

Region 1

Coastal Wetlands Planning, Protection and Restoration Act

21st Priority Project List



Region 1

Regional Planning Team Meeting



January 27, 2011
USACE, New Orleans District, New Orleans, LA

1. Welcome and Introductions



RPT Region 1 Leader:
Chris Allen - OCPR

Announcements

- PPL 21 Selection Process Packages
- PPL 21 RPT meetings to accept project nominees:
 - Region IV, Vermilion LSU Ag Center, Jan. 25, 2011, 1:00 pm
 - Region III, Morgan City Auditorium (W Concourse), Jan. 26, 2011, 9:00 am
 - Region II, New Orleans Corps of Engineers, Jan 27, 2011, 9:00 am
 - **Region I, New Orleans Corps of Engineers, Jan 27, 2011, 1:00 pm**
- Coast-wide Voting meeting to select project nominees for all basins:
February 22, 2011, 10:00 am
LA Department of Wildlife and Fisheries, 2000 Quail Dr., Baton Rouge
- 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 at the coast-wide voting meeting.
- CWPPRA agencies will be assigned responsibilities for preparing nominee fact sheets after the coast-wide voting meeting.

Region 1 Parishes

Eligible parishes for Pontchartrain basin in Region 1 include:

Plaquemines Parish
Jefferson Parish
Orleans Parish
St. Bernard Parish
Ascension Parish
Livingston Parish
St. James Parish
St. Charles Parish
St. John the Baptist Parish
St. Tammany Parish
Tangipahoa Parish

2. PPL 21 Process and Ground Rules



RPT Meetings

- Jan. 25-27, 2011 to accept project and demo proposals in 4 coastal regions broken into 9 basins (no limit on number of projects that can be proposed).
- Project proposals should support a Coast 2050 Regional or Coast-wide Strategy.
- A project can only be nominated in one basin (except for coast-wide projects- more info on coast-wides after the following “RPT Meetings” slide).
- Proposals that cross multiple basins, excluding coast-wide projects, shall be nominated in one basin only, based on the majority area of project influence.
- Coast-wide 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.

RPT Meetings

- Project presenters can split multi-basin or coast-wide 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) Subcommittee, will decide collectively after the RPT meetings but before the Coast-wide Voting Meeting.
- Public comments on project proposals will be accepted orally during the RPT meetings and in writing by February 10, 2011.
- Limit project proposals to 3 to 5 minutes.
- Limit comments/questions during meeting to PPL 21 subject proposals and processes.

Coast-wide Voting Meeting

- Feb. 22, 2011: Coast-Wide Voting (CWV) Meeting.
- RPTs, consisting of CWPPRA Agencies & Coastal Parishes, will select 2 nominees per basin, except 3 each in Barataria, Terrebonne, & Pontchartrain & 1 in the Atchafalaya, plus 6 demos. If only 1 project is nominated for the Miss. River Basin, 3 nominees will be assigned to Breton Sound. If proposed, 1 coast-wide may be chosen for inclusion as a nominee.
- Selection will be by consensus if possible. If not, CWPPRA agencies and parishes will submit ranked votes by basin.
- Parishes vote only in basins they occupy. Parishes vote on all demonstration and coast-wide projects.
- No public comments taken during CWV meeting (Public comments will be heard today & written comments should be submitted by 2/10/2011 to the CWPPRA Program Manager, Ms. Melanie Goodman - POC details on next to last slide).

Nominee Project Evaluations

- Following the coast-wide voting meeting, an agency will be assigned to each project to prepare a Nominee Project fact sheet (1 page + map).
- CWPPRA Engineering & Environmental Workgroups review draft features and assign preliminary cost and benefit ranges.
- Work groups will also review demo & coast-wide projects and verify that they meet PPL 21 criteria.
- CWPPRA Planning and Evaluation Subcommittee prepares cost/benefit summary matrix for Technical Committee.

PPL 21 Candidate Project Selection

- CWPPRA Technical Committee meeting, April 19, 2011 (this date may change) at 9:30 am, New Orleans District Corps of Engineers.
- Technical Committee ranks nominees and votes to select ten candidate projects and up to three demos.
- Written public comments should be submitted to Corps of Engineers prior to TC meeting by April 5, 2011.
- Public comments also accepted orally during meeting.
- Technical Committee will assign CWPPRA agencies to develop Phase 0 candidate projects.

PPL 21 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.

CWPPRA PPL 21 Selection

- 2 Public meetings to present Phase 0 Evaluation results:
 - Abbeville, Courthouse, Nov. 16, 2011, 7:00 pm
 - New Orleans, Corps of Engs, Nov. 17, 2011, 7:00 pm
- Technical Committee votes to select up to 4 candidate projects and up to 1 demo to recommend for Phase I.
 - Nov. 30, 2011, Baton Rouge, 9:30 am
- Task Force final decision to select PPL 21 in January 2012.

3. Region 1 Coast 2050 Regional Strategies



Projects nominated should be:

- consistent with the Coast 2050
Regional Ecosystem or
Coastwide Strategies

Restore Swamps

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

Restore and Sustain Marshes

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

Protect Bay and Lake Shorelines

Maintain shoreline integrity of Lake
Pontchartrain

Maintain shoreline integrity of Lake
Borgne and the Biloxi Marshes

Restore and Maintain Barrier Islands

- Maintain Chandeleur Islands with offshore sand as necessary

Maintain Critical Landforms

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

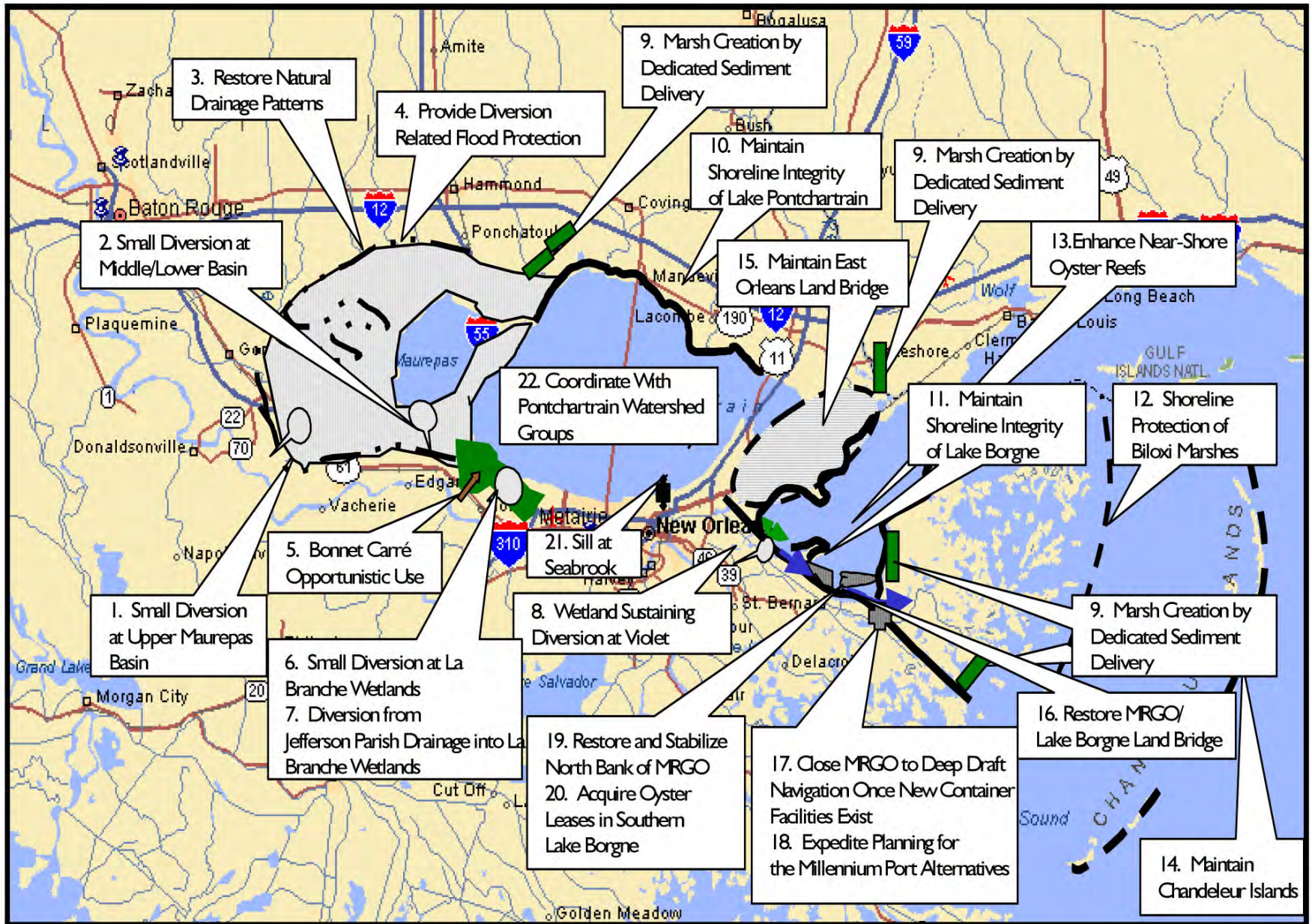
Resolve the MRGO Problem

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

Coast 2050 Coastwide Strategies



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



Coast 2050 Region 1 regional ecosystem strategies.

4. PPL 21 Project Nominations



Coast-wide Projects

- Proposes a technique applicable across the coast (e.g., vegetative plantings)
- Nominated at any RPT meeting
- All coastal parishes & agencies will vote on selection of coast-wide nominee
- Only one coast-wide nominee may be selected from the coast-wide nominee pool at the Coast-wide Voting Meeting on Feb 22nd
- The Technical Committee may or may not select a coast-wide project in April 2011.

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 Standard Operating Procedures criteria and select sites for proposed demonstration projects
- The RPTs select 6 demos at the Feb. 22nd coast-wide voting meeting. The Tech. Comm. selects up to 3 demos in April 2011.
- Previous demo candidates must be ***re-nominated*** for PPL 21.

5. Announcement of Coast-wide Voting Meeting



Coast-wide Voting Meeting

- Feb. 22, 2011: meet in Baton Rouge to choose 2 project nominees per basin (except will choose 3 in Barataria, Terrebonne, and Pontchartrain Basins and 1 in Atchafalaya Basin). If only 1 project is nominated for the Mississippi River Basin, 3 nominees will be assigned to Breton Sound Basin. Plus, 1 coast-wide project and 6 demos may be selected.
- Parishes of each basin are asked to *identify who will vote* at the coast-wide meeting TODAY.
- 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).
- No public comments accepted at the coast-wide meeting (public comments will be heard today and written comments must be submitted by 2/10/2011).

Coast-wide Voting Meeting

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

Coast-wide Voting Meeting: Coast-wide Category

- The two nominees per basin (three each in Barataria, Terrebonne and Pontchartrain, & Breton Sound Basins if only one in MR Basin, and one in Atchafalaya Basin) receiving the highest vote will be included in the list of 20 nominee projects. If a coast-wide project is selected, the total will increase to 21 nominees.
- All demo projects will be voted upon in same manner with one coast-wide ballot.
- 15 minutes will be allowed for voting in each basin, and for demos and coast-wide projects.

6. Announcements of Upcoming Meetings



PPL 21 Upcoming Meetings

Coast-wide Voting Mtg, Feb 22, 2011, Baton Rouge
20 basin-project nominees, 1 coast-wide nominee,
and 6 demos selected

Technical Committee Mtg, in Apr '11, New Orleans
Selection of 10 candidates and up to 3 demos

Public Meetings

16 Nov 11, Abbeville

17 Nov 11, New Orleans

Technical Committee Mtg, 30 Nov 11, New Orleans
Recommend up to 4 projects for Phase I funding

Task Force Mtg, in Jan '12, New Orleans
Final selection of projects for Phase I funding

Send Written Comments on Projects & Demos Proposed Today to the CWPPRA Program Manager (Deadline: February 10, 2011)

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

Fax to 504-862-1892
Attn: Melanie Goodman

Email: Melanie.L.Goodman@usace.army.mil

7. Adjourn





ATTENDANCE RECORD



DATE	SPONSORING ORGANIZATION	LOCATION
January 27, 2011 9:00 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	U.S. Army Corps of Engineers District Assembly Room 7400 Leake Ave. New Orleans, LA
PURPOSE MEETING OF THE REGIONAL PLANNING TEAM REGION II		
PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER/EMAIL
John Rowe	Dir. Ecology of Shubs Bioengineering Group	610 592 7674
Doug Smith	Project Mgr Bioengineering Gr.	919-414-8091
Ordis Smith	ConocoPhillips	985-853-3018
Thelma Threlk	ConocoPhillips	337-540-5804
NED COURET	V.P. COASTLINE SOLUTIONS, LLC	(985) 705-0634
Craig Duos	CEO - Southeast Engrs	225-295-1880
Kurt Boyer & Assoc	CEO - BAM CONTRACTORS	985-879-2146
Eddie Fisher	Bus. Dev. Orion Marine Group	504-305-2636
Stuart Brown	OCPR - CRE	
Chris Allen	OCPR - Planning	225-342-4736
Jean-Paul Richard	Resolve Marine Group	
Corey Miller	UNO - CHART	(504) 444 0431
Don Blancher	SEN LLC	(504) 302-0799
James Harris	USFWS	
Jeff DeBlieux	ConocoPhillips	985 853-3009
Wendy Kimbark	LCP Manager PPG	504.912.5973
JASON KROLL	NRCS	225 389 0347
Vickie Pufkurt	Shaw Const/CO/JP	504-236-4811
Quin Kinler	NRCS	225-382-2047
HEATHER FINLEY	LDFW	
CHRISTY McDONOUGH	LDFW	
PATRICK AMEDEE	LA FOURCHE PARISH SCHOOL BOARD	985-444-4811



ATTENDANCE RECORD



DATE	SPONSORING ORGANIZATION	LOCATION
January 27, 2011 9:00 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	U.S. Army Corps of Engineers District Assembly Room 7400 Leake Ave. New Orleans, LA
PURPOSE MEETING OF THE REGIONAL PLANNING TEAM REGION II		
PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER/EMAIL
Kevin Roy	USFWS	337-291-3120
Charles Sasser	LSU	225 578 6375
Jimfield	charter media filmmaker	985 446 1000
Kimberly Visher	LILL	337 482 6966
LOLAND BROUSSARD	NRES	337-291-3069
WAYNE KELLER	GRAND ISLE PORT COMMISSION	504-415-0102
Robert Bourgoin	LDWF	225-765-0765
Gary Rauber	Citigen	504-486-4223
Angela Trahan	USFWS	337-291-8137
Jody Chenier	ST JAMES PARISH	225-562-2262
SHANE LANDRY	ST. James Parish	225-562-2370
Brad Inman	USACE	504-862-2124
Scott Wandell	USACE	504-862-1878
Kimberly Clements	NOAA/NMFS	225 389 0508
John Boatman	NRCS	985-447-3871
Randy Moertle	Little Lake Land Co.	(985) 856-3630
Margie Winter	Jeff. Parish	(504) 736-6443
Paul Kaspar	EPA	214 665 7459
Paige Murphy	houle	(318) 243-6877
PATRICK WILLIAMS	NOAA / NMFS	825 / 389-0508
Julie Whitbeck	NPS - Jean Lafitte NHP & P	(504) 589-3882
Dusty Poite	NPS	504 589-3882x119

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Region 1– Pontchartrain Basin

R1-PO-01	LaBranche Central Marsh Creation Project
R1-PO-02	Guste Island Marsh Creation Project
R1-PO-03	Small Mississippi River Reintroduction into LaBranche Wetlands
R1-PO-04	Bayou Bienvenue Marsh Creation
R1-PO-05	Fritchie Marsh Creation and Terracing
R1-PO-06	Northern Chandeleur Island Restoration
R1-PO-07	Golden Triangle Marsh Creation

Region 1-
Pontchartrain Basin

R1-PO-01

LaBranche Central Marsh Creation Project

PPL-21 LaBranche Central Marsh Creation Project

Coast 2050 Strategy: Coastwide Common Strategies: Dedicated Dredging for Wetlands Creation, Vegetative Planting, and Maintain or Restore Ridge Functions; Region 1 regional ecosystem strategies: Dedicated delivery of sediment for marsh creation; Region 1 mapping unit strategies: Dedicated Dredging

Project Location: Region 1, Pontchartrain Basin, St. Charles Parish, bounded to the North by the railroad running parallel to I-10, to the west by the marsh fringe just east of Bayou LaBranche, to the south by Bayou Traverse and to the east by marsh fringe west of a pipeline canal.

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

Goals: Primary goal is to restore marsh that converted to shallow open water. Project implementation would result in an increase of fisheries and wildlife habitat, acreage, and diversity along with improving water quality. The proposed project would provide a protective wetland buffer to the railroad and I-10, the region's primary westward hurricane evacuation route, and complement hurricane protection measures in the area.

Proposed Solution: Proposed solution consists of the creation of ± 750 acres of emergent wetlands and the nourishment of ± 150 acres of existing wetlands using dedicated dredging from Lake Pontchartrain. In addition, 10,000 linear ft of tidal creek will be created by TY3. The marsh creation area would have a target elevation the same as average healthy marsh. It is proposed to place the dredge material in the target area with the use of retention dikes along the edge of the project area. If degradation of the containment dikes has not occurred naturally by TY3, gapping of the dikes will be mechanically performed. Vegetative plantings would be utilized in the areas designated to be emergent marsh. Either $\frac{1}{4}$ of the area would be planted at full density or $\frac{1}{4}$ the density would be planted over the entire acreage. Successful wetland restoration in the immediate area (PO-17 constructed in 1994) clearly demonstrates the ability for these wetlands to be restored using material from a sustainable borrow area (outlet end of Bonnet Carre Spillway). Engineering monitoring surveys of the marsh creation area and borrow area are planned as well.

Project Benefits: This project would benefit 900 acres of intermediate marsh and open water. The project is expected to last well beyond the 20-year project life. Please note that PO-17 has not required the expenditure of any funds for maintenance during its 17-year existence.

Project Cost: The estimated construction cost plus 25% contingency for this project is approximately \$26,000,000.

Preparers of Fact Sheet: Jason Kroll, NRCS, 225-389-0347, Jason.Kroll@la.usda.gov
Ed Fike, agent for St. Charles Land Syndicate, 225-383-7455 x128, efike@coastalenv.com



Lake Pontchartrain

Kenner

LaBranche Wetlands

Bonnef Carre
Spillway


Norco

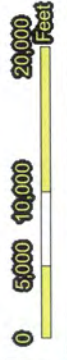
Mississippi River

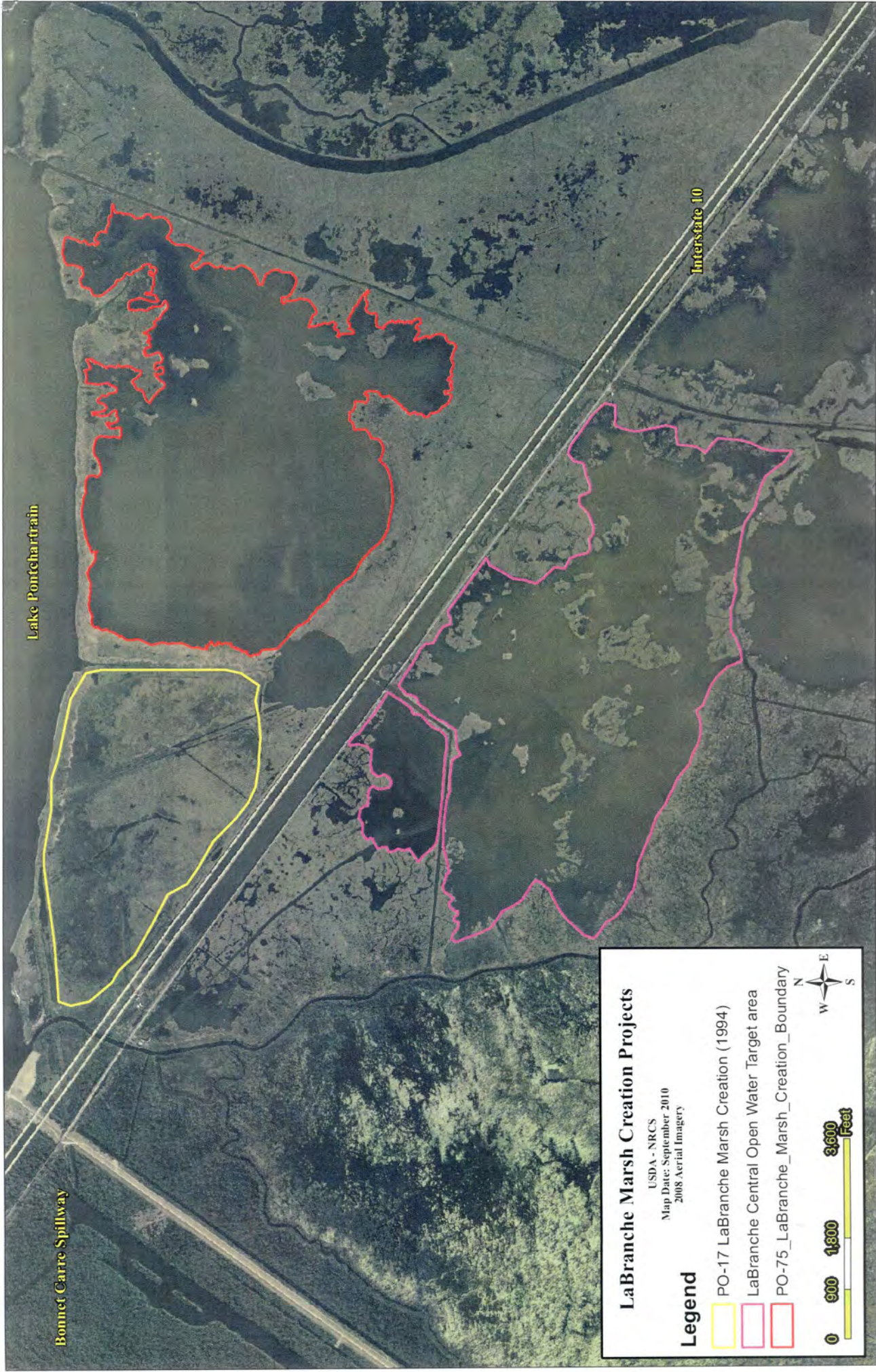
LaBranche Central Marsh Creation Project
(Located in St. Charles Parish)
Vicinity Map

USDA - NRCS
Map Date: September 2010
2008 Aerial Imagery

Legend

 LaBranche Central Open Water Target area





Lake Pontchartrain

Bonnet Carré Spillway

Interstate 10

LaBranche Marsh Creation Projects

USDA - NRCS
Map Date: September 2010
2008 Aerial Imagery

Legend

- PO-17 LaBranche Marsh Creation (1994)
- LaBranche Central Open Water Target area
- PO-75 LaBranche Marsh Creation Boundary

0 900 1800 3600 Feet

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W E S




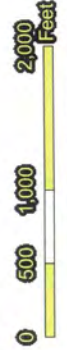
PPL 21 LaBranche Central Marsh Creation

750 acres of Marsh Creation
150 acres of Marsh Nourishment

USDA - NRCS
Map Date: September 2010
2008 Aerial Imagery

Legend

 LaBranche Central Open Water Target area



R1-PO-02

Guste Island Marsh Creation Project

PPL-21 GUSTE ISLAND MARSH CREATION PROJECT

Coast 2050 Strategy: Coastwide Common Strategies: Dedicated Dredging for Wetlands Creation, Vegetative Planting, and Maintain or Restore Ridge Functions; Region 1 regional ecosystem strategies: Dedicated delivery of sediment for marsh creation; Region 1 mapping unit strategies: Dedicated Dredging

Project Location: Region 1, Pontchartrain Basin, St. Tammany Parish, WSW of Madisonville, LA. Along the rim of Lake Pontchartrain 3 miles east of the mouth of the Tchefuncte River.

Problem: Lake Pontchartrain lake rim has breached into a failed agricultural area. What's left of the lake rim will continue to degrade and Lake Pontchartrain will expand into this area by an additional 1,000 acres.

Goals: Primary goal is to build marsh in an area that converted to shallow open water and to restore the lake rim in the areas where breaching has occurred. Project implementation would result in an increase of fisheries and wildlife habitat, acreage, and diversity along with improving water quality. The proposed project would provide a protective wetland buffer along the rim of Lake Pontchartrain.

Proposed Solution: Proposed solution consists of the creation of \pm 590 acres of emergent wetlands using dedicated dredging from Lake Pontchartrain. In addition, 2,000 linear feet (approximately 5 acres) of lake rim would be restored. The marsh creation area would have a target elevation the same as average healthy marsh. It is proposed to place the dredge material in the target area with the use of retention dikes along the edge of the project area. Hydrologic connectivity will be maintained as a component of creating this functional wetland. Vegetative plantings would be utilized in the areas designated to be emergent marsh and on the restored lake rim. Engineering monitoring surveys of the marsh creation area and borrow area are planned as well.

Project Benefits: This project would benefit 590 acres of fresh marsh and open water, with an additional 5 acres of restored lake rim.

Project Cost: The estimated construction cost plus 25% contingency for this project is approximately \$23,500,000.

Preparer of Fact Sheet: Jason Kroll, NRCS, 225-389-0347, Jason.Kroll@la.usda.gov



Guste Island Marsh Creation Project (Located in St. Tammany Parish)

Vicinity Map

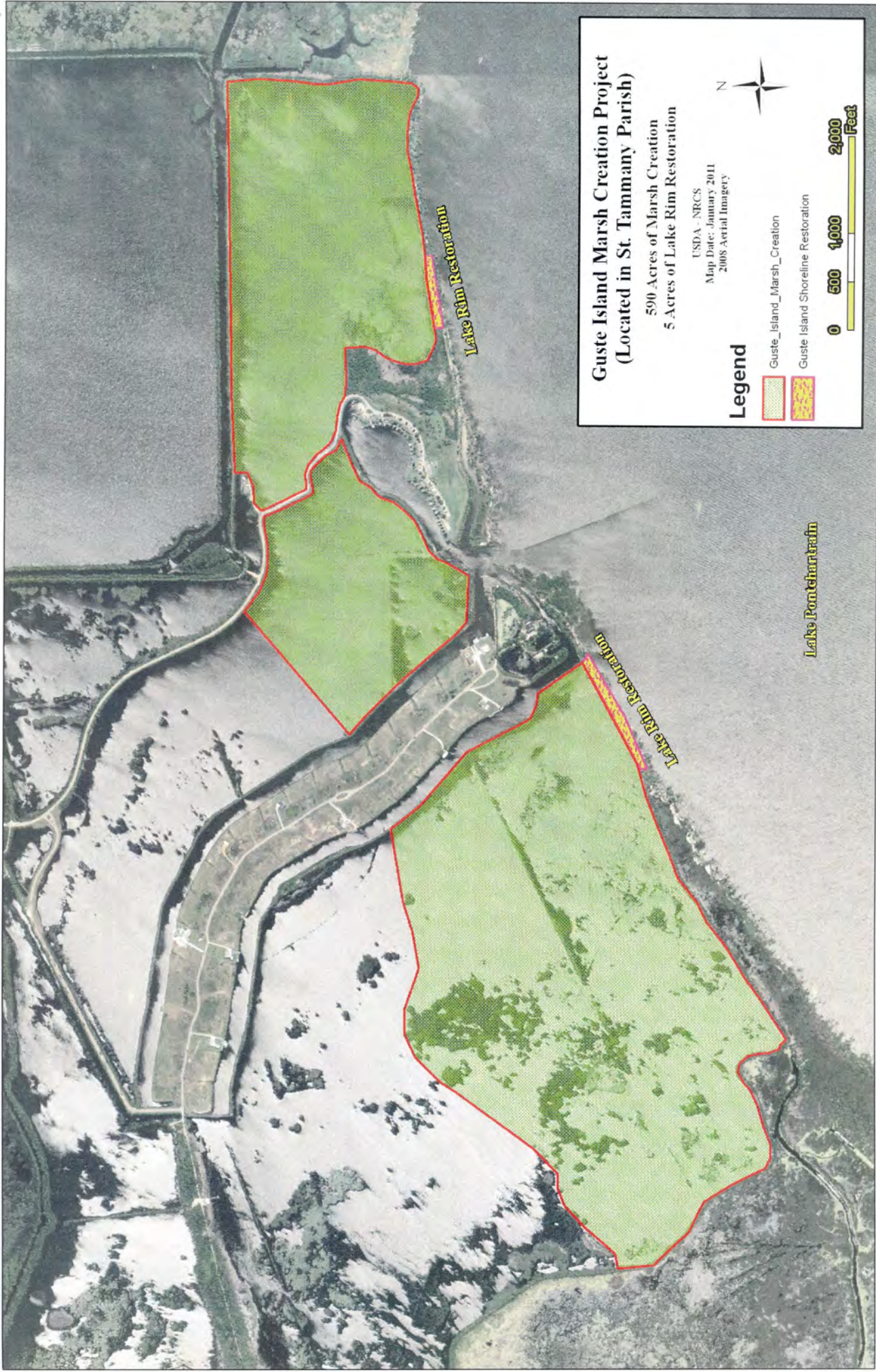
590 Acres of Marsh Creation
5 Acres of Lake Rim Restoration
USDA - NRCS

Map Date: January 2011
2008 Aerial Imagery

Legend

- Guste_Island_Marsh_Creation
- Guste Island Shoreline Restoration

0 1,500 3,000 6,000 Feet



Guste Island Marsh Creation Project (Located in St. Tammany Parish)

590 Acres of Marsh Creation
5 Acres of Lake Rim Restoration

USDA - NRCS
Map Date: January 2011
2008 Aerial Imagery

Legend

- Guste_Island_Marsh_Creation
- Guste_Island Shoreline Restoration



Lake Pontchartrain

Lake Rim Restoration

Lake Rim Restoration

GUSTE ISLAND MARSH CREATION



Current Condition



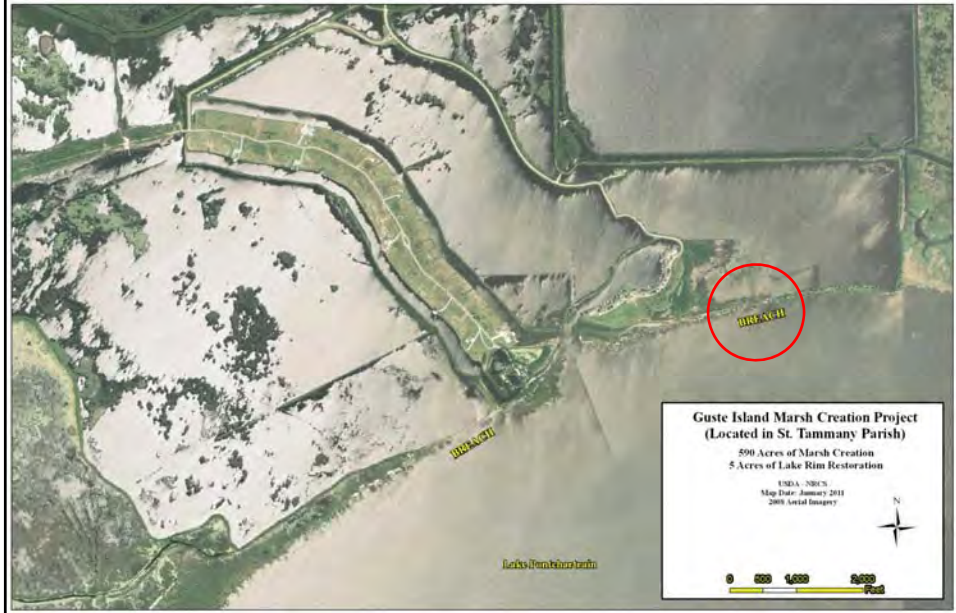
Current Condition – West Breach



Current Condition – West Breach



Current Condition



Current Condition – East Breach



Current Condition – East Breach



Proposed Solution – 590 acres Marsh Creation & 5 Acres Lake Rim Restoration



R1-PO-03

Small Mississippi River Reintroduction into LaBranche Wetlands

PPL21 PROJECT NOMINEE FACT SHEET

January 27, 2011

Project Name

Small Mississippi River Reintroduction into La Branche Wetlands

Coast 2050 Strategy

Coastwide Strategy: Coastwide Common Strategy- Diversions and Riverine Discharge; Management of Diversion Outfall for Wetland Benefits; Region I Regional Ecosystem Strategy- Small Diversion of Mississippi River into La Branche wetlands.

Project Location

Region 1, Lake Pontchartrain Basin, St. Charles Parish

Problem

As with many other locations in the Mississippi River Deltaic Plain, the La Branche Wetlands' primary problem is that it has been cut off from the Mississippi River for nearly 100 years. Without the nourishing sediment, nutrients, fresh water, and flow from the river, the La Branche Wetlands have not been able to maintain their elevation relative to water levels, causing the vegetation to drown. Early wetland losses here were caused by even higher rates of subsidence than that due to the accretion deficit, in turn due to soil oxidation due to agricultural drainage. Construction of the MRGO increased salinities in Lake Pontchartrain and the La Branche Wetlands dramatically, causing stress and death to swamp vegetation further south, and to low salinity marsh vegetation closer to Lake Pontchartrain. Access canals dredged in the 1960s for construction of Interstate 10 caused some direct marsh loss, but perhaps more importantly, facilitated saltwater intrusion from Lake Pontchartrain and the MRGO. In addition, the La Branche Wetlands are impounded to varying degrees by the railroad crossing, and various water control structures, which might also contribute to wetland loss here. Finally, the Bayou Trepagnier area in the southwestern corner of the La Branche Wetlands, were contaminated by industrial discharges. Subsequently, the requirement that those discharges cease compounded the problems of the lack of connectivity with the Mississippi River and increased salinity, by eliminating the primary remaining freshwater sources- the contaminated industrial discharge.

Proposed Project Features

We propose reintroducing up to 4000 cfs of Mississippi River water into the southwestern corner of the La Branche Wetlands via the Bayou Trepagnier "Clean Corridor". This high flow potential is expected to be used infrequently however, for "pulsing" operation. This part of the La Branche Wetlands includes parts of the small Bayou Trepagnier Watershed, parts of which were historically contaminated by discharges from the refinery at Norco. During the 1990s and to the present, remediation of the contaminated site has been planned, including plans for creation of a "Clean Corridor" to facilitate reintroduction of Mississippi River water for ecological restoration of the western side of the La Branche Wetlands. The Bayou Trepagnier Working Group formed by LDEQ in 2000 developed a plan to address the area of contamination in the upper reach of the bayou referred to as Operating Unit 1. A decision document underwent public review and has been approved. It requires the responsible party to address contamination in operating Unit 1, including creation of an 800 foot wide clean corridor. The purpose of the clean corridor is to create an uncontaminated area that would allow for construction of a conveyance canal for diverted water eastward from the Bonnet Carré spillway into the La Branche wetlands without risk of remobilizing contaminants. The width of the clean corridor must be adequate for the maximum design discharge (4,000 cfs), probably requiring at least 800 feet width.

Goals

- Reduce wetland loss rates on the western side of the La Branche Wetlands
- Improve swamp habitat quality
- Increase flow through the western La Branche Wetlands
- Increase sediment accretion in the contaminated portions of the Bayou Trepagnier watershed and throughout the western La Branche Wetlands
- Construct and operate the project without disturbing contaminated sediments
- Decrease salinities in the La Branche Wetlands
- Increase SAV production

Preliminary Project Benefits

- Preliminary benefits=goals (see above)

Identification of Potential Issues

- Contaminated sediment, land rights

Preliminary Construction Costs

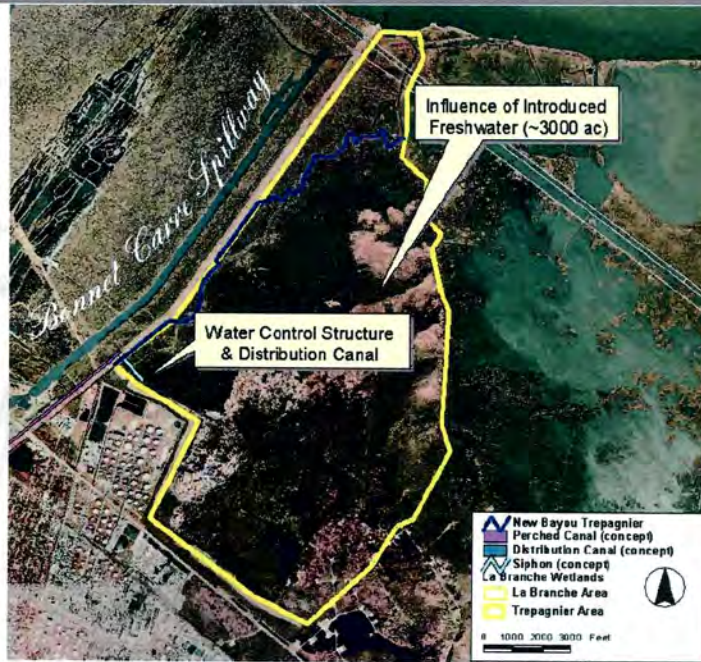
- Unknown

Preparer of Fact Sheet

Kenneth Teague, EPA, (214) 665-6687, Teague.Kenneth@epa.gov



Hydrodynamic & WVA Model Domain & Restoration Conceptual Design



Restore America's Estuaries Inaugural Conference, Baltimore, Maryland

April 15, 2003

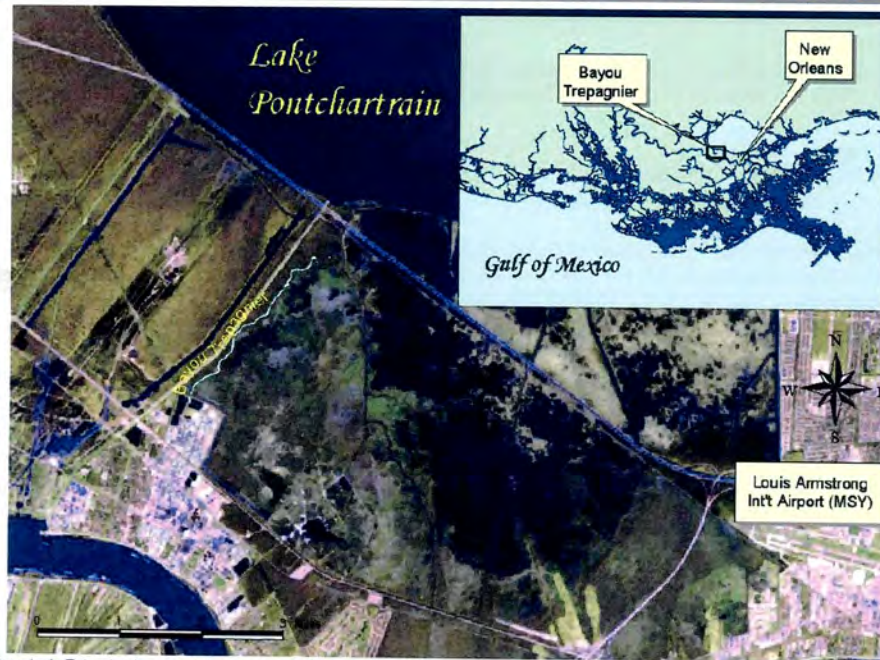
Source: Bayou Trepagnier Operable
Unit 1 Remedial Design – received at
DEQ 06/13/2008

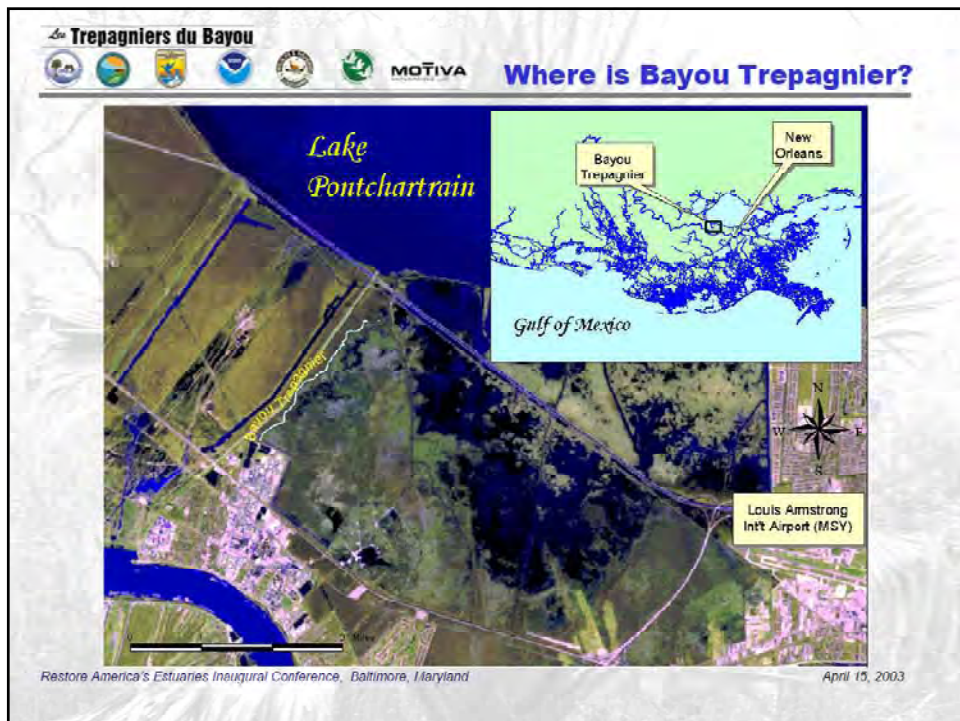


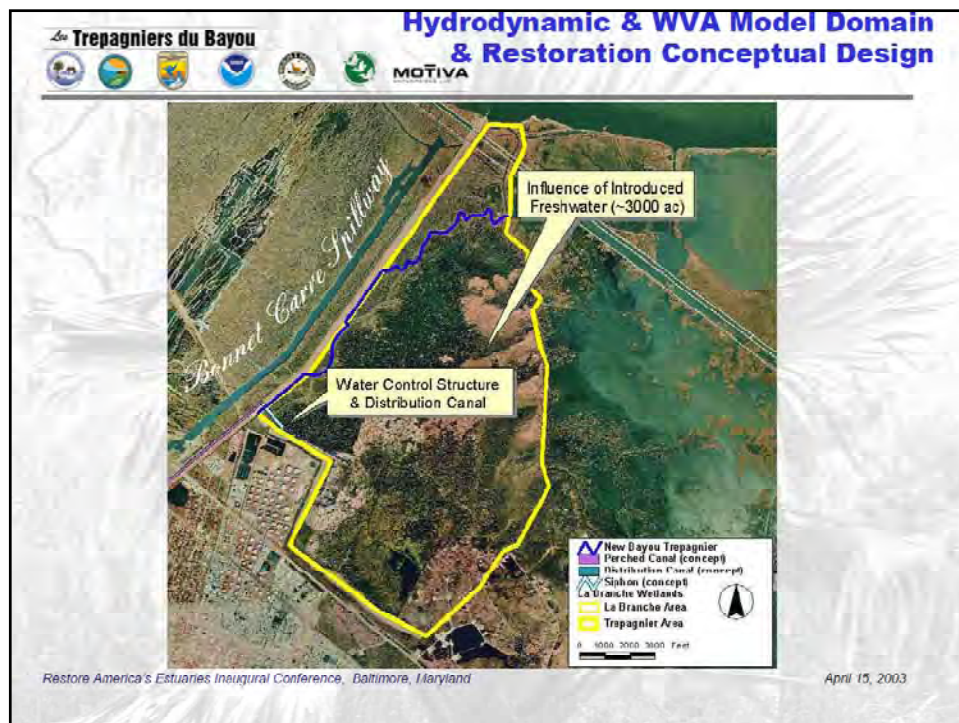
Existing infrastructure along the river largely prohibits construction of a diversion structure here, but the potential exists for a small diversion structure from the Bonnet Carre Spillway into the La Branche Wetlands. However, it is likely this structure would need to be a pump, due to the likelihood of limited hydraulic head most of the time. In addition, the project may require construction of a small diversion channel, and possibly gaps in spoil banks. All construction must be planned so as to avoid disturbance of contaminated sediment in the system.



Where is Bayou Trepagnier?







Small Mississippi River Reintroduction into La Branche Wetlands

Goals:

- Reduce wetland loss rates on the western side of the La Branche Wetlands
- Improve swamp habitat quality
- Increase flow through the western La Branche Wetlands
- Increase sediment accretion in the contaminated portions of the Bayou Trepagnier watershed and throughout the western LaBranche Wetlands
- Construct and operate the project without disturbing contaminated sediments
- Decrease salinities in the La Branche Wetlands
- Increase SAV production

Louisiana Department of Natural Resources

0 1mi

Small Mississippi River Reintroduction into La Branche Wetlands

Questions?

Kenneth Teague
EPA Region 6
(214)665-6687
Teague.kenneth@epa.gov



Louisiana Department of Natural Resources

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R1-PO-04

Bayou Bienvenue Marsh Creation

Bayou Bienvenue Marsh Creation

Coast 2050 Strategy:

- Dedicated Dredging, to Create, Restore, or Protect Wetlands;

Project Location:

Region 1, Pontchartrain Basin, Orleans Parish, just east of the Industrial Canal. An 85 acre tract was removed from the proposed CWPPRA project as it will be restored through the mitigation for the IHNC Lock Replacement.

Problem:

Over the past years the wetlands in the area have been lost because of altered hydrology due to impoundment, substance, and saltwater intrusion. The majority of the area is very shallow open water littered with cypress logs and stumps.

Goals:

The goal of this project is to create marsh in the triangular area adjacent to the headwaters of Bayou Bienvenue using sediment mined from the Mississippi River.

1. Restoration of 350 acres of open water into marsh
2. Restoring the historic bankline along Bayou Bienvenue.

Proposed Solution:

Dedicated dredging of sediments from the Mississippi River to create emergent marsh in the triangular area adjacent to the headwaters of Bayou Bienvenue.

Project Benefits:

The project would benefit 350 acres of wetlands by converting open water into marsh. A total of 340 net acres of wetlands would be protected/created over the 20-year project life. While it is not included in this proposal, past restoration strategies for this area included using treated effluent from the wastewater treatment plant located on the southeastern edge.

Project Costs:

Initial Cost plus 25% is approximately \$25 million.

Preparer of Fact Sheet

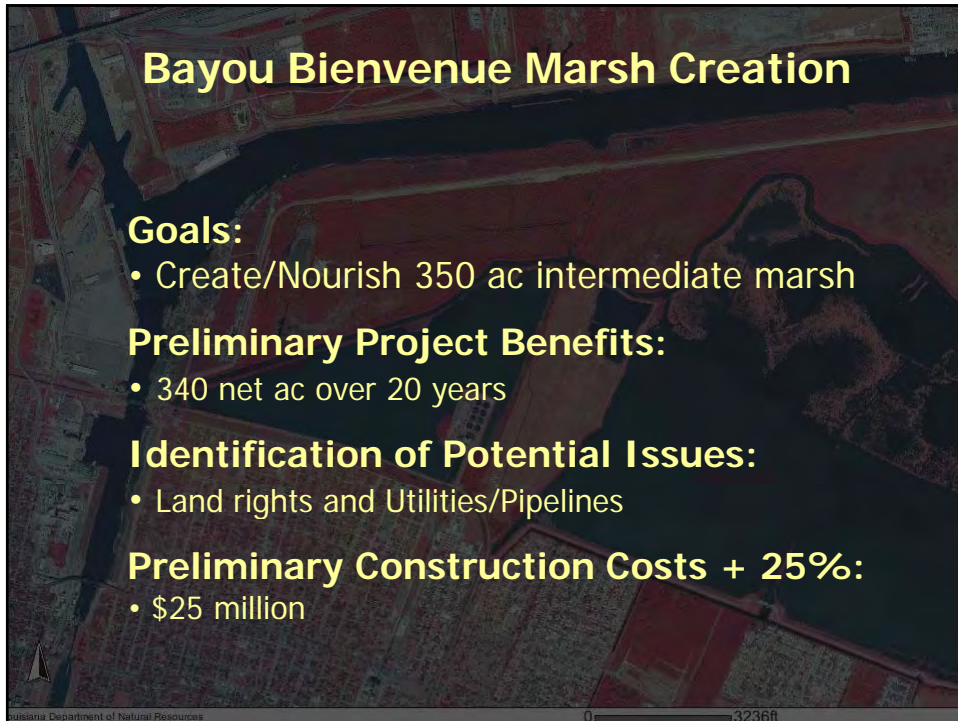
Brad Crawford, 214-665-7255, crawford.brad@epa.gov



Bayou Bienvenue Restoration







Bayou Bienvenue Marsh Creation

Goals:

- Create/Nourish 350 ac intermediate marsh

Preliminary Project Benefits:

- 340 net ac over 20 years

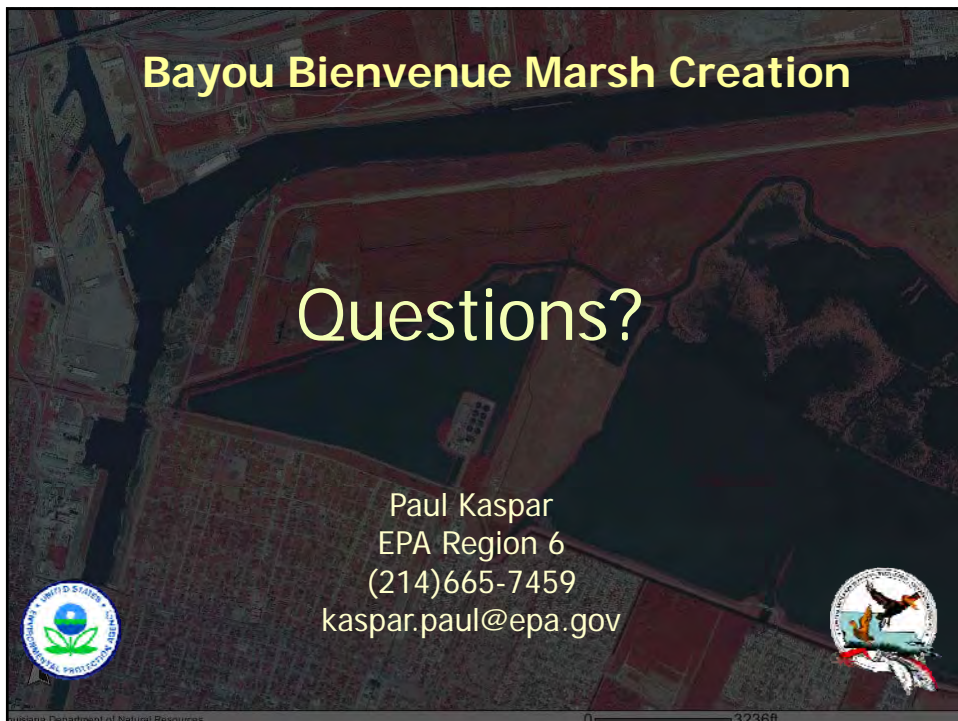
Identification of Potential Issues:

- Land rights and Utilities/Pipelines

Preliminary Construction Costs + 25%:

- \$25 million



Louisiana Department of Natural Resources 0 3236ft



Bayou Bienvenue Marsh Creation

Questions?

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Louisiana Department of Natural Resources 0 3236ft

R1-PO-05

Fritchie Marsh Creation and Terracing

PPL21 PROJECT NOMINEE FACT SHEET
January 26, 2011

Project Name

Fritchie Marsh Creation and Terracing

Coast 2050 Strategy

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

Regional: Restore and Sustain Marshes

Project Location

Region 1, Pontchartrain Basin, St. Tammany Parish, within the Fritchie Marsh watershed. It is located approximately 3 miles southeast of Slidell, Louisiana, near the northshore of Lake Pontchartrain. The marsh is bounded by U.S. Highway 90 to the south and east, Louisiana Highway 433 to the west, and U.S. Highway 190, just to the west of the Pearl River.

Problem

Although the CWPPRA PO-06 project was completed in 2001 and resulted in improved hydrology and marsh restoration throughout the area, a significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. This once stable land mass was severely damaged by the passing storm that in some locations marsh was stacked over nine feet high along the tree line. Now shallow open water areas dominate the landscape which reduces the effectiveness of the PO-06 project. Wetlands in the project vicinity are being lost at the rate of -0.41%/year based on USGS data from 1985 to 2009 in the Pearl River Marshes subunit. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained.

Proposed Solution

The project will construct approximately 550 acres of marsh platform. Definite creation areas include polygons C and D (~400 ac). Approximately 150 acres would be created in polygon B or partially in A and B. Borrow for marsh creation would come from Lake Pontchartrain. The borrow site in Lake Pontchartrain would be located far enough away from the existing shoreline to prevent slope failure and inducing wave refraction/diffraction erosion and avoid sandy substrate preferred by the threatened Gulf sturgeon. The borrow site would not be dredged deeper than 15 feet below Mean Water Level to minimize potential impacts on dissolved oxygen and would be monitored to verify the rate of infilling and for water quality.

Approximately 100,000 feet of terraces (69 acres above water; 10 feet crowns to +3 feet NAVD 88) would be constructed and planted either exclusively in polygon F or in E and F combined. Four culverts would be installed in the existing unimproved road to restore and enhance tidal exchange with the area in polygon D. Additionally, four more culverts may be included under the highway to connect into the planned residential development to promote enhance tidal exchange with the Fritchie marsh and improved flushing of the planned deadend canals to minimize typical degraded water quality with those features. Inclusion of these culverts is pending coordination with the developer. Cleanout of the sediment sill in Salt Bayou adjacent to the bridge would be included pending further investigation and coordination to enhance improved hydrology.

The containment dikes will be degraded within three years of construction to allow for tidal exchange. Tidal creeks and ponds may be incorporated into the candidate design. Alternative marsh acres and marsh and terrace layout would be considered based on feedback received from the agencies and further coordination with the refuge.

Goals

Project goals include 1) creating 550 acres of intermediate marsh, 2) creating 100,000 linear feet of vegetated, earthen terraces (~69 acres), 3) reducing wave fetch and erosion of adjacent interior marshes, and 4) improving tidal connection.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 619 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 547 ac of brackish marsh will be protected/created over the project life (this include loss applied to the terraces in the same manner as the marsh creation).
- 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 the natural ridge along and extending from Provost Island.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a net positive effect on the highways and adjacent development.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a direct synergy with the PO-06 CWPPRA project.

Identification of Potential Issues

The proposed project has potential land rights only if dredging the sill in Salt Bayou is included. Otherwise cooperation from the landowners is expected.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$26,828,000.

Preparer(s) of Fact Sheet:

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

PPL 21: Fritchie



Cleanout

1

Miles

- Extended Boundary
- Marsh Creation A (129 acres)
- Marsh Creation B (153 acres)
- Marsh Creation C (113 Acres)
- Marsh Creation D (270 acres)
- Terraces E (206 acres)
- Terraces F (721 acres)
- Culverts
- Camp Development

USFWS SE Louisiana Refuges Complex



North Shore Priorities



Fritchie Marsh Creation and Terracing

Why Fritchie?

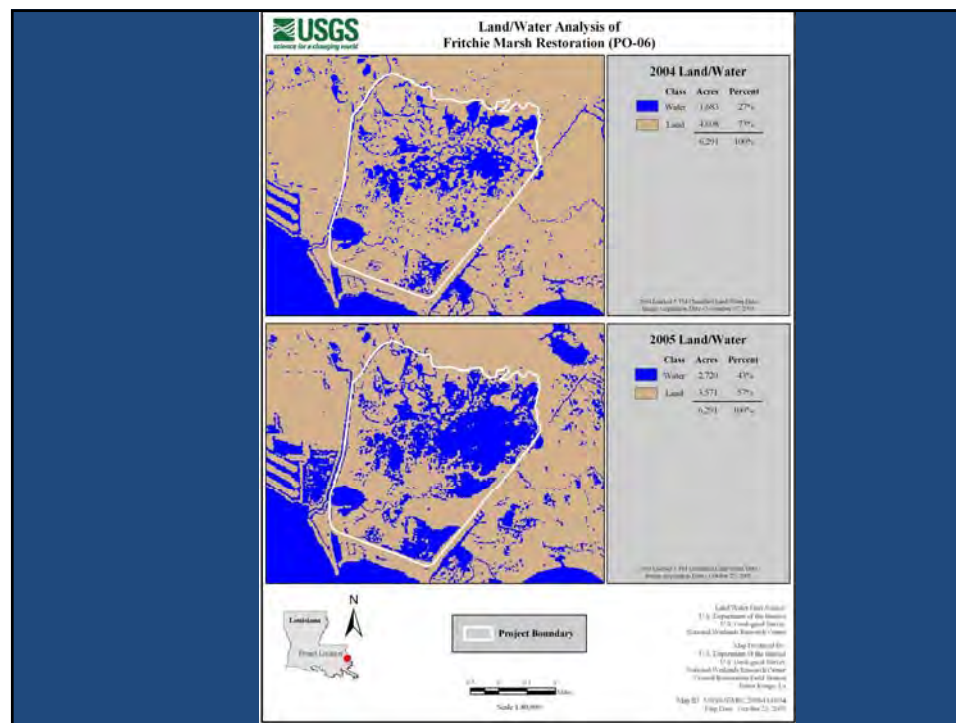
2004 Fritchie



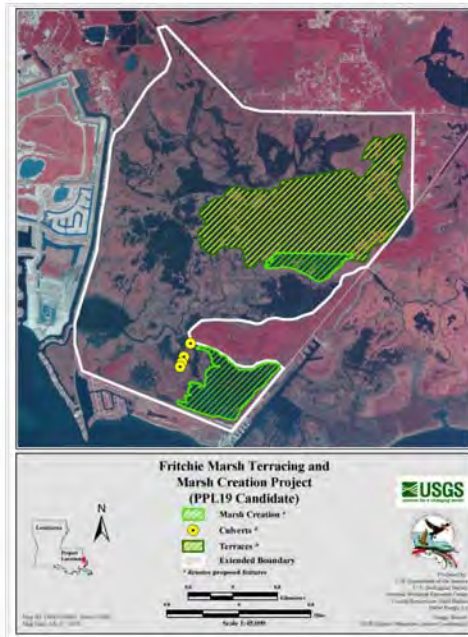
2005 Fritchie



2008 Fritchie

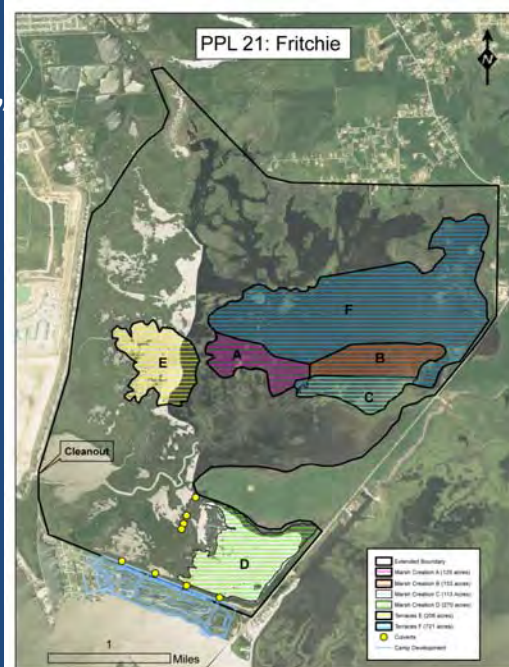


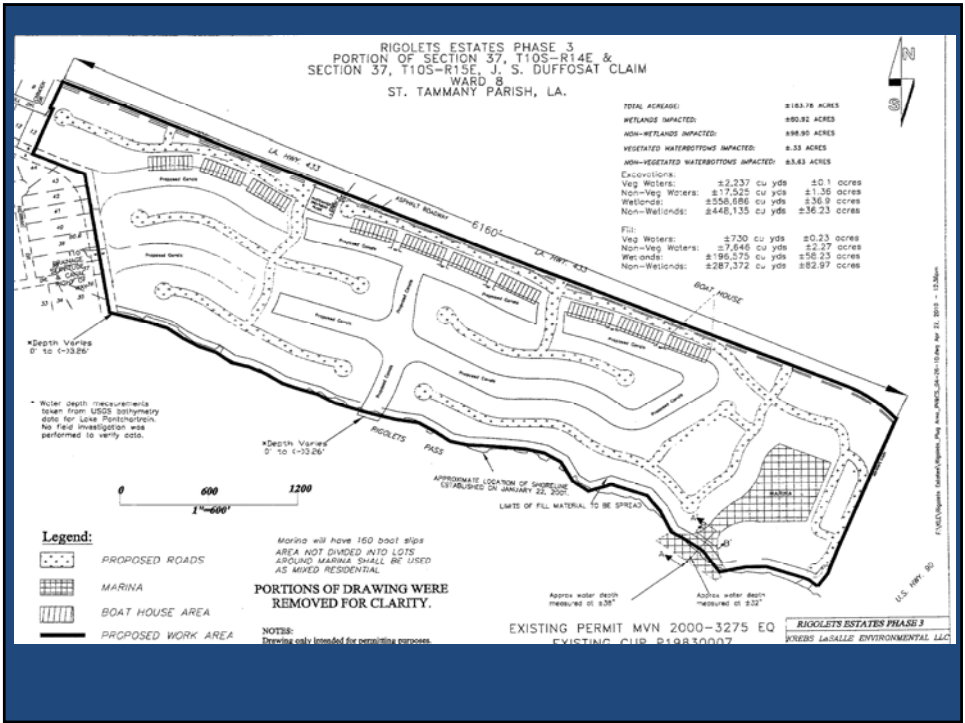
“Old Fritchie”

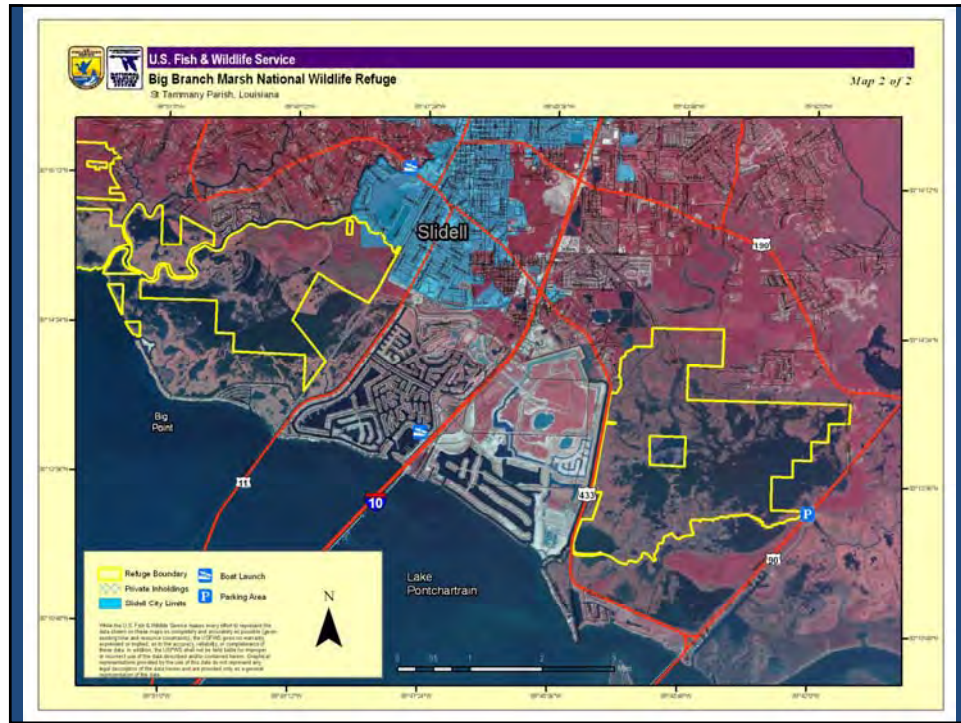


“Fritchie New and Improved 2.0 Version”

How?







R1-PO-06

Northern Chandeleur Island Restoration

PPL21 PROJECT NOMINEE FACT SHEET
January, 27 2011

Project Name:

Northern Chandeleur Island Restoration

Coast 2050 Strategy:

Dedicated Dredging for Wetland Creation (Coastwide Common Strategy); Maintain Chandeleur Islands if necessary (Region 1 Strategy 12); and Vegetative Plantings (Chandeleur mapping unit strategy 57)

Project Location:

Region 1, Chandeleur Islands, St. Bernard Parish, North of Redfish Point and South of Hewe's Point

Problem:

The Chandeleur Islands have played a historical role in attenuating mainland storm impacts, regulating estuarine gradient between the Sound and Gulf of Mexico, supporting the recreation and tourism industry, and providing diverse fishery assemblages and wildlife habitat unique to coastal Louisiana. A net loss of barrier island sand to deepwater down-drift sinks has resulted in a reduction of total island area from 17.2 mi² in 1855 to 1.8 mi² in 2005. Increased hurricane intensity and frequency in the northern Gulf of Mexico during the past decade has accelerated this land loss trend, forcing the Chandeleur Islands into a mode of rapid dissection and transgressive submergence. Recent island area reduction rates are estimated at about 250 acres/year (Fearnley et al 2009). Based on extrapolated historical land loss and shoreface retreat rates, the islands will be completely converted to a system of submerged shoals within approximately 25 years (Thompson et al, 2009).

Goals:

- Increase longevity of existing and most stable landmass through the re-introduction of sand
- Restore/create beach fill landward to minimize offshore sediment losses
- Restore/create back barrier platform to provide structural framework for overwash
- Restore/create barrier island beach and bay inter-tidal habitat
- Reduce projected losses of seagrass habitat unique to Louisiana

Proposed Solutions:

In order to address the sand deprived problem observed along the Chandeleur Islands, the project location and orientation (north-south) was located on the most stable area of the island based on longshore transport rates and structural underlying (former spit) foundation. This information was obtained from data collected by the University of New Orleans (UNO) and provided in a report to the Corps of Engineers in support of MRGO ecosystem restoration efforts (Thompson, 2009).

The design was selected to minimize offshore losses from the constructed beach fill and overwash losses to the constructed back barrier platform. This information was obtained from the sediment budget map and island migration data input extrapolated from the above referenced report. The beach fill template is strategically designed to construct a 250 ft wide and landward supratidal berm to a +4.0 NAVD elevation to restore 15,150 ft of gulf shoreline. The back barrier platform was designed to construct a 1200 to 1400 ft wide platform to an inter-tidal elevation of +2.0 NAVD to provide a low but wide roll over platform during over wash events in order to maximize the longevity of the sand being re-introduced into the barrier island system.

An estimated 500 million cubic yards of potentially beach compatible sand exists at the northern flank of the Chandeleur Island chain at Hewe's Point. About 4.2 M cy of material has been mined thus far from Hewe's Point for construction of the emergency sand berm. The pump distance is from Hewe's Point to the project site is approximately 8 miles. The project proposes to place material into semi-confined discharges to construct the beach and back barrier platform template. The estimated cost (mobilization

and fill placement) to deliver 2.4 million cubic yards of material “in-place” from Hewe’s Point to the project area is \$30 million. The unit cost estimate was obtained from the MRGO report and tailored to fill quantity of the proposed project and the distance from Hewe’s Point to the project area.

Preliminary Project Benefits:

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

In total, the project will benefit 452 acres of barrier island habitat. The project will create/restore 365 acres of back barrier platform. The project will also benefit about 87 acres of Gulf shoreline through the restoration of beach (15,150 ft in length, 250’ created landward at +4.0 ft NAVD).

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

The total net benefit will be 222 acres remaining at TY20 (based from WVA assumptions in the MRGO report and scaled to this project size).

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).

Based on the WVA assumptions in the MRGO Ecosystem Restoration report and scaled to a project of this size, it is anticipated that the loss rate reduction would be 50-75% throughout the area of direct benefits over the project 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 would maintain barrier shoreline landscape features.

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

No.

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

No.

Identification of Potential Issues:

U.S. Fish and Wildlife wilderness designation

Preliminary Construction Costs:

The estimated construction costs including 25% contingency is \$37 million.

Preparer(s) of Fact Sheet:

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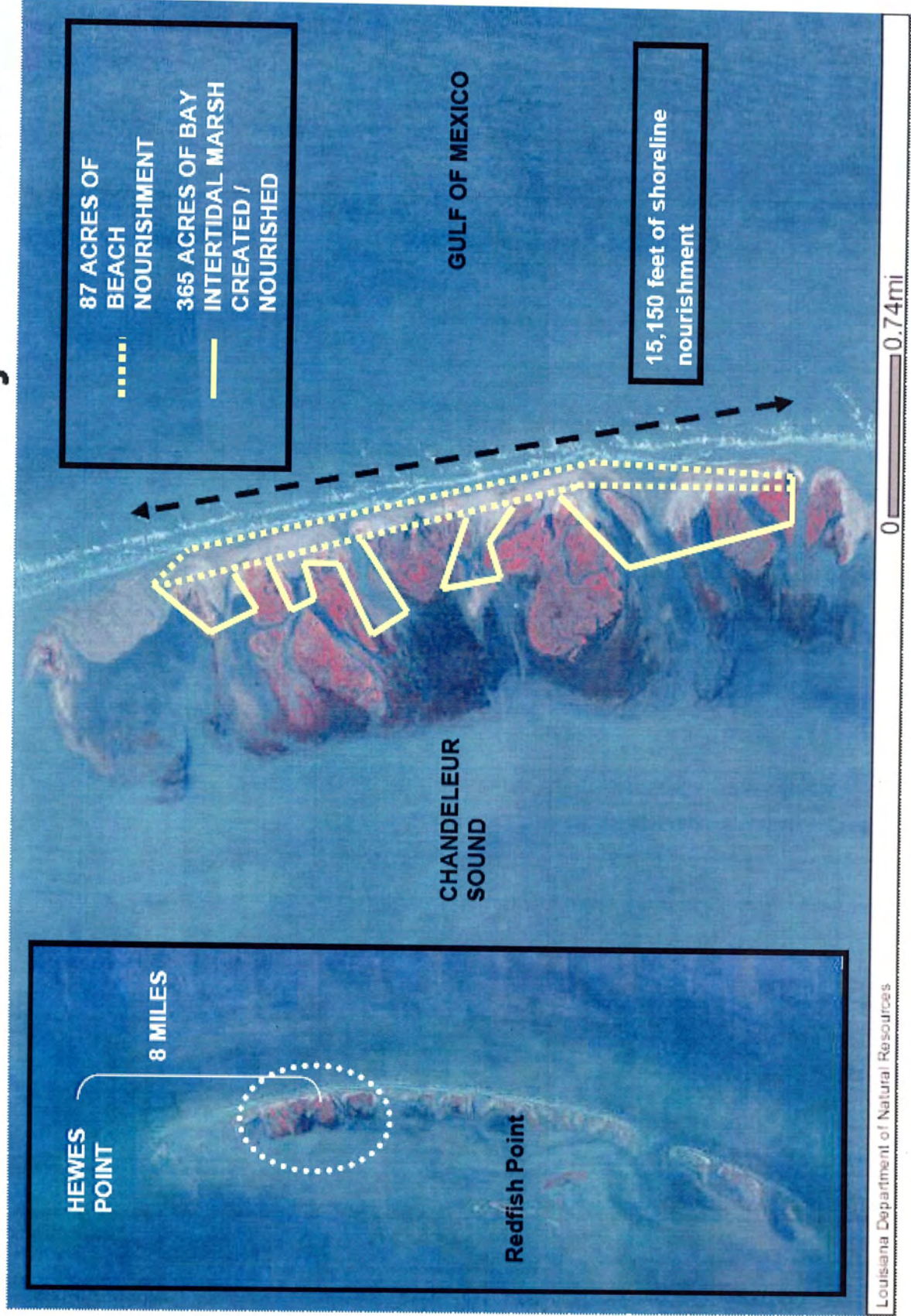
Rachel Sweeney, NOAA, 225.389.0508 ext 206, Rachel.Sweeney@noaa.gov

References

Fearnley, S.M., Miner, M., Kulp, M., Bohling, C., and Penland, S. Hurricane impact and recovery shoreline change analysis of the Chandeleur Islands, Louisiana, USA: 1855 to 2005, *Geo-Mar Lett* (2009) 29:455–466

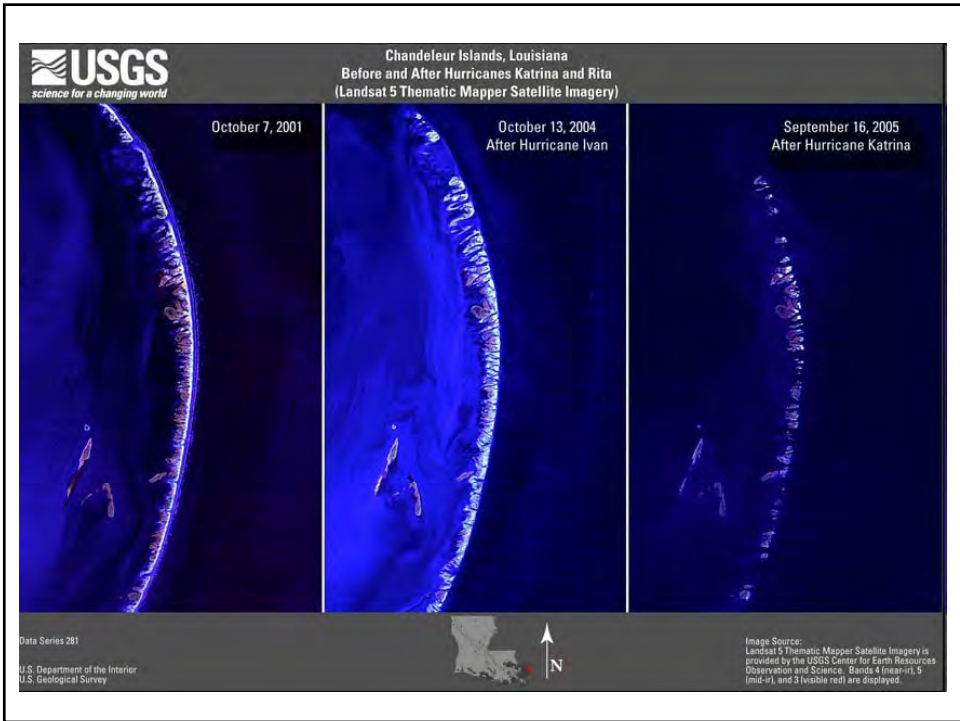
Thompson, G., Miner, M., Wycklendt, A., and Rees, M., 2009. *MRGO Ecosystem Restoration Feasibility Study – Chandeleur and Breton Islands*. Boca Rotan, Florida: Coastal Planning & Engineering, Inc. 96p. (Report prepared for USACE under contract to URS).

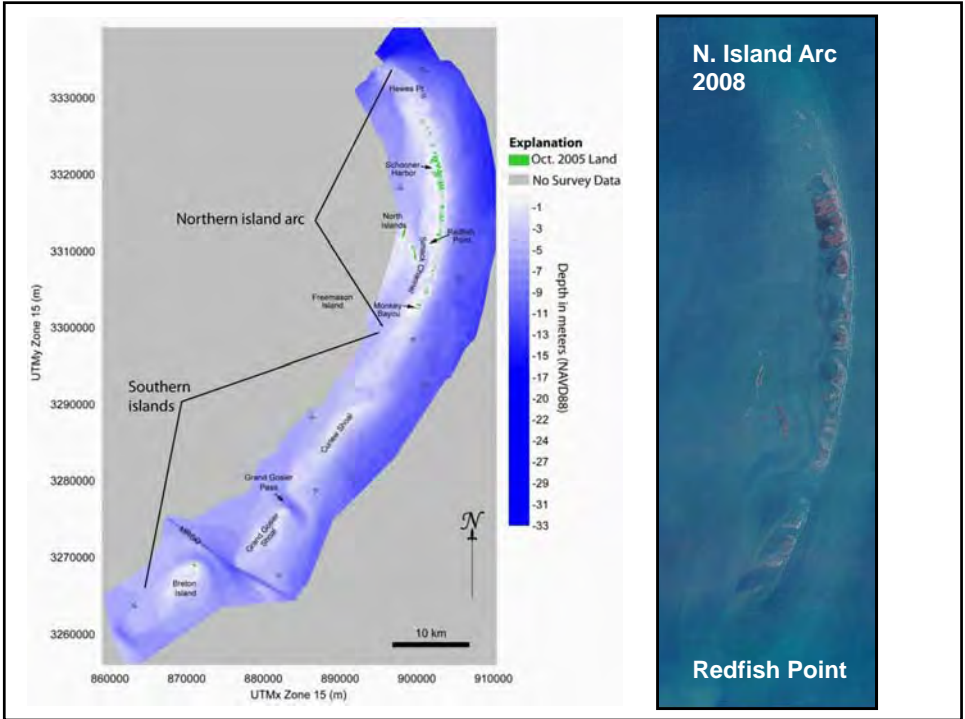
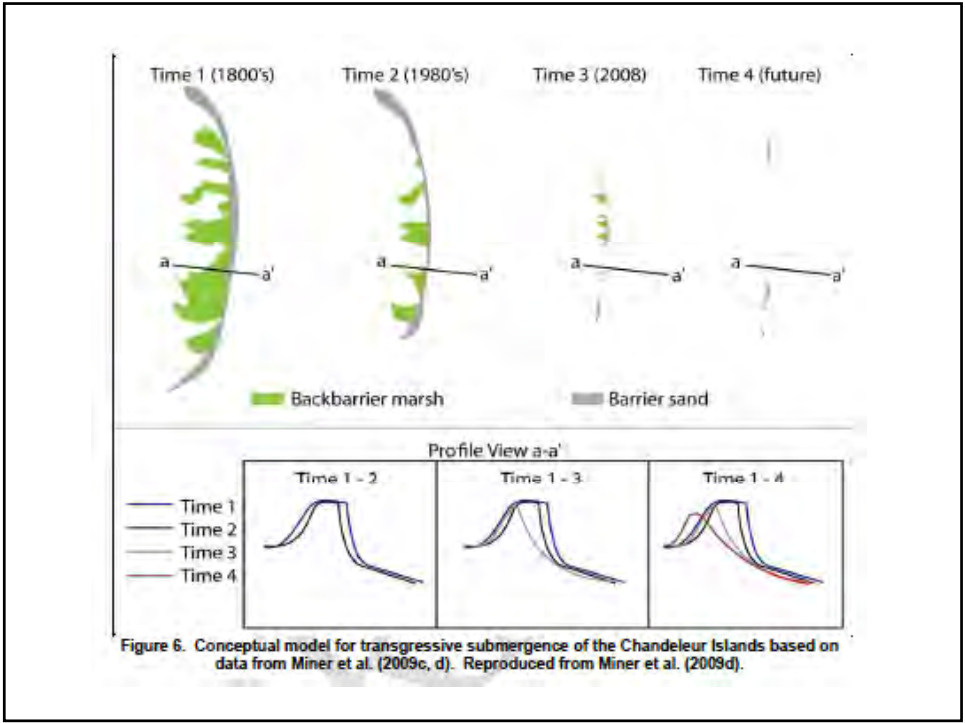
Northern Chandeleur Project Area



PPL 21

Northern Chandeleur Island Restoration

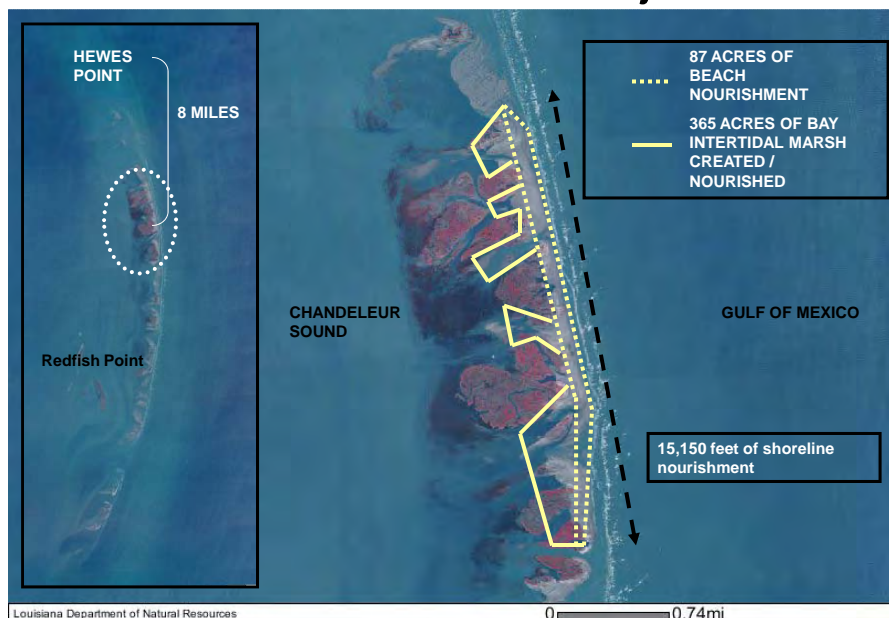




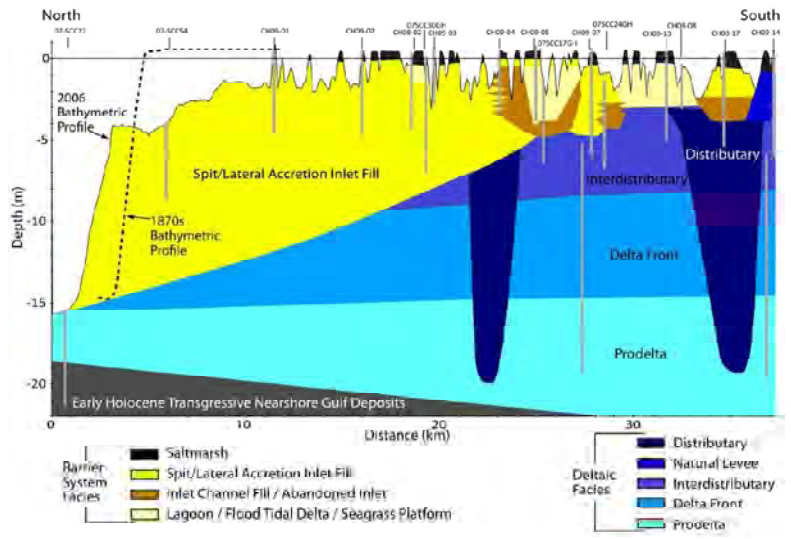
Project Goals:

- Increase longevity of existing and most stable landmass through the re-introduction of sand
- Restore/create beach fill landward to minimize offshore sediment losses
- Restore/create back barrier platform to provide structural framework for overwash
- Restore/create barrier island beach and bay inter-tidal habitat
- Reduce projected losses of seagrass habitat unique to Louisiana

Northern Chandeleur Project Area

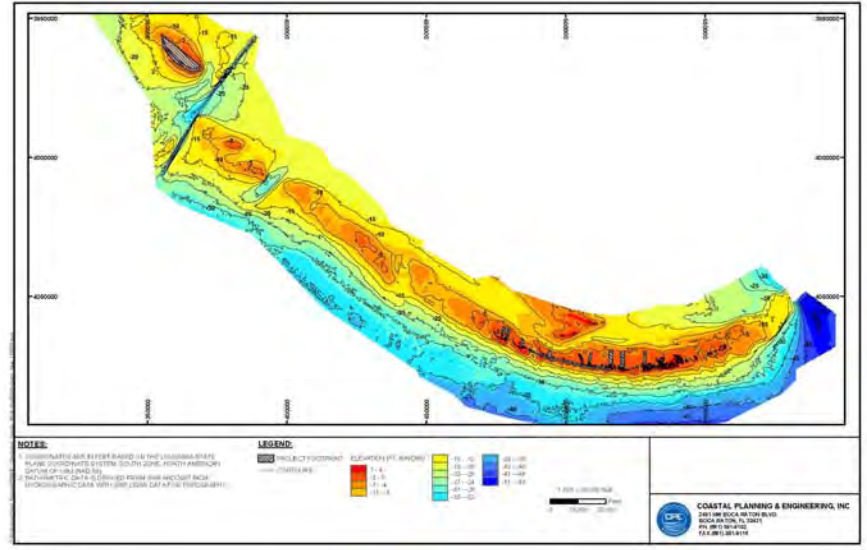


Project Alignment by observed by Geo-logic Cross Section

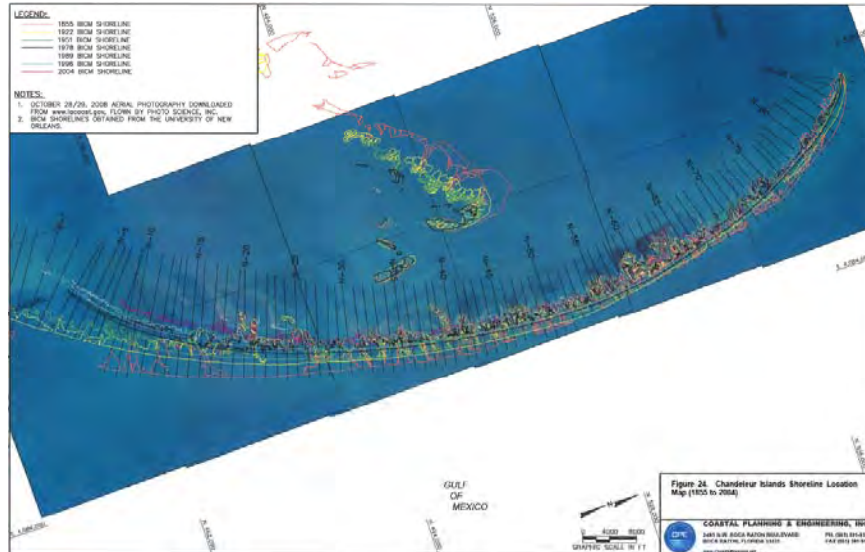


MRGO Report 2009 - Profiles from Miner et. Al 2009

Project Alignment with observed Elevations



Project Alignment by observed Island Migration



CPE, MRGO Report 2009

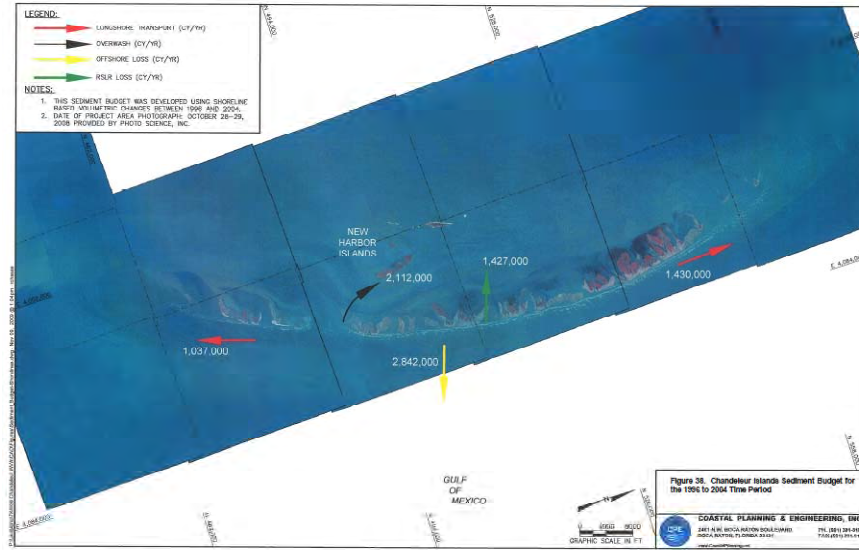
Project Features/Benefits:

- **15,150** linear ft of shoreline
- **87** acres constructed beach fill
- **365** acres of constructed back barrier platform
- Vegetative plantings

TY20 (estimates)	*Low (acres)	*High (acres)
Supra-tidal:	0	0
Gulf intertidal:	0	6
Bay intertidal:	167	277
<u>SAV:</u>	<u>2344</u>	<u>3829</u>
	net:	222

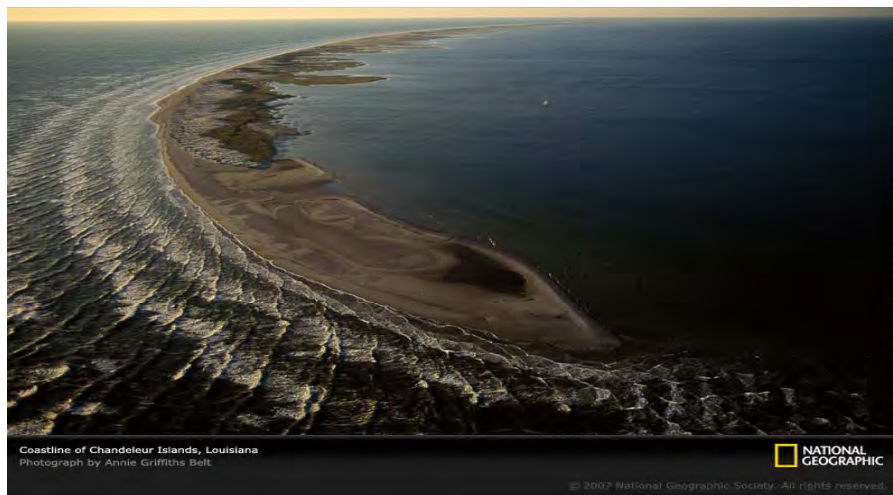
**These estimates Low (FWOP) and High (FWP) are based on assumptions from the WVA information provided in the MRGO report.*

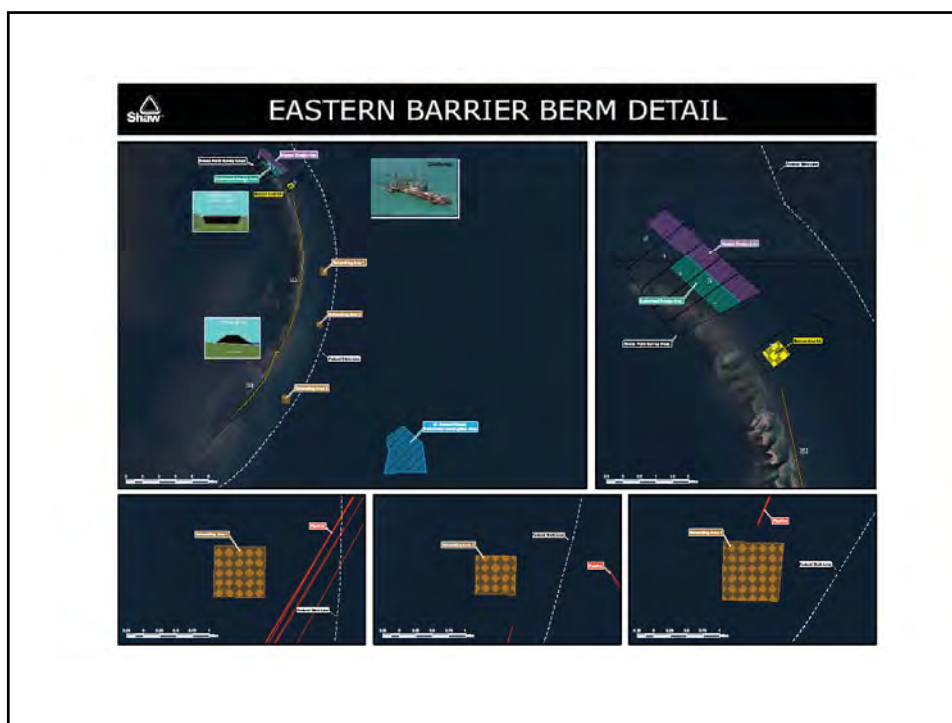
Project performance based on preliminary sediment budget

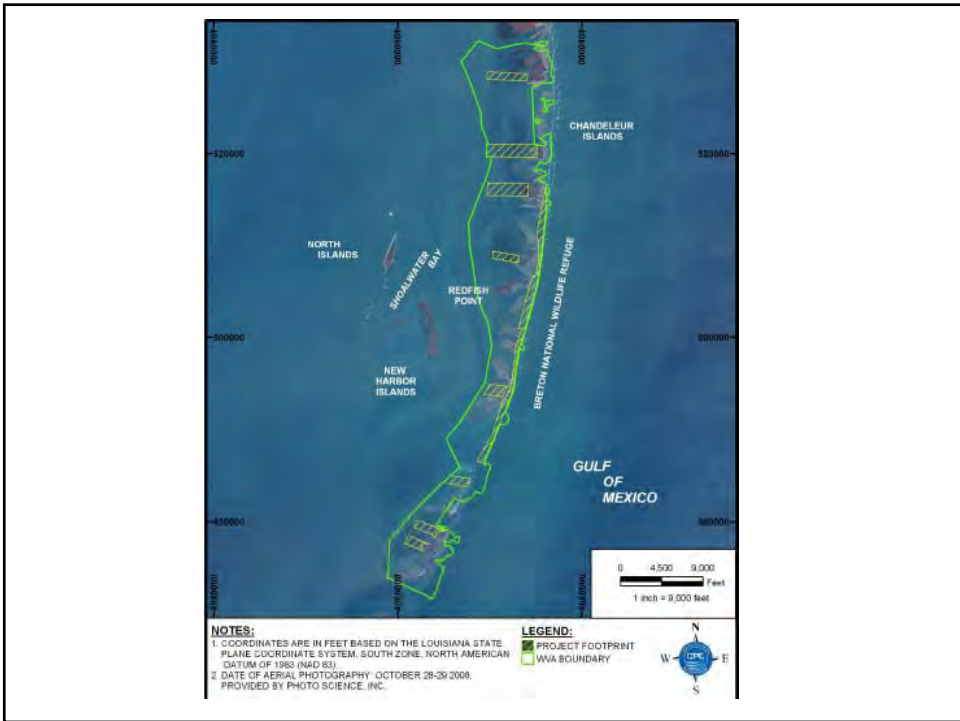


CPE, MRGO Report 2009

Questions??







R1-PO-07

Golden Triangle Marsh Creation

PPL21 PROJECT NOMINEE FACT SHEET
January 13, 2011

Project Name

Golden Triangle Marsh Creation

Coast 2050 Strategy

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

Regional: Restore and Sustain Marshes

Project Location

Region 1, Lake Pontchartrain Basin, St. Bernard and Orleans Parishes

Problem

Based on the USGS 1985 to 2009 loss rate, the wetlands in the South Lake Borgne subunit in which the Golden Triangle is located are being lost at -0.49%/year. Evaluation of 1998 to 2008 photography indicates interior breakup and coalescence of newly formed open water with historic ponds as well as increased connection with Bayou Bienvenue and the Gulf Intracoastal Waterway.

Proposed Solution

The proposed project technique is marsh creation via dedicated dredging from Lake Borgne. The primary target fill area are those identified in red that are very shallow as result of two disposal events by the Corps of Engineers for the construction of the surge barrier component of the Hurricane Surge Damage Risk Reduction System. Additionally, the yellow areas would be filled to create marsh as well. Areas in and around the vicinity of the purple site or other areas would be considered if the project becomes a candidate to potentially increase the acres by 50 to 100 acres. There is the potential for credit from marsh nourishment either by directly or indirectly targeting existing marsh inside or adjacent to the depicted polygons; however, those refinements would be made at the candidate stage and those potential benefits are not included below. The borrow site in Lake Borgne would be located far enough away from the existing marsh shoreline to prevent slope failure and inducing wave refraction/diffraction erosion and avoid sandy substrate preferred by the threatened Gulf sturgeon. Furthermore, the borrow site would not be dredged deeper than 15 feet below Mean Water Level to minimize potential impacts on dissolved oxygen and would be monitored to verify the rate of infilling and for water quality.

The conceptual project has been coordinated with staff of the Corps' Hurricane Protection Office. At the suggestion of their environmental staff, some acreage (e.g., 18 acres) would be excluded from P2 immediately adjacent to the GIWW, thus allowing for potential future disposal of material dredged to conduct maintenance on the surge barrier and avoidance of remaining deep water in that disposal area. 4

Goals

The project goal is to create approximately 400 ac of brackish marsh using sediment dredging from Lake Borgne in a manner to compliment and not conflict with the Corps' surge barrier.

Preliminary Project Benefits

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

This total project area is 400 ac.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 354 ac of brackish marsh 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?*
No. However, the project will help maintain the continuity of the southwestern shoreline of Bayou Bienvenue.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
Although the marsh creation is located to maximize the synergy with the surge barrier, low elevations of marsh have been demonstrated to have a relative small positive effect on storm surge. Therefore, the project will have a minor net positive effect on a component of a critical flood protection system.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
No. However, the project will have a synergistic effect with the tentatively selected plan of the Mississippi River Gulf Outlet Ecosystem Restoration Study if funded for construction.

Identification of Potential Issues

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

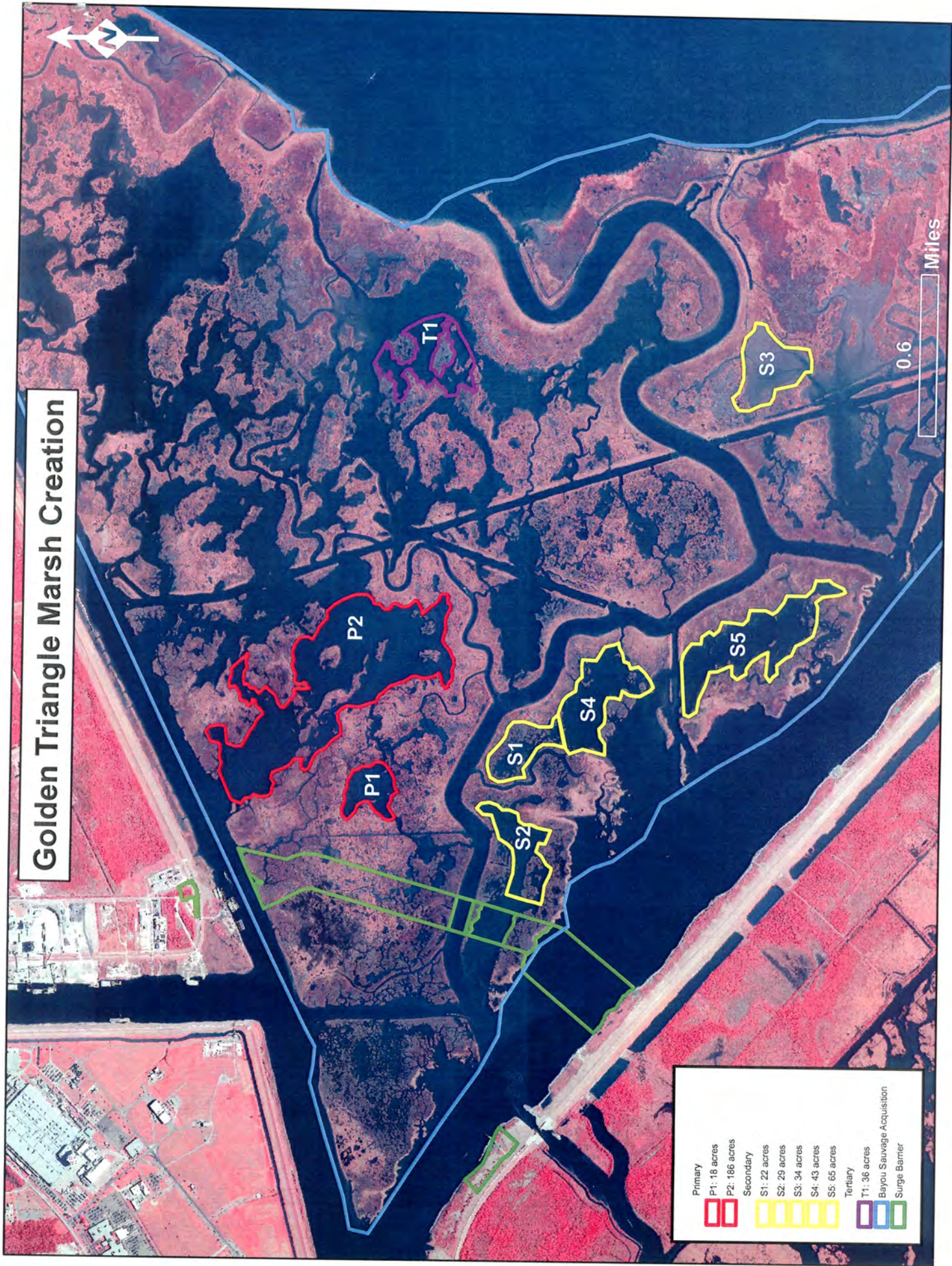
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$18,636,000.

Preparer(s) of Fact Sheet:

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

Golden Triangle Marsh Creation



Primary	
P1: 18 acres	
P2: 186 acres	
Secondary	
S1: 22 acres	
S2: 29 acres	
S3: 34 acres	
S4: 43 acres	
S5: 65 acres	
Tertiary	
T1: 36 acres	
Bayou Sauvage Acquisition	
Surge Barrier	