

PPL 17

Regional Planning Team Meetings

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

Initial Fact Sheets and Maps

Region 2
New Orleans
January 11, 2006



ATTENDANCE RECORD



DATE(S) January 11, 2007 9:00 A.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION U.S. Army Corps of Engineers -New Orleans District District Assembly Room 7400 Leake Ave. New Orleans, LA
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PURPOSE

MEETING OF THE REGIONAL PLANNING TEAM REGION II

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	TELEPHONE NUMBER
Tim Landers	EPA	214-665-6608
MARON FOUR	NRCS	318-473-7690
Honora Bures	LDNR	225-342-4103
Kelley Temple	LDNR	225-342-1592
DAN LLEWELLYN	DNR	225-342-5159
JASON KROLL	NRCS	318 473 7816
Brad Crawford	EPA	214 665 7255
Melanie Magee	EPA	214 665 7161
Angela Trahan	FWS	337 291 3137
Kevin Roy	USFWS	337-291-3120
PATRICK WILLIAMS	NOAA/NMFS	225-889-0508
Bren Haase	LDNR-CRD	225-342-1475
Quin Kinler	NRCS	225-382-2047
Randy Moertle	Little Lake Land Co. / General Ag. Services	(985) 532-6388
Trovis Creel	USACE	504 862-1071
Mark Roberts	Burk-Klempeter, Inc.	504-486-5901
John Lopez	Lake Pontchartrain Basin Fund	225-294-4998
Chris Andry	St. Bernard Parish Gov.	(504) 278-4405
DAVID WILLIAMS	Brown + Caldwell	504-598-1747
HEATHER WARNER FINLEY	LDWF	225.765.2956
Gregory Miller	USACE	504.862.2310
Sue Howes	"	" " 2518

PARTICIPANT REGISTER (CONTINUED)

NAME	JOB TITLE AND ORGANIZATION	TELEPHONE NUMBER
Mamuel Ruiz	LDWF	225-765-2373
ANDREW MACINNIS	PIAR. PRUSA CEM	504 297-5320
Beth McCasland	USACE - Env Planning	504-862-2021
Mandy Green	LDNR - CRD	225-342-1357
KARIM BECHANGAI	LDNR - CRD	225 342 4123
DAVID LINDQUIST	LDNR - CRD	225 342 9683
Winstell Curule	CEM Adm. Lafourche Par.	985-637-7552
KEITH O'CAIN	USACE - ENR DIV.	504-862-2746
Rick Braussard	USACE - ENR DIV	504-862-2402
FAY LACHWAY	USACE	504-862-2309
Nancy Walters	National Park Service	504-589-3882
Audrey Urqu	USACE	504.862.2911
William Niesen	USACE	504-862-2037
MAX NASSAR	DUTM HARRIS	504.529.4533
Penny Roussele	DNR.	504. 430 8366
Marietta Greene	Madison Land Co	504-454-0707
James Harris	USFWS	985-882-2000
Bob Schroeder	Cit Fenstermaker	504-427-5796
Vickie Dufourc	Jeff Parish / SCI	504-347-3600
Charles Sasser	LSU	225-578-6375
Blair Hutchison	U.S. Geological Survey	225-578-7440
Garc Rauber	USACE	504-862-2543
Robert Arietti	USACE	" - 862-1672
Daniel Becker	Spinning Farms Wetland Nursery	225-766-9206
Yarrow Etheredge	TEA, Inc	504-710-5559
DON BLANCHER	TEA, Inc	251-819-4161
Marnie Winter	Jefferson Parish	504-731-4612
Wyneda Fize	City of New Orleans	504-658-4071
Rony Nettles	Grande Terre Land owner	225 937 8521
JOHN PETITSON	COE	504-862-2732
Vince Melvin	Lafourche Parish	985-632-4666
Cynthia Duet	ARCADIS	225 292 1004
PATRICK ROUSSET	PRRSANT, Power ENGINEERING	504 486-0525
Wooly Craws	CRCL	504-888-7790
MAUREEN MURPHY	UNO	504-460-3719
Chank Little	FPA	24-165-6609

**Region 2
Regional Planning Team Meeting
11 Jan 07
New Orleans, LA**



**1. Welcome
and Introductions**



RPT Region 2
Leader:
Greg Miller -USACE

Announcements

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

Announcements

Eligible parishes for basins in Region 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

Mississippi River Basin

Plaquemines Parish

2. PPL17 Selection Process and Ground Rules



CWPPRA PPL 17 Process Summary

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

CWPPRA PPL 17 Process Summary

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

CWPPRA PPL 17 Process Summary

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

CWPPRA PPL 17 Process Summary

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

3. Region 2 Coast 2050 Regional Strategies



Projects nominated should be:

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

Restore Swamps

- Construct small sediment-rich diversions with outfall management
- Restore natural drainage patterns
- Prevent diversion-related flooding by building local levees at the wetland/upland interface and local pumping; remove diverted waters from upper basin by raising Highway 90 and installing flap-gated culverts or other appropriate measures

Restore and Sustain Marshes

- Use existing or future locks (Harvey, Algiers or Empire) to divert as much water as possible.
- Manage outfall of existing diversions
- Enrich existing diversions with sediment
- Continue building and maintaining delta splays
- Construct most effective small diversions (Upper Oak, Amoretta, East and West of Empire)
- Construct sediment trap in Miss. River south of Venice and pump out to build marsh
- Construct delta-building diversion in the Myrtle Grove/Naomi area (15,000 cfs)
- Construct delta-building diversion in Bastion Bay (about 15,000 cfs)

Restore and Sustain Marshes

- Construct delta-building diversion into Benny's Bay (50,000 cfs)
- Construct delta-building diversion into American Bay (20,000-100,000 cfs)
- Construct controlled crevasses to allow diversion into Quarentine Bay and control sediment with low levees (about 50,000 cfs)
- Prevent loss of bedload into deep Gulf waters by relocating the navigation channel, not thru Bastion Bay, to reallocate water and sediment for land-building near shore

Restore and Sustain Marshes

- Dedicated dredging to create marsh near La. Highway 1
- Dedicated dredging of sediment for marsh building in Caminada Bay
- Construct large conveyance channel parallel to B. Lafourche to divert 100,000 cfs to create a delta lobe in Caminada Bay
- Gap spoil banks and plug canals in lower bay marshes

Restore, Protect and Maintain Bay, Lake and Gulf Shorelines and Barrier Islands

- Construct wave absorbers or low breakwaters at the head of bays
- Construct reef zones across bays
- Restore/maintain barrier headlands, islands and shorelines
- Extend and maintain barrier islands/shoreline from Sandy Point to Southwest Pass

Maintain Critical Landforms

- Build entire CWPPRA land bridge shore protection project
- Preserve bay/lake shoreline integrity on the land bridge
- Dedicated dredging to create marsh on the land bridge
- Build Bayou Lafourche siphon and pump project, if cost effective

Coast 2050 Coastwide Strategies



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

4. PPL17 Project Nominations



Demonstration Projects

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

5. Announcement of Coast-wide Voting Meeting



Coast-wide Voting Meeting

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

Coast-wide Voting Meeting

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

Coast-wide Voting Meeting

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

6. Announcements of Upcoming Meetings



PPL 17 Upcoming Meetings

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

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

Public Meetings

29 Aug 07, Abbeville
30 Aug 07, New Orleans

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

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

7. Adjourn



Region 2 – Barataria Basin

Proposed Projects

**R2-BA 1 West Point a la Hache Marsh
Creation Project**

DRAFT PPL17 PROJECT NOMINEE FACT SHEET

January 18, 2007

Prepared by: Environmental Protection Agency

Project Name:

West Pointe a la Hache Marsh Creation

Coast 2050 Strategy:

- Coastwide: Dedicated dredging to create, restore, or protect wetlands
- Coastwide: Off-shore and riverine sand and sediment resources
- Coastwide: Maintenance of Gulf, bay and lake shoreline integrity

Project Location:

Region 2, Breton Sound Basin, Plaquemines Parish, in the outfall area of the West Pointe a la Hache siphon.

Problem

The West Pointe a la Hache area wetlands were cut off from the historic overbank flooding of the Mississippi River with the manmade improvements to the river channel. Without continued sediment input, marshes couldn't maintain elevation due to subsidence. In addition, oil and gas canals disrupted hydrology and facilitated saltwater intrusion.

Proposed Project Features

A 475 acre marsh creation/marsh nourishment project using sediments from the Mississippi River.

Goals

- Convert approximately 475 ac of open water habitat to intermediate marsh.
- Maintain 400 ac of created marsh over the 20 year project life

Preliminary Project Benefits:

- 400 net ac over 20 years

Identification of Potential Issues

- Oil & Gas
- Land rights

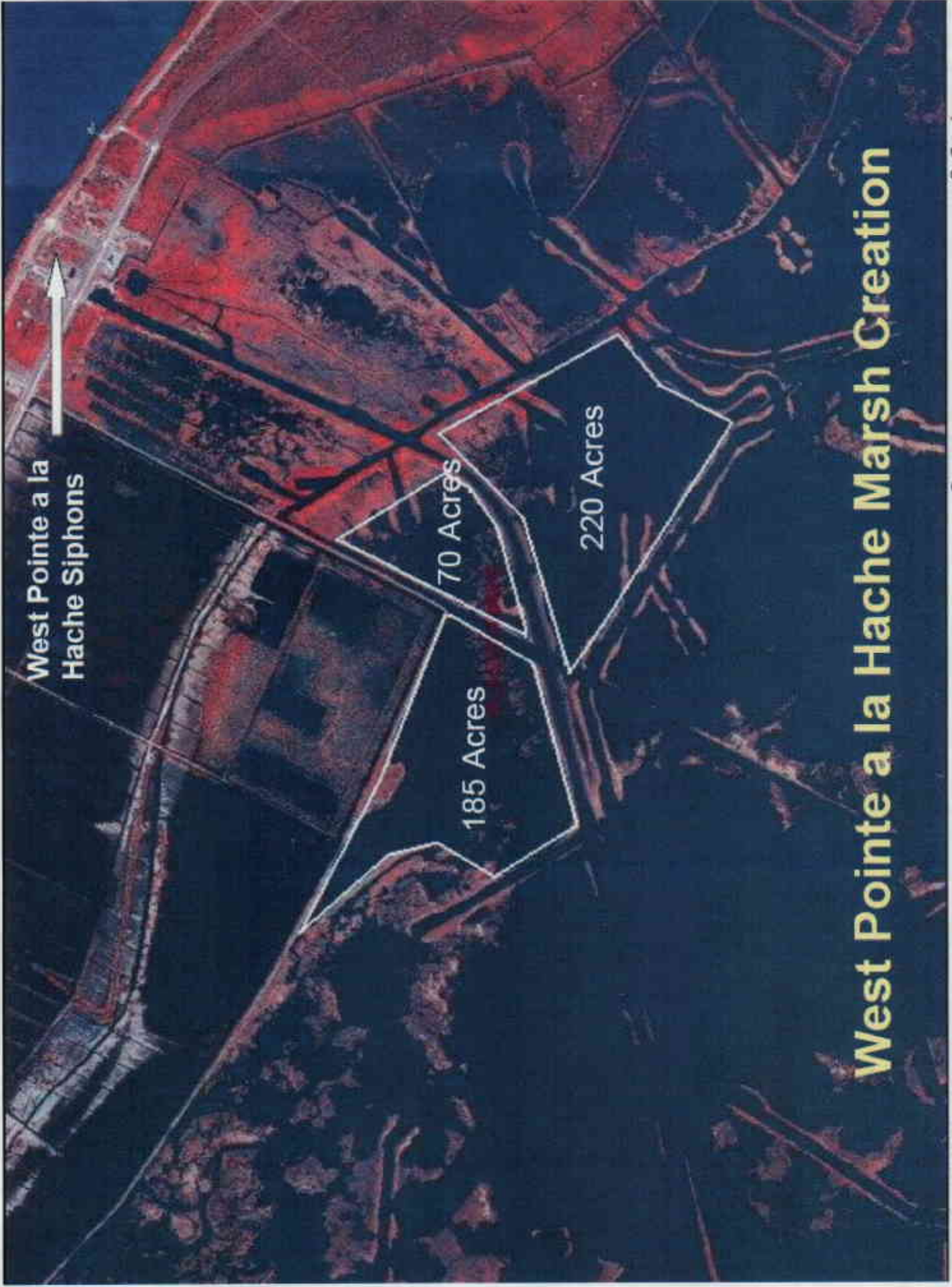
Preliminary Construction Costs + 25% Contingency

- \$18.5 million

Preparer of Fact Sheet

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

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



West Pointe a la
Hache Siphons

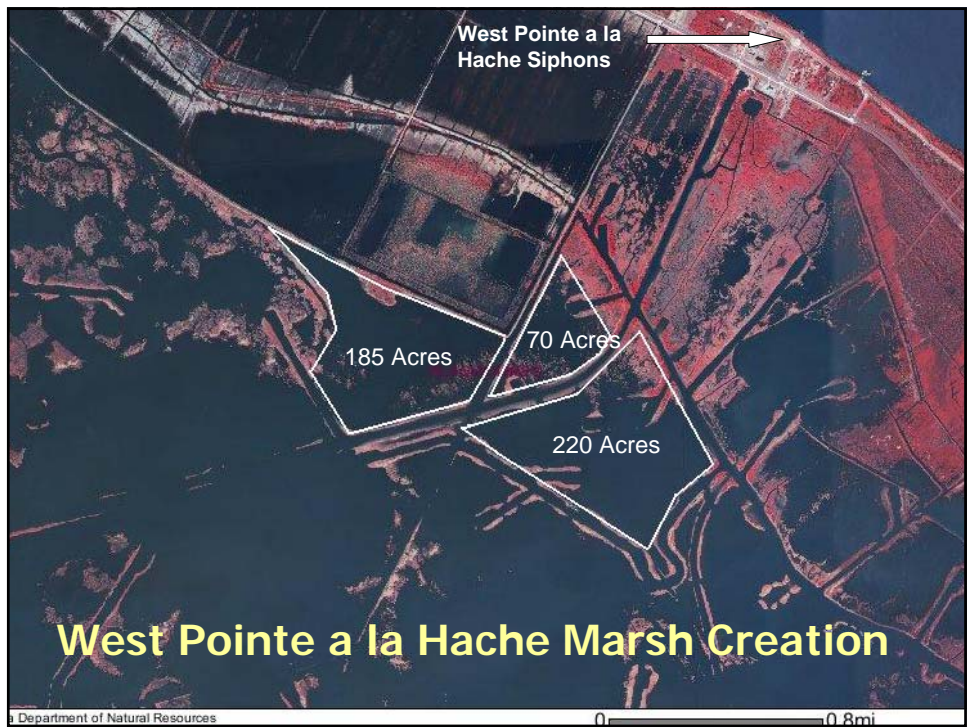
70 Acres

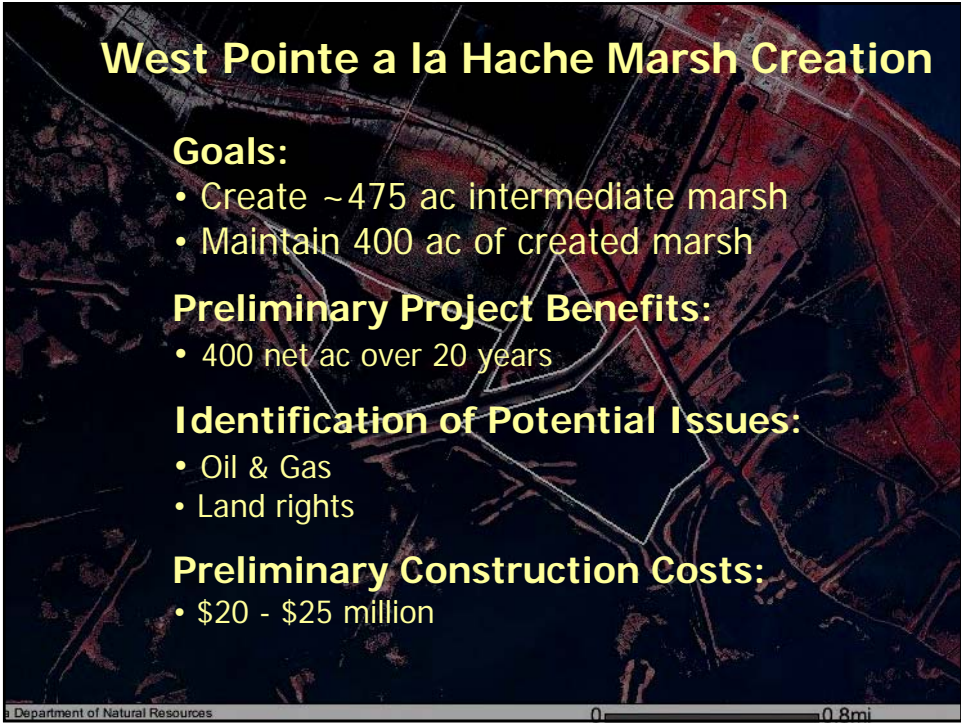
185 Acres

220 Acres

West Pointe a la Hache Marsh Creation

West Pointe a la Hache Marsh Creation





West Pointe a la Hache Marsh Creation

Goals:

- Create ~475 ac intermediate marsh
- Maintain 400 ac of created marsh

Preliminary Project Benefits:

- 400 net ac over 20 years

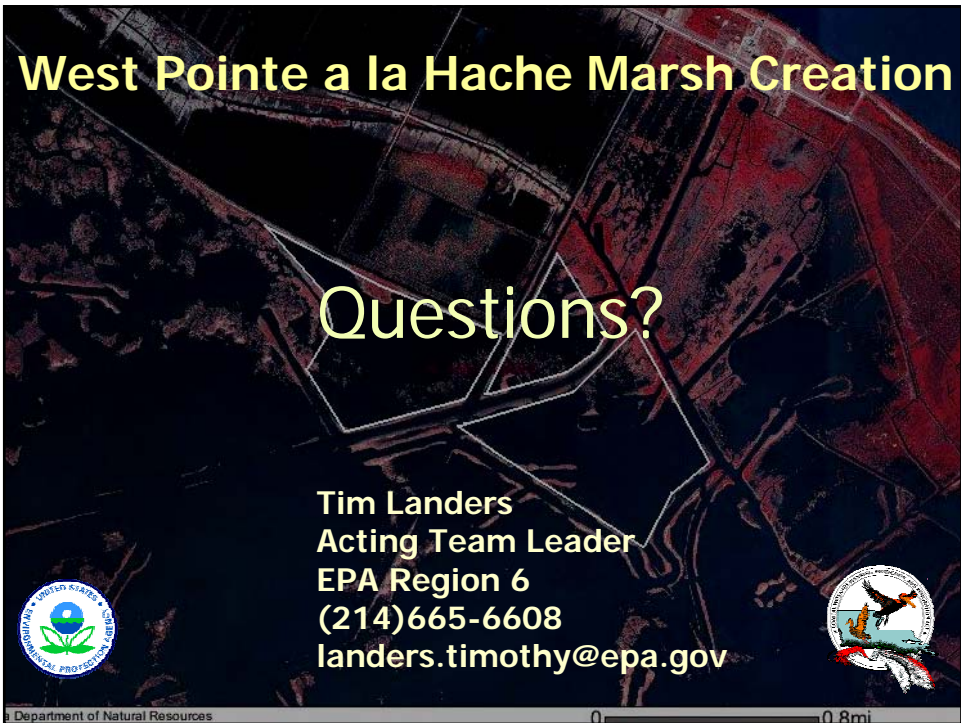
Identification of Potential Issues:

- Oil & Gas
- Land rights

Preliminary Construction Costs:

- \$20 - \$25 million



Department of Natural Resources 0 0.8mi



West Pointe a la Hache Marsh Creation

Questions?

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



Department of Natural Resources 0 0.8mi

R2-BA 2 Homeplace Marsh Creation Project

PPL17 PROJECT NOMINEE FACT SHEET
January 8, 2007

Project Name

Homeplace Marsh Creation

Coast 2050 Strategy

Coastwide Strategy. Dedicated dredging for wetland creation

Project Location

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

Problem

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

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

Proposed Project Features

600 acres of marsh creation and 175 acres of marsh nourishment. Material for marsh creation/nourishment will be excavated from the Mississippi River. The potential establishment of a permanent pipeline for sediment delivery to surrounding areas will be investigated.

Goals

Create 600 acres of marsh and nourish 175 acres of marsh between the hurricane protection levee and Bay Lanaux / Bay de la Cheniere. The proposed marsh creation/nourishment will help protect the levee.

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? 875 acres created and/or nourished.

2) How many acres of wetlands will be protected/created over the project life? 875 acres

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). Not yet determined

4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc. The created and nourished marsh will re-establish the hydrologic function of the former Bayou de la Cheniere ridge.

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

6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? The project will complement other efforts to establish / nourish marshes west of the Mississippi River – Mississippi River Sediment Delivery- Bayou Dupont; West Bay Sediment Diversion, Lake Hermitage Marsh Creation.

Identification of Potential Issues

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

Preliminary Construction Costs

\$ 18 million

Preparer of Fact Sheet

Quin Kinler


USDA-NRCS

225-382-2047

quin.kinler@la.usda.gov



Legend

 Marsh Creation

**Plaquemines Candidate Project
Homelace Marsh Creation
(Approxiamately 875 acres)**



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



Data Source:
2004 DOQQ Aerial Photography
Map Date: November 8, 2006

~~Map Scale: 1 inch = 1,000 feet~~

**R2-BA 3 Chenier Ronquille Barrier Shoreline
Restoration and Marsh Creation Project**

Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation

24 January 2007

Coast 2050 Strategy:

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

Project Location:

Region 2, Barataria Basin, Plaquemines Parish

Problem:

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

Goals:

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

Proposed Solutions:

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

Preliminary Project Benefits:

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

Identification of Potential Issues:

The proposed project has the following potential issues: oysters.

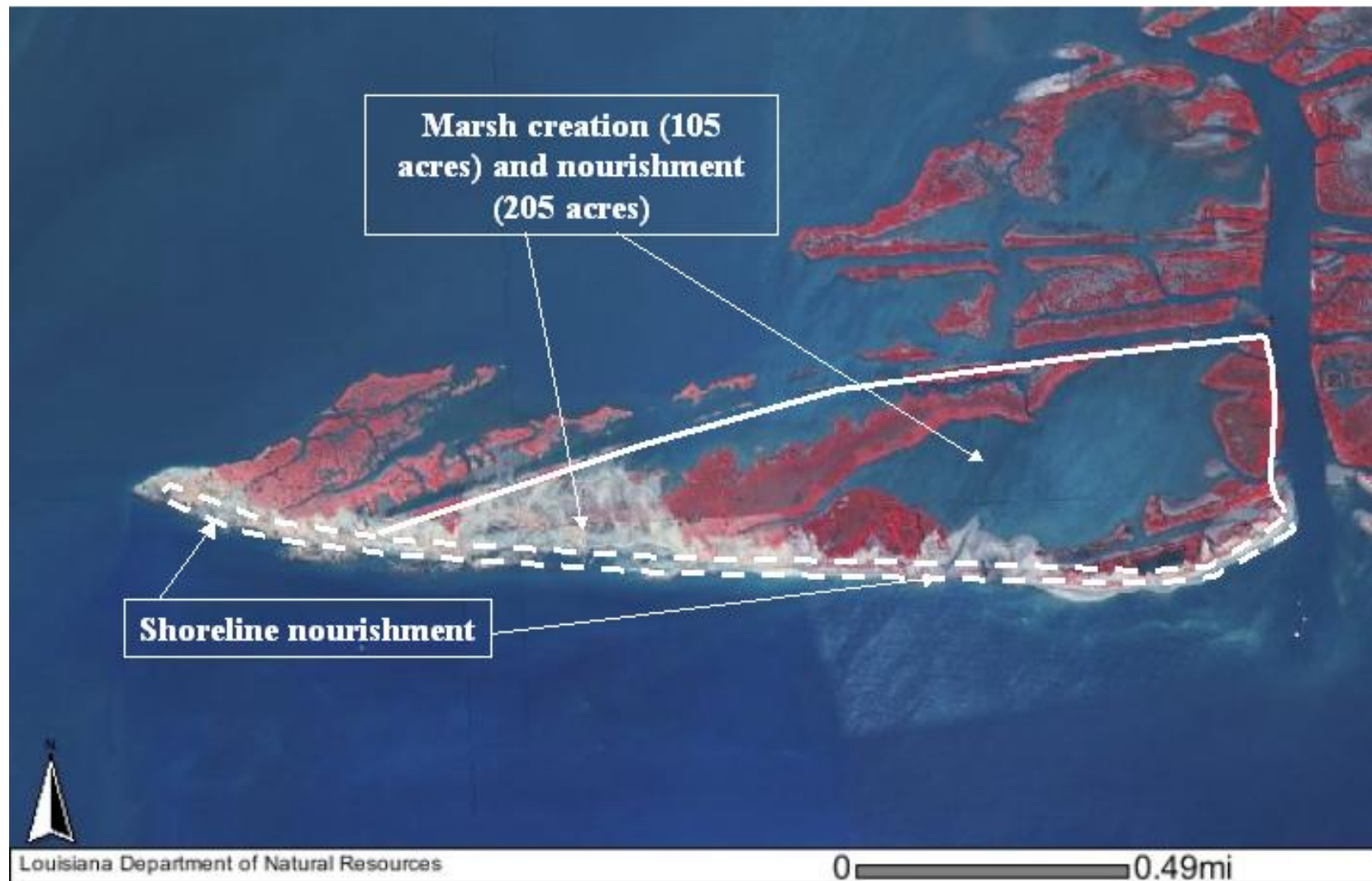
Preliminary Construction Costs:

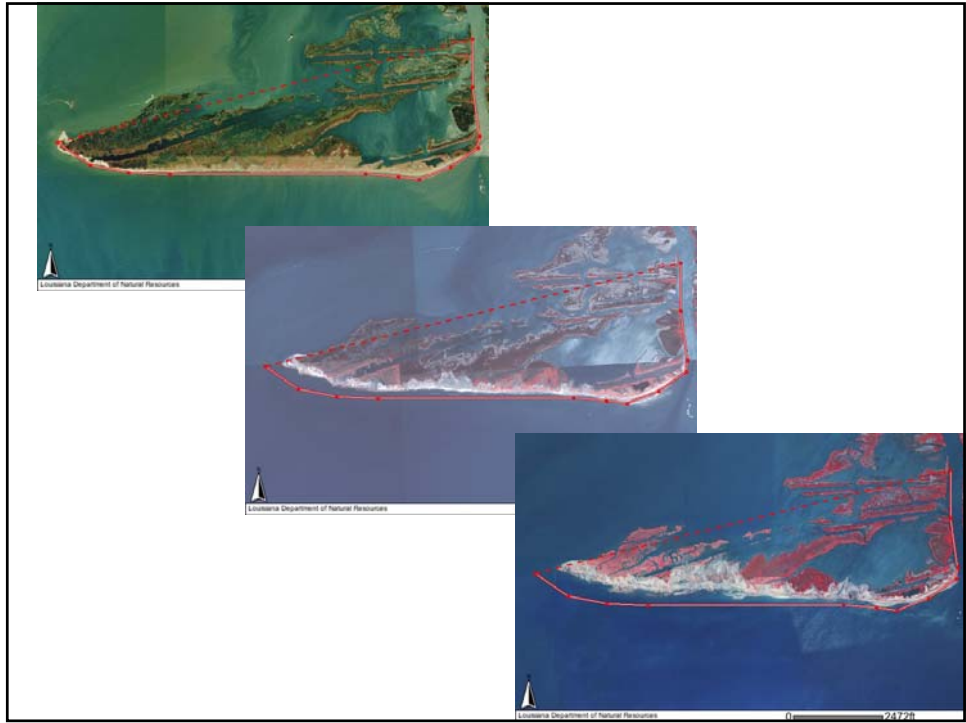
Construction costs are estimated at \$ 17,919,750 with 25% contingency

Preparer(s) of Fact Sheet:

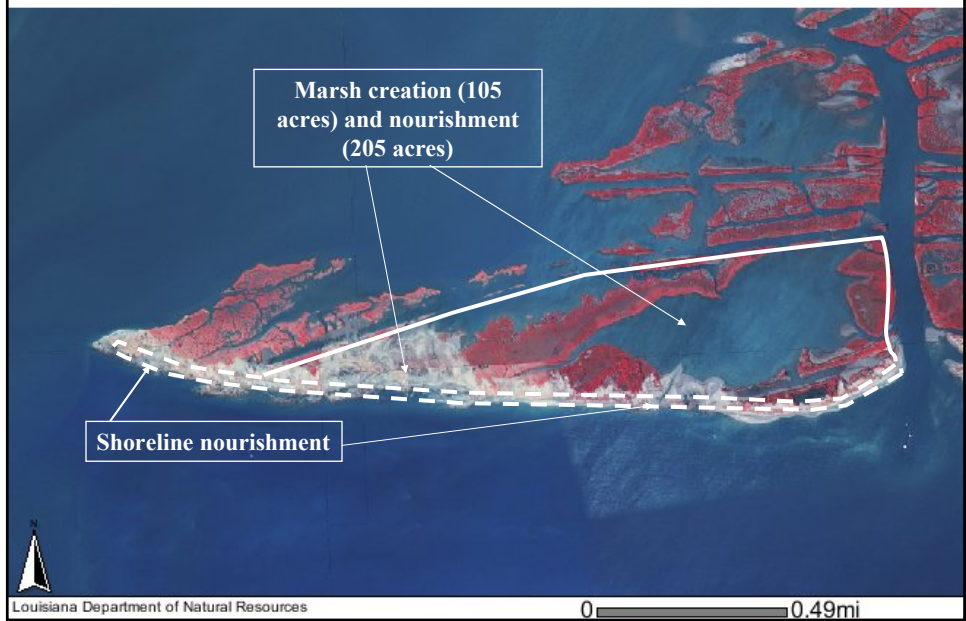
Rachel Sweeney, NOAA, 225.389.0508 ext 206, rachel.sweeney@noaa.gov

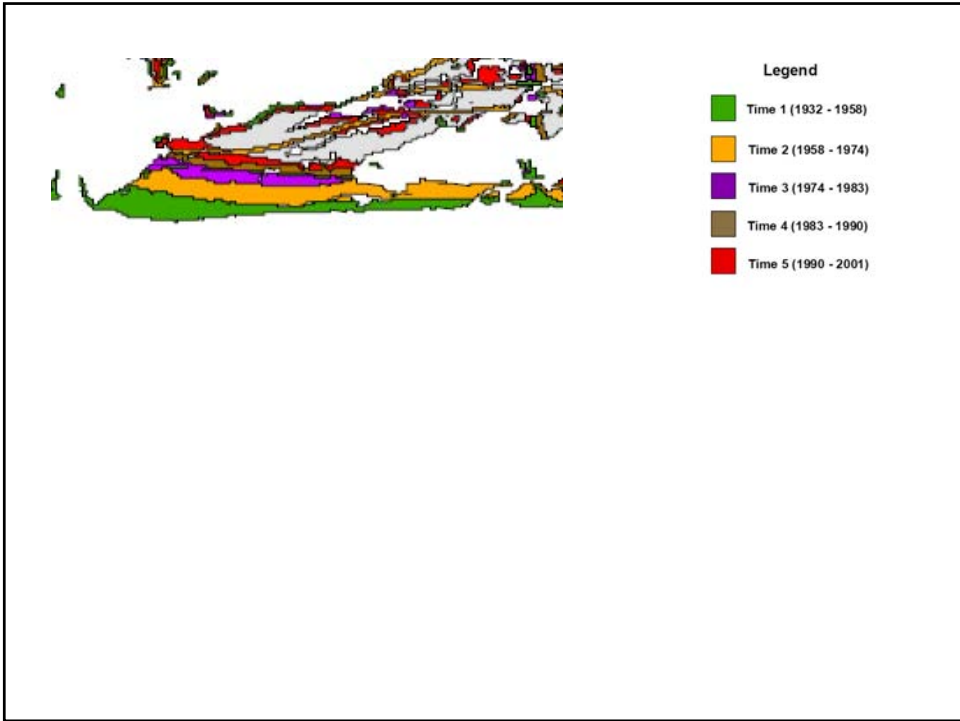
Chenier Ronquille barrier shoreline restoration and marsh creation





Chenier Ronquille barrier shoreline restoration and marsh creation





**R2-BA 4 Bayou Dupont Marsh Creation and
Ridge Restoration Project**

REDA BAY Jeff Parish
(NMFS)

Draft
PPL17 PROJECT NOMINEE FACT SHEET
1/11/07

Project Name: Bayou Dupont Marsh Creation and Ridge Restoration

Coast 2050 Strategy:

Coastwide Strategy – Dedicated Dredging, to Create, Restore, or Protect Wetlands

Project Location:

Region 2, Barataria Basin, Jefferson Parish, adjacent to Bayou Dupont southeast of the Pen

Problem:

The project would create/restore marsh and ridge and re-establish a portion of Bayou Dupont. There is widespread historic and continued rapid land loss in the project area due to altered hydrology, wind erosion, and subsidence. The 1983 to 1990 loss rate for the Myrtle Grove Mapping Unit is $-0.35\%/yr$.

Goals:

What does the project hope to accomplish? Create and nourish marsh, restore a portion of the Bayou Dupont Ridge, restore a portion of Bayou Dupont, and provide a buffer for the non-Federal Plaquemines levee.

Proposed Solutions:

The project would create approximately 135 acres and nourish 35 acres of brackish marsh via dedicated dredging of sediment from the Mississippi River. Additionally, about 12 acres of ridge would be restored along Bayou Dupont by bucket dredging material from the bayou. Preliminarily, a portion of the southern shoreline of the bayou has been identified for this work. An alternative area along the north side of the bayou is also available if it is desirable to relocate the features to that side. The intent is to scale the overall direct acreage near 200 to 250 direct acres. Opportunities to optimize acres and feature location would be explored further if the project becomes a candidate. The entire ridge would be planted and approximately 50% of the created marsh would be planted with smooth cordgrass plugs.

Preliminary Project Benefits:

1) Approximately 182 acres would be benefited both directly and indirectly. 2) Approximately 142 net acres of marsh and ridge would be protected/created over the 20-year project life. 3) The anticipated loss rate reduction throughout the area of direct benefits over the project life is 50-74%. 4) The project features restore the structural integrity of a portion of Bayou Dupont. 5) There is net impact of the project on non-critical oil and gas infrastructure and minor net impact on critical infrastructure (non-Federal levee). 6) The project would have synergy with previous small dredge projects.

Identification of Potential Issues:

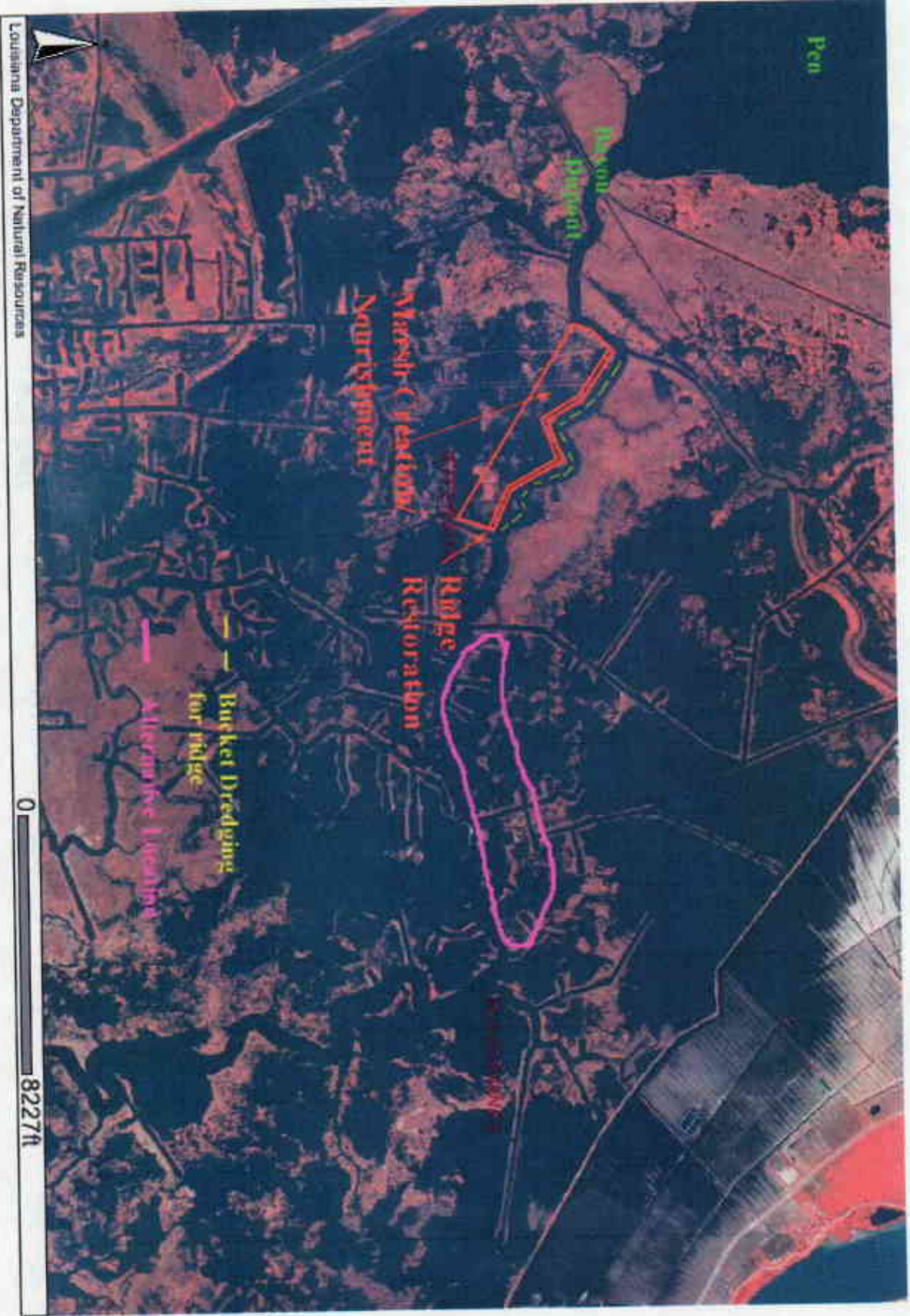
The proposed project has the following potential issues: utilities/pipelines.

Preliminary Construction Costs:

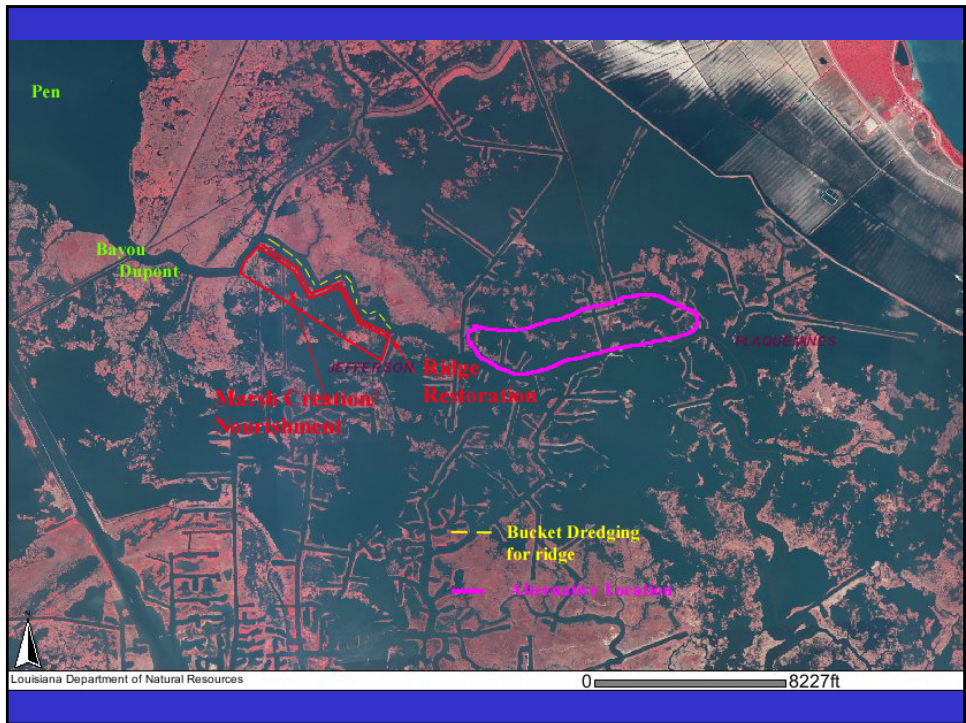
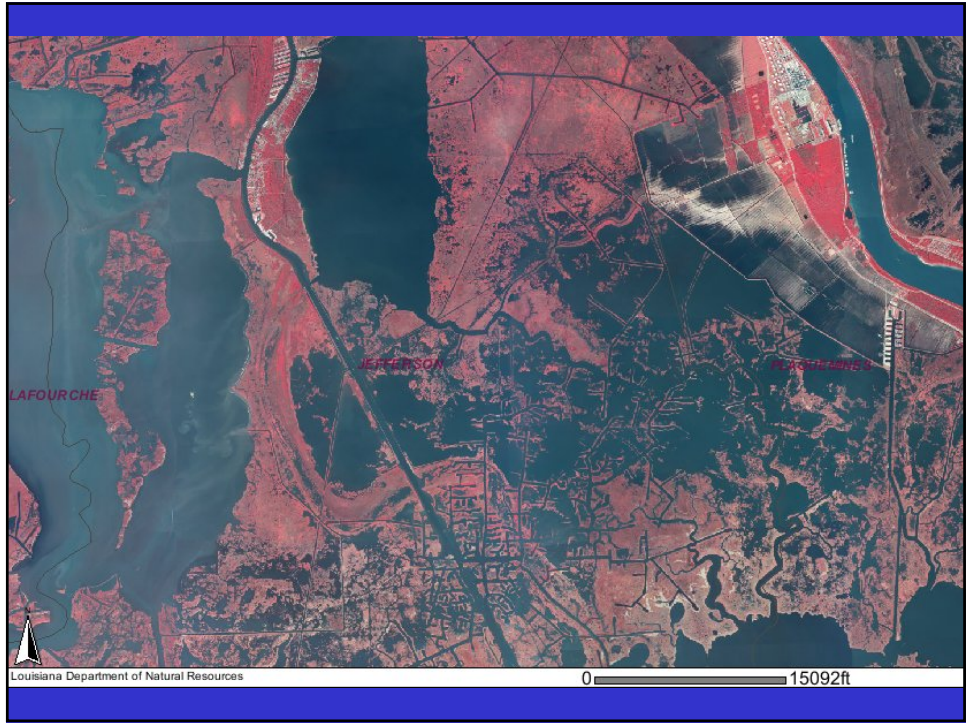
The estimated construction cost plus 25% contingency is approximately \$11.4M.

Preparer(s) of Fact Sheet:

Patrick Williams, National Marine Fisheries Service, 225/389-05087, ext 208;
patrick.Williams@noaa.gov



Louisiana Department of Natural Resources



**R2-BA 5 Northeast Little Lake Marsh
Creation and Shoreline Protection Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 9, 2007

Project Name

Northeast Little Lake Shore Protection and Marsh Creation

Coast 2050 Strategy

Region 2 Regional Strategy #24: Preserve bay and lake shoreline integrity on the landbridge

Region 2 Regional Strategy #25: Dedicated dredging and/or beneficial use of dredged material on the landbridge

Project Location

Region 2, Barataria Basin, Jefferson Parish, Harvey Cutoff -- Turtle Bay -- Little Lake

Problem

What problem will the project solve? a) Shoreline erosion along the east bank of Harvey Cutoff, northwest shore of Turtle Bay, and northeast shoreline of Little Lake; and b) marsh deterioration between the northeast shoreline of Little Lake and Harvey Cutoff.

What evidence is there for the nature and scope of the problem in the project area?

Based on Britsch and Dunbar (1996) map for 1930's -1990 the erosion rate is roughly estimated at 10 to 25 feet per year. The 2003 USGS map of "100+ Years of land Change for Coastal Louisiana" illustrates a prediction for continued shoreline and interior land loss in the proposed project area.

Proposed Project Features

35,000 feet of shoreline protection, leaving opening(s) as needed for oil and gas access and/or water exchange. About 200 acres of marsh creation.

Goals

Shoreline protection will eliminate erosion from Harvey Cutoff, Turtle Bay, and Little Lake. Marsh creation effort will restore about 200 acres of emergent marsh.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? Direct: eliminate loss of 200 to 250 acres over project life, plus create about 200 acres. Indirect: not yet determined.
- 2) How many acres of wetlands will be protected/created over the project life? 400 to 450 acres.
- 3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). Not yet determined
- 4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc. 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 oil and gas wells, pipelines, and supporting infrastructure 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, and BA-41, contributing to protection of the Central Barataria Basin Landbridge.

Identification of Potential Issues

The proposed project has the following potential issues: coordination with oil and gas entities would be required so that some canals could be closed at the shoreline, allowing access through only one or two canal through the shoreline.

Preliminary Construction Costs

\$ 13 million

Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

225-382-2047

quin.kinler@la.usda.gov

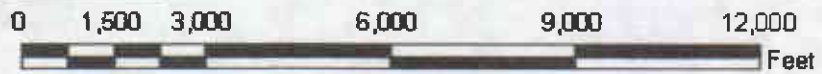


Legend

-  ~ 35,000 linear feet Shore Protection
-  Marsh Creation ~200 Acres



NE Little Lake
 Marsh Creation/Shoreline Protection
 Jefferson Parish, Louisiana
 PPL-17



**R2-BA 6 Jean Lafitte Shoreline Stabilization
and Marsh Restoration Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 11, 2007

Project Name:

Jean Lafitte Shoreline Stabilization and Marsh Restoration Project

Coast 2050 Strategies:

Basin Strategies: 5) Create marsh with dredged material and 6) Stabilize shorelines to preserve marsh. Cataouatchie/Salvador Mapping Unit Strategy: "maintaining shoreline integrity along the lakes..."

Project Location:

The project is located in Region 2, in the Barataria Basin. The project site is located along the southeast portion of Lake Salvador at the Barataria Preserve of Jean Lafitte National Historical Park and Preserve and lands south of Bayou Villars in Jefferson Parish, Louisiana.

Problem:

Within the past 50 years, the project area has undergone lost more than 650 acres of wetlands along the southeast shore of Lake Salvador. Since the late 1950's, annual shoreline erosion rates at the Barataria Preserve averaged 21 linear feet with a high exceeding 90 feet. The shoreline has retreated approximately 2,400 feet (55 feet per year) at the southern end of the Pipeline Canal since 1958. Shoreline retreat and wetland loss were accelerated by winds and storm surge caused by Hurricanes Katrina and Rita. Within the project area, these storms eroded the shoreline 100 feet in places and interior marsh was compacted or torn apart creating open water ponds. Flooding of Crown Point, Jean Lafitte, and Barataria communities may be partially attributed to these high wetland losses. Stabilizing the shoreline and restoring marsh would protect natural coastal resources, communities and infrastructure.

Mapped land loss by the USACE indicates sustained high shoreline erosion rates for this reach of Lake Salvador. Average shoreline retreat in the project area is 21'/year for the period 1930 to 2001. In the northern portion of the project area, Lake Salvador has nearly broken through to the Bayou Segnette Waterway, leaving only a thin portion of the spoil bank. Maximum retreat closer to the mouth of Bayou Villars for the same 71 year period is 38'/year. Shoreline retreat appears to be accelerating with rates for the 1983 to 1990 period as great as 89'/year. Shoreline retreat along the southern bank of Bayou Villars is encroaching on the Gulf Intracoastal Waterway (GIWW).

Proposed Project Features:

1. Dredge approximately 350,000 cy from Lake Salvador or from nearby Dredge Disposal Facility to create marsh behind crib and southeast of Bayou Villars.
2. Dredged material would be stacted to +3.5 feet NGVD to create 54 acres of fresh marsh
3. Close canal between GIWW and Lake Salvador and deposit fill material to +3.5 NAVD to create 40 acres of marsh.
4. Install approximately 135,000 tons of rock along 22,300 linear feet of shoreline from existing rock south of crib to southeast of Bayou Villars
5. Install structure to pinch tidal prism at Bayou Villars
6. Close channel from GIWW south of Bayou Villars

Goals:

1. Stop shoreline erosion.
2. Create and nourish marsh.

Preliminary Project Benefits:

The following questions should be addressed:

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

Directly benefited: 94 acres of marsh creation 200 acres protected from rock dike.

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

At the end of 20 years, approximately 294 acres should remain.

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 benefits over the project life would be >75%.

4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?

The project restores a portion of the rims of Lake Salvador and Bayou Villars, which are structural components of the coastal ecosystem

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

One key feature of this project is the storm surge protection for local communities of Jean Lafitte, Barataria and Crown Point and adjacent infrastructure. The project site is located in a critical area 15 miles south of New Orleans that provides one of the last lines of defense against storm surge coming toward the Metropolitan Area from Lake Salvador and the Barataria Bay. The project also prevents Lake Salvador from breaking through into the Bayou Segnette Waterway and the GIWW. In addition, oil and gas infrastructure in the immediate area would be protected from storm surges.

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

This project is synergistic with existing shoreline protection projects that have been constructed on the Barataria Preserve.

Identification of Potential Issues:

Rock shoreline protection projects historically require O&M. There are also pipelines in the project area.

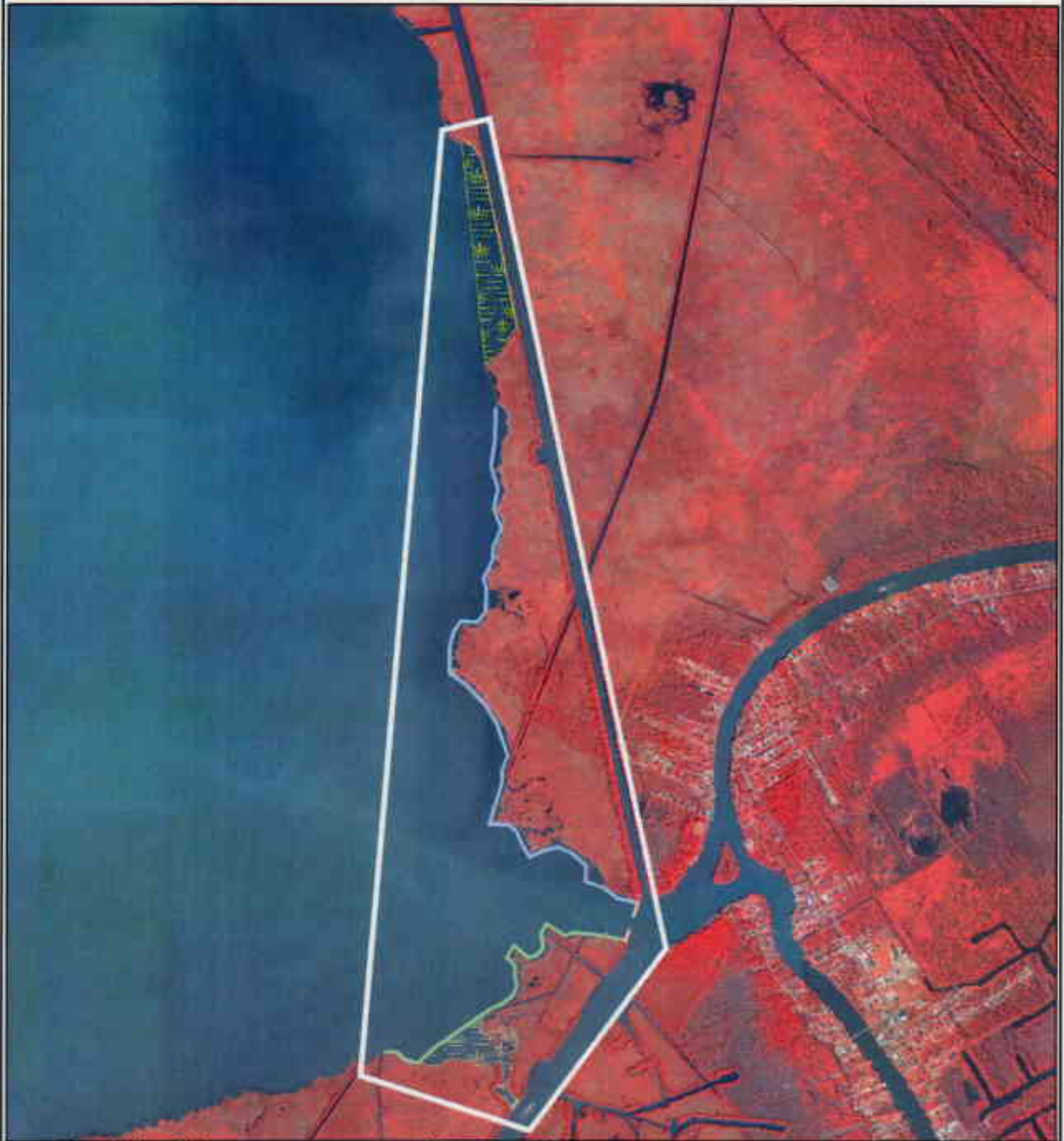
Preliminary Construction Costs:

The construction cost including 25% contingency is approximately \$15,000,000. The estimated fully funded cost range is \$20 - \$25 million.

Preparers of Fact Sheet:

Melanie Goodman, USACE, 504-862-1940, Melanie.L.Goodman@mvn02.usace.army.mil
Jason Binet, USACE, 504-862-2127, Jason.A.Binet@mvn02.usace.army.mil

Jean Lafitte Shoreline Protection and Wetland Creation



0 0.25 0.5 1 1.5 2

Miles



Legend

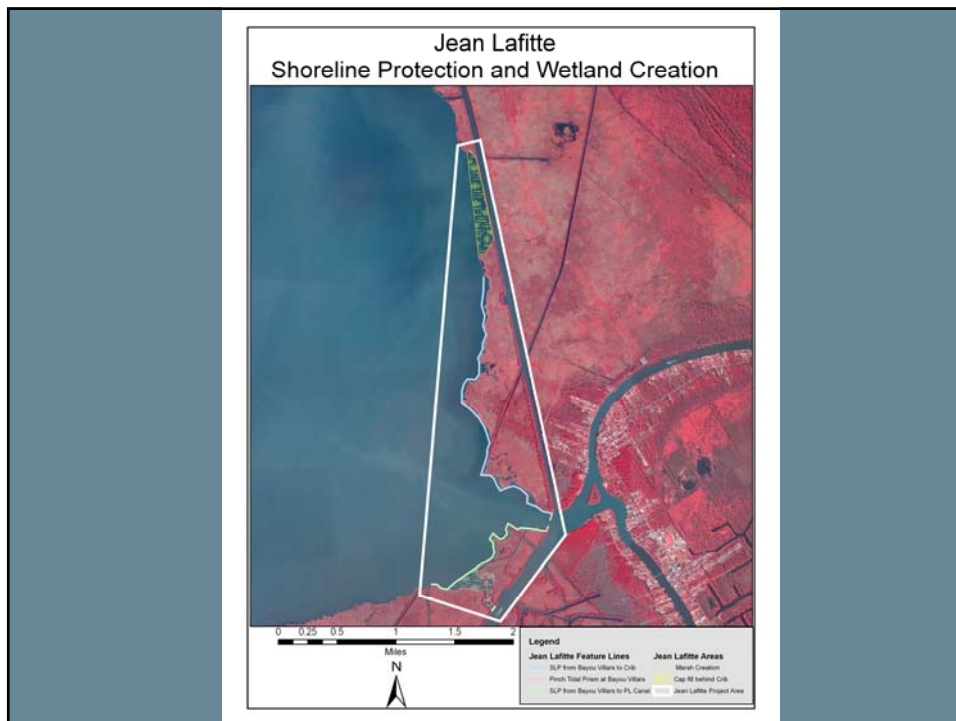
Jean Lafitte Feature Lines

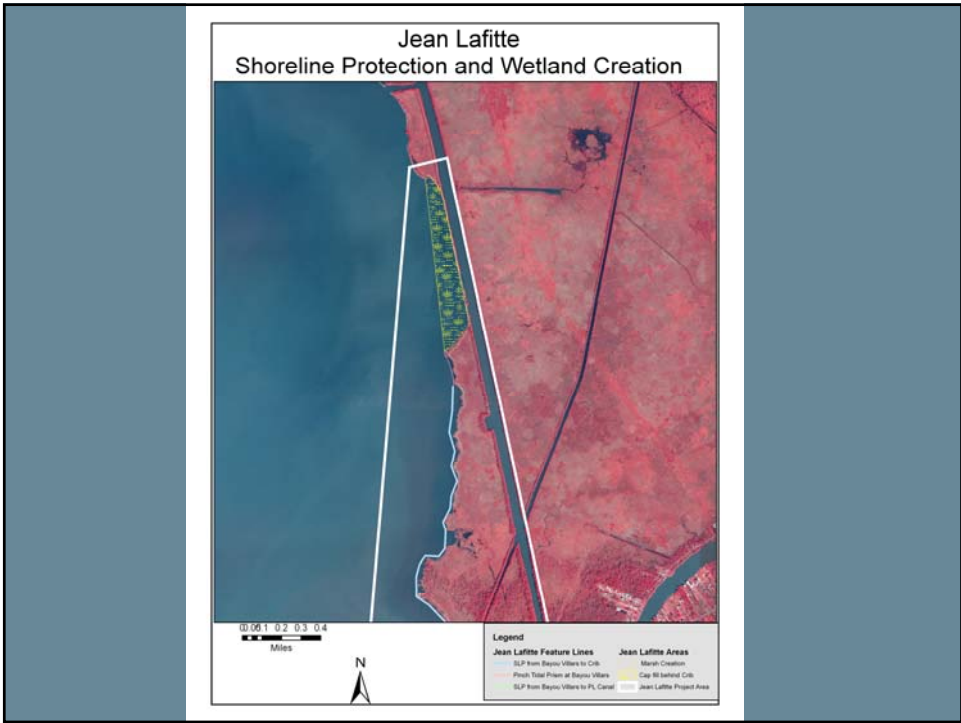
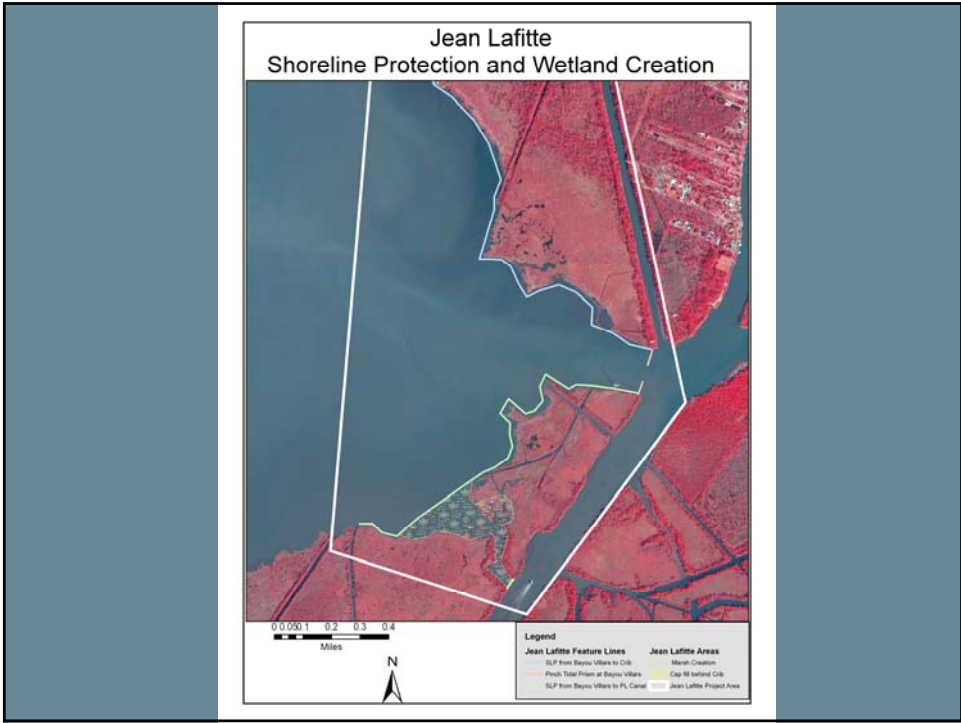
- SLP from Bayou Villars to Crib
- Pinch Tidal Prism at Bayou Villars
- SLP from Bayou Villars to PL Canal

Jean Lafitte Areas

- Marsh Creation
- Cap Sill behind Crib
- Jean Lafitte Project Area

PPL 17
RPT Project Proposal
Region II
Barataria Basin
Jean Lafitte Shoreline
Stabilization and Marsh Creation





Project Features

1. Dredge approximately 350,000 cy from Lake Salvador or from nearby Dredge Disposal Facility to create marsh behind crib and southeast of Bayou Villars.
2. Dredged material would be stacted to +3.5 feet NGVD to create 54 acres of fresh marsh
3. Close canal between GIWW and Lake Salvador and deposit fill material to +3.5 NAVD to create 40 acres of marsh.
4. Install approximately 135,000 tons of rock along 22,300 linear feet of shoreline from existing rock south of crib to southeast of Bayou Villars
5. Install structure to pinch tidal prism at Bayou Villars
6. Close channel from GIWW south of Bayou Villars

Project Benefits

1. Create approximately 54 acres of marsh behind crib and 40 acres southeast of Bayou Villars
2. Protect 200 acres of marsh from crib to southeast of Bayou Villars
3. Reduce salinity spikes in fresh marshes adjacent to Lake Salvador in vicinity of Bayou Villars

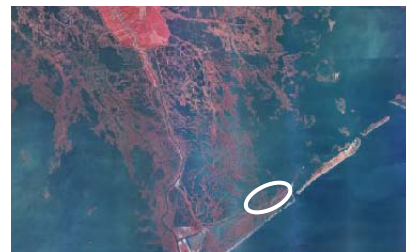
**R2-BA 7 Bayou Thunder Marsh Creation and
Shoreline Protection Project**

Bayou Thunder Marsh Creation and Shoreline Protection

24 January 2007

Coast 2050 Strategy:

Regional strategy 16 - dedicated dredging to create marsh
Caminada Bay mapping unit strategy 17 – maintain shoreline integrity.



Project Location:

Region 2, Barataria Basin, Lafourche and Jefferson Parishes, Chenier Caminada, north of Hwy 1.

Problem:

The marshes between Bays Ronflour and St. Honore and Bayou Thunder are experiencing both bay margin erosion and interior loss. Shoreline erosion estimates based on 1998 and 2005 imagery suggest that erosion rates in this area range from five feet/year to in excess of 50 feet/year in some areas. Additionally, review of aerial photography indicates that significant interior losses are occurring as well. Continued loss in this area will lead to adverse impacts to developed areas and Highway 1.

Goals:

Create 110 acres and nourish an additional 195 acres of saline marsh. Provide shoreline protection to about 1,500 feet of Bay St. Honore shoreline to complement existing protection.

Proposed Solutions:

Dedicated dredging from adjacent bays to create and nourish saline marsh. Extend breakwaters approximately 1,500 feet to northwest to provide shoreline protection.

Preliminary Project Benefits:

The project will directly benefit 305 acres (footprint) and may provide some minor indirect benefits by preventing erosion of adjacent wetlands. It is estimated that about 120 net acres will be protected/created over the project life and that the project will reduce land loss rates by 50 – 75%. The project will protect bay rims and would have a net positive impact to critical and non-critical infrastructure, although no synergistic effects with other CWPPRA projects are anticipated.

Identification of Potential Issues:

The proposed project has the following potential issues: oysters, land rights, and utilities.

Preliminary Construction Costs:

Estimated construction costs are \$16,217,313 (with 25% contingencies).

Preparer(s) of Fact Sheet:

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

Bayou Thunder marsh creation and shoreline protection



**R2-BA 8 East Golden Meadow Marsh
Creation Project**

R2-BAG

PDF Map
Lafourche

PPL17 PROJECT NOMINEE FACT SHEET
January 8, 2007

Project Name
East Golden Meadow Marsh Creation

Coast 2050 Strategy
Region 2 Strategy#16. Dedicated dredging and/or beneficial use of dredged material to create marsh in Clovelly, Little Lake, Caminada Bay and Fourchon mapping units.

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

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

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

Proposed Project Features

700 acres of marsh creation. Material for marsh creation will be excavated from Little Lake.

Goals

Create 700 acres of marsh just to the east of the hurricane protection levee. The proposed marsh creation will help protect the levee.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? 700 acres created; undetermined acres more secure inside hurricane protection levee.
- 2) How many acres of wetlands will be protected/created over the project life? 700 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%). All the marsh is gone—the created marsh will represent newly created land.
- 4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc. The new marsh will be built parallel and perpendicular to Bayou Raphael and Bayou L'Ours ridges, thereby partially restoring their hydrologic function.
- 5) What is the net impact of the project on critical and non-critical infrastructure? Newly created marsh will reduce the fetch east of the hurricane protection levee.

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

Identification of Potential Issues

The proposed project has the following potential issues: dredged material will have to be moved 5 plus miles.

Preliminary Construction Costs

\$ 24 million

Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

225-382-2047

quin.kinler@la.usda.gov



East Golden Meadow Marsh Creation
~ 700 Acres
Lafourche Parish, Louisiana
PPL -17



**R2- BA 9 Chenier Caminada Marsh Creation
Project**

PPL17 PROJECT NOMINEE FACT SHEET- Revised
January 24, 2007

Project Name:

Chenier Caminada Marsh Creation Project

Coast 2050 Strategy:

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

Regional Strategy 16: Dedicated dredging to create marsh near LA Hwy 1

Mapping Unit 16: Dredge material from offshore to build marsh

Project Location:

Region 2, Barataria Basin, Lafourche Parish, Chenier Caminada in Fourchon, Louisiana.

Problem:

The Chenier Caminada system has undergone significant land loss and subsidence since the 1930's. Compounding with natural causes, the greatest land loss occurred in the 1970's due to altered hydrology and wind erosion of a large pond (Coast 2050 Plan). Commercial dredging of sand and storm activity have contributed to loss in this unit as well; however, a very high subsidence rate of 2.1-3.5 ft/century has been the leading cause for wetland deterioration. Considering the planning unit's proximity to and capacity for providing protection to the petrochemical facilities in Fourchon, unchecked wetland loss in this area could be detrimental to both ecological and energy resources.

Goals :

- 1.) Reestablish 500 acres of emergent marsh in open water
- 2.) Enhance 260 acres of deteriorated marsh and ridge habitat

Proposed Solutions:

To offset local subsidence and tidal energy approaching from the gulf, approximately 500 acres of marsh will be created in the shallow open water areas of Chenier Caminada. Should water depths allow, part of the 500 acres to be created will encompass the broken marsh adjacent to the LOOP facility and east side of Port Fourchon. In addition, approximately 260 acres of deteriorated marsh and chenier ridge habitat will be enhanced with the placement of thin layer (i.e., 6 inches) dredged material. The borrow material will come from near-shore Gulf waterbottom, not to impede coastal shoreline processes.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
Approximately 760 acres
- 2) *How many acres of wetlands will be protected/created over the project life?*
684 acres [760-(0.5%/yr x 20 yrs)]
- 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%).*
In concurrence with the Environmental Working Group, anticipated reduction of the background loss rate is 50-74% for marsh creation.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*

This project will both vertically enhance existing chenier ridges and help maintain the remaining ridges within the Chenier Caminada by reestablishing the marsh that once protected them from erosion.

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

This project will provide a net positive impact on critical infrastructure such that wave fetch approaching LA Hwy 1, Port Fourchon, and LOOP will be minimized with the creation and enhancement of nearly 800 acres of marsh. A net significant benefit to critical infrastructure will occur if marsh creation is completed directly adjacent to the LOOP facility.

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

This project will provide a synergistic effect with the planned LCA project along the Chenier Caminada headland. This project will provide marsh and chenier reestablishment within the interior of the system while the LCA project fortifies the drastically eroding shoreline. Together these projects will help protect one of the most important petrochemical locations in the state.

Identification of Potential Issues:

The primary landowner, Edward Wisner Donation, supports the project as does the parish. There are no known pipelines, wells, or oyster leases within the project area or immediate vicinity.

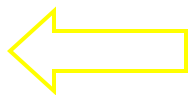
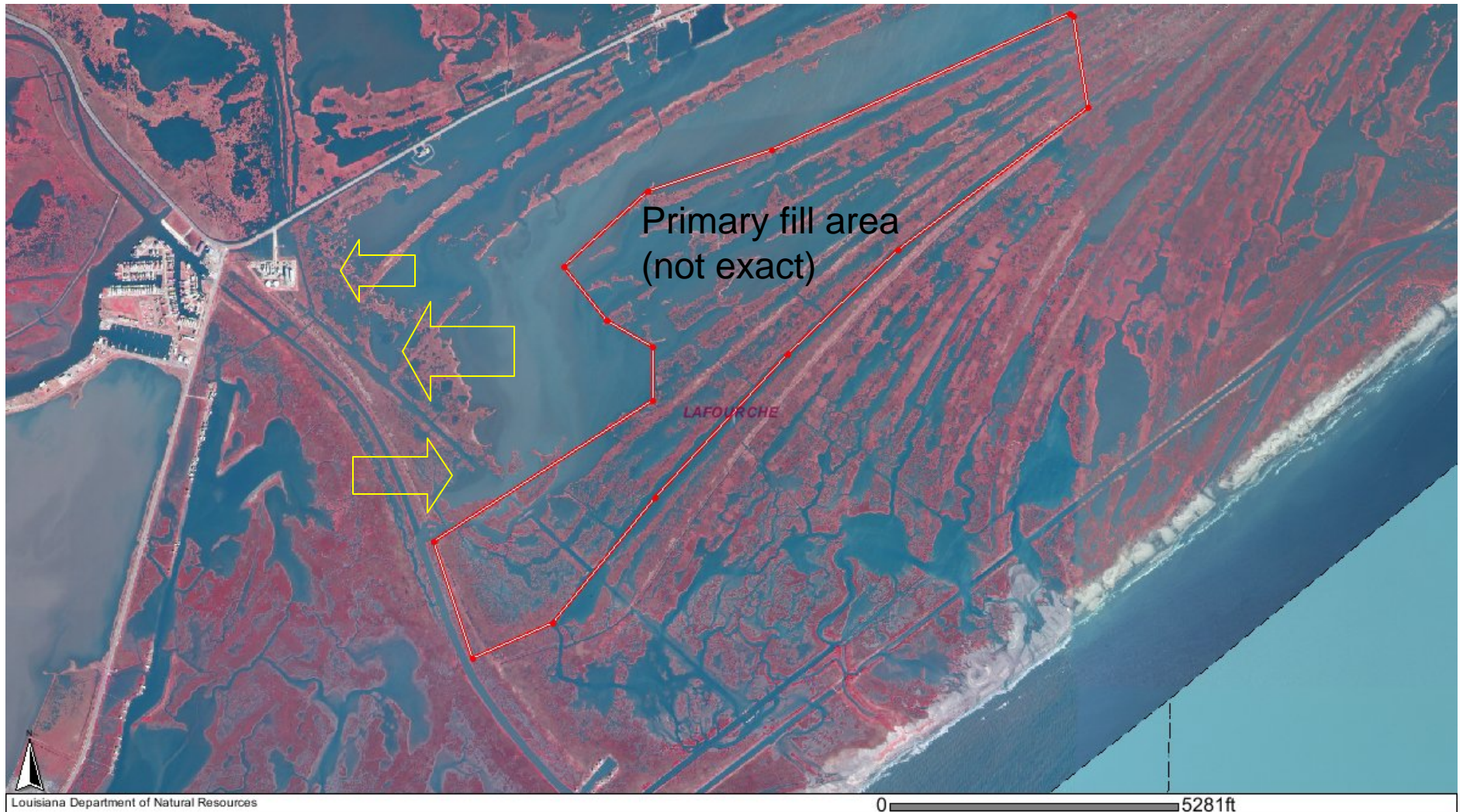
Preliminary Construction Costs:

The estimated cost for construction including marsh creation, enhancement, mobilization, and 25% contingency is \$26.8M.

Preparer(s) of Fact Sheet:

Brian Kendrick, Edward Wisner Donation, (225) 578-2077, briank@kendrickeng.com
Cheryl Brodnax, NMFS, (225) 578-7923, cheryl.brodnax@noaa.gov

PPL-17 Chenier Caminada Marsh Creation Project



**Alternate locations for portion of 800
acre marsh creation/nourishment**

**R2-BA 10 Southwest Little Lake Marsh
Creation Project**

PPL-17 PROJECT NOMINEE FACT SHEET- Revised
January 24, 2007

Project Name

Southwest Little Lake Marsh Creation

Coast 2050 Strategy

Coastwide strategy: Dedicated dredging for wetland creation.

Regional Strategy #25: Preserve bay and lake shoreline integrity on the land bridge.

Project Location

Region 2, Barataria Basin, Lafourche Parish, south shore of Little Lake west of the BA-37 project.

Problem

Shoreline erosion and wetland loss in the Little Lake mapping unit resulted in the loss of approximately 53% of the 1932 acreage by 1990. Pre-storm land loss data compiled by the USGS directly adjacent to this project area shows an annual loss rate of 1.8% per year, making this area one of the most deteriorated in the coastal zone. The high wetland loss rate is generally caused by shoreline erosion, subsidence, and channel construction which results in altered hydrology. It is projected that an additional 14,000 acres will be lost in this mapping unit by 2050 (Coast 2050, Appendix D). In addition, the passing of Hurricanes Katrina and Rita significantly contributed to loss in this area. Visual observations estimate over 80 feet of shoreline was lost, and USGS data shows hundreds of acres of marsh were lost in the Barataria Basin interior. This mapping unit represents what very little continuous marsh is left before entering open bay. This project area, in conjunction with the BA-37 project currently under construction, is critical for keeping this area intact, providing a wetland buffer to the Bayou L'Ours Ridge, and keeping Little Lake from becoming Barataria Bay.

Proposed Project Features

The proposed features of this project include the creation of 500 acres of intermediate marsh within open water areas of the southwest Little Lake mapping unit. As part of this area, approximately 60 acres of shoreline will be reestablished along the southwestern rim of Little Lake where it meets Brusle Lake. Marsh creation will be achieved via hydraulic dredging of sediments within Little Lake. Although it is preferable to dredge sediments from outside the natural system, the relative remote location of the project area and distance from a feasible 'outside' sediment source limits dredging to the lake interior. The borrow area designed and permitted under the BA-37 project has a capacity for up to 21 mcy, of which the BA-37 project will require less than half. This project will utilize this same borrow area to dredge approximately 3.5 mcy, which will be placed at a maximum constructed height of + 2.1 ft NAVD88. This fill elevation was determined using geotech and bathy-topo data collected for BA-37 which is located immediately next to this proposed project area. Placement at this elevation, taking into account shrinkage, compaction, and subsidence, is expected to sustain an intertidal marsh for the duration of the 20-year project life. Once the material has settled, 90,000 plugs of *Spartina sp.* will be planted along the project perimeter to help stabilize the soil.

Goals

The goals of the project are:

1. To create 500 acres of intermediate marsh within the Little Lake mapping unit.
2. To reestablish a portion of the Little Lake southern rim.
3. To reduce interior land loss rates located within the project area.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly?
500 acres
- 2) How many acres of wetlands will be protected/created over the project life?

410 acres

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?
Based on the final BA-37 Little Lake WVA, the assumption is that the loss rate would be reduced by 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.

A feature of this project will reestablish a portion of the southwestern shoreline of Little Lake at the confluence with Brusle Lake. This thin peninsula that separated the lakes was completely lost during Hurricanes Katrina and Rita. Without reconstruction of this barrier, Little Lake and Brusle Lake will remain joined, thus increasing wave fetch and erosion of the interior marshes flanking Brusle Lake. Maintaining the Little Lake shore rim is a critical component of sustaining the integrity of the Barataria landbridge system. Although this project feature is small, it is at a strategic location along the shoreline. In addition, the rock component of the BA-37 project will help secure this reconstructed shoreline from future storm activity.

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

This project is expected to provide storm and surge protection to the LOOP reservoir that is located outside of the hurricane protection levee. Furthermore, this project will reestablish a portion of the Little Lake shoreline that is adjacent to a major pipeline corridor, and the creation of 500 acres of marsh that will provide a storm buffer to the many pipelines and wells located in Little Lake.

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

This project provides a high degree of synergy with other approved restoration projects, including: BA-37, BA-27, BA-02, and the Davis Pond Freshwater Diversion. Each of these projects are already constructed or in the process of being constructed, and all work together to support the mid Barataria system. A combination of freshwater and nutrient introduction, shoreline protection, and dedicated marsh creation will work hand in hand to provide stability to one of the most deteriorated systems within the coast. Given the extent of erosion in mid Barataria Bay and the financial limits of the CWPPRA program, a multi-project approach is necessary to meet the restoration needs of the area.

Identification of Potential Issues

There are no identifiable construction issues with this project. There are no oyster leases anywhere near the construction features, the borrow area has already been identified and cleared of pipelines and other obstructions, and the sole landowner is in support of the project. Considering the similarity in location and design to the BA-37 project, it is estimated that this project could proceed quickly through engineering and design.

Preliminary Construction Costs

\$16,100,000. This includes construction, vegetative plantings, and 25% contingency.

Preparer of Fact Sheet

Randy Moertle, Clovelly Land, (985) 532-6388, rmoertle@bellsouth.net
Cheryl Brodnax, NOAA NMFS, (225) 578-7923, Cheryl.Brodnax@noaa.gov

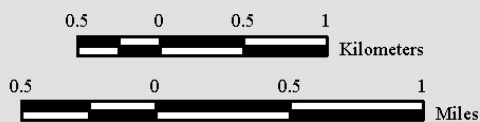


Southwest Little Lake Marsh Creation Project



- Marsh Creation *
- BA-37 Project Boundary

* denotes proposed features



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

Map ID: USGS-NWRC 2006-11-0030
 Map Date: December 21, 2005

Image Source:
 2004 Aerial Photography

**R2-BA 11 Barataria Bay Waterway Bank
Protection Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 8, 2007

Project Name

Barataria Bay Waterway Bank Protection

Coast 2050 Strategy

Coastwide Strategy: Stabilization of Major Navigation Channels

Project Location

Region 2, Barataria Basin, Jefferson Parish, Barataria Bay Waterway south of B. Barataria ridge

Problem

What problem will the project solve? Bankline erosion and excessive water exchange through the multitude of oil and gas canals. Due to oil and gas canals and subsidence of the Bayou Barataria and Bayou Maurice ridges, the hydrologic function of those ridges has been severely compromised. The project could simulate the historic function of those ridges by reducing the number of water exchange points to the south and west of the historic ridges.

What evidence is there for the nature and scope of the problem in the project area? 2004 aerial imagery confirms the current width of the BBWW and the deteriorated nature of, and numerous canals which perforate, the Bayou Barataria and Bayou Maurice ridges.

Proposed Project Features

26,000 feet of bankline protection, leaving a single oil and gas access connection to BBWW.

Goals

Bankline protection will eliminate erosion from BBWW and reduce excessive water exchange through the multitude of oil and gas canals.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly? Not yet determined.
- 2) How many acres of wetlands will be protected/created over the project life? Not yet determined.
- 3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). Not yet determined
- 4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc? The project could simulate the historic function of the Bayou Barataria and Bayou Maurice ridges by reducing the number of water exchange points to the south and west of the historic ridges.

5) What is the net impact of the project on critical and non-critical infrastructure? Numerous oil and gas wells, pipelines, and supporting infrastructure 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? The project would extend the benefits of BA-26 (Barataria Bay Waterway East Bank Protection), would help to stabilize the area south of BA-41 (South Shore of The Pen) thereby helping to maintain the central Barataria Basin.

Identification of Potential Issues

The proposed project has the following potential issues: coordination with oil and gas entities would be required so that field could be access through a single canal.

Preliminary Construction Costs

\$ 9 million

Preparer of Fact Sheet

Quin Kinler

USDA-NRCS

225-382-2047

quin.kinler@la.usda.gov



Legend
~26,000 linear feet
Bank_Protection



Barataria Bay Waterway
Bank Protection
(Bayou Barataria Ridge to Bayou Maurice)
Jefferson Parish, Louisiana
PPL-17



Region 2 – Breton Sound Basin

Proposed Projects

R2- BS 1 Bohemia Mississippi River Reintroduction

DRAFT PPL17 PROJECT NOMINEE FACT SHEET

January 11, 2007

Prepared by: Environmental Protection Agency

Project Name

Bohemia Mississippi River Reintroduction

Coast 2050 Strategy

- Coastwide Strategy: Restore and sustain marshes
- Region 2 Regional Strategy: #7 Continue building and maintaining delta splays.
- #8 Construct most effective small diversions.

Project Location:

Region 2, Breton Sound Basin, Plaquemines Parish, located on the East bank of the Mississippi River across from Port Sulphur, approximately 6.5 miles upstream of the Bayou Lamoque diversion structures.

Problem

The Bohemia area wetlands were cut off from the historic overbank flooding of the Mississippi River with the manmade improvements to the river channel. This has resulted in much less land being created here than would be created naturally.

Proposed Project Features

A 5000 cfs uncontrolled diversion to reintroduce Mississippi River water into the Bohemia wetlands.

Goals

- Create 400+ ac of marsh by natural deltaic growth
- Convert brackish marsh to fresh and intermediate marsh
- Increase SAV cover
- Increase shallow water habitat

Preliminary Project Benefits:

- 400+ net ac of marsh over 20 years

Identification of Potential Issues

- Oyster Leases

Preliminary Construction Costs + 25% Contingency

- \$7 million

Preparer of Fact Sheet

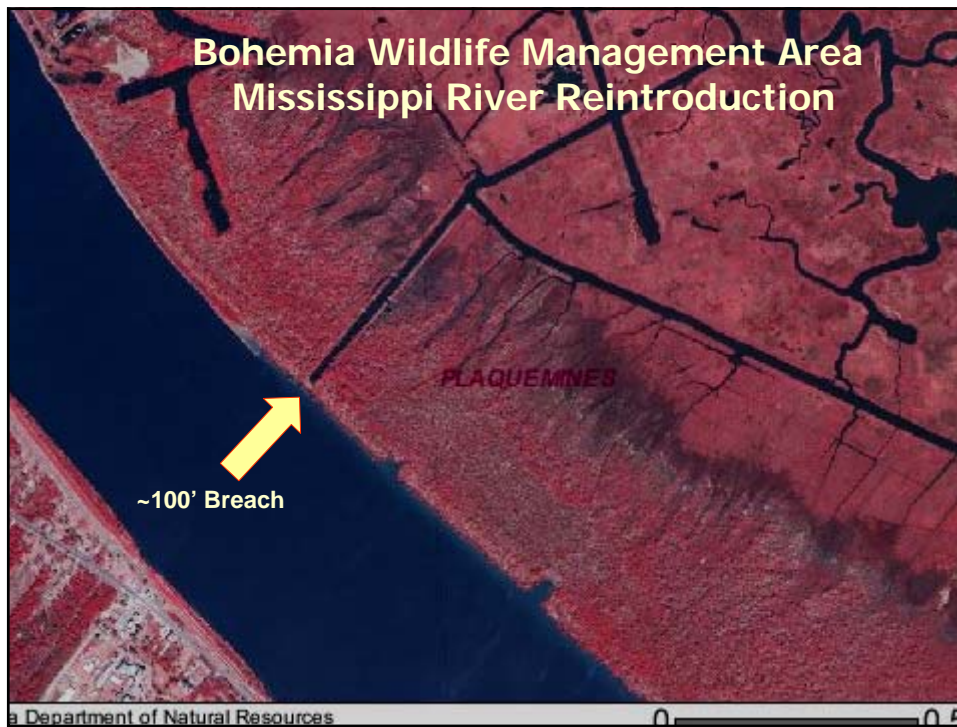
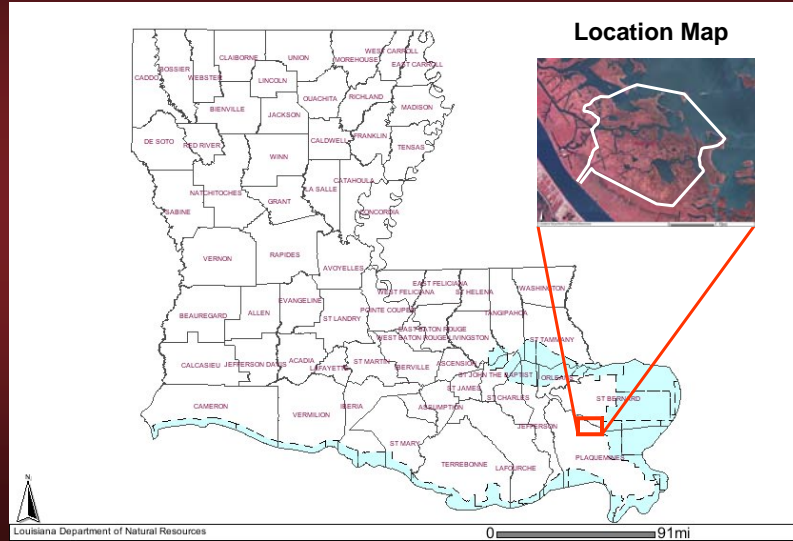
Kenneth Teague, EPA, (214) 665-6687; Teague.Kenneth@epa.gov

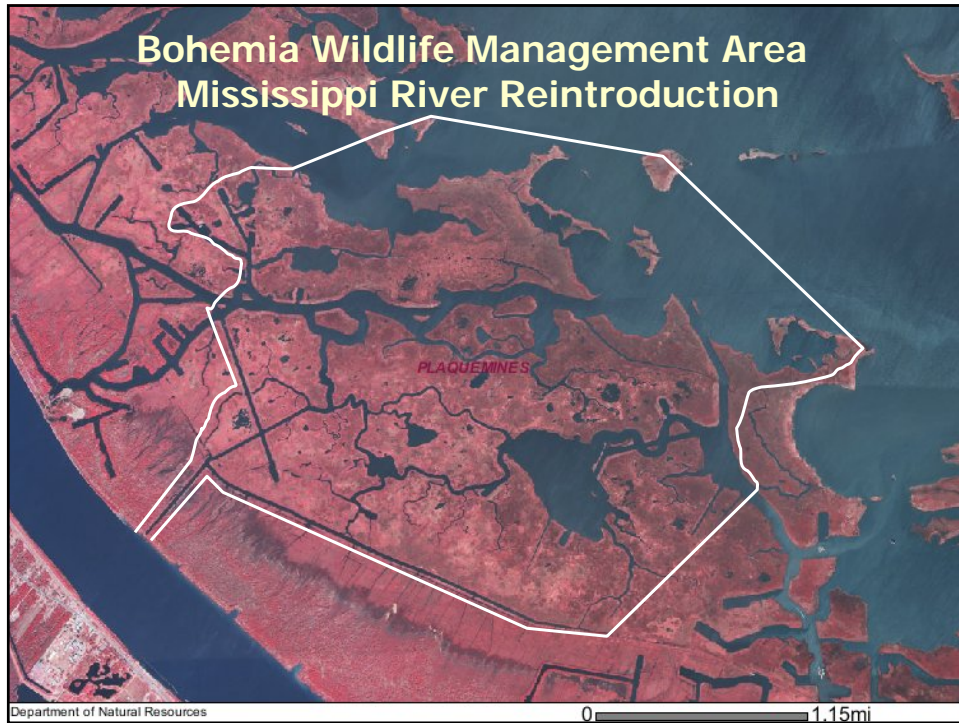
Brad Crawford, EPA, (214) 665-7255; crawford.brad@epa.gov

Bohemia Mississippi River Reintroduction



Bohemia Wildlife Management Area Mississippi River Reintroduction





**Bohemia Wildlife Management Area
Mississippi River Reintroduction**

Goals/Benefits:

- 5000+ CFS Mississippi River Reintroduction
- Create 400+ ac of marsh by natural deltaic growth
- Convert brackish marsh to fresh and intermediate marsh
- Increase SAV cover
- Increase shallow water habitat
- Dredging spoil used for marsh creation
- Incremental decrease in nutrient load to Gulf

Cost:

- < \$10 Million

Department of Natural Resources 0 1.15mi

Bohemia Wildlife Management Area Mississippi River Reintroduction

Questions?

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



Department of Natural Resources

0

1.15mi

**R2-BS 2 Caernarvon Outfall Management/ Lake
Lery Shoreline Restoration Project**

PPL17 PROJECT NOMINEE FACT SHEET
January 11, 2007

Project Name

Caernarvon Outfall Management/Lake Lery Shoreline Restoration

Coast 2050 Strategy

- Region 2 - Restore and Sustain Marshes via Managing outfall of Existing Diversions
- Coastwide – Dedicated dredging for wetland creation.
- Coastwide – Maintenance of bay and lake shoreline integrity.
- Coastwide - Vegetative Plantings

Project Location

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

Problem

1) According to USGS-NWRC mapping, much of the wetlands surrounding Lake Lery were heavily damaged along with the Lake shoreline due to Hurricane Katrina. Wind/wave energy in large open water areas as well as the damaged shorelines caused by the storm may result in the expansion of Lake Lery and further loss of interior emergent vegetation.

2) Marshes to the north and east of Lake Lery have historically not benefited from the diversion as have those marshes to the south and west. It has been estimated that over 60% of water from the diversion exits directly into Lake Lery via Bayou Mandaville, while over 30% is diverted into the marshes to the west. Those marshes to the east have been deteriorating from increased salinities and a lack of freshwater from the diversion. After Katrina the two canals that transported the limited amount of freshwater eastward have been completely blocked with debris to a point where there is virtually no fresh water reaching those marshes. Furthermore, these same marshes were severally damaged from the storm and with the lack of fresh water from the diversion it is unlikely that they will be restored without some assistance.

Proposed Project Features

1) Clean out the distributary channel that would allow freshwater via the Caernarvon Freshwater Diversion to flow eastward.

2) Neck down some of the existing distributary channels to allow equal amounts of fresh water to reach the far eastern marshes.

3) Gap some distributary channels to allow the eastward flowing water to filter down to the more southern marshes.

4) If possible, put in a low level sill and neck down the channel adjacent to the Caernarvon outfall canal.

- 5) Dredge a channel from the Caernarvon Outfall Canal that would bring water into the most northern distributary channel allowing more water to be distributed to the marshes east of Big Mar.
- 6) Restore the shoreline along the southern shoreline of Lake Lery and plant the lakeward edge of that restored shoreline.
- 7) Create approximately 300 acres of interior marsh along the southern shoreline of Lake Lery.
- 8) Nourish approximately 500 acres of interior marsh around the perimeter of Lake Lery.

Goals

- Increase the amount of fresh water and sediment that had been flowing into the marshes east of Big Mar before the impacts of Katrina.
- Restore those sections of the Lake Lery shoreline that were severely impacted by Katrina.
- Restore approximately 800 acres of emergent marsh through hydraulically dredging material from Lake Lery.

Preliminary Project Benefits

- 1) **The project would directly restore approximately 800 acres of marsh and indirectly benefit approximately 16,000 acres of marsh and shallow open water.**
- 2) The anticipated loss rate reduction over the project life would be 25-49%.
- 3) This project would restore the shoreline of Lake Lery which is a structural component of the coastal ecosystem.
- 4) This project would not protect any critical infrastructure.
- 5) This project would enhance the distribution of freshwater associated with the Caernarvon Freshwater Diversion Project.

Identification of Potential Issues

Potentially there could be a navigation problem with the jack-up barge company located on Hwy. 39 which is reportedly going out of business. The Corps has \$10 mill to spend on O&M including flowage easements for the Caernarvon area, but estimated cost of flowage easements are now at \$12 mill. Very little other work may be done in this area with these funds.

Preliminary Construction Costs

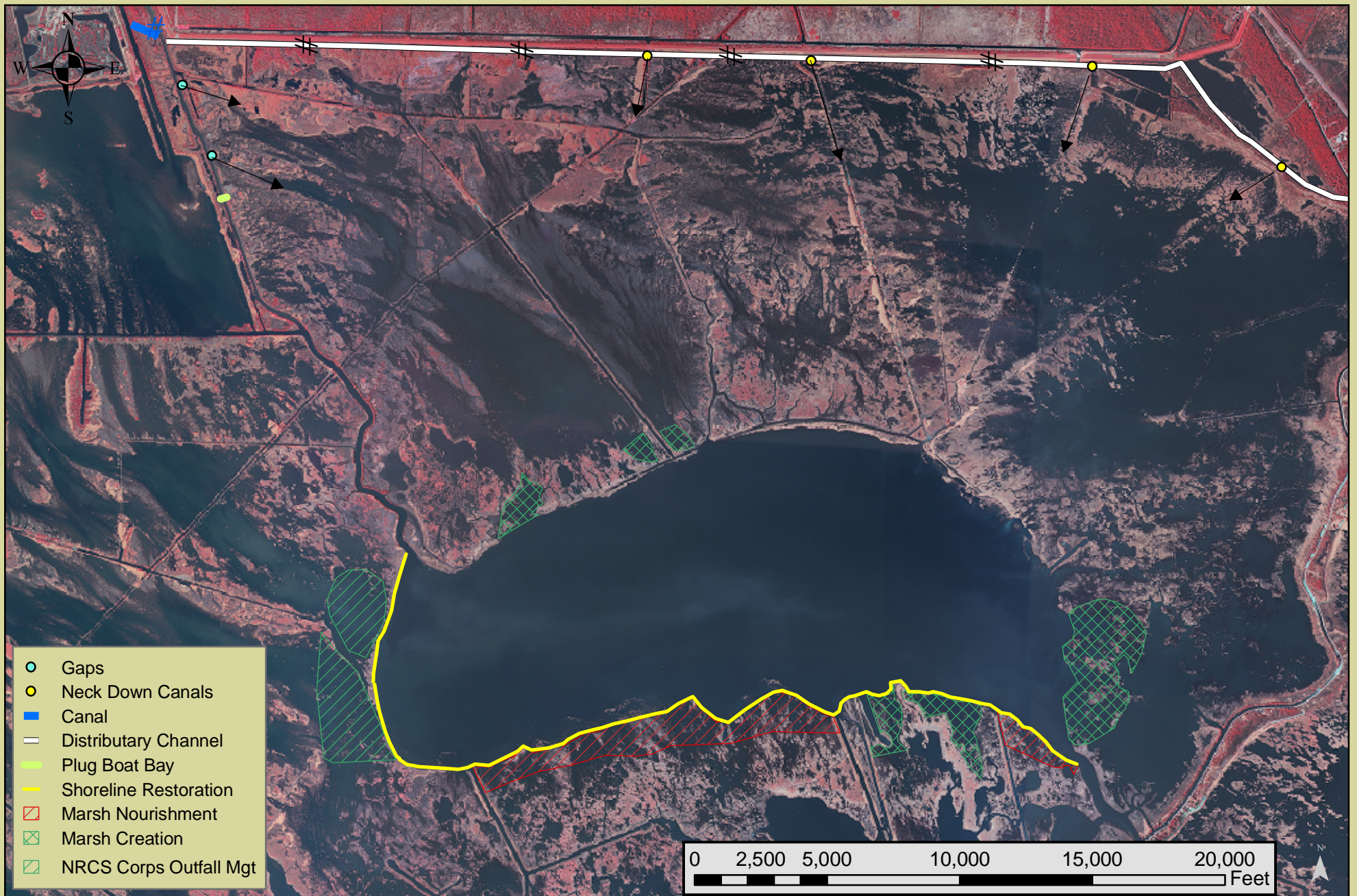
The project construction cost including 25% contingency is approximately \$22,746,115.

Preparer of Fact Sheet

Robert Dubois, USFWS, (337)291-3127, robert_dubois@fws.gov
Loland Broussard, NRCS, (337)291-3069, loland.broussard@la.usda.gov



U.S. Fish & Wildlife Service - Natural Resource Conservation Service Caernarvon Outfall Management - Lake Lery Shoreline Restoration



R2-BS 3 Wills Point Marsh Creation Project

PPL17 PROJECT NOMINEE FACT SHEET



Project Name: Wills Point Marsh Creation

Coast 2050 Strategy: Marsh Creation by dedicated dredging

Project Location:

Region II, Breton Sound Basin, in the River aux Chenes and Caernarvon Mapping Units, on the east bank of the Mississippi River, approximately 68 miles above Head of Passes, in Plaquemines Parish, Louisiana.

Problem:

The project site is in close proximity to the Mississippi River and is mainly shallow open water between natural ridges. Historically, much of the project area marsh has subsided due to sediment and nutrient starvation caused by the Mississippi River levee system. Interior canal spoil banks have disrupted the natural sheet flow and impounded the area. Persistent long term herbivory by nutria has also stressed the project area. Land loss rates in the area ranged from 2.63% between 1958 and 1974, 2.82% between 1974 and 1983, and 0.517% between 1983 and 1990. More recently, Hurricane Katrina severely impacted remaining wetlands, which is expected to increase the loss rate estimated between 1990 and 2005.

Goals :

Create and nourish marsh in the project area using dedicated dredging from the Mississippi River.

Proposed Solutions:

Dredge approximately five to 6.5 million cubic yards of sediment in a single event from the Mississippi River. Material would be pumped approximately two feet above existing marsh and allowed to settle in open water and adjacent low marsh. Existing ridges and interior canal spoil banks would provide containment, but would require reinforcing in areas. The pipeline access corridor would be along the back levee paralleling Joe Brown Canal. The dredge pipe would be jacked and bored under LA Highway 39 paralleling the river.

Preliminary Project Benefits:

1) *What is the total acreage benefited both directly and indirectly?* Either of the two separate marsh creation sites shown on the attached map are recommended for the project. The total acreage benefited indirectly in project Area 1 would be approximately 1,300 acres, including an estimated 650 acres (50%) of existing wetlands. Approximately 650 acres of new marsh would be created using this site. The total acreage benefited indirectly in project area 2 would be approximately 925 acres, including an estimated 370 acres (40%) of existing wetlands. Approximately 555 acres of new marsh would be created using this site.

Site 1: Create approximately 650 acres of new marsh and nourish approximately 650 acres of existing marsh by depositing approximately 6.5 mcy of dredged material.

Site 2: Create approximately 555 acres of new marsh and nourish 370 acres of existing marsh by depositing approximate 5.0 mcy of dredged material.

2) *How many acres of wetlands will be protected/created over the project life?* At the end of 20 years, Site 1 would have approximately 807 acres (62%) remaining compared to the future without the project, which would be approximately 118 acres (18%). This is a net benefit of 689 acres. Site 2 would have approximately 704 acres (76%) remaining compared to the future without the project, which would be approximately 67 acres (18%). This is a net benefit of 637 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 benefits over the project life would be >25%.

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?* The project would help to protect natural ridges including Rive aux Chenes and Tigers Ridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?* What is the net impact of the project on critical and non-critical infrastructure? The project would help to buffer the hurricane protection levee (40-Arpent Levee) from storm surge, which could be critical to the Bertraville and Wills Point communities.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The project is relatively restricted from Caernarvon outfall benefits due to spoil banks and natural ridges. Introducing sediment into the project area through direct dredging would provide synergistic benefits to the mapping units that might not otherwise be realized.

Identification of Potential Issues:

Landowner issues.

Preliminary Construction Costs:

The construction cost including 25% contingency is approximately \$18 million. The estimated fully funded cost range is \$20 - \$25 million.

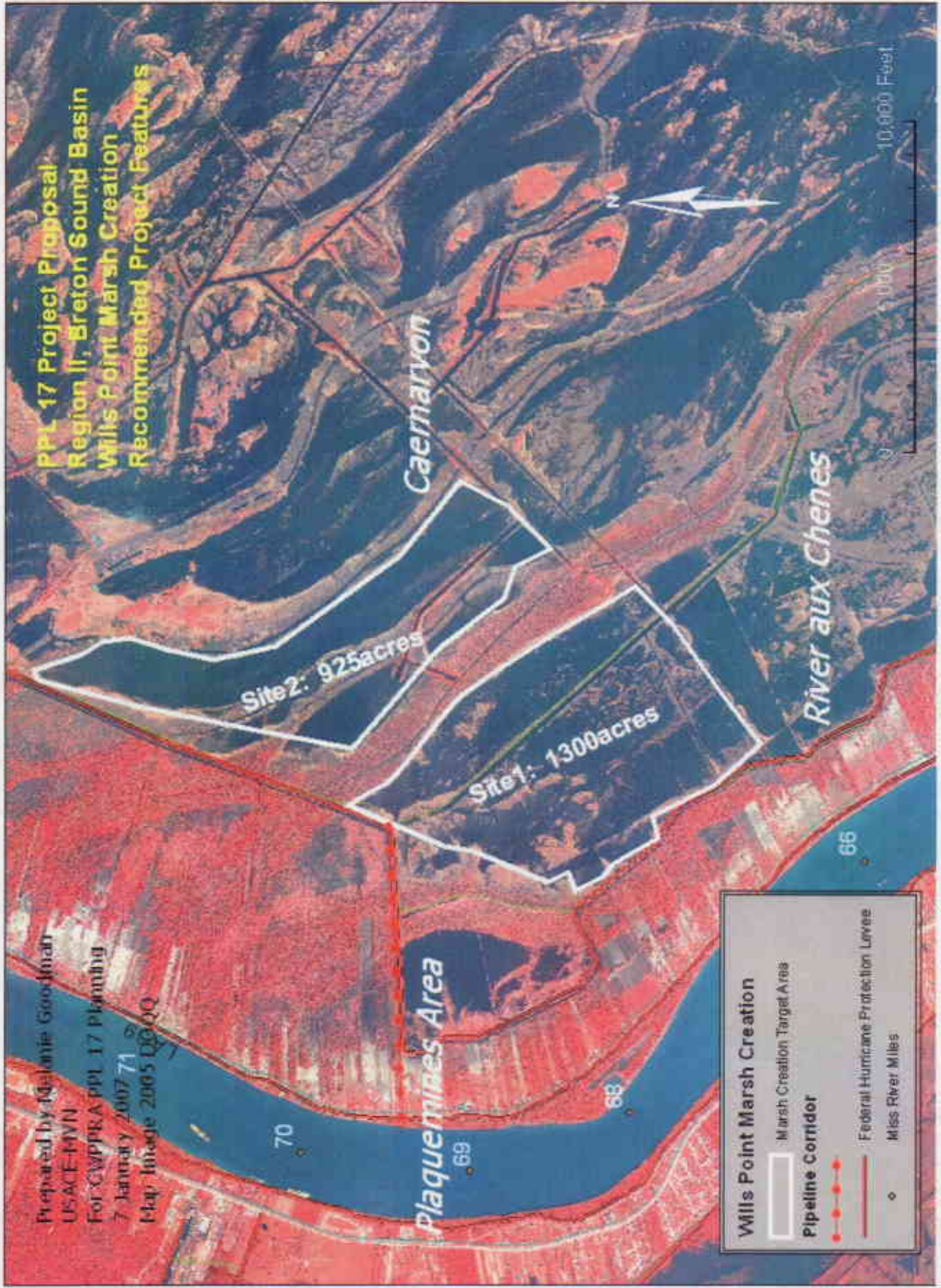
Preparers of Fact Sheet:

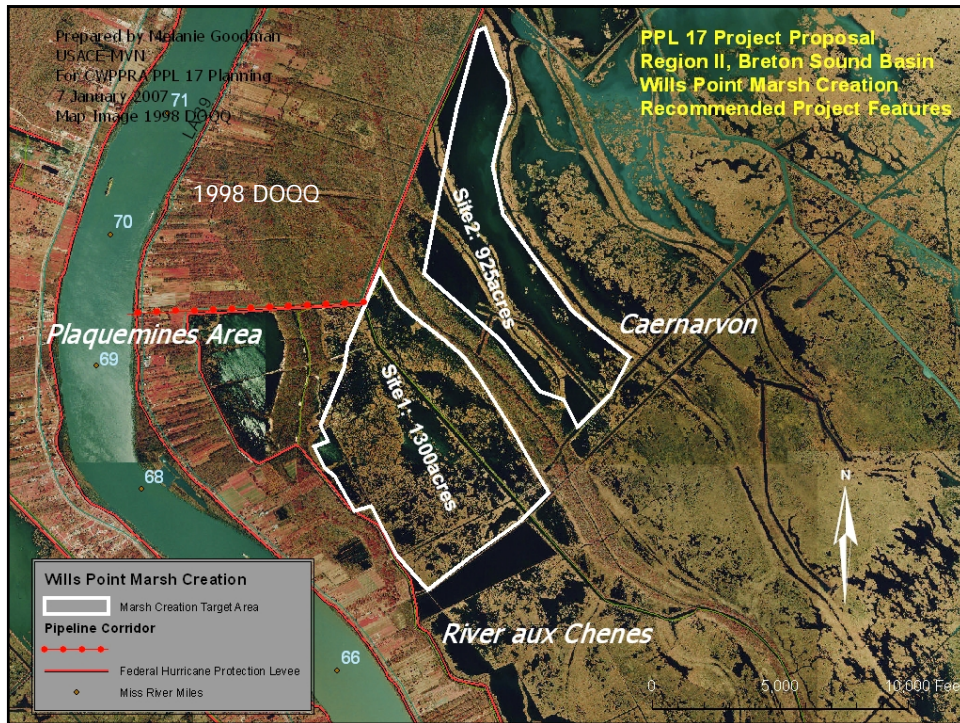
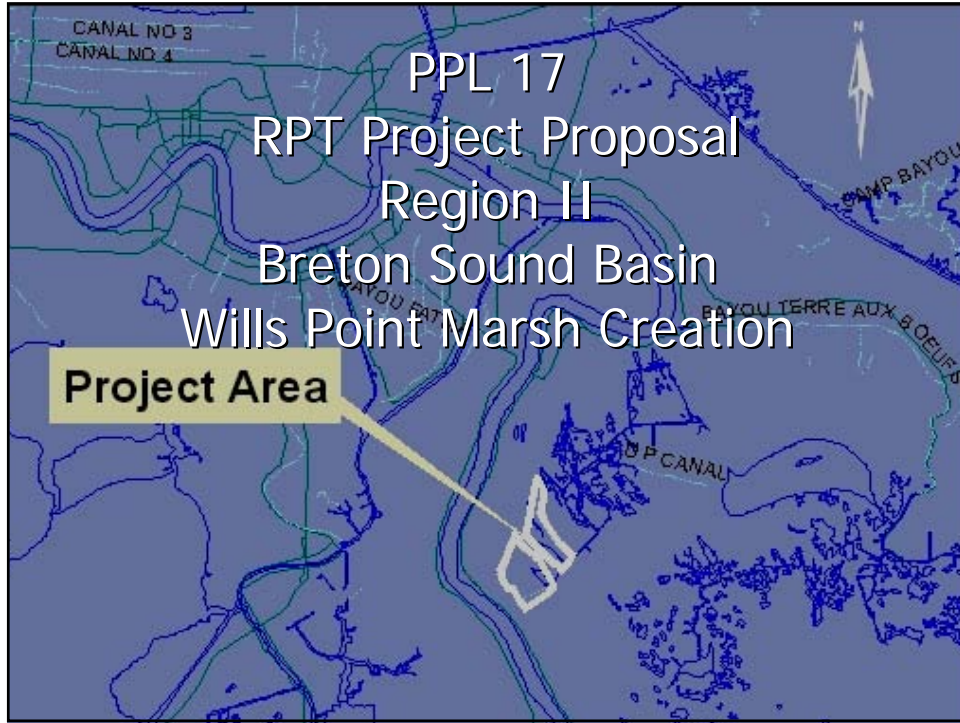
Melanie Goodman, USACE, 504-862-1940, Melanie.L.Goodman@mvn02.usace.army.mil

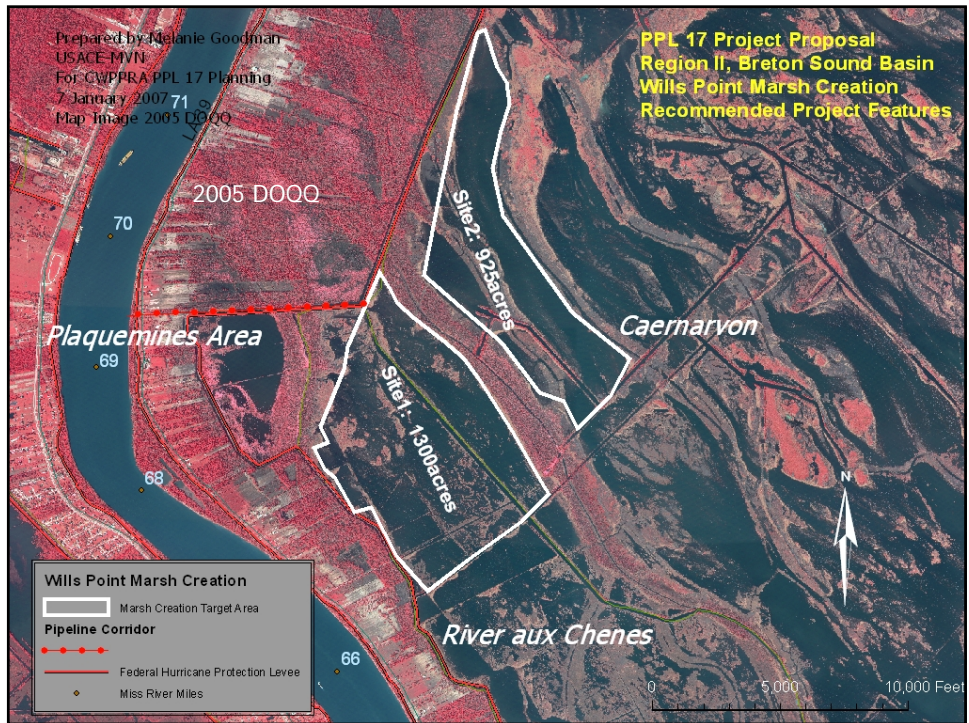
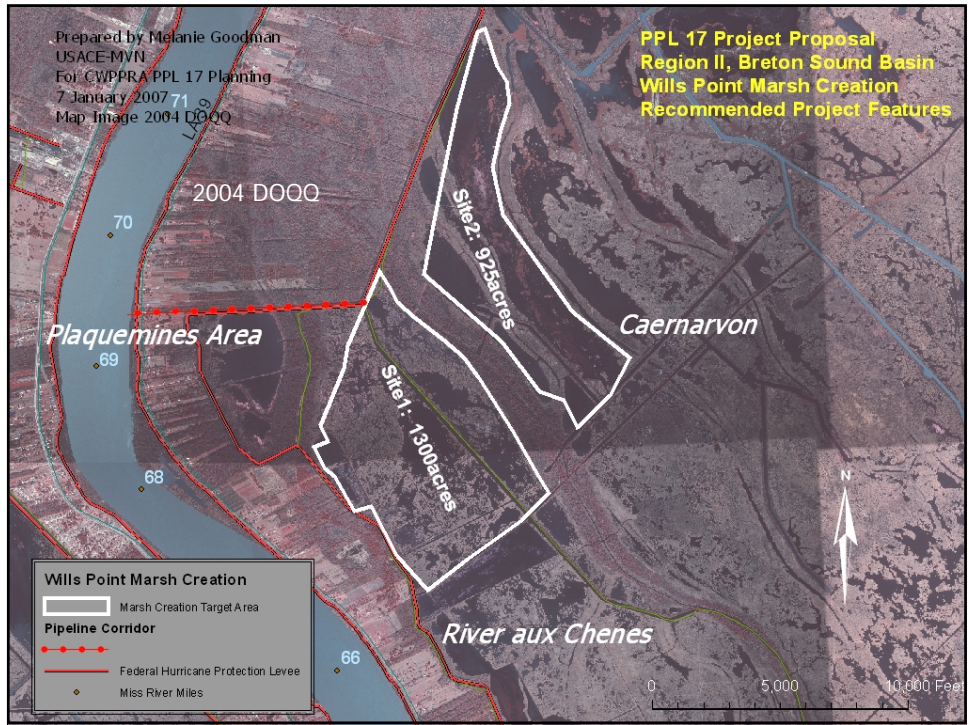
Keith O'Cain, USACE, 504-862-2746, Keith.J.O'Cain@mvn02.usace.army.mil

**PPL 17 Project Proposal
Region II, Breton Sound Basin
Wills Point Marsh Creation
Recommended Project Features**

Prepared by Melanie Goodman
USACE-MVN
For CWPRA PPL 17 Planning
7 January 2007
Map Image 2005 D0000







Project Features

- Dredge approximately five to 6.5 million cubic yards from the Mississippi River to create and nourish marsh in one of two sites.
- Existing ridges and interior canal spoil banks would provide containment with minor reinforcing.
- Install sediment delivery pipeline through Joe Brown Canal.

Project Benefits

- Create between approximately 555 acres of marsh (Site 2) and 650 acres (Site 1)
- Nourish approximately between 370 acres (Site 2) and 650 acres (Site 1) of marsh
- Provide additional protection to the 40-Arpent levee
- Provide additional protection to Rive aux Chene and Tigers Ridge.

Coast 2050 Objectives

- Dedicated Dredging for Wetland Creation

Project Costs

- Estimated construction with 25% Contingency: Approximately \$18,000,000
- Fully Funded Cost: \$20,000 to \$25,000

Region 2 – Mississippi River Delta Basin

Proposed Projects

R2-MR 1 Red Pass Crevasses Project

DRAFT PPL17 PROJECT NOMINEE FACT SHEET

December 15, 2006

Project Name

Red Pass Crevasses

Coast 2050 Strategy

Coastwide Strategy: Restore/sustain marshes

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

Project Location:

Region 2, Mississippi River Basin, Plaquemine Parish, southwest of Venice

Problem

Marshes on either side of Red Pass are rapidly deteriorating, likely due to a combination of reduced sediment input, high subsidence, and effects of oil and gas canal development. An opportunity exists to maximize land-building and marsh-maintenance by enlarging the several small crevasses connecting it to areas to the north and south.

Proposed Project Features

Enlarge existing small crevasses, or construct new ones, to move freshwater, sediment, and nutrients into shallow open water areas to build new land, and sustain existing and new land.

Goals

- Create 200 acres of emergent marsh over the project life
- Reduce the rate of loss of emergent wetlands by >75%
- Increase SAV cover in open water
- Increase the area of shallow water habitat in the project area.

Preliminary Project Benefits:

- >200 net ac of marsh over 20 years
- Increased SAV cover
- Increased shallow water habitat

Identification of Potential Issues

There may be landrights issues and oil/gas canal/pipeline issues.

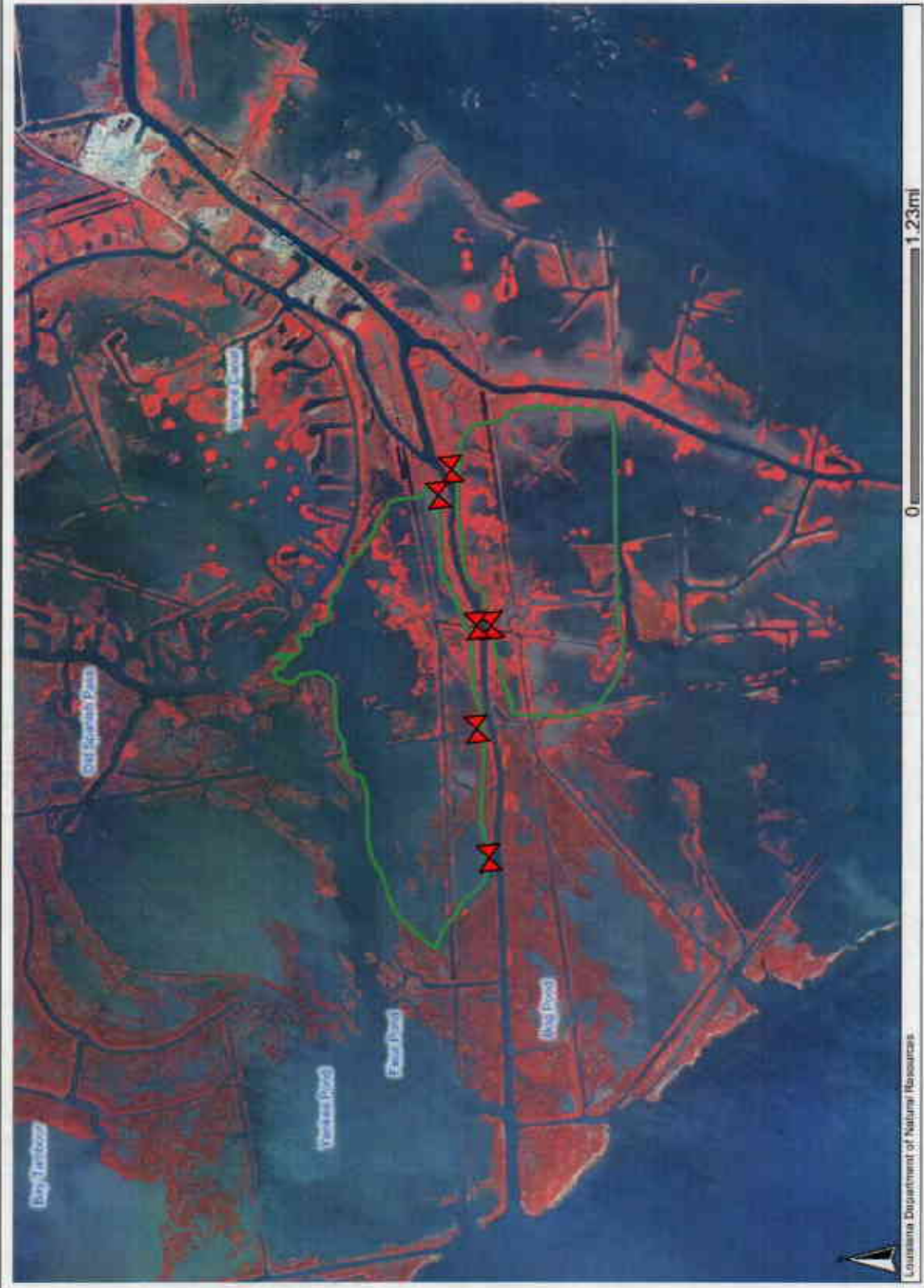
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$1 million

Preparer of Fact Sheet

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

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



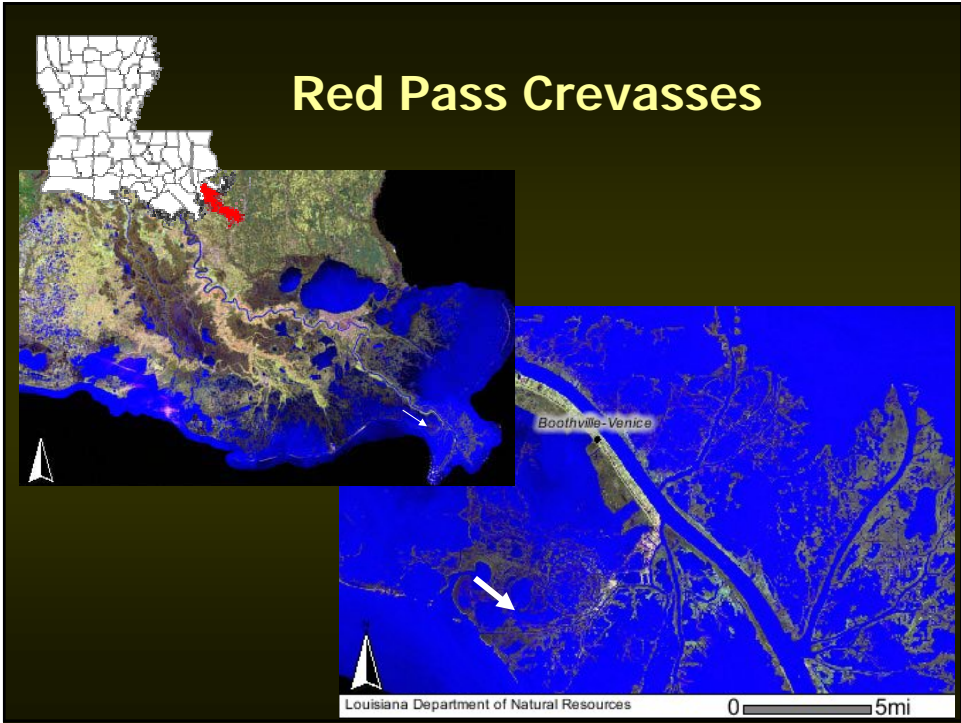
Louisiana Department of Natural Resources

Data Source:
 LA Department of Natural Resources
 Map Date: December 14, 2006
 Image Data: 2005 Coastal Photographs



Crevasse
 Project Influence Area

**PPL 17 Proposed
 Red Pass Crevasses**



Red Pass Crevasses

Goals:

- Create emergent marsh habitat
- Reduce rate of wetland habitat loss in the project influence area
- Increase SAV cover in open water
- Increase area of shallow water habitat

Cost/Benefits:

- >200 acres of marsh created over 20 years
- Increased SAV and shallow water habitat
- Est. Cost + contingency:
~ \$1 million



Red Pass Crevasses

Questions?

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



R2-MR 2 Pass a Loutre Restoration Project

PPL17 PROJECT NOMINEE FACT SHEET

January 11, 2007

Project Name

Pass a Loutre Restoration

Coast 2050 Strategy

Regional Strategy – Continue building and maintaining delta splays

Project Location

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

Problem

Historically, Pass a Loutre was a major artery off the Mississippi River at Head of Passes. This pass carried sediments that created and maintained in excess of 120,000 acres of marsh. With the advent of hopper dredging to maintain the Mississippi River navigation channel, heavy sediments were dumped into Pass a Loutre to facilitate removal of the unwanted material. As a result, much of the historic Pass a Loutre channel has silted in and is now very shallow and narrow. The decreased channel size has much less capacity to carry fresh water and sediments and marshes historically nourished by the channel are now being starved and are subsiding at an alarming rate.

Goals

The goal of this project is to restore an important distributary of the Mississippi River so that it will once again create new wetlands and nourish existing marsh.

Proposed Project Features

Pass a Loutre would be dredged for approximately 8 miles from Head of Passes to just east of Southeast Pass to restore channel flow to historic levels. Approximately 6,000,000 yd³ of material would be dredged and used to create approximately 670 acres of marsh Delta NWR and Pass a Loutre WMA. Preliminary design includes a channel with a 300-ft bottom width and 30-ft depth. Containment dikes would be constructed where needed and cleanout of existing crevasses.

Preliminary Project Benefits

- 1) Approximately 670 acres of marsh would be created from initial channel construction. Indirect benefits would occur over approximately 60,000 acres of marsh and open water habitats as a result increased freshwater and sediment delivery.
- 2) The total net acres protected/created over the project life would be between 800-1,000 acres.
- 3) The assumed reduction in marsh loss over the entire project area is approximately 20%.
- 4) The project would help maintain several natural levee ridges and lake/bay rims. The project would introduce sediment along several passes that have been sediment starved for several decades and are subsiding.

5) The project would reduce marsh loss and create new wetlands between South Pass and Pass a Loutre. Seven oil and gas companies have facilities and pipelines in this area which would benefit from an increase in marsh acreage. The loss of wetlands in this area exposes those facilities to open water wave energies resulting in expensive damages and oil spills. Protecting/creating wetlands in this area would also assist in reducing storm damages to oil and gas infrastructure and commercial development in nearby Venice, LA.

6) The project would provide a synergistic effect with the Delta Wide Crevasses Project (MR-09) which constructed several crevasses south of Pass a Loutre. Many of the crevasses constructed under that project depend on the sediment load delivered by Pass a Loutre. With Pass a Loutre restored, the much greater sediment carrying capacity will feed those crevasses and accelerate their marsh-building potential.

Identification of Potential Issues

Several pipelines and one power line cross Pass a Loutre. Impacts to the Mississippi River navigation channel would need to be investigated via modeling and other analyses.

Preliminary Construction Costs

The construction cost including 25% contingency is approximately \$21,937,500.

Preparer of Fact Sheet

Kevin Roy, U.S. Fish and Wildlife Service, 337-291-3120 email: kevin_roy@fws.gov
Todd Baker, La. Dept. of Wildlife and Fisheries, 337-962-2992, tbaker@wlf.louisiana.gov

PPL17 - Region 2 - Mississippi River Delta Basin Pass a Loutre Restoration

