not consistent with 2012 State Master Plan)</i> |

Region 2 – BARATARIA BASIN

R2-BA-01

**Northeast Turtle Bay Marsh Creation & Critical Area
Shoreline Protection**

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET

February 8, 2013

Project Name

Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection

Project Location

Region 2, Barataria Basin, Jefferson Parish, northeast of Turtle Bay

Problem

Historic wetland loss in the area occurs in the form of shoreline erosion along Turtle Bay and interior marsh loss. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals. Based on analysis conducted by USGS, loss rates in the area are estimated to be -0.615% per year for the period 1984 to 2011. Shoreline erosion along the northeast shore of Turtle Bay, in the area proposed to be addressed by this project, is approximately 3 to 4 feet per year. While this rate may not seem excessive, this reach of shoreline is very narrow and loss of this shoreline would connect Turtle Bay to a large lagoon, greatly altering the hydrology of the marsh.

Goals

The goals of the project are to 1) create approximately 505 acres of marsh and nourish approximately 254 acres of marsh (759 acres total) with dredged material from the Mississippi River, 2) protect approximately 2,335 feet of critical shoreline, and 3) prevent further enlargement of two primary water exchange points.

Proposed Solution

The proposed project would create approximately 505 acres and nourish approximately 254 acres of marsh using sediment dredged from the Mississippi River. Two types of containment will be utilized for this project: semi-contained and fully contained. For the semi-contained portion, there will be approximately 49 acres of marsh creation and 108 acres of marsh nourishment. For the fully contained portion, there will be approximately 456 acres of marsh creation and 146 acres of marsh nourishment. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands. Approximately 2,335 feet of critical shoreline would be protected and two channel liners would be installed to prevent further enlargement of two primary water exchange points. Maintenance of the shoreline protection feature and channel liners would be included. In case the area does not re-vegetate on its own, the maintenance cost estimate includes funds to plant 25% of the created marsh at Year 3.

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? 759 directly benefitted; indirect benefit not yet determined.

2) How many acres of wetlands will be protected/created over the project life? 492 acres.

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)? The anticipated land loss rate

reduction throughout the area of direct benefits will be 50% over the projects life.

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 would contribute to protection of the Central Barataria Basin Landbridge.

5) What is the net impact of the project on critical and non-critical infrastructure? The communities of Lafitte and Barataria lie to the north of this important landmass which serves to buffer the effect of tropical weather events. Numerous pipelines would benefit from reducing land loss in the area.

6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? This project would work in sync with BA-2, BA-27, BA-20, BA-23, BA-03a, BA-26, BA-36 (and associated CIAP project), and BA-41, contributing to protection of the Central Barataria Basin Landbridge.

Identification of Potential Issues

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

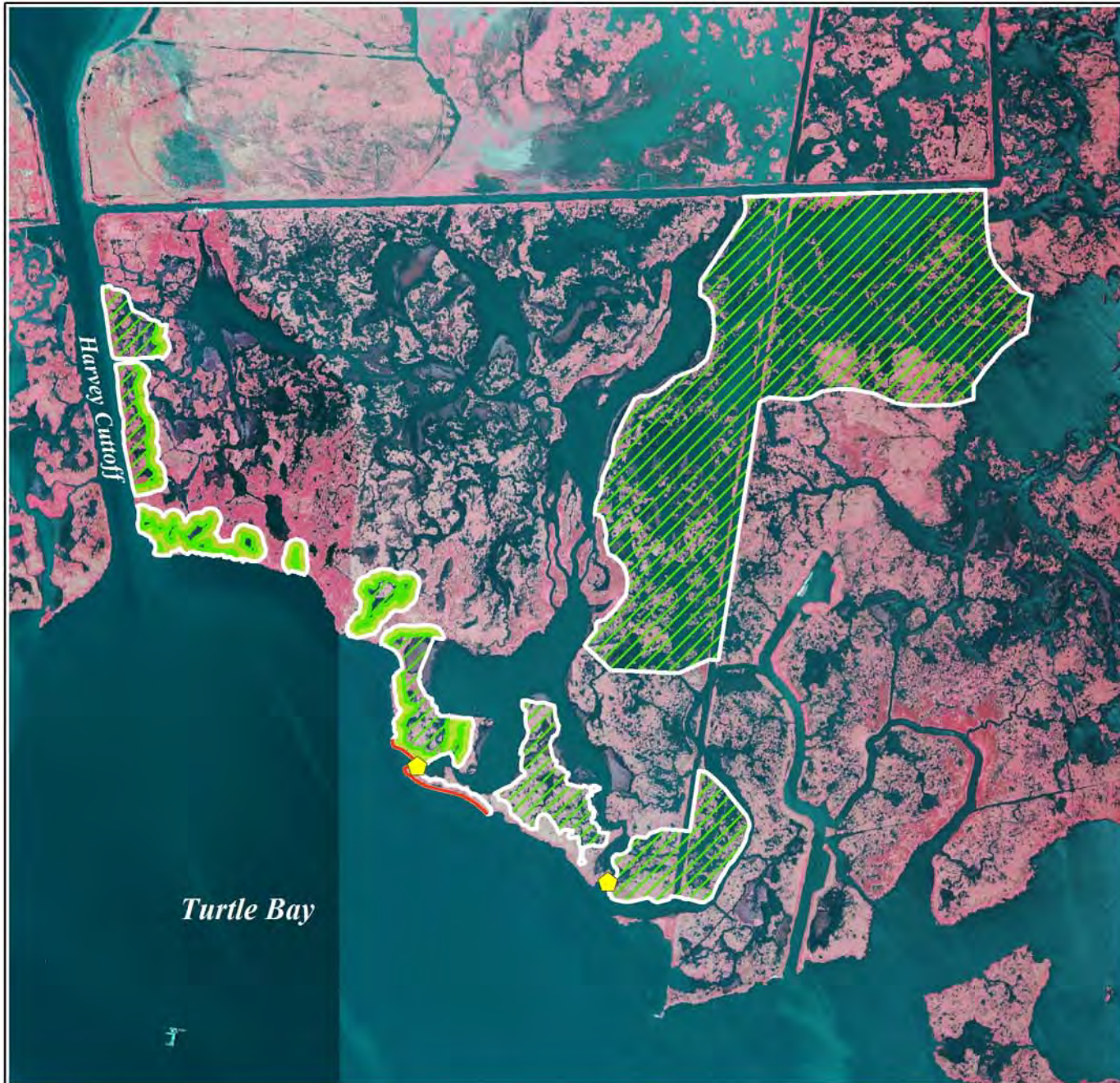
Preliminary Construction Costs

\$ 76.5 million (including 25% contingency). The fully funded cost range is \$95M-\$100M.

Preparers of Fact Sheet:

Quin Kinler, USDA-NRCS, 225-382-2047, quin.kinler@la.usda.gov

Jason Kroll, USDA-NRCS, 225-389-0347, jason.kroll@la.usda.gov

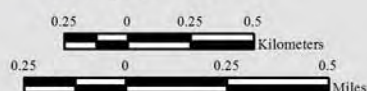


NE Turtle Bay Marsh Creation and Critical Shoreline Protection (PPL23 Nominee)



-  Channel Liner *
-  Shoreline Protection *
-  Marsh Creation *
-  Marsh Nourishment *
-  Project Boundary

* denotes proposed features



Scale: 1:30,000

Map ID: USGS-NWRC 2013-11-0008
Map Date: January 15, 2013

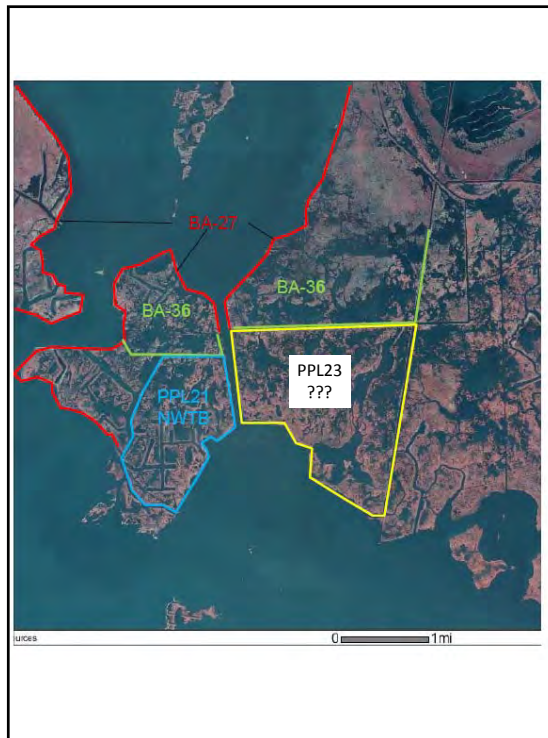
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, LA

Image Source:
2010 NAIP Photography

PPL 23
Regional Planning Team
January 31, 2012

Region 2
Barataria Basin

Northeast Turtle Bay
Marsh Creation and Critical
Shoreline Protection



Problems

- Potential Shoreline Breaches
- Enlargement of Existing Channels
- Water Exchange through Pipeline Canal
- Widespread Loss of Emergent Marsh

Potential Shoreline Breaches



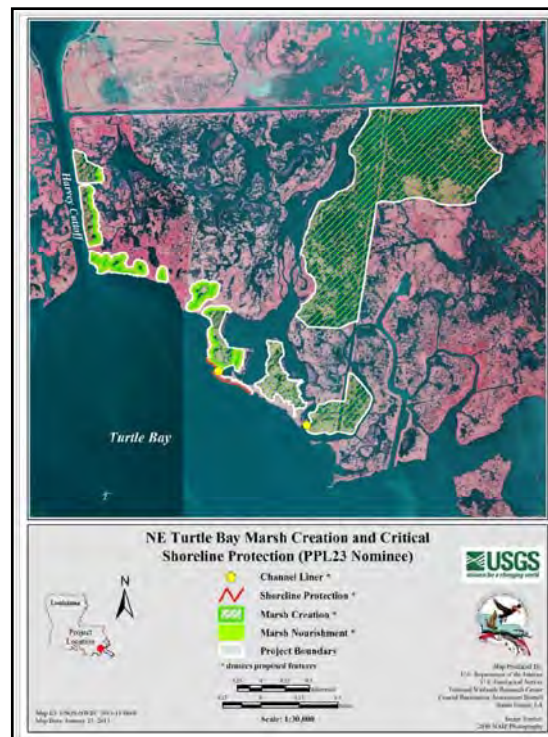
Enlargement of Existing Channels



Water Exchange through Pipeline Canal



Widespread Loss of Emergent Marsh



Northeast Turtle Bay

- 505 acres of marsh creation
- 254 acres of marsh nourishment
- 2,335 feet of critical shoreline protection
- 2 channel liners at primary water exchange points.
- \$ 30.2 million (including 25% contingency) with Turtle Bay borrow site
- \$ 76.5 million (including 25% contingency) with Mississippi River borrow site

R2-BA-02

Bay Dosgris Marsh Creation

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET
February 8, 2013

Project Name

Bay Dosgris Marsh Creation

Project Location

Region 2, Barataria Basin, Jefferson Parish

Problem

Historic wetland loss in the area occurs in the form of interior marsh loss and shoreline erosion along Turtle Bay and Little Lake. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals. The Little Lake Coast 2050 mapping unit land loss rate for the period of 1983 to 1990 was 1.6% per year.

Goals

The goal of the project is to create approximately 213 acres of marsh and nourish approximately 441 acres of marsh (654 acres total) with dredged material from Little Lake.

Proposed Solution

The proposed project would create approximately 213 acres and nourish approximately 441 acres of marsh using sediment dredged from Little Lake. The dredged material would be fully contained. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands. In case the area does not re-vegetate on its own, the maintenance cost estimate will include funds to plant 25% of the created marsh at Year 3.

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? 654 directly benefitted; indirect benefit not yet determined.

2) How many acres of wetlands will be protected/created over the project life? Not yet been determined.

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)? The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the projects life.

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 would help stabilize and contribute to protection of the very fragmented and vulnerable land mass the separates Barataria Bay from Little Lake.

5) What is the net impact of the project on critical and non-critical infrastructure? The communities of Lafitte and Barataria lie to the north of this important landmass which serves to buffer the effect of tropical weather events. Numerous pipelines would benefit from reducing land loss in the area.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* This project would be synergistic with BA-37, contributing to stabilization of the very fragmented and vulnerable land mass the separates Barataria Bay from Little Lake.

Identification of Potential Issues

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

Preliminary Construction Costs

\$ 18.3 million (including 25% contingency). The fully funded cost range is \$20M-\$25M.

Preparers of Fact Sheet:

Quin Kinler, USDA-NRCS, 225-382-2047, quin.kinler@la.usda.gov

Jason Kroll, USDA-NRCS, 225-389-0347, jason.kroll@la.usda.gov




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

Data Source:
2010 Imagery

Map Date: November 6, 2012



Legend

 Open_Water

 Marsh Creation/Nourishment

0 500 1,000 2,000 3,000 4,000
Feet

Bay Dosgris Marsh Creation
Jefferson Parish
PPL 23

PPL 23
Regional Planning Team
January 31, 2012

Region 2
Barataria Basin

Bay Dos Gris
Marsh Creation

Problems

- Widespread Loss of Emergent Marsh
- Shoreline Erosion



Bay Dos Gris

- 213 acres of marsh creation
- 441 acres of marsh nourishment
- \$ 18.3 million (including 25% contingency) with Turtle Bay borrow site
- \$ 54.1 million (including 25% contingency) with Mississippi River borrow site

R2-BA-03

Spanish Pass Marsh & Ridge Restoration

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET
January 31, 2013

Project Name

Spanish Pass Marsh and Ridge Restoration

Louisiana's 2012 Coastal Master Plan

Ridge Restoration – 002.RC.02

Project Location

Region 2, Barataria Basin, Grand Liard mapping unit, Plaquemines Parish

Problem

Widespread land loss throughout the southeastern portion of Barataria Bay has led to an increasingly open and exposed area flanking the west bank of the lower Mississippi River between Empire and Venice. Structural features (continuous marsh landmasses, bayou banklines and barrier shorelines) in this area are limited, and future degradation and fragmentation will increase the vulnerability to losses driven by water level setup/wind-driven waves and storm surges. Wetland loss rates in the applicable mapping unit are -0.77%/ year.

Proposed Solution

The proposed project's primary features are to restore 300 acres of marsh and 10,700 ft of ridge north of Spanish Pass immediately west of Venice. Approximately 4.6 Mcy of material would be dredged from Yellow Cotton Bay to create marsh at a target elevation of +2.0 ft (note that alternative "external" borrow areas in Grand Pass and Pilot Town Anchorage could be evaluated for potential use). Approximately 10,700 ft of earthen ridge would be created north of Spanish Pass. The ridge feature is conceptually envisioned with a 25-foot top width to an elevation of +6 ft, creating about 16 acres of upland/ridge habitat. Marsh fill containment would be provided by both earthen containment dikes and the ridge feature. Constructed containment dikes would be breached/gapped as needed to provide tidal exchange after fill materials settle and consolidate. Vegetative plantings would focus primarily on the ridge feature.

Goals

The project will create and nourish about 300 acres of emergent brackish marsh and 16 acres of upland/ridge ridge.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is approximately 316 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.77%/year, the project would result in 294 net acres after 20 years.
- 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%)?*
A 50% loss rate reduction is assumed for the marsh and ridge features.

- 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 restore structural features associated with ridges and flanking marshes in the Spanish Pass area.

- 5) *What is the net impact of the project on critical and non-critical infrastructure?*

The proposed project would provide potential infrastructure benefits to the Venice area as well as west bank back levees in areas where open bays directly abut levees. The project could also provide positive impacts to oil and gas facilities and infrastructure located adjacent to the project area.

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

The project would be synergistic with the Grand Liard Marsh and Ridge project in further re-establishing the structural framework of southeastern Barataria Bay.

Identification of Potential Issues

The proposed project has potential pipeline issues.

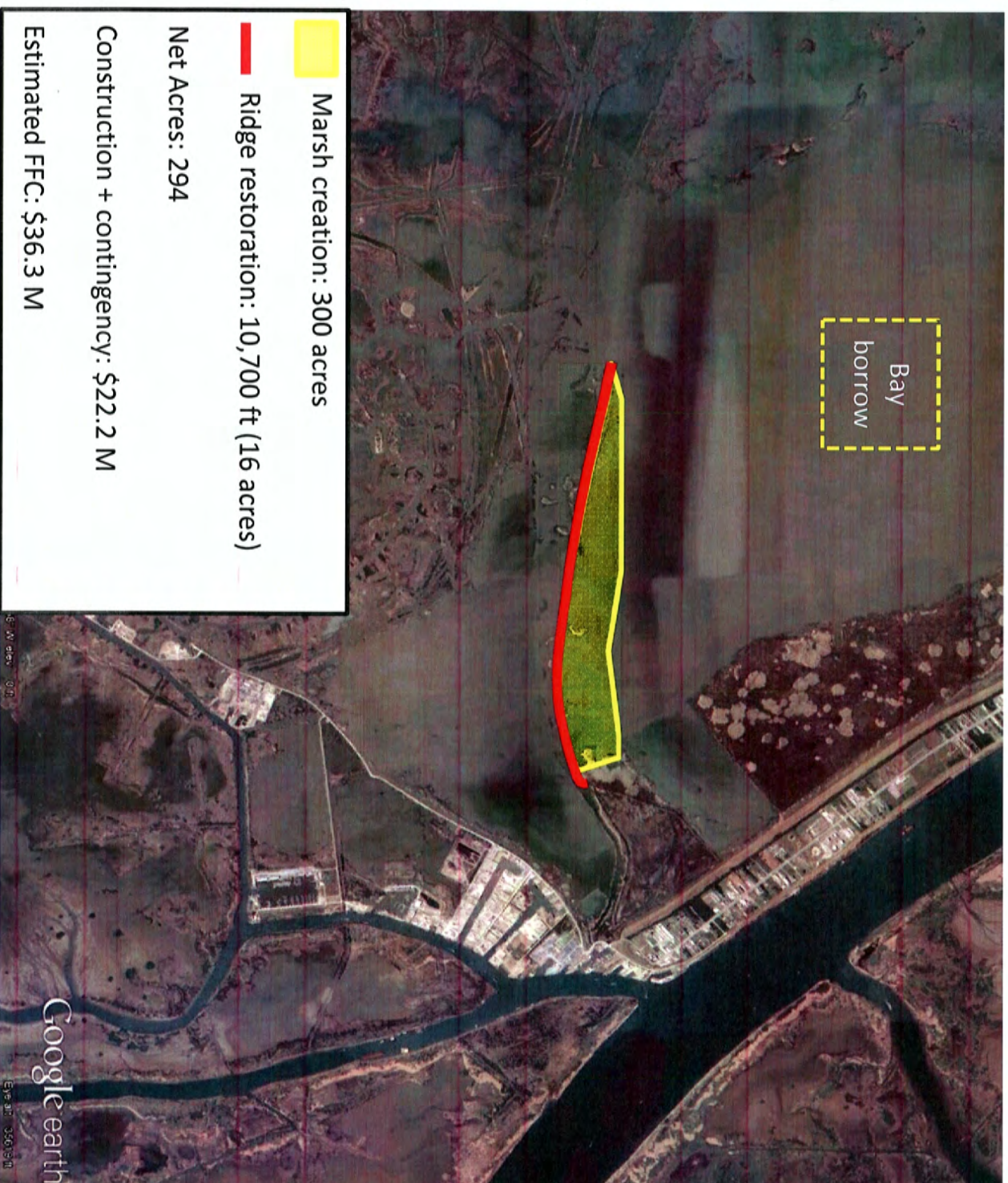
Preliminary Construction Costs

The estimated construction cost, including 25% contingency, is \$28.2 M. The fully funded cost estimate is \$36.3 M.

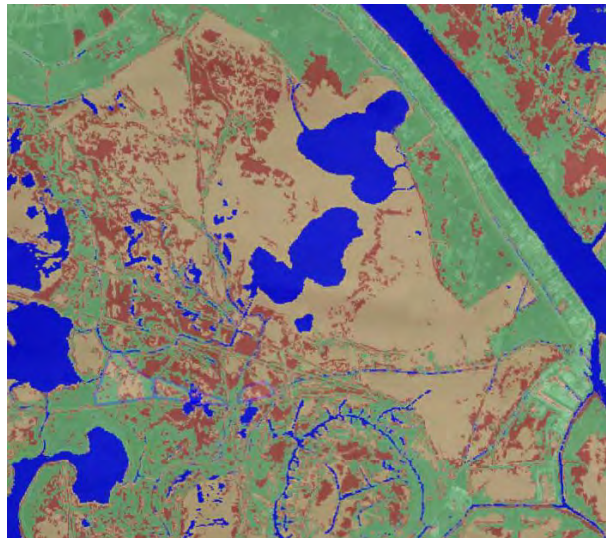
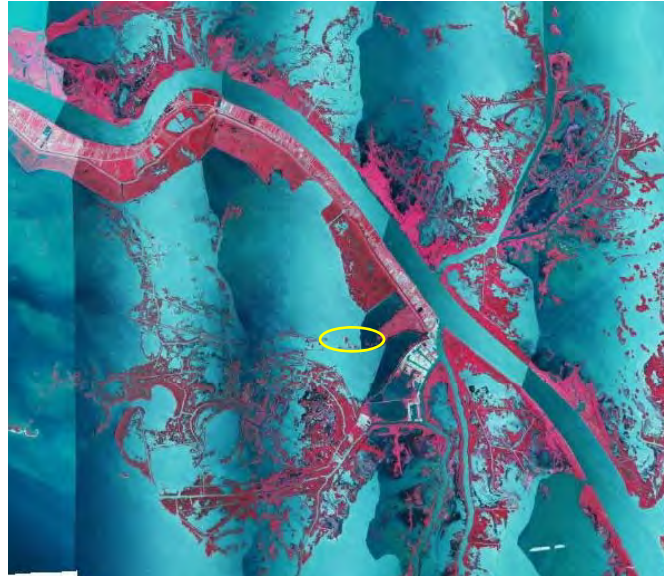
Preparer(s) of Fact Sheet:

Rachel Sweeney, NOAA Fisheries, 225.389.0508 (ext 206), rachel.sweeney@noaa.gov

Spanish Pass Marsh and Ridge Creation

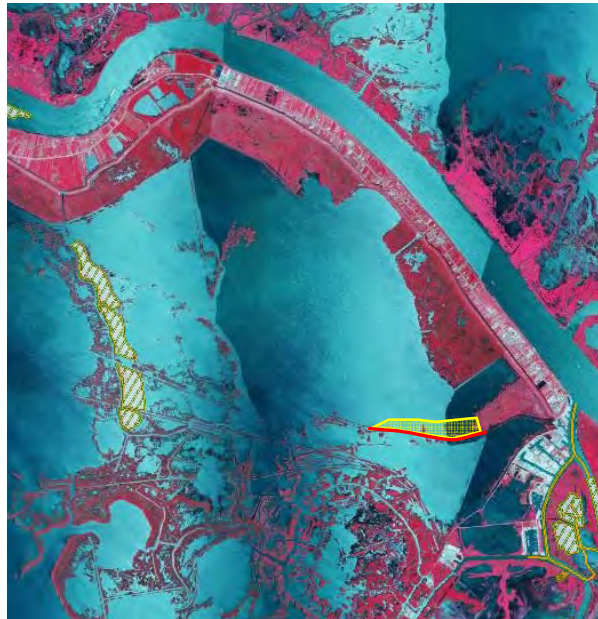
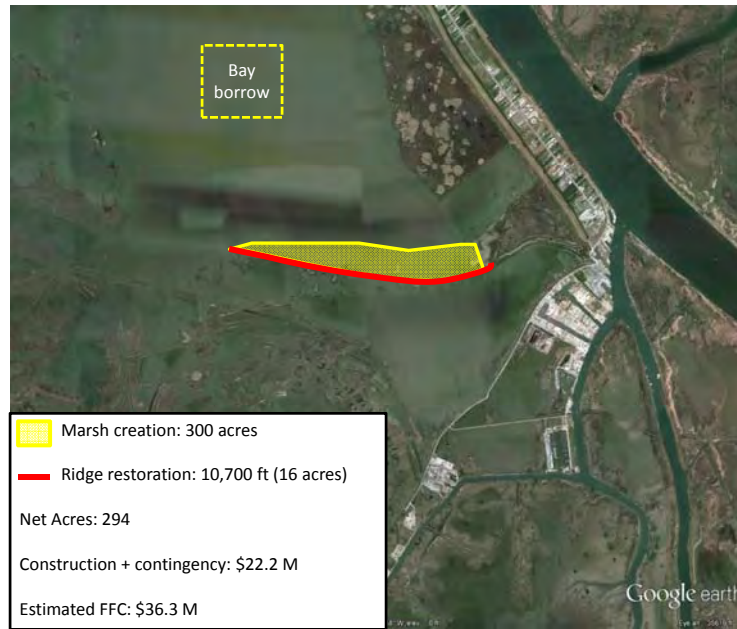


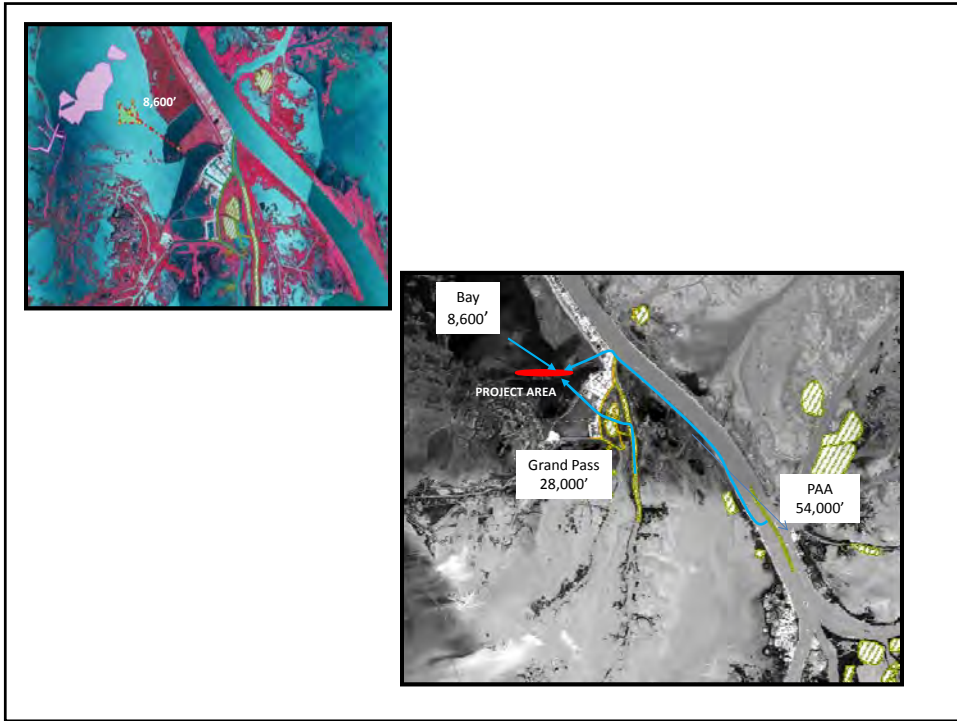
Spanish Pass Marsh and Ridge Creation



Blue: Water 1956 – present
Brown: Land converted to water 1956 – 1988
Red: Land converted to water 1988 - 2008
Green: 2008 land

Spanish Pass Marsh and Ridge Creation





R2-BA-04

Bayou Dupont Sediment Delivery – Marsh Creation 4

Consistent with 2012 State Master Plan

PPL22 PROJECT NOMINEE FACT SHEET

January 31, 2013

Project Name:

Bayou Dupont Sediment Delivery – Marsh Creation 4

Louisiana's Comprehensive Master Plan for a Sustainable Coast

1st Implementation Period. Large Scale Barataria Marsh Creation Component E. 002.MC.05e
Utilization of sediment outside the system from the Mississippi River

Project Location:

Region 2, Barataria Basin, Plaquemines and Jefferson Parishes.

Problem:

The wetlands in the Barataria Basin were historically nourished by the fresh water, sediment and nutrients delivered by the Mississippi River and the many distributary channels. Following the creation of levees along the lower river for flood control and navigation, these inputs ceased. In addition, numerous oil and gas canals in the area contributed significantly to wetland losses. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.

Goals:

The primary goal of this project is to create/nourish approximately 300 ac of emergent intermediate marsh using sediment from the Mississippi River. This project would tie in to the previously constructed BA-39 project and the recently approved PPL22 Bayou Dupont #3 project. The project will also complement the BA-48 project and the State's Long Distance Sediment Pipeline Project.

Proposed Solution:

Creation/nourishment of approximately 300 acres of emergent intermediate marsh by hydraulically pumping sediment from the Mississippi River via pipeline. Tidal creeks and appropriate marsh vegetation will be included (funds are budgeted to plant 50% of the created marsh acres/150 ac) as part of the project concept.

Project Benefits:

The project would result in approximately 300 ac of emergent intermediate marsh.

Project Costs:

The preliminary construction cost plus 25% is \$22.5 Million.

Preparer of Fact Sheet:

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Ken Teague, EPA, (214) 665-6687; teague.ken@epa.gov

Adrian Chavarria, EPA, (214) 665-3103; chavarria.adrian@epa.gov

Bayou Dupont Marsh Creation 4

0 0.8 1.6 2.4 Miles





Bayou Dupont Marsh Creation #4



Coastal Wetlands Planning, Protection
and Restoration Act



Problem

- Marshes disconnected from Mississippi River deltaic processes (sediment, freshwater, nutrients)
- Marsh loss



Coastal Wetlands Planning, Protection
and Restoration Act

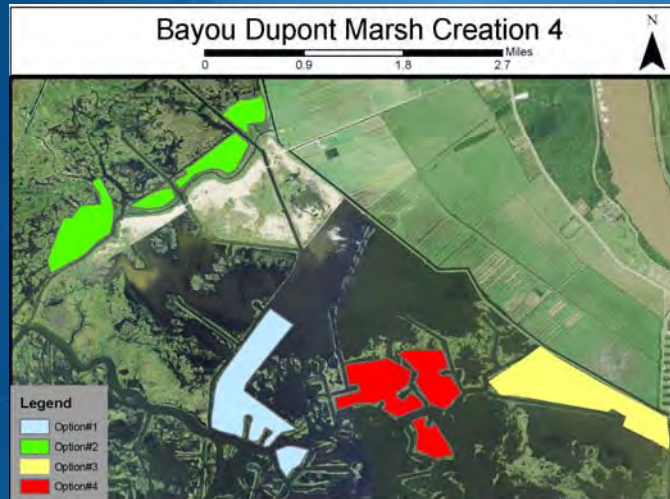
Solution

- Create 300 acres of emergent marsh habitat
- Build upon previous Bayou Dupont success
- Utilize renewable sediment from Mississippi River
- Several alternatives
- Cost \$20 - \$25 million



Coastal Wetlands Planning, Protection
and Restoration Act

Project Features



Coastal Wetlands Planning, Protection
and Restoration Act



Questions?

Paul Kaspar
EPA Region 6
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Before



After



Coastal Wetlands Planning, Protection
and Restoration Act



R2-BA-05

Wilkinson Canal Marsh Creation & Nourishment

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET
January 31, 2013

Project Name

Wilkinson Canal Marsh Creation and Nourishment Project

Louisiana's 2012 Coastal Master Plan

Marsh Creation - 002.MC.05e

Project Location

Region 2, Barataria Basin, Plaquemines Parish

Problem

There is widespread historic and continued rapid land loss within the project site and surrounding areas resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for the Lake Laurier subunit is -0.43%/year based on USGS data from 1995 to 2009. Furthermore, the natural limits of Bayou Dupont are difficult to determine in some areas because land loss is causing the coalescence of the bayou with adjacent water bodies. Natural tidal flow and drainage patterns that once existed through the bayou are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.



Proposed Solution

The proposed project's primary feature is to create and/or nourish existing marsh. In order to achieve this, sediment will be hydraulically pumped from a borrow source in the Mississippi River (near the Myrtle Grove area). Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, the newly constructed marsh will be planted following construction to stabilize the platform and reduce time for full vegetation.

The restoration concept provides for the creation and/or nourishment of approximately 480 acres help reestablish the banks of Bayou Dupont while also providing protection to the flood protection levee.

Goals

The project goal is to create and/or nourish up to 480 acres of emergent brackish marsh.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 480 acres.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.43%/year, the marsh creation and nourishment would result in 416 net acres after 20 years (assuming 432 of marsh creation and 48 acres of marsh nourishment at construction).
- 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%)?*
A 50% loss rate reduction is assumed for the marsh creation, and marsh nourishment. (from -0.43%/year to -0.22%/year).
- 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 help provide restore a portion of Bayou Dupont while also providing protection to the flood protection levee.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will provide protection to the flood protection levee. Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project may have direct synergy with the Bayou Dupont Sediment Delivery System (BA-39), Bayou Dupont Marsh and Ridge Creation (BA-48), Mississippi River Long Distance Sediment Pipeline (BA-43EB), and Bayou Dupont Sediment Delivery System – Marsh Creation 3 projects.

Identification of Potential Issues

The proposed project has potential utility/pipeline and navigational issues.

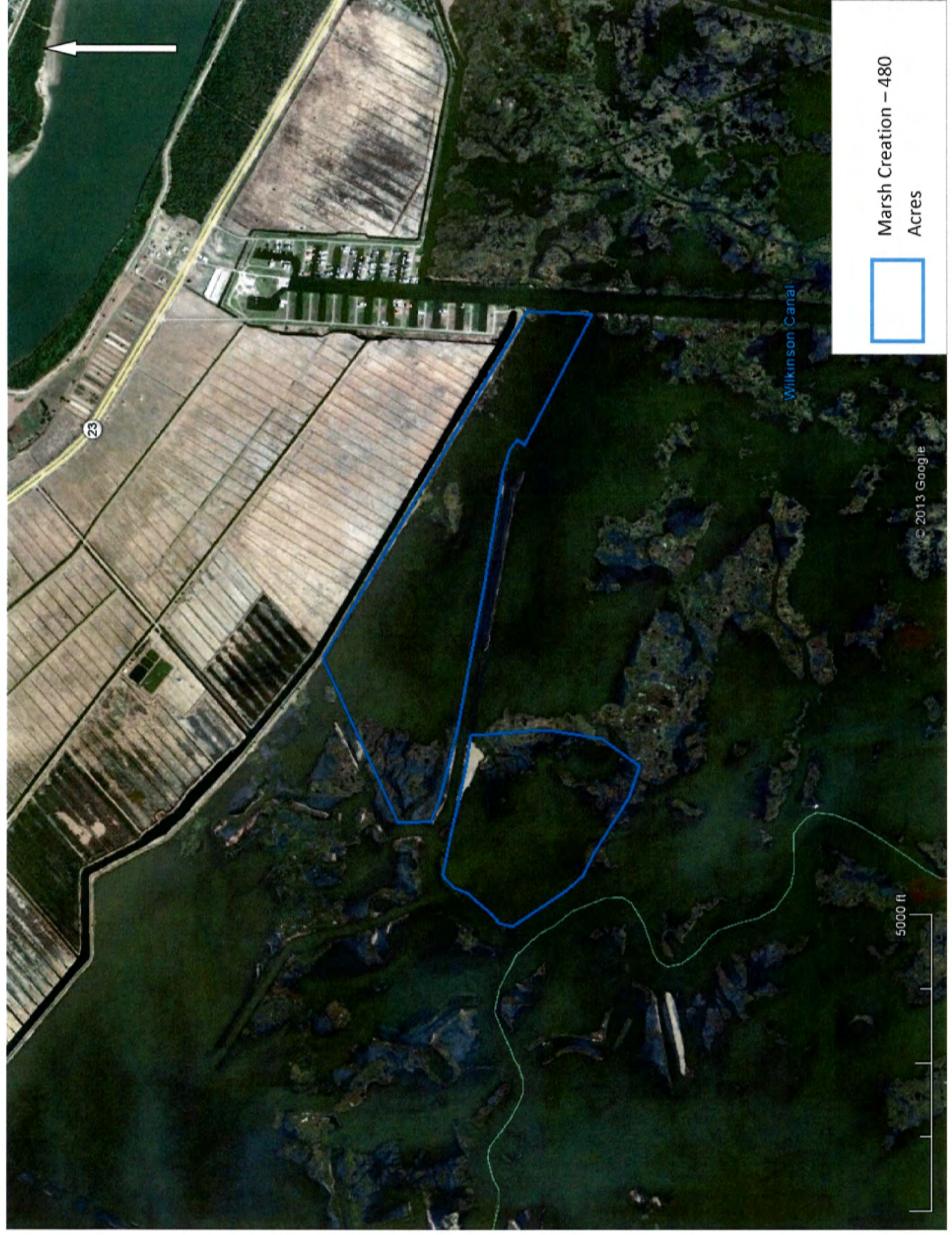
Preliminary Construction Costs

The estimated construction cost including 25% contingency is approximately \$28.9 million. The fully funded cost estimate ranges between \$35-40M.


Preparer(s) of Fact Sheet:

Phillip Parker, NMFS, 225-578-8341, phillip.parker@noaa.gov

PPL 23: Wilkinson Canal Marsh Creation Project (Plaquemines Parish)

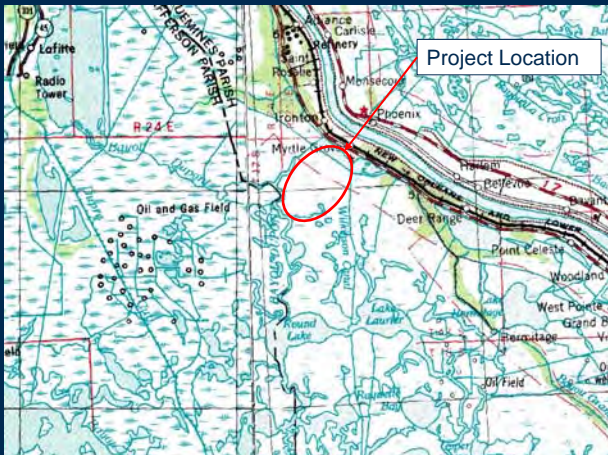


Science, Service, Stewardship



Wilkinson Canal Marsh Creation and Nourishment (Plaquemines Parish)

Region II – Barataria Basin




Project Location

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January 31, 2013

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Problem

- High land loss rates in the Barataria Basin
- Wind and tidal erosion due to large open water areas
- Storm induced losses
- Loss of natural limits of Bayou Dupont

CL3

2



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Project Features

- Total Acres = 480 acres
- Reestablishes portion of Bayou Dupont
- Provides protection to Plaquemines flood protection levee
- Borrow from Mississippi River (Myrtle Grove)
- Consistent with State Master Plan
- Construction Cost with 25% contingency = \$28.9 million



R2-BA-06

**Bayou Lafourche Near Leeville Marsh Creation &
Nourishment**

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET
January 31, 2013

Project Name

Bayou Lafourche Near Leeville Marsh Creation and Nourishment Project

Louisiana's 2012 Coastal Master Plan

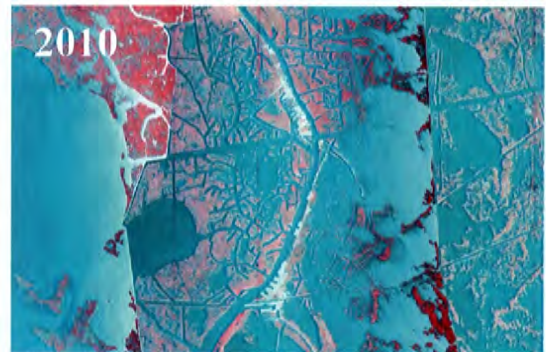
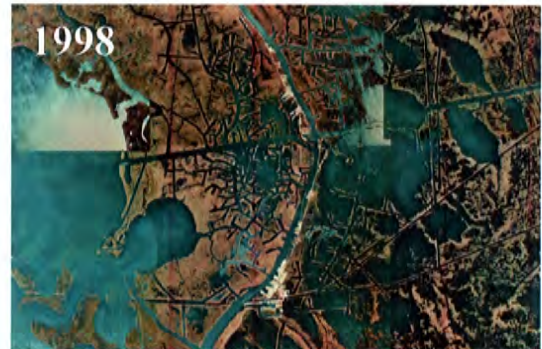
Marsh Creation – 03a.MC.07

Project Location

Region 2, Barataria Basin, Lafourche Parish (primary)
Region 3, Terrebonne Basin, Lafourche Parish

Problem

There is widespread historic and continued rapid land loss within the project site and surrounding areas resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for the Timbalier Bay and Lake Palourde subunit is -0.4%/year and -0.9%/year, respectively, based on USGS data from 1995 to 2009. Furthermore, the natural limits of Southwestern Louisiana Canal are difficult to determine in some areas because land loss is causing the coalescence of the bayou with adjacent water bodies. Natural tidal flow and drainage patterns that once existed through the bayou are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.



Proposed Solution

The proposed project's primary feature is to create and/or nourish existing marsh. In order to achieve this, sediment will be hydraulically pumped from a borrow source in Little Lake. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, the newly constructed marsh will be planted following construction to stabilize the platform and reduce time for full vegetation.

Goals

The project goal is to create and/or nourish up to 440 acres of emergent saline marsh.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 440 acres.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.83%/year (weighted), the marsh creation and nourishment would result in 329 net acres after 20 years (assuming 338 of marsh creation and 102 acres of marsh nourishment at construction).
- 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%)?*
A 50% loss rate reduction is assumed for the marsh creation, and marsh nourishment. (from -0.83%/year [weighted] to -0.42%/year).
- 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 help restore the backside of the natural Bayou Lafourche bank and portions of the Southwestern Louisiana Canal.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage. Facilities along Bayou Lafourche would benefit from marsh creation away from Bayou Lafourche.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This is an area of need due to the lack of previous restoration efforts.

Identification of Potential Issues

The proposed project has potential utility/pipeline issues.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is approximately \$28.0 million. The fully funded cost estimate ranges between \$35-40M.


Preparer(s) of Fact Sheet:

Phillip Parker, NMFS, 225-578-8341, phillip.parker@noaa.gov

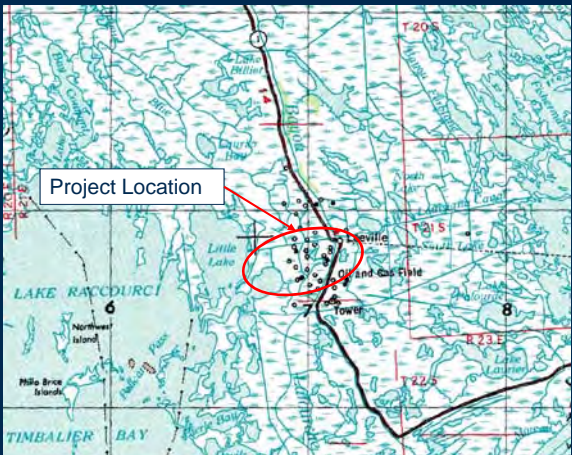
PPL 23: Bayou Lafourche Near Leeville Marsh Creation and Nourishment Project (Lafourche Parish)



Science, Service, Stewardship




Bayou Lafourche Near Leeville Marsh
Creation and Nourishment (Lafourche
Parish)
Region II – Barataria Basin



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Problem

- High land loss rates in the Barataria Basin
- Wind and tidal erosion due to large open water areas
- Heavy oil and gas exploration impacts in the area
- High subsidence in the area
- Loss of natural limits of Southwestern Louisiana Canal
- Losses have accelerated as area becomes fragmented

2



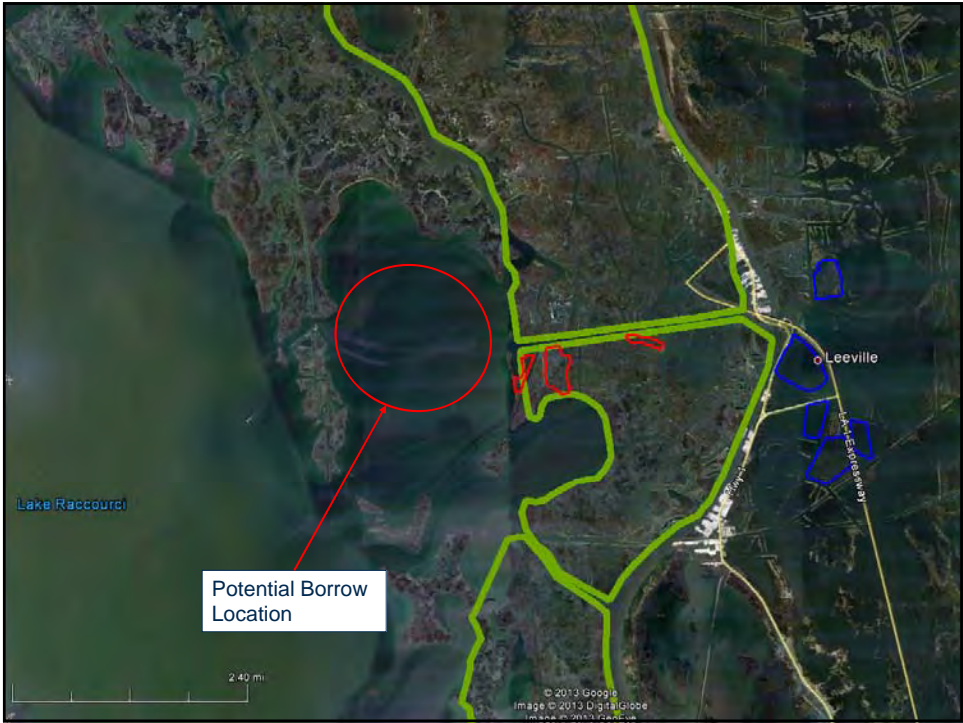
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Project Features

- Total Acres = 440 acres
- Reestablishes portion of Southwestern Louisiana Canal
- Borrow from Little Lake
- Consistent with State Master Plan
- Construction Cost with 25% contingency = \$28.0 million

4



R2-BA-07

Caminada Headlands Back Barrier Marsh Creation

Consistent with 2012 State Master Plan

PPL 23 PROJECT NOMINEE FACT SHEET**Project Name**

Caminada Headlands Back Barrier Marsh Creation

Master Plan Strategy:

- 002.BH.05 - Belle Pass to Caminada Pass Barrier Island Restoration.

Project Location

The project is located directly behind the Caminada headland beach, to the east of West Belle Pass, in Lafourche Parish, Louisiana.

Problem

Caminada headland has experienced some of the highest shoreline retreat rates in Louisiana, measuring between 55 and 65 feet per year from 1998 to 2010 (historically, up to 100 feet per year). At the same time the area is also experiencing extremely high loss rates of interior marshes. As the barrier headland continues to retreat, overwashed sediment will be lost into newly formed open water and these landloss rates will be exacerbated.

Goals

The goals of this project are to: 1) Create/nourish 610 acres of back barrier marsh, by pumping sediment from an offshore borrow site. 2) Create a platform upon which the headland can migrate, improving the longevity of the barrier shoreline and protecting wetlands and infrastructure to the north and west.

Proposed Project Features

This project would create 351 acres of marsh and nourish 259 acres of emergent marsh, behind 3.75 miles of Caminada beach, using material dredged from the Gulf of Mexico.

Preliminary Project Benefits

This project would create and nourish 610 acres of back barrier marsh, utilizing offshore borrow. This project will work in conjunction with the CIAP beach and dune restoration project to increase the longevity of the Caminada headlands beach.

Identification of Potential Issues

Pipelines: at least two pipelines bisect the project.

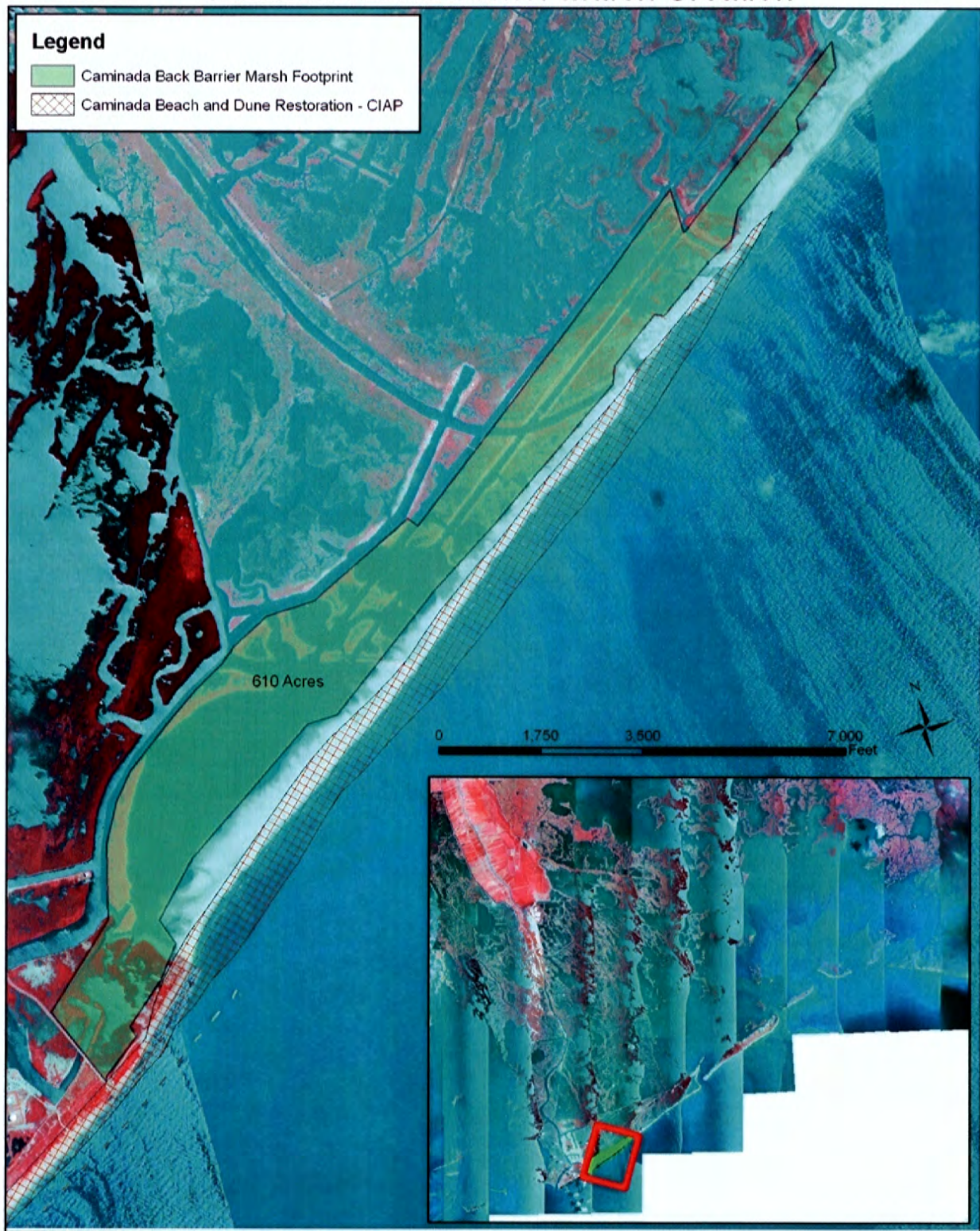
Preliminary Construction Costs

Preliminary Construction Costs + 25% contingency: \$27.2M

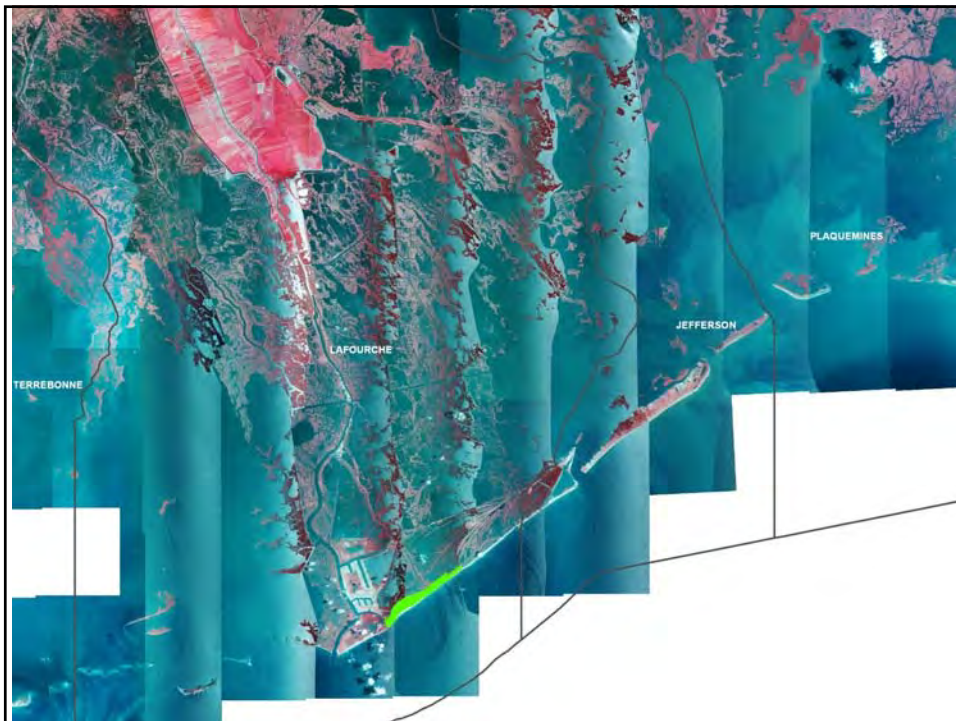
Preparer of Fact Sheet

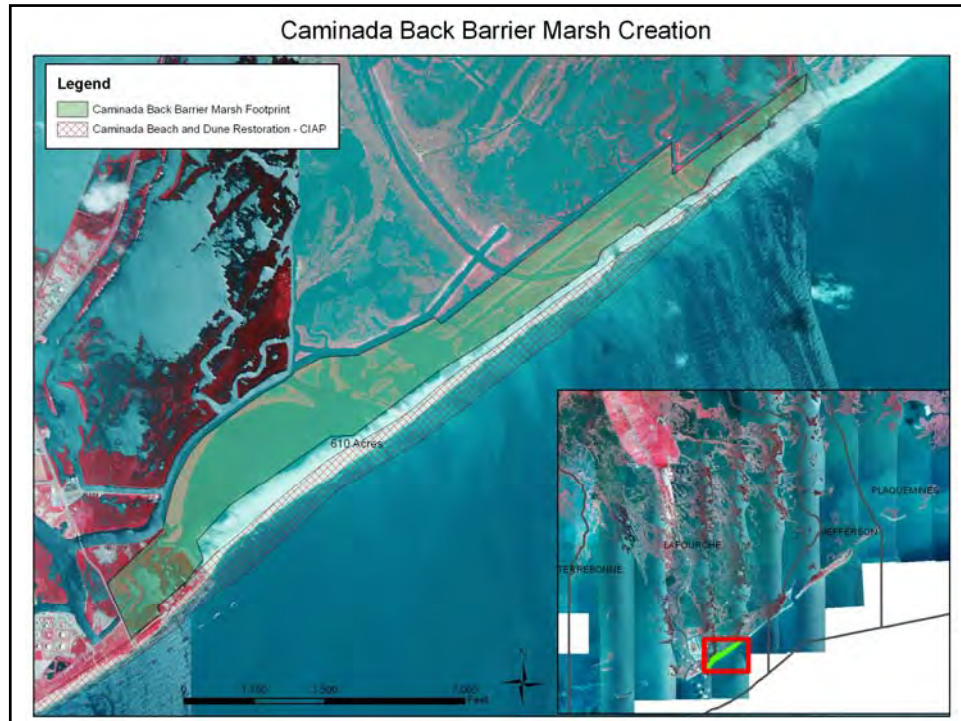
Stuart Brown, CPRA (225) 342-4596, stuart.brown@la.gov

Caminada Back Barrier Marsh Creation



PPL 23
Caminada Headland Back-barrier
Marsh Creation and Nourishment
1/31/2013





R2-BA-08

Bayou Grande Cheniere Marsh & Ridge Restoration

Consistent with 2012 State Master Plan

PPL23 PROJECT NOMINEE FACT SHEET
January 31, 2012

Project Name

Bayou Grande Cheniere Marsh and Ridge Restoration

Project Location

Region 2, Barataria Basin, Plaquemines Parish, along Bayou Grande Cheniere

Problem

From 1932 to 1990, the West Point a la Hache Mapping Unit lost 38% of its marsh. Through 2050, 28% of the 1990 marsh acreage is expected to be lost. That loss is expected to occur even with operation of the West Point a la Hache Siphons. Significant marsh loss has occurred south of Lake Hermitage with the construction of numerous oil and gas canals.

Goals

The primary goal is to restore marsh and ridge habitat along the eastern side of Bayou Grande Cheniere. Historically, a natural levee ridge existed along Bayou Grande Cheniere as it was once a distributary of the Mississippi River. Terraces are proposed to reduce fetch in large open water areas, to capture suspended sediment delivered via the West Pointe a la Hache siphons, and to afford protection to marsh created via the Lake Hermitage Marsh Creation Project (BA-42).

Proposed Project Features

1. Riverine sediments will be hydraulically dredged and pumped via pipeline to create/nourish approximately 395 acres of marsh.
2. Approximately 11,200 feet of ridge (14 acres) will be constructed along the eastern side of Bayou Grande Cheniere. Riverine sediments will be used for ridge construction.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?* Approximately 409 acres would be benefited directly and indirectly (395 acres of marsh creation/nourishment, 14 acres of ridge).
- 2) *How many acres of wetlands will be protected/created over the project life?* The total net acres protected/created over the project life is approximately 216 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%).* The anticipated loss rate reduction throughout the area of direct benefit is estimated to be 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.*
Yes, the project would restore 11,200 feet (14 acres) of natural levee ridge habitat along Bayou Grande Cheniere.

5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would not protect any significant infrastructure.

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 Lake Hermitage Marsh Creation Project (PPL15), the West Pointe a la Hache Marsh Creation Project (PPL17), and the West Pointe a la Hache Siphon Enhancement Project (PPL3). All of these projects would work in conjunction to restore wetlands within the West Pointe a la Hache Mapping Unit.

Identification of Potential Issues

Numerous oil and gas canals; pipelines.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$24.2M.

Preparer of Fact Sheet

Kevin Roy, USFWS, (337) 291-3120, kevin_roy@fws.gov



U.S. Fish & Wildlife Service

Louisiana Ecological Services Field Office

Bayou Grande Cheniere Marsh and Ridge Restoration



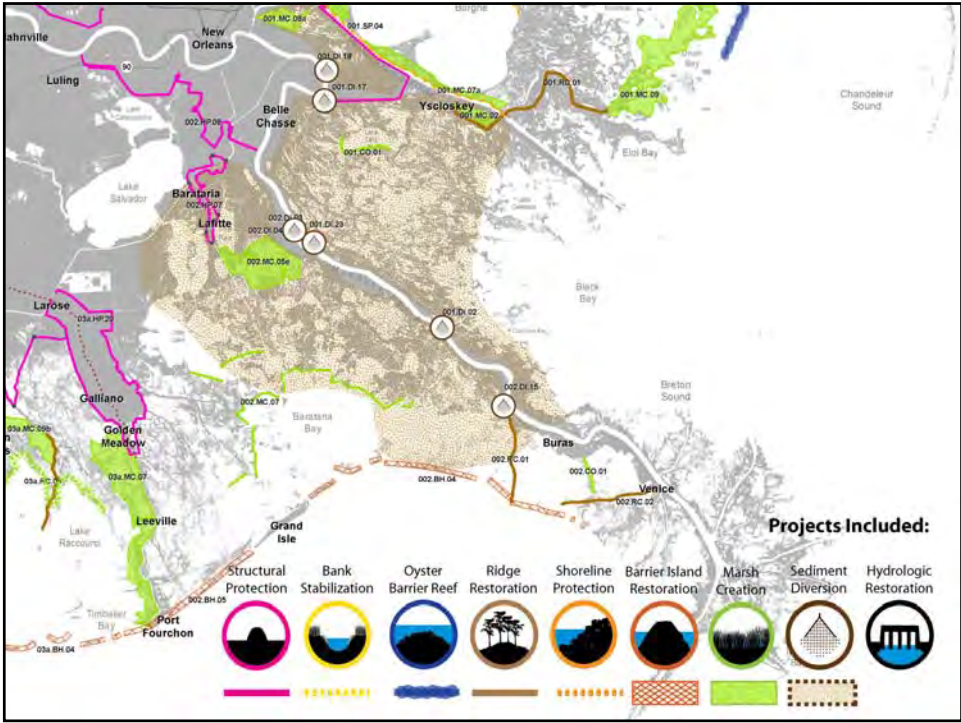




Bayou Grande Cheniere Marsh and Ridge Restoration

| | |
|---|---|
| Mississippi River borrow site | 285 net acres |
| 395 acres of marsh creation/nourishment | Construction plus contingency = \$27.7M |
| 11,200 ft of ridge restoration (14 acres) | |
| 85,600 ft of terraces (55 acres) | |





R2-BA-09

Elmer's Island Restoration

Consistent with 2012 State Master Plan

PPL23 Elmer's Island Restoration

Louisiana's 2012 Coastal Master Plan:

Compliant

Project Location:

Region 2, Barataria Basin, Jefferson Parish

Problem:

As part of an erosional headland, Elmer's Island is dominated by marine processes including overwash. The island has narrowed and decreased in elevation escalating the rate of overwash and breaching along the headland as well as the spit along Caminada Pass. The island was breached after hurricanes in 2005, 2008, and 2012. The Caminada Headland has receded approximately 970 feet over the last 100 years with about -8 ft/yr along Elmer's Island. The land loss rate in the area is estimated at -0.634 percent/year based on USGS data from 1985 to 2011.

Goals:

The primary project goal is to create salt marsh habitat behind the dune and maintain shoreline integrity and prevent breaching for 20 years as an interim measure until the implementation of a larger beach nourishment/dune restoration projects. This would include primary focus on substantial marsh creation to increase the planform width and conduct interim repairs of portions of the dune and spit. The objective is to create a net positive of back barrier marsh and headland habitat over the project life. Additional goals include avoiding adverse impacts to existing infrastructure and sediment transport to Grand Isle. Additive considerations would be to assess and maintain the lagoon hydrology and assess the spit from a geomorphic, habitat, sediment, hydrology, and protection perspectives.

Proposed Solution:

The proposed features consist of four primary elements (1) 304 acres of marsh creation (with planting), (2) approximately 5,400 feet of dune repair (with planting), (3) breach closure (with planting), and (4) installation of four culverts. Approximately 130,400 cubic yards of sand would be dredged from the ebb shoal of Barataria Pass for the dune and breach repairs. Approximately 2.2 million cubic yards of sediment would be dredged for marsh creation from an offshore location that would not impact the Caminada Headland or Grand Isle.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 350 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 272 acres of island habitat will be protected/created over the project life.
- 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 anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.

- 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 help maintain barrier headland and Gulf beach rim.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have moderate net positive impact to critical infrastructures which consists of LA1, a hurricane evacuation route, and residence of Chenier Caminada due to reducing the rate or frequency of flooding from south/southeast wind.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with sand fencing efforts and existing rock. The project may have synergy with the portions of the Caminada Headland Project to be constructed with the State funds.

Project Costs:

The construction cost including 25% contingency is \$26,378,900. The total fully-funded cost is \$35,745,200.

Preparers of Fact Sheet:

Patrick Williams, NOAA Fisheries, (225) 389-0508, ext 208



Elmer's Island Restoration (PPL22 Candidate)



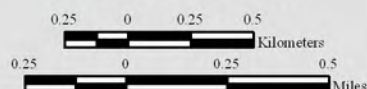
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, LA

Image Source:
2010 NAIP Photography



- Culverts *
- Marsh Creation *
- Dune Repair *
- Breach Closure *
- Project Boundary

* denotes proposed features



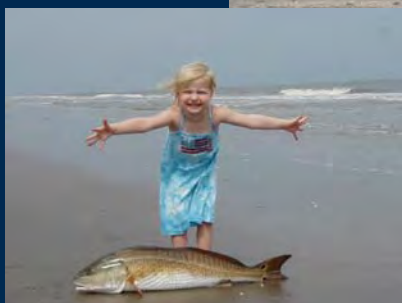
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Map ID: 2012-11-0033
Map Date: October 29, 2012

Science, Service, Stewardship



Elmer's Island Restoration Region 2 – Barataria Basin



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January 31, 2013

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Project Summary

- Marsh creation = 304 acres; 2.2 MCY
- Dune repair = 5,400 feet; 130,400 CY
- Breach Closure
- Culverts = 4
- Construction cost (with 25% contingency)= \$26,378,900

R2-BA-10

Grand Pierre Island Restoration

Consistent with 2012 State Master Plan

PPL23 Grand Pierre Island Restoration

Louisiana's 2012 Coastal Master Plan:

Compliant

Project Location:

Region 2, Barataria Basin, Plaquemines Parish

Problem:

As part of the Barataria Barrier Shoreline, Grand Pierre Island is dominated by marine processes including overwash. The island has receded rapidly and decreased in elevation. The extent of fragmentation is not as advanced as other island projects; therefore, the present island status may lend itself to greater ease of construction and cost effectiveness. The land loss rate is -0.27% based on data from 1985 to 2009 in the Barataria Barrier Island LCA mapping subunit. The 1884 to 2000 Gulf shoreline erosion rate is -50.6 ft/yr and is -46.8 ft/yr from 1988 to 2000.

Goals:

The project goal is to complete the missing link in the Barataria Barrier Shoreline Complex. The project goal is to create 127 acres of beach/dune habitat and enhance 229 acres of back barrier marsh.

Proposed Solution:

The proposed features consist of constructing 127 acres of beach/dune and create and nourish 229 acres of back barrier marsh. Approximately 1.45 million cubic yards of sediment would be mined from a previously surveyed and cleared borrow site in the Gulf of Mexico. The project includes planting dune, swale, and marsh vegetation as well as construction of sand fences.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 356 ac. Some indirect benefits to marsh north of the proposed restoration footprint may result.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Between 200 and 258 ac of barrier island habitat will be protected/created over the project life are estimated at this time.
- 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%)?*
Using a 50% reduction in the background rate, 258 acres would remain. A performance analysis has not yet been projected for Grand Pierre. Alternatively, 57% of the target year 1 constructed acres are projected to remain at year 20 based upon the average from all island projects (i.e., 200 acres).
- 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?*
Yes, the project restores a barrier island.

- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a minor net positive effect on non-critical infrastructure.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project provides synergy with the overall Barataria Barrier Shoreline Complex as well as the adjacent constructed East Grand Terre Project and the planned Cheniere Ronquille Project.

Identification of Potential Issues

The proposed project may have potential land rights issues yet to be determined.

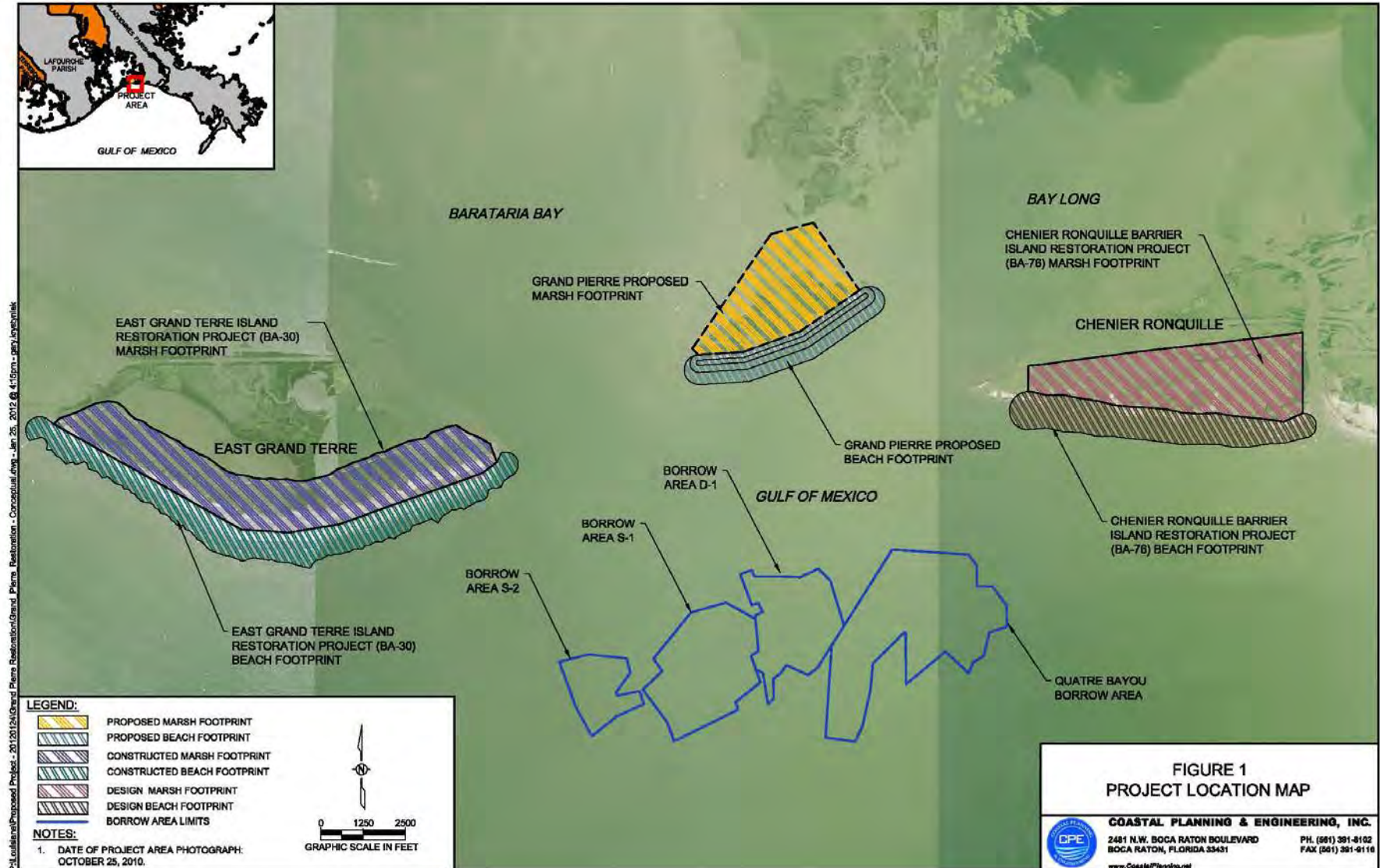
Preliminary Construction Costs

The estimated construction cost including 25% contingency is estimated to be approximately \$18.5 million with a fully funded cost in the range of \$20-\$25 million.

Preparer(s) of Fact Sheet:

Patrick Williams, NOAA's National Marine Fisheries Service, 225-389-0508, ext 208;
patrick.williams@noaa.gov

Grand Pierre Island Restoration



Science, Service, Stewardship



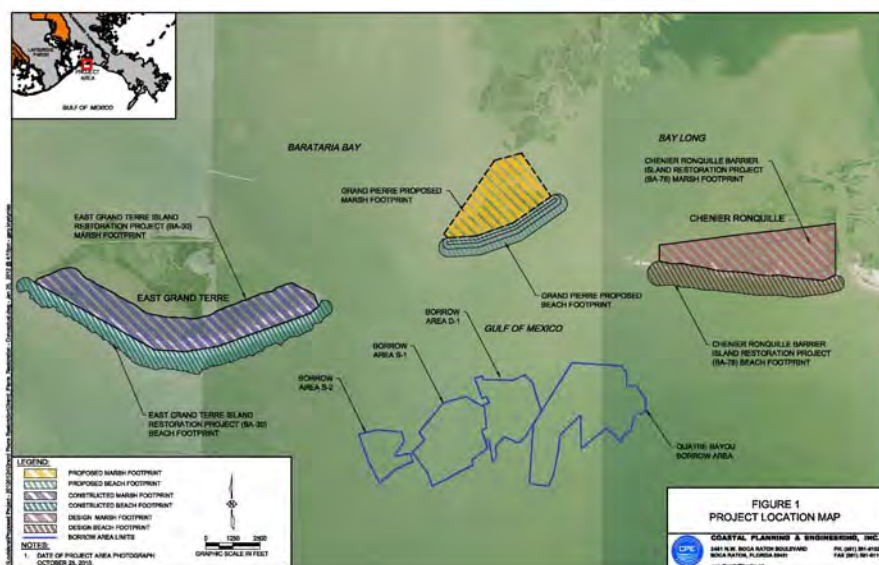
Grand Pierre Barrier Island Restoration Region 2 – Barataria Basin

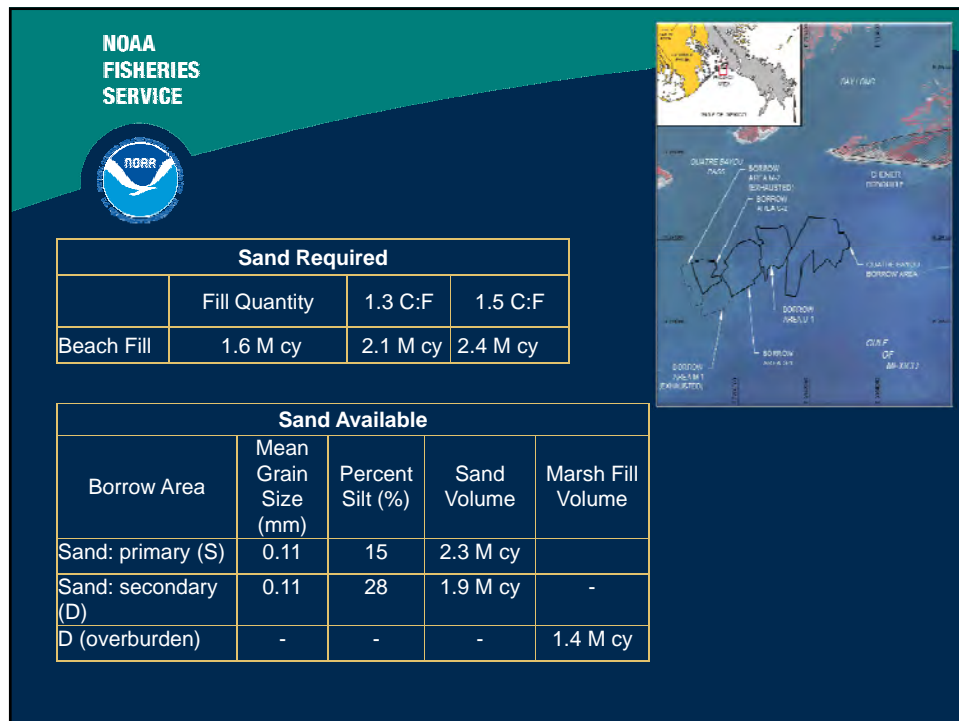
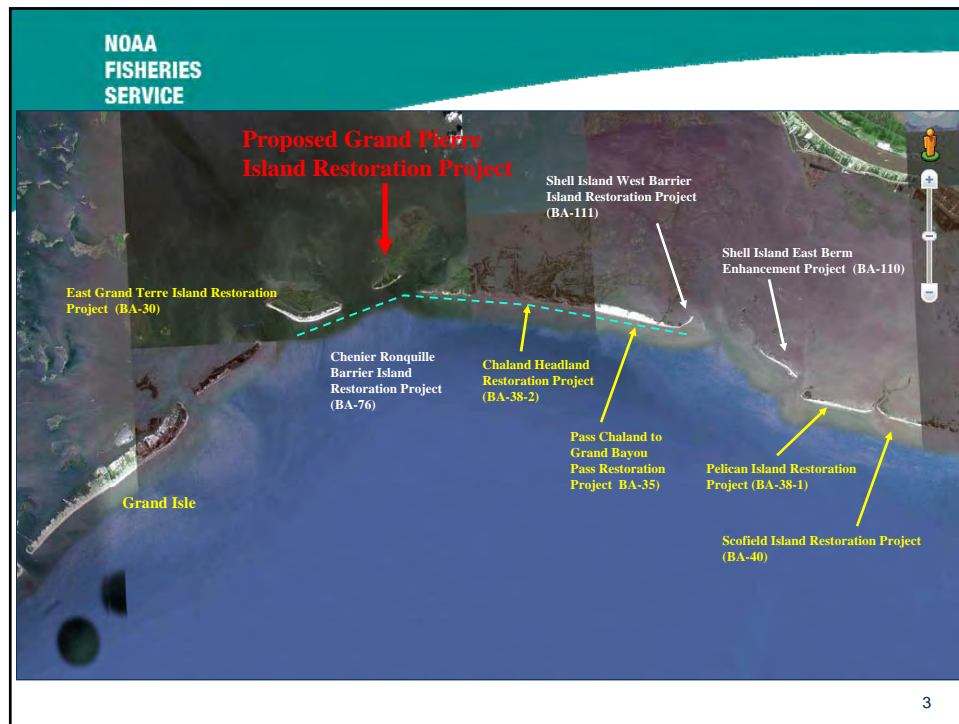


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Project Summary

Complete barrier island complex

- High shoreline retreat rates
- Missing link in over 14 miles of barrier island complex
- Beach/dune = 127 acres
- Marsh creation/nourishment = 229 acres
- Existing near-shore borrow areas (1.45 MCY projected need)
- Construction cost = \$18,593,000

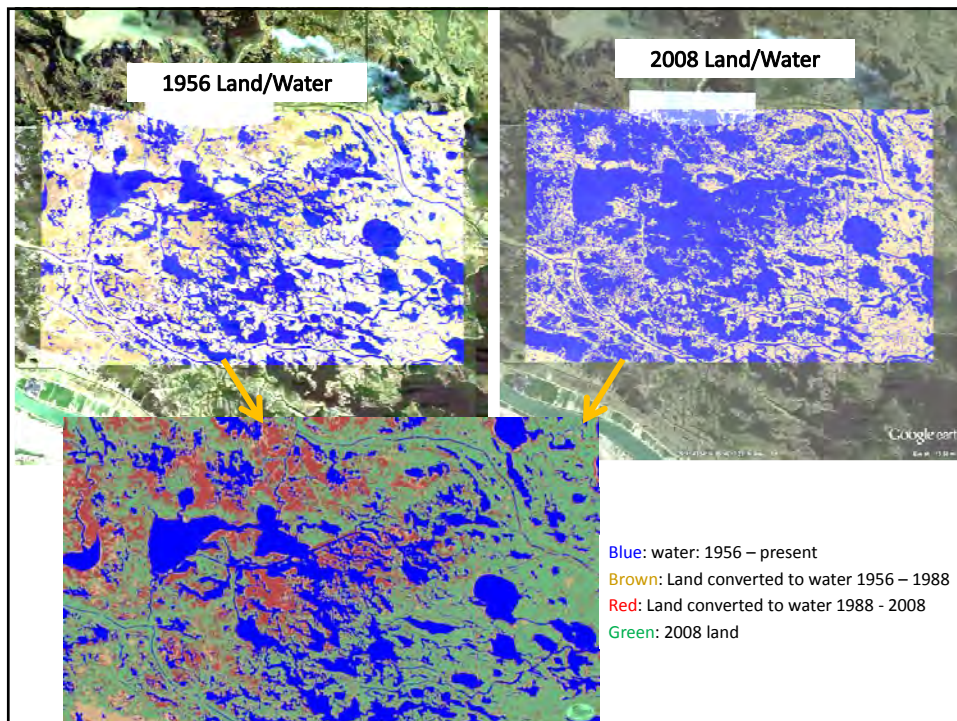
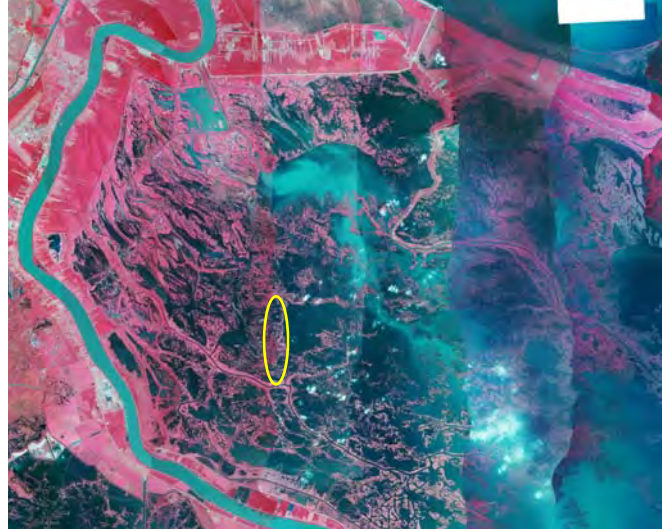
Region 2 – BRETON SOUND BASIN

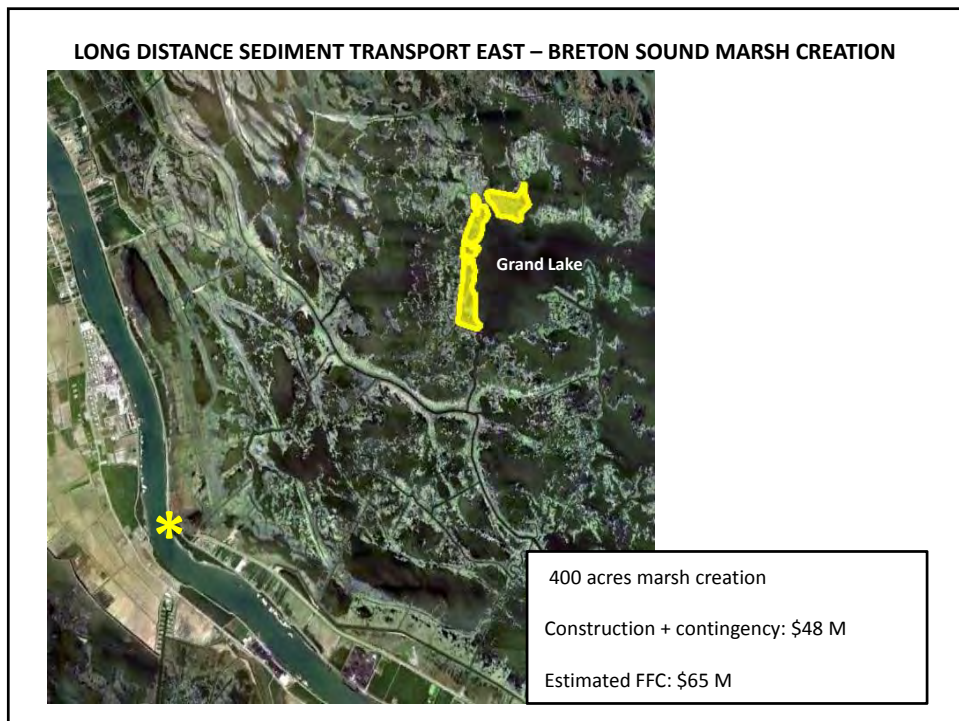
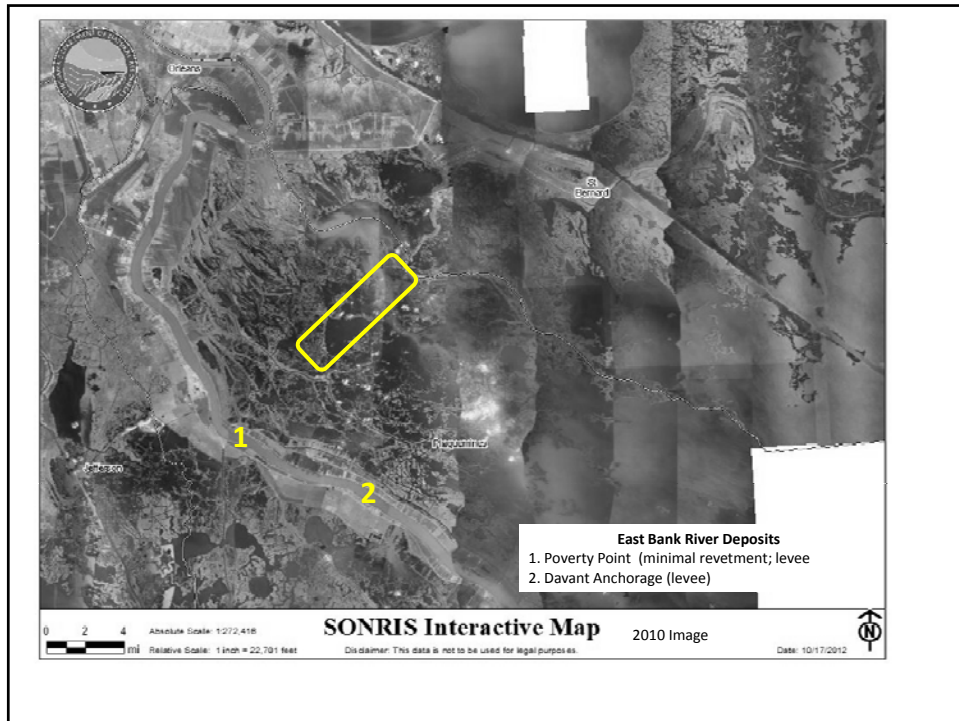
~~R2-BS-01~~

~~Breton Sound Marsh Creation~~

Not consistent with 2012 State Master Plan

Long Distance Sediment Transport East – Breton Sound Marsh Creation







R2-BS-02

Marsh Creation South of Lake Lery

Consistent with 2012 State Master Plan

PPL 23 Project Nominee Fact Sheet

Project Name

Marsh Creation South of Lake Lery

Project Location:

Region 2, Breton Sound Basin, St. Bernard and Plaquemines Parishes, Caernarvon mapping unit, marshes located south of Lake Lery.

Problem:

According to USGS-NWRC mapping, much of the wetlands surrounding Lake Lery were heavily damaged along with the Lake Lery shoreline due to Hurricane Katrina. Since 2005 this area has been hit with 4 Hurricanes (Gustav, Ike, Ida, Issac) and at least 1 Tropical Storm (Lee). The marshes in the area have never had time to completely heal before the next major storm hit. Wind induced waves are now damaging the interior marshes between Lake Lery and Lost Lake causing accelerated interior marsh loss. At this point the marsh is almost completely gone between Lost Lake and Lake Lery, so much so that you can now drive an outboard motor from one lake to the other. Because of the severe damage from Hurricane Katrina and the repeated damages for the other storms, it is highly unlikely that this area will recover without immediate restoration efforts.

Goals:

Create 800 acres and nourish 230 acres of interior marsh through hydraulic dredging.

Proposed Solution:

This project would create 800 acres and restore approximately 230 acres of intermediate to low salinity brackish marsh south of Lake Lery. The borrow source would be material hydraulically dredged from Lake Lery and placed in marsh creation cells contained by earthen containment dikes. Some of the containment dikes would be constructed in a more robust manner along several of the smaller lake shorelines to reduce shoreline erosion. These would not be gapped but any historic trenasses or bayous would be opened after construction. All other containment dikes would be gapped within 3 years of construction.

Project Benefits:

The marsh creation sites are situated in such a way that it would reduce or stop the enlargement of Lost Lake (located south of Lake Lery). The created marsh areas would also stop the coalescence of the southeastern portion of Lake Lery with the northeastern portion of Lake Lery and keep a portion of Delacroix Bayou from becoming part of Lake Lery.

Project Costs:

The construction cost for this project with 25% contingency is estimated to be \$24,000,000.

Preparers of Fact Sheet:

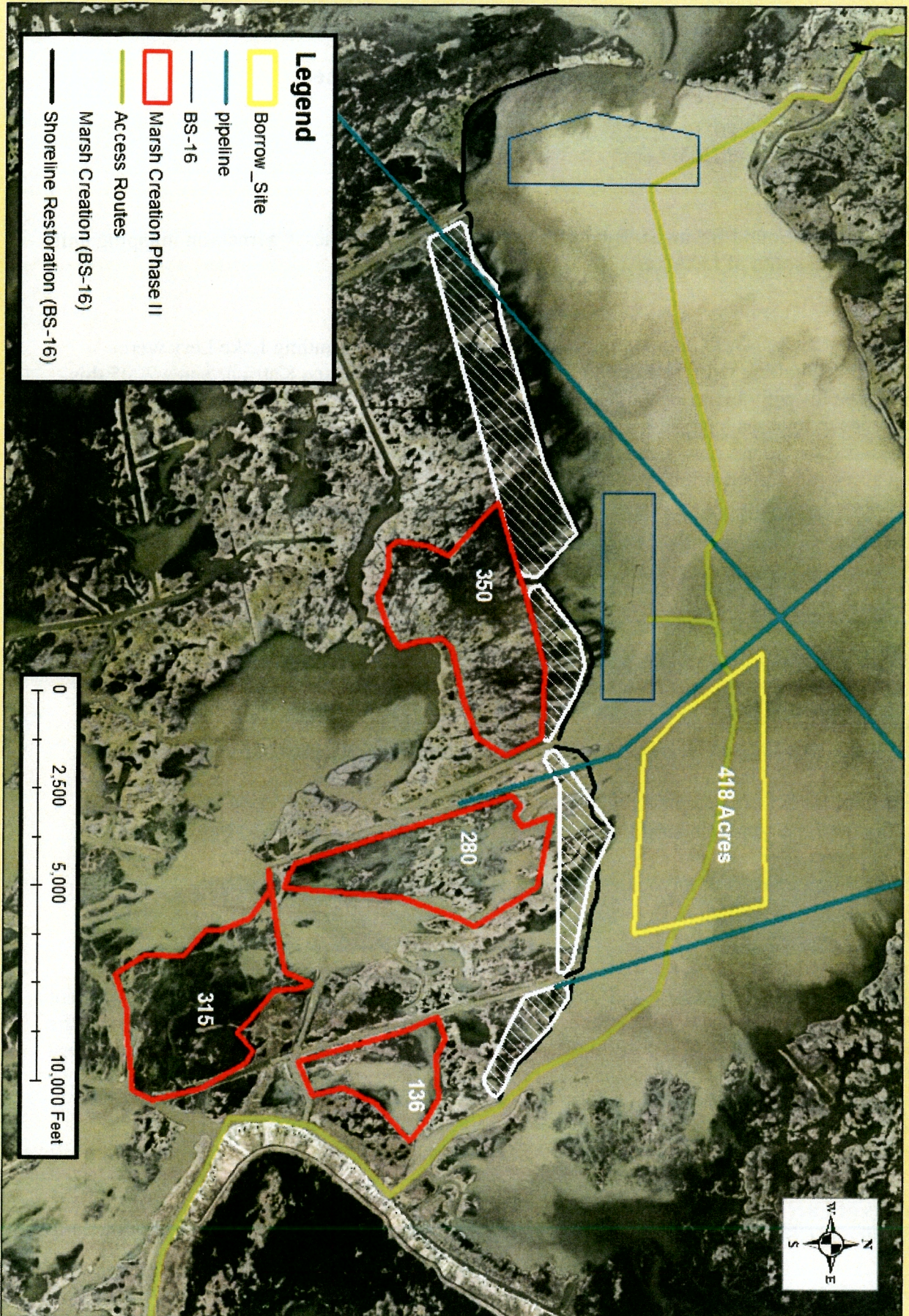
Robert Dubois, USFWS, (337) 291-3127, robert_dubois@fws.gov



U.S. Fish & Wildlife Service

Louisiana Ecological Services Field Office

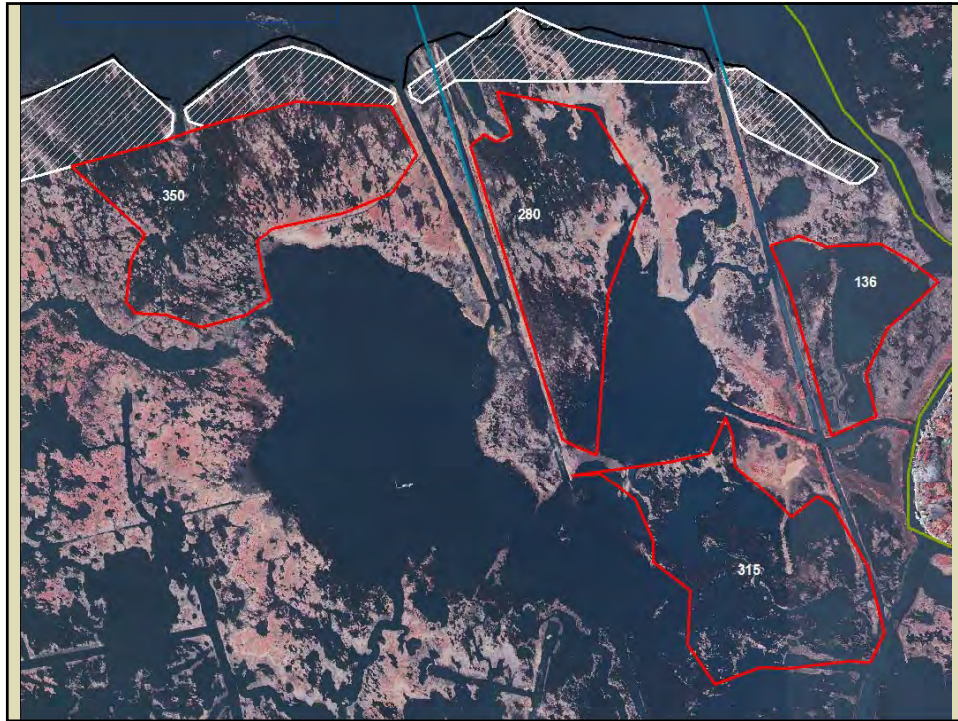
Marsh Creation South of Lake Lery



**Marsh Creation South of Lake Lery
PPL 23
Region 2
St. Bernard and Plaquemins Parishes**







Marsh Creation South of Lake Lery

Goals

Fill shallow open water areas south of Lake Lery and west of Delacroix Bayou which would reduce the wind generated waves and reduce the tidal surge between the low salinity marshes north of Lake Lery and the higher salinity marshes located south of Lost Lake.

Specific Project Goals: Create 800 acres and nourish 230 acres of interior marsh through hydraulic dredging.

Preliminary Construction Costs

The construction cost for this project with 25% contingency is estimated to be **\$24,000,000**.

~~R2-BS-03~~

~~Lake Lery — Northshore~~

Not consistent with 2012 State Master Plan

PPL23 Lake Lery Shoreline Marsh Creation and Nourishment

Louisiana's 2012 Coastal Master Plan:

Adjacent to 001.CO.01

Project Location:

The project is located in Region 2, Breton Sound Basin, St. Bernard Parish, along the northern and eastern rim of Lake Lery.

Problem:

The marshes forming the northern and eastern shoreline of Lake Lery and directly to the north and east of the former lake shoreline were severely damaged by Hurricane Katrina. Wind-induced waves within Lake Lery could further damage the shoreline and cause accelerated interior marsh loss. Without directly rebuilding these marshes, the lake itself will likely continue to grow and will coalesce with Bayou Terre aux Boeufs and newly open waters north of the lake.

Goals:

The primary goals of the project are to 1) Create/nourish 560 acres of marsh through dedicated dredging, and 2) Restore/stabilize approximately 3 miles of Lake Lery shoreline.

Proposed Solution:

The project would create 423 acres and nourish an additional 137 acres of marsh along the northern and eastern shore of Lake Lery using material dredged from Lake Lery. The marsh creation/nourishment will restore approximately 3 miles of the lake shoreline. The target elevation for the marsh creation areas will correspond with the elevation of healthy marsh in the surrounding area (1.4 feet NAVD 88 according to PPL21 Lake Lery Candidate project WVA). No planting is included for the creation or nourishment.

Project Benefits:

The project would result in approximately 389 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$22,880,246.

Preparers of Fact Sheet:

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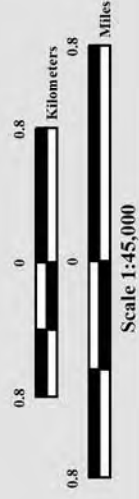
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Lake Lery Shoreline Marsh Creation (PPL23 Candidate)



-  Marsh Creation/Nourishment *
-  Borrow *
-  Project Boundary *
- * denotes proposed features



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:
2010 NAIP Photography

Map ID: USGS-NWRC 2013-11-0012
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